Bilaga 1. Metoder för kostregistrering i stora kohortstudier

Avsikten med denna sammanställning är att ge en uppfattning om validiteten i de metoder som använts för att mäta intaget av makronutrienter och fibrer i stora kohortsudier. Vi tar i första hand upp de ”food frequency questionnaires” (FFQ:s) som används i de stora amerikanska kohortstudierna (vilka även influerat FFQ använda i europeiska kohortstudier). För dessa är översikten någorlunda uttömmande. Litteratursökningen har skett via referenslistor i de studier som ingår i rapporten – den uppfyller alltså inte kriterierna för systematisk litteratursökning. Sammanställningen har kompletterats med nedslag i några valideringar av instrument som använts i de europeiska EPIC-studierna samt i studier där instrumentet ”Kristal’s fat related diet behavior” använts för att studera ätbeteende med avseende på fettintag.

1. ”Amerikanska FFQ”

1.1 Olika versioner

Alla de stora amerikanska kohortstudierna mäter kostintag med hjälp av FFQ. Samtliga FFQ som används i dessa studier (och flera av de europeiska) härstammar från en och samma semikvantitativa FFQ. Den sammanhållande kraften i utvecklingen av de amerikanska FFQ är Walter Willett vid Harvard University.

Den första valideringsstudien, publicerad 1985, är den som oftast refereras till i olika publikationer från de stora kohortstudierna [1]. Ursprungsversionen med 61 ”items” har genom åren modifierats och ibland modifierats för att anpassas till olika kulturer. De vanligast använda varianterna är:

- Ursprungsversionen, Willett och medarbetare 1985 [1]
- 116-item-version, Willett och medarbetare 1987 [2]

- 131-item-version, Rimm och medarbetare 1992 [3] och Feskanich och medarbetare 1993 [4]
- Iowa-version, 129 items, Munger och medarbetare 1992 [5]
- Brittisk version, 127 items, Brunner och medarbetare 2001 [6]

1.2 Tillämpningar

Någon variant av Willetts FFQ har använts i åtminstone följande stora kohortstudier, med säkerhet ännu fler (USA om inte annat anges):

- Atherosclerosis Risk in Communities Study (ARIC)
- Cardiovascular Health Study
- Framingham Heart Study
- Health Professionals Study och Health Professionals' Follow-Up Study
- Iowa Women's Health Study
- Nurses' Health Study
- Physicians' Health Study
- Women's Health Study
- Whitehall II, Storbritannien

1.3 Studiekarakteristika

Förstaförfattare År, referens	Validering av	Antal personer, kön	Kaloriintag per dag enligt FFQ
Willett 1985 [1]	Makronutrienter, fibrer	173 kvinnor[a]	1 371–1 418 kcal
Willett 1987 [2]	Makronutrienter, fibrer	15 kvinnor 12 män	2 114 kcal
Salvini 1989 [7]	Livsmedel	173 kvinnor[a]	Ingen uppgift
Giovannucci 1991 [8]	Alkohol	173 kvinnor[a], 136 män	Ingen uppgift
Rimm 1992 [3]	Makronutrienter, fibrer	127 män[b]	2 014–2 092 kcal

Tabellen fortsätter på nästa sida

***Tabell 1.3** fortsättning*

Förstaförfattare År, referens	Validering av	Antal personer, kön	Kaloriintag per dag enligt FFQ
Munger 1992 [5]	Makronutrienter, fibrer, alkohol	56 kvinnor	1 767–1 793 kcal
Feskanich 1993 [4]	Livsmedel	127 män[b]	Ingen uppgift
Hu 1999 [9]	Livsmedel och kostmönster	127 män[b]	Ingen uppgift
Liu 2001 [10]	Glycemic load	185 kvinnor	Ingen uppgift
Brunner 2001 [6]	Makronutrienter och fibrer	860 män och kvinnor	2 290 kcal

[a] Troligen samma grupp kvinnor i tre studier.
[b] Troligen samma grupp män i tre studier.

1.4 Reproducerbarhet

Förstaförfattare Referens	Korrelationskoefficient mellan mätningarna, genomsnitt	Särskilt låg korrelation	Särskilt hög korrelation
Willett* [1]	Cirka 0,60	Fleromättat fett (0,45)	Kolhydrater, totalt (0,72)
Salvini [7]	0,57	Grönsaker, bönor (0,28–0,58)	Drycker (0,74–0,93)
Rimm* [3]	0,60	Fleromättat fett (0,44)	Kolhydrater (0,81)
Hu [9]	Cirka 0,60	Grönsaker (0,32)	Kaffe (0,92)
Munger [5]	0,61–0,76	Mättat fett (0,45–0,70)	Alkohol (0,99)

Tabellen fortsätter på nästa sida

***Tabell 1.4** fortsättning*

Första-författare Referens	Korrelations-koefficient mellan mätningarna, genomsnitt	Särskilt låg korrelation	Särskilt hög korrelation
Giovannucci [8]	Kvinnor 0,90 Män 0,92	Kvinnor starksprit (0,78) Män vin (0,85)	Kvinnor alkohol totalt (0,90) Män alkohol totalt (0,92)
Feskanich [4]	0,59	Grönsaker (oftast 0,20–0,35)	Drycker (oftast 0,70–0,80)

* Energijusterade korrelationskoefficienter.

1.5 Samstämmighet med kostdagbok

Första-författare Referens	Kost-dagbok	Korrelations-koefficient, genomsnitt	Särskilt låg korrelation	Särskilt hög korrelation	Utfall av kate-gorisering
Willett* [1]	4 x 1 vecka	Oftast 0,35–0,50	Total fett (0,35)	Fibrer (0,49)	68–71% i samma eller närliggande kvintil/kvartil
Willett [2]	1 år (!)	0,43–0,61	Protein (0,43)	Fibrer (0,61)	---
Salvini [7]	4 x 1 vecka	0,44–0,52	Grönsaker, bönor (oftast 0,2–0,3)	Drycker (oftast omkring 0,8)	---
Rimm* [3]	2 x 1 vecka	0,60	Fleromättat fett (0,44)	Kolhydrater (0,81)	
Hu [9]	2 x 1 vecka	Prudent diet 0,34–0,41 Western diet 0,51–0,64	---	---	---
Giovannucci [8]	Kvinnor 4 x 1 vecka Män 2 x 1 vecka	Kvinnor 0,90 Män 0,86	---	---	---

Tabellen fortsätter på nästa sida

Tabell 1.5 *fortsättning*

Första-författare Referens	Kost-dagbok	Korrelations-koefficient, genomsnitt	Särskilt låg korrelation	Särskilt hög korrelation	Utfall av kategorisering
Feskanich [4]	2 x 1 vecka	0,63	Grönsaker och bönor (oftast 0,2–0,3)	Drycker (oftast 0,7–0,85)	---
Brunner* [6]	7 dagar	Oftast 0,35–0,5	Proteiner (0,34–0,37)	Fibrer (0,60–0,62)	Andel i samma kvartil 32–42%, andel i motsatt extremkvartil 2–7%

* Energijusterade korrelationskoefficienter.
[a] Troligen samma grupp kvinnor i tre studier.
[b] Troligen samma grupp män i tre studier.

1.6 Samstämmighet med biomarkörer

Första-författare Referens	Kostvariabel	Biomarkör	Korrelation
Hu [9]	Kostmönster (Prudent/ Western pattern)	Kolesterol Triacylglycerol	Svaga korrelationer (0,03–0,24) i ”rätt” riktning
Giovannucci [8]	Alkoholintag	HDL-kolesterol	r=0,40
Liu [10]	Glycemic load (GL) och glycemic index (GI)	Triacylglycerol HDL-kolesterol	GL p<0.001 respektive p=0.03 GI p=0.03 respektive 0.10
Brunner [6]	Intag av fetter/fettsyror	Fettsyror	Män r=0,3–0,5 Kvinnor r=0,4–0,7

* Energijusterade korrelationskoefficienter.

HDL = High density lipoprotein

1.7 Övriga valideringar

Förstaförfattare Referens	Validering mot	Korrelation	Särskilt låg korrelation	Särskilt hög korrelation
Munger* [5]	5 x 24 timmar recall	Oftast 0,4–0,6	Protein (0,16)	Enkelomättat fett (0,62)

* Energijusterade korrelationskoefficienter.

2. EPIC

2.1 Varianter och tillämpningar

De europeiska kohortstudier som är knutna till EPIC (The European Prospective Investigation into Cancer and Nutrition) har använt olika instrument for kostregistreringar. Av publicerad litteratur framgår det inte om det förekommit någon form av samordning när de tagits fram. Här presenteras valideringsdata från tre av dem:

- Malmö Diet Study, Elmståhl och medarbetare 1996 [11] och Riboli och medarbetare 1997 [12].
- EPIC Dutch cohorts, Ocké och medarbetare 1997, 1997 [13,14].
- EPIC-Potsdam Study, Tyskland, Kroke och medarbetare 1999 [15].

2.2 Studiekarakteristika

EPIC-center	Förstaförfattare, år Referens	Validering av	Antal pers., kön	Kaloriintag per dag, FFQ
Malmö	Riboli, 1997 [11,12]	Makronutrienter, fibrer, alkohol	680 män och kvinnor	Män 2 771–3 093 kcal Kvinnor 1 768–2 039 kcal
Dutch	Ocké, 1997 [13]	Livsmedel	63 män 58 kvinnor	Ingen uppgift

Tabellen fortsätter på nästa sida

***Tabell 2.2** fortsättning*

EPIC-center	Förstaförfattare, år Referens	Validering av	Antal pers., kön	Kaloriintag per dag, FFQ
Dutch	Ocké, 1997 [14]	Makronutrienter, fibrer, alkohol	63 män 58 kvinnor	Män 2 770 kcal Kvinnor 1 900 kcal
Potsdam, Tyskland	Kroke, 1999 [15]	Makronutrienter, fibrer, alkohol	75 män 59 kvinnor	2 160 kcal (könen inte särredovisade)

2.3 Reproducerbarhet

Förstaförfattare Referens	Korrelationskoefficient mellan mätningarna, genomsnitt	Särskilt låg korrelation	Särskilt hög korrelation
Ocké* [13]	Oftast 0,6–0,8	Fisk hos män (0,45–0,49)	Alkohol (0,91)
Ocké* [14]	Män oftast 0,64–0,80 Kvinnor oftast 0,7–0,85	Fett hos män (0,64)	Alkohol (0,89–0,94)

* Energijusterade korrelationskoefficienter.

2.4 Samstämmighet med andra kostregistreringsmetoder

Förstaförfattare Referens	Valideringsmetod	Korrelations-koefficient, genomsnitt	Särskilt låg korrellation	Särskilt hög korrelation	Utfall av kategorisering
Ocké* [13]	12 st 24 timmar recall	Män 0,61 Kvinnor 0,53	Grönsaker och fisk (0,21–0,37)	Alkohol, mjölk, bröd (0,71–0,91)	---
Ocké* [14]	12 st 24 timmar recall	Män 0,59 Kvinnor 0,58	Fett (0,61–0,63)	Alkohol (0,85–0,87)	---

Tabellen fortsätter på nästa sida

Tabell 2.4 *fortsättning*

Första-författare Referens	Validerings-metod	Korrelations-koefficient, genomsnitt	Särskilt låg korrellation	Särskilt hög korrelation	Utfall av kategorisering
Ocké* [14]	Biomarkörer	Kväveintag vs U-kväve 0,37–0,56	---	---	---
Riboli* [12]	Kostvägningar 6 x 3 dagar	Enbart FFQ oftast 0,5–0,7 FFQ + kostregistrering oftast 0,5–0,75	Fett hos kvinnor vid enbart FFQ (0,22–0,37)	Alkohol (0,67–0,86)	Enbart FFQ: samma eller närliggande kvartil 81–83%, motsatt extremkvartil 4–5% FFQ + kostregistrering: samma eller närliggande kvartil 81–83%, motsatt extremkvartil 5–6%
Riboli* [12]	Biomarkörer (fettfraktioner)	Enbart FFQ oftast 0,55–0,62 FFQ + kostregistrering 0,40–0,56	---	---	---
Kroke [15]	3 st 24 tim recall	Oftast 0,55–0,70	Kolhydrater (0,58)	Alkohol (0,86)	Samma eller närliggande kvintil oftast omkr 75%, motsatt extremkvartil 0–4%
Kroke [15]	Biomarkörer	Proteinintag vs U-kväve r=0,46 Energiintag vs dubbelmärkt vatten r=0,48	---	---	Proteinintag 23% lägre och energiintag 22% lägre med FFQ än med dubbelmärkt vatten

* Energijusterade korrelationskoefficienter.

3. ”Kristal’s fat-related diet behavior”

3.1 Tillämpningar

”Kristal’s fat-related diet behavior” lanserades 1990 som ett instrument att mäta ätbeteende med avseende på totalt fettintag snarare än kostens innehåll av makronutrienter [16]. Det har sedan dess använts i bl a några av de studier av lågfettkost som ingår in denna rapport [17–19].

3.2 Studiekarakteristika

Förstaförfattare, år Referens	Validering av	Antal personer, kön	Energiintag per dag, FFQ
Kristal, 1990 [16]	Makronutrienter, fibrer, alkohol	99 kvinnor 45–59 år	Anges inte (27–40 E% från fett)

3.3 Reproducerbarhet

Förstaförfattare Referens	Korrelationskoefficient mellan mätningarna	Särskilt låg korrelation	Särskilt hög korrelation
Kristal [13]	Intern konsistens 0,54–0,76 Test-retestreliabilitet 0,67–0,90	Endast totalt fettintag testat	Endast totalt fettintag testat

3.4 Samstämmighet med andra kostregistreringsmetoder

Förstaförfattare Referens	Validerings- metod	Korr-koefficient	Utfall av kategorisering
Kristal [13]	4-dagars kostregistrering vid två tillfällen samt FFQ vid ett tillfälle(endast analyserat totalt fettintag)	0,68 ojusterat; 0,60 efter justering för ålder, inkomst och BMI	Anges inte, men 5 kategorier utifrån Kristalskalan skiljer sig tydligt i E% fett

BMI = Body mass index

4. Sammanfattande kommentarer

4.1 Allmänt om studierna

- De amerikanska valideringsstudierna är många men de flesta utgår från samma material (för kvinnor Nurses' Health Study och för män Health Professionals' Study). Att de kommer till likartade resultat är därför inte förvånande.

- De flesta valideringsstudierna är genomförda på amerikansk hälso- och sjukvårdspersonal. De är därför relevanta för de kohortstudier som genomförts inom dessa grupper, men är inte säkert representativa för befolkningen i stort.

- I regel har bara en mindre del (typiskt 20–25 procent) av de inbjudna accepterat att delta i och fullföljt dessa krävande studier. De avspeglar alltså förhållandena hos en alldeles särskild grupp envetna människor.

- Det mycket låga energiintaget registrerat i Willetts första FFQ-version från 1985 har ofta framförts som argument mot metoden. Senare FFQ-studier (med utvidgade instrument) har dock inte visat extremt låga energiintag.

4.2 Reproducerbarheten

Reproducerbarheten, dvs möjligheten till samma svar vid upprepade mätningar, mäts typiskt efter 6 eller 12 månader för att undvika att man minns svaren vid föregående registrering. Ändrade kostvanor kan därför influera utfallet. Å andra sidan handlar kohortstudierna om utfall på många års sikt och en intraindividuell variation blir en faktor att räkna med.

I regel är reproducerbarheten:

- måttlig med korrelationskoefficienter 0,5–0,6
- lägre ju längre tid som förflyter mellan kostmätningarna (i de flesta studier är intervallet 6–12 mån; typiskt sjunker korrelationskoefficienten med 0,02–0,10 från 6 till 12 månader [14]

- högre för frekventa än för mindre frekventa livsmedel
- högst för drycker (mjölk, kaffe, alkohol)
- lägst för grönsaker
- lägre för fetter än för proteiner och kolhydrater.

4.3 Referensmetoder som använts

- Den klart vanligaste referensmetoden är upprepade 1-veckors kostdagböcker, men även 24 timmar ”recall” och biomarkörer förekommer.

- Referensmetoderna kostdagbok och 24 timmar ”recall” är i sig metoder som är behäftade med allvarliga felkällor – ingen av dem utgör gyllene standard. Upprepade kostregistreringar tenderar att minska felen.

- Kostvägningar närmar sig gyllene standard. De har använts bara i en av dessa studier [12].

- De biomarkörer som använts är ofta mycket ospecifika – de påverkas av så mycket annat än kosten.

4.4 Korrelationer till referensmetoder

Det är slående att korrelationerna mellan FFQ och kostdagbok i stort följer samma mönster som FFQ:s reproducerbarhet. De korrelationer som anges rör oftast den/de sista mätningen/arna av flera, något som tenderar driva r-värdena uppåt.

Korrelationerna är:

- typiskt i storleksordningen 0,4–0,6; de får betecknas vara måttliga.
- genomgående högst för drycker (kaffe, mjölk och särskilt alkohol)
- ofta låga för fetter och grönsaker
- relativt höga för fibrer
- utan uppenbara könsskillnader.

FFQ:s korrelationer är lägre till biomarkörer än till kostregistreringar.

Av ett par av artiklarna [4,5,7] framgår att livsmedel som allmänt anses vara nyttiga överskattas och onyttiga underskattas i FFQ-mätningarna. Till de förra hör frukt (+85 procent) och grönsaker (+102 procent), till de senare mejeriprodukter, ägg, kött och starksprit [4].

4.5 Felklassificeringar i kohortstudier

Det framhålls ofta att FFQ inte primärt är avsett för mätningar av absolut intag av livsmedel/nutrienter. Istället är det relativa skillnader man är ute efter. Därför klassificeras studiedeltagarna i kvartiler eller kvintiler.

Risken att helt felklassificeras, dvs hamna i ena extremkvartilen/kvintilen i FFQ trots att man enligt kostdagboken skulle vara i den andra extremen, är cirka 5 procent. Chansen att hamna i samma eller närliggande kvartil/kvintil förefaller vara något större i de europeiska än i de amerikanska studierna. Någon gång är den chansen inte mycket större än vad slumpen ger.

4.6 Metoder att öka precisionen

Ett par metoder brukar användas för att öka precisionen i FFQ-mätningarna:

1. *Energijustering*
   I regressionsanalyser justeras intaget av makronutrienter och fibrer för energiintaget. Detta har syftet att minska inflytandet av skillnader i totalt energiintag i epidemiologiska studier, särskilt då inflytandet från de deltagare som rapporterar extremt låga energiintag (denna andel följer sociala mönster, [6]). Effekterna av energijustering varierar kraftigt. Oftast ökar korrelationen till referensmetoden, men den kan också minska påtagligt.

2. *Eliminering av ”low energy reporters”*
   Basalmetabolismen beräknas utifrån antropometriska data. Personer som rapporterar energiintag <1,2 gånger basalmetabolismen elimineras i beräkningarna. Metoden minskar överensstämmelsen med referensmetoden något. Den har lanserats av brittiska forskare men används sällan [6].

- *Justering för intraindividuella variationer (”de-attenuated data”)*
  Denna justeringsmetod kräver upprepade FFQ-mätningar. Den kan användas både för livsmedel och för makronutrienter. Typiskt ökar korrelationskoefficienterna 0,05–0,15 för vanligt förekommande livsmedel. För livsmedel som konsumeras oregelbundet kan de de-attenuerade värdena sjunka. De-attenuering blir svår/omöjlig när fördelningen är skev och det finns många 0-värden [13].

4.7 Effekten av låg precision i kostmätningar

Vid en ”bias factor” på 0,5 (som ofta uppmätts i valideringarna) kommer en sann relativ risk på 2 att reduceras till 1,5 [14]. Möjligheten att påvisa kosteffekter minskas alltså drastiskt, något som kan uppvägas om studiegruppen är mycket stor och variationerna är små. Detta är sällan fallet i studier av diabeteskosters långtidseffekter.

Referenser

1. Willett WC, Sampson L, Stampfer MJ, Rosner B, Bain C, Witschi J, et al. Reproducibility and validity of a semiquantitative food frequency questionnaire. Am J Epidemiol 1985;122:51-65.

2. Willett WC, Reynolds RD, Cottrell-Hoehner S, Sampson L, Browne ML. Validation of a semi-quantitative food frequency questionnaire: comparison with a 1-year diet record. J Am Diet Assoc 1987;87:43-7.

3. Rimm EB, Giovannucci EL, Stampfer MJ, Colditz GA, Litin LB, Willett WC. Reproducibility and validity of an expanded self-administered semiquantitative food frequency questionnaire among male health professionals. Am J Epidemiol 1992;135:1114-26; discussion 1127-36.

4. Feskanich D, Rimm EB, Giovannucci EL, Colditz GA, Stampfer MJ, Litin LB, et al. Reproducibility and validity of food intake measurements from a semiquantitative food frequency questionnaire. J Am Diet Assoc 1993;93:790-6.

5. Munger RG, Folsom AR, Kushi LH, Kaye SA, Sellers TA. Dietary assessment of older Iowa women with a food frequency questionnaire: nutrient intake, reproducibility, and comparison with 24-hour dietary recall interviews. Am J Epidemiol 1992;136:192-200.

6. Brunner E, Stallone D, Juneja M, Bingham S, Marmot M. Dietary assessment in Whitehall II: comparison of 7 d diet diary and food-frequency questionnaire and validity against biomarkers. Br J Nutr 2001;86:405-14.

7. Salvini S, Hunter DJ, Sampson L, Stampfer MJ, Colditz GA, Rosner B, et al. Food-based validation of a dietary questionnaire: the effects of week-to-week variation in food consumption. Int J Epidemiol 1989;18: 858-67.

8. Giovannucci E, Colditz G, Stampfer MJ, Rimm EB, Litin L, Sampson L, et al. The assessment of alcohol consumption by a simple self-administered questionnaire. Am J Epidemiol 1991;133:810-7.

9. Hu FB, Rimm E, Smith-Warner SA, Feskanich D, Stampfer MJ, Ascherio A, et al. Reproducibility and validity of dietary patterns assessed with a food-frequency questionnaire. Am J Clin Nutr 1999; 69:243-9.

10. Liu S, Manson JE, Stampfer MJ, Holmes MD, Hu FB, Hankinson SE, et al. Dietary glycemic load assessed by food-frequency questionnaire in relation to plasma high-density-lipoprotein cholesterol and fasting plasma triacylglycerols in postmenopausal women. Am J Clin Nutr 2001;73:560-6.

11. Elmstahl S, Riboli E, Lindgarde F, Gullberg B, Saracci R. The Malmo Food Study: the relative validity of a modified diet history method and an extensive food frequency questionnaire for measuring food intake. Eur J Clin Nutr 1996;50:143-51.

12. Riboli E, Elmstahl S, Saracci R, Gullberg B, Lindgarde F. The Malmo Food Study: validity of two dietary assessment methods for measuring nutrient intake. Int J Epidemiol 1997;26 Suppl 1: S161-73.

13. Ocke MC, Bueno-de-Mesquita HB, Goddijn HE, Jansen A, Pols MA, van Staveren WA, et al. The Dutch EPIC food frequency questionnaire. I. Description of the questionnaire, and relative validity and reproducibility for food groups. Int J Epidemiol 1997;26 Suppl 1:S37-48.

14. Ocke MC, Bueno-de-Mesquita HB, Pols MA, Smit HA, van Staveren WA, Kromhout D. The Dutch EPIC food frequency questionnaire. II. Relative validity and reproducibility for nutrients. Int J Epidemiol 1997;26 Suppl 1:S49-58.

15. Kroke A, Klipstein-Grobusch K, Voss S, Moseneder J, Thielecke F, Noack R, et al. Validation of a self-administered food-frequency questionnaire administered in the European Prospective Investigation into Cancer and Nutrition (EPIC) Study: comparison of energy, protein, and macronutrient intakes estimated with the doubly labeled water, urinary nitrogen, and repeated 24-h dietary recall methods. Am J Clin Nutr 1999;70:439-47.

16. Kristal AR, Shattuck AL, Henry HJ. Patterns of dietary behavior associated with selecting diets low in fat: reliability and validity of a behavioral approach to dietary assessment. J Am Diet Assoc 1990;90:214-20.

17. Clark M, Hampson SE, Avery L, Simpson R. Effects of a tailored lifestyle self-management intervention in patients with type 2 diabetes. Br J Health Psychol 2004;9:365-79.

18. Glasgow RE, La CPA, Toobert DJ, Brown J, Hampson SE, Riddle MC. Long-term effects and costs of brief behavioural dietary intervention for patients with diabetes delivered from the medical office. Patient education and counseling 1997;32:175-84.

19. Glasgow RE, Toobert DJ. Brief, computer-assisted diabetes dietary self-management counseling: effects on behavior, physiologic outcomes, and quality of life. Medical care 2000;38:1062-73.

Bilaga 2. Sökstrategier

Low fat diets – RCT's

PubMed (NLM) september 2009

Diabetes mellitus (Me)	AND	Diet, fat restricted (Me)	AND	Randomized controlled trial (PT)
Diabetes (TiAb)		Low-fat (TiAb)		OR Randomized (TiAb)
Diabetic (TiAb)		Fat intake (TiAb)		OR Random (TiAb)
NIDDM (TiAb)		Fats (Me)		OR Randomly (TiAb)
IDDM (TiAb)		Dietary fats (SN)		OR Multicenter (TiAb)
Prediabetic state (Me)		Weight watchers (TiAb)		OR Controlled (Ti)
Hyperglycemia (Me)		New glucose revolution (TiAb)		OR Controlled clinical trial (PT)
Prediabetes (TiAb)		Diabetes mellitus/DH (Me)		OR Multicenter study (PT)
Prediabetic (TiAb)		Diabetic diet (Me)		OR Meta analysis (PT)
Hyperglycemia (TiAb)				OR Prospective (Ti)
Hyperglycemic (TiAb)		Ornish (TiAb)		OR Long term (Ti)
Glucose intolerance (TiAb)		OR Zone (TiAb)		OR Secondary prevention (TiAb)
Impaired fasting glucose (TiAb)		OR Life style (Me)		OR Risk (Ti)
High fasting glucose (TiAb)		AND Diet/s (TiAb)		OR Incidence (Ti)
Impaired fasting plasma glucose (TiAb)				OR Incident (Ti)
High fasting plasma glucose (TiAb)				OR Risk factors (Me)
Impaired fasting blood glucose (TiAb)				OR Review (PT)
High fasting blood glucose (TiAb)				AND Systematic (TiAb)
Impaired glucose tolerance (TiAb)				NOT Cohort studies (Me)
IGT (TiAb)				OR Case control studies (Me)
IFG (TiAb)				OR Observational (Ti)
Insulin resistance (Me, TiAb)				OR Comment (PT)
Metabolic syndrome (TiAb)				OR Letter (PT)
				OR Editorial (PT)
				OR Animals (Me)
				NOT Humans (Me)

("diabetes mellitus"[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR "prediabetic state"[mesh] OR "hyperglycemia"[mesh] OR "prediabetes"[tiab] OR prediabetic[tiab] OR "hyperglycemia"[tiab] OR "hyperglycemic"[tiab] OR "glucose intolerance"[tiab] OR "impaired fasting glucose"[tiab] OR "high fasting glucose"[tiab] OR "impaired fasting plasma glucose"[tiab] OR "high fasting plasma glucose"[tiab] OR "impaired fasting blood glucose"[tiab] OR "high fasting blood glucose"[tiab] OR "impaired glucose tolerance"[tiab] OR "igt"[tiab] OR "ifg"[tiab] OR "insulin resistance"[mesh] OR "insulin resistance"[tiab] OR "metabolic syndrome"[tiab]) AND ("diet, fat restricted"[mesh] OR "low-fat"[tiab] OR "fat intake"[tiab] OR Fats[mesh] OR "dietary fats"[Substance Name] OR (("ornish"[tiab] OR "zone"[tiab] OR "life style"[MeSH Major Topic]) AND ("diet"[tiab] OR "diets"[tiab])) OR "weight watchers"[tiab] OR "new glucose revolution"[tiab] OR "diabetes mellitus/diet therapy"[mesh] OR "diabetic diet"[mesh]) AND ("randomized controlled trial"[pt] OR randomized[tiab] OR random[tiab] OR randomly[tiab] OR multicenter[tiab] OR controlled[ti] OR "controlled clinical trial"[pt] OR "multicenter study"[pt] OR (review[pt] AND "systematic"[tiab]) OR "meta analysis"[pt] OR "prospective"[ti] OR "long term"[ti] OR "secondary prevention"[tiab] OR "risk"[ti] OR "incidence"[ti] OR "incident"[ti] OR "risk factors"[mesh]) NOT (("cohort studies"[mesh] OR "case control studies"[mesh] OR "observational"[ti] OR comment[pt] OR letter[pt] OR editorial[pt]) OR ("animals"[mesh] NOT "humans"[mesh]))

Low fat diets – Observational studies

PubMed (NLM) september 2009

Diabetes mellitus (Me)	AND	Diet, fat restricted (Me)	AND	Systematic (SB)
Diabetes (TiAb)		Low-fat (TiAb)		OR Cohort studies (Me)
Diabetic (TiAb)		Fat intake (TiAb)		OR Cohort (Ti)
NIDDM (TiAb)		Fats (Me)		OR Prospective (Ti)
IDDM (TiAb)		Dietary fats (SN)		OR Long term (Ti)
Prediabetic state (Me)		Ornish (TiAb)		OR Observational (Ti)
Hyperglycemia (Me)		Zone (TiAb)		OR Secondary prevention (TiAb)
Prediabetes (TiAb)		Weight watchers (TiAb)		OR Case control (TiAb)
Prediabetic (TiAb)		New glucose revolution (TiAb)		OR Case control studies (Me)
Hyperglycemia (TiAb)				OR Risk (Ti)
Hyperglycemic (TiAb)				OR Incidence (Ti)
Glucose intolerance (TiAb)				OR Incident (Ti)
Impaired fasting glucose (TiAb)				OR Risk factors (Me)
High fasting glucose (TiAb)				OR Review (PT)
Impaired fasting plasma glucose (TiAb)				AND Systematic (TiAb)
High fasting plasma glucose (TiAb)				NOT Randomized controlled trial (PT)
Impaired fasting blood glucose (TiAb)				OR Randomized (Ti)
High fasting blood glucose (TiAb)				OR Comment (PT)
Impaired glucose tolerance (TiAb)				OR Letter (PT)
IGT (TiAb)				OR Editorial (PT)
IFG (TiAb)				OR Animals (Me)
Insulin resistance (Me, TiAb)				NOT Humans (Me)
Metabolic syndrome (TiAb)				

("diabetes mellitus"[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR "prediabetic state"[mesh] OR "hyperglycemia"[mesh] OR "prediabetes"[tiab] OR prediabetic[tiab] OR "hyperglycemia"[tiab] OR "hyperglycemic"[tiab] OR "glucose intolerance"[tiab] OR "impaired fasting glucose"[tiab] OR "high fasting glucose"[tiab] OR "impaired fasting plasma glucose"[tiab] OR "high fasting plasma glucose"[tiab] OR "impaired fasting blood glucose"[tiab] OR "high fasting blood glucose"[tiab] OR "impaired glucose tolerance"[tiab] OR "igt"[tiab] OR "ifg"[tiab] OR "insulin resistance"[mesh] OR "insulin resistance"[tiab] OR "metabolic syndrome"[tiab]) AND ("diet, fat restricted"[mesh] OR "low-fat"[tiab] OR "fat intake"[tiab] OR Fats[mesh] OR "dietary fats"[Substance Name] OR "ornish"[tiab] OR "zone"[tiab] OR "weight watchers"[tiab] OR "new glucose revolution"[tiab]) AND ((review[pt] AND "systematic"[tiab]) OR systematic[sb] OR "cohort studies"[mesh] OR "cohort"[ti] OR "prospective"[ti] OR "long term"[ti] OR "observational"[ti] OR "secondary prevention"[tiab] OR "case control"[tiab] OR "case control studies"[mesh] OR "risk"[ti] OR "incidence"[ti] OR "incident"[ti] OR "risk factors"[mesh]) NOT (("randomized controlled trial"[pt] OR randomized[ti] OR comment[pt] OR letter[pt] OR editorial[pt]) OR ("animals"[mesh] NOT "humans"[mesh]))

Low fat diets – RCT's

EMBASE.COM (Elsevier) september 2009

Diabetes mellitus (Exp)	AND	Low fat diet (TiAb, De)	AND	Controlled clinical trial (Exp)
Hyperglycemia (TiAb, De)		Diabetic diet (TiAb, De)		OR Meta analysis (De)
Diabetes (TiAb)		Fat (De)		OR Systematic review (TiAb, De)
Diabetic (TiAb)		Fat intake (Exp)		OR Randomized (TiAb)
NIDDM (TiAb)		Diet therapy (De)		OR Randomised (TiAb)
IDDM (TiAb)		Low-fat (TiAb)		OR Random (TiAb)
Prediabetes (TiAb)		Fat intake (TiAb)		OR Randomly (TiAb)
Prediabetic (TiAb)		Weight watchers (TiAb)		OR Controlled (Ti)
Hyperglycemic (TiAb)		New glucose revolution (TiAb)		NOT Cohort analysis (De)
Glucose intolerance (TiAb)				OR Case control study (Exp)
Impaired fasting glucose (TiAb)		Ornish (TiAb)		OR Observational study (De)
High fasting glucose (TiAb)		OR Zone (TiAb)		OR Observational (Ti)
Impaired glucose tolerance (TiAb)		OR Life style (TiAb, De)		OR Letter (De)
		OR Lifestyle modification (De)		OR Editorial (De)
		AND Diet/s (TiAb)		

('diabetes mellitus'/exp OR 'hyperglycemia':ti,ab,de OR 'diabetes':ti,ab OR 'diabetic':ti,ab OR 'NIDDM':ti,ab OR 'iddm':ti,ab OR 'prediabetes':ti,ab OR 'prediabetic':ti,ab OR 'hyperglycemic':ti,ab OR 'glucose intolerance':ti,ab OR 'impaired fasting glucose':ti,ab OR 'high fasting glucose':ti,ab OR 'impaired glucose tolerance':ti,ab) AND ('low fat diet':ti,ab,de OR 'diabetic diet':ti,ab,de OR 'fat':de OR 'fat intake'/exp OR 'diet therapy':de OR 'low-fat':ti,ab OR 'fat intake':ti,ab OR 'weight watchers':ti,ab OR 'new glucose revolution':ti,ab OR (('ornish':ti,ab OR 'zone':ti,ab OR 'life style':ti,ab,de OR 'lifestyle modification':de) AND ('diet':ti,ab OR 'diets':ti,ab))) AND ('controlled clinical trial'/exp OR 'meta analysis':de OR 'systematic review':ti,ab,de OR 'randomized':ti,ab OR 'randomised':ti,ab OR 'random':ti,ab OR 'randomly':ti,ab OR controlled:ti) NOT ('cohort analysis':de OR 'case control study'/exp OR 'observational study':de OR 'observational':ti OR 'letter':de OR 'editorial':de) AND [embase]/lim

Low fat diets – Observational studies

EMBASE.COM (Elsevier) september 2009

Diabetes mellitus (Exp)	AND	Low fat diet (TiAb, De)	AND	Cohort analysis (De)
Hyperglycemia (TiAb, De)		Diabetic diet (TiAb, De)		OR Case control study (Exp)
Diabetes (TiAb)		Fat (De)		OR Observational study (De)
Diabetic (TiAb)		Fat intake (Exp)		OR Observational (Ti)
NIDDM (TiAb)		Diet therapy (De)		OR Meta analysis (De)
IDDM (TiAb)		Low-fat (TiAb)		OR Systematic review (TiAb, De)
Prediabetes (TiAb)		Fat intake (TiAb)		NOT Controlled clinical trial (Exp)
Prediabetic (TiAb)		Weight watchers (TiAb)		OR Randomized (Ti)
Hyperglycemic (TiAb)		New glucose revolution (TiAb)		OR Randomised (Ti)
Glucose intolerance (TiAb)				OR Letter (De)
Impaired fasting glucose (TiAb)		Ornish (TiAb)		OR Editorial (De)
High fasting glucose (TiAb)		OR Zone (TiAb)		
Impaired glucose tolerance (TiAb)		OR Life style (TiAb, De)		
		OR Lifestyle modification		
		AND Diet/s (TiAb)		

('diabetes mellitus'/exp OR 'hyperglycemia':ti,ab,de OR 'diabetes':ti,ab OR 'diabetic':ti,ab OR 'NIDDM':ti,ab OR 'iddm':ti,ab OR 'prediabetes':ti,ab OR 'prediabetic':ti,ab OR 'hyperglycemic':ti,ab OR 'glucose intolerance':ti,ab OR 'impaired fasting glucose':ti,ab OR 'high fasting glucose':ti,ab OR 'impaired glucose tolerance':ti,ab) AND ('low fat diet':ti,ab,de OR 'diabetic diet':ti,ab,de OR 'fat':de OR 'fat intake'/exp OR 'diet therapy':de OR 'low-fat':ti,ab OR 'fat intake':ti,ab OR 'weight watchers':ti,ab OR 'new glucose revolution':ti,ab OR (('ornish':ti,ab OR 'zone':ti,ab OR 'life style':ti,ab,de OR 'lifestyle modification':de) AND ('diet':ti,ab OR 'diets':ti,ab))) AND ('cohort analysis':de OR 'case control study'/exp OR 'observational study':de OR 'observational':ti OR 'meta analysis':de OR 'systematic review':ti,ab,de) NOT ('controlled clinical trial'/exp OR 'randomized':ti OR 'randomised':ti OR 'letter':de OR 'editorial':de) AND [embase]/lim

Low fat diets

Cochrane central registry of controlled trials (CENTRAL; wiley) september 2009

Diabetes mellitus (KW)	AND	Diet, fat restricted (KW)	NOT	Meeting (SO)
Diabetes mellitus, type 1 (KW)		Diabetic diet (TiAb, KW)		Conference (SO)
Diabetes mellitus, type 2 (KW)		Low fat (TiAb)		Abstract (Ti)
Prediabetic state (KW)		Fat intake (Ti)		Proceedings (SO)
Hyperglycemia (Ti, KW)		Weight watchers (Ti)		
Diabetes (Ti)		New glucose revolution (Ti)		Congress (TiAb)
Diabetic/s (Ti)				OR Meeting (TiAb)
NIDDM (Ti)		Ornish (TiAb)		OR Proceedings (TiAb)
IDDM (Ti)		OR Zone (TiAb)		AND International (TiAb)
Prediabetes (Ti)		OR Life style (TiAb, KW)		OR World (TiAb)
Prediabetic (Ti)		AND Diet/s (Ti)		OR Annual (TiAb)
Hyperglycemic (Ti)				
Glucose intolerance (Ti)				
Impaired fasting glucose (Ti)				
High fasting glucose (Ti)				
Impaired glucose tolerance (Ti)				

((diabetes mellitus):kw OR (diabetes mellitus, type 1):kw OR (diabetes mellitus, type 2):kw OR (prediabetic state):kw OR (hyperglycemia):ti,kw OR (diabetes):ti OR (diabetic):ti OR (diabetics):ti OR (NIDDM):ti OR (IDDM):ti OR (prediabetes):ti OR (prediabetic):ti OR (hyperglycemic):ti OR (glucose intolerance):ti OR (impaired fasting glucose):ti OR (high fasting glucose):ti OR (impaired glucose tolerance):ti) AND ((diet, fat restricted):kw OR (diabetic diet):ti,ab,kw OR (low fat):ti,ab OR (fat intake):ti OR (weight watchers):ti OR (new glucose revolution):ti OR (((ornish):ti,ab OR (zone):ti,ab OR (life style):ti,ab,kw) AND ((diet):ti OR (diets):ti))) NOT ((meeting):so OR (conference):so OR (abstract):ti OR (proceedings):so OR (((congress):ti,ab OR (meeting):ti,ab OR (proceedings):ti,ab) AND ((international):ti,ab OR (world):ti,ab OR (annual):ti,ab)))

Low carbohydrate diets

PubMed (NLM) september 2009

Diabetes mellitus (Me)	AND	Diet, carbohydrate restricted (Me)	AND	Randomized controlled trial (PT)
Diabetes (TiAb)		Carbohydrate restricted (TiAb)		OR Randomized (TiAb)
Diabetic (TiAb)		Low carbohydrate (TiAb)		OR Random (TiAb)
NIDDM (TiAb)		Low carb (TiAb)		OR Randomly (TiAb)
IDDM (TiAb)		South beach (TiAb)		OR Multicenter (TiAb)
Prediabetic state (Me)		Atkins diet (TiAb)		OR Controlled (Ti)
Hyperglycemia (Me, TIAb)		High fat diet (TiAb)		OR Controlled clinical trial (PT)
Prediabetes (TiAb)		High protein diet (TiAb)		OR Multicenter study (PT)
Prediabetic (TiAb)		LCHF (TiAb)		OR Meta analysis (PT)
Hyperglycemic (TiAb)		LCHP (TiAb)		OR Cohort studies (Me)
Glucose intolerance (TiAb)		LCKD (TiAb)		OR Cohort (Ti)
Impaired fasting glucose (TiAb)		Ketogenic diet (TiAb)		OR Prospective (Ti)
High fasting glucose (TiAb)		Dietary carbohydrates (Me)		OR Long term (Ti)
Impaired fasting plasma glucose (TiAb)				OR Observational (Ti)
High fasting plasma glucose (TiAb)		Dietary fats (Me)		OR Secondary prevention (TiAb)
Impaired fasting blood glucose (TiAb)		OR Dietary proteins (Me)		OR Case control (Ti)
High fasting blood glucose (TiAb)		AND Carbohydrate/s (TiAb)		OR Case control studies (Me)
Impaired glucose tolerance (TiAb)		OR Carb/s (Ti)		OR Risk (Ti)
IGT (TiAb)		OR Carbohydrates (Me)		OR Incidence (Ti)
IFG (TiAb)				OR Incident (TI)
Insulin resistance (Me, TiAb)				OR Risk factors (Me)
Metabolic syndrome (TiAb)				OR Review (PT)
				AND Systematic (TiAb)
				NOT Comment (PT)
				OR Letter (PT)
				OR Editorial (PT)
				OR Animals (Me)
				NOT Humans (Me)

(”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (”diet, carbohydrate restricted”[mesh] OR ”carbohydrate restricted”[tiab] OR ”low carbohydrate”[tiab] OR ”low carb”[tiab] OR ”south beach”[tiab] OR ”atkins diet”[tiab] OR ”high fat diet”[tiab] OR ”high protein diet”[tiab] OR ”lchf”[tiab] OR ”lchp”[tiab] OR ”lckd”[tiab] OR ”ketogenic diet”[tiab] OR ”dietary carbohydrates”[mesh] OR ((”dietary fats”[mesh] OR ”dietary proteins”[mesh]) AND (carbohydrate[tiab] OR carbohydrates[tiab] OR carb[ti] OR carbs[ti] OR carbohydrates[mesh]))) AND (”randomized controlled trial”[pt] OR randomized[tiab] OR random[tiab] OR randomly[tiab] OR multicenter[tiab] OR controlled[ti] OR ”controlled clinical trial”[pt] OR ”multicenter study”[pt] OR (review[pt] AND ”systematic”[tiab]) OR ”meta analysis”[pt] OR ”cohort studies”[mesh] OR ”cohort”[ti] OR ”prospective”[ti] OR ”long term”[ti] OR ”observational”[ti] OR ”secondary prevention”[tiab] OR ”case control”[tiab] OR ”case control studies”[mesh] OR ”risk”[ti] OR ”incidence”[ti] OR ”incident”[ti] OR ”risk factors”[mesh]) NOT ((comment[pt] OR letter[pt] OR editorial[pt]) OR (“animals”[mesh] NOT “humans”[mesh]))

Low carbohydrate diets

EMBASE.COM (Elsevier) september 2009

Diabetes mellitus (Exp) Hyperglycemia (De, TiAb) Diabetes (TiAb) Diabetic (TiAb) NIDDM (TiAb) IDDM (TiAb) Prediabetes (TiAb) Prediabetic (TiAb) Hyperglycemic (TiAb) Glucose intolerance (TiAb) Impaired fasting glucose (TiAb) High fasting glucose (TiAb) Impaired glucose tolerance (TiAb)	AND	Low carbohydrate diet (De) Carbohydrate restricted (TiAb) Low carbohydrate (TiAb) Low carb (TiAb) Low-carbohydrate (TiAb) Low-carb (TiAb) South beach diet (TiAb) Atkins diet (TiAb) High fat (TiAb) High-fat (TiAb) High protein (TiAb) High-protein (TiAb) Protein rich (TiAb) LCHF (TiAb) LCHP (TiAb) Ketogenic diet (TiAb) LCKD (TiAb) Fatty acid (Exp) AND Carbohydrate (De, TiAb) OR Carbohydrates (TiAb)	AND	Controlled clinical trial (Exp) OR Meta analysis (De) OR Systematic review (TiAb, De) OR Randomized (TiAb) OR Randomised (TiAb) OR Random (TiAb) OR Randomly (TiAb) OR Controlled (Ti) OR Cohort analysis (De) OR Case control study (Exp) OR Observational study (De) OR Observational (Ti) NOT Letter (De) OR Editorial (De)

('diabetes mellitus'/exp OR 'hyperglycemia':ti,ab,de OR 'diabetes':ti,ab OR 'diabetic':ti,ab OR 'NIDDM':ti,ab OR 'iddm':ti,ab OR 'prediabetes':ti,ab OR 'prediabetic':ti,ab OR 'hyperglycemic':ti,ab OR 'glucose intolerance':ti,ab OR 'impaired fasting glucose':ti,ab OR 'high fasting glucose':ti,ab OR 'impaired glucose tolerance':ti,ab) AND ('low carbohydrate diet':de OR 'carbohydrate restricted':ti,ab OR 'low carbohydrate':ti,ab OR 'low carb':ti,ab OR 'low-carbohydrate':ti,ab OR 'low-carb':ti,ab OR 'south beach diet':ti,ab OR 'atkins diet':ti,ab OR 'high fat':ti,ab OR 'high-fat':ti,ab OR 'high protein':ti,ab OR 'high-protein':ti,ab OR 'protein rich':ti,ab OR 'lchf':ti,ab OR 'lchp':ti,ab OR 'ketogenic diet':ti,ab OR 'lckd':ti,ab OR ('fatty acid'/exp AND (carbohydrate:ti,ab,de OR carbohydrates:ti,ab))) AND ('controlled clinical trial'/exp OR 'meta analysis':de OR 'systematic review':ti,ab,de OR 'randomized':ti,ab OR 'randomised':ti,ab OR 'random':ti,ab OR 'randomly':ti,ab OR controlled:ti OR 'cohort analysis':de OR 'case control study'/exp OR 'observational study':de OR 'observational':ti) NOT ('letter':de OR 'editorial':de OR rat:ti OR rats:ti OR mouse:ti OR mice:ti) AND [embase]/lim

Low carbohydrate diets

Cochrane central registry of controlled trials (CENTRAL; wiley) september 2009

Diabetes mellitus (KW)	AND	Diet, carbohydrate restricted (KW)	NOT	Meeting (SO)
Diabetes mellitus, type 1 (KW)		Carbohydrate restricted (TiAb)		Conference (SO)
Diabetes mellitus, type 2 (KW)		Low carbohydrate (TiAb)		Abstract (Ti)
Prediabetic state (KW)		Low carb (TiAb)		Proceedings (SO)
Hyperglycemia (Ti,KW)		South beach (TiAb)		
Diabetes (Ti)		Atkins diet (TiAb)		Congress (TiAb)
Diabetic/s (Ti)		High fat diet (TiAb)		OR Meeting (TiAb)
NIDDM (Ti)		High protein diet (TiAb)		OR Proceedings (TiAb)
IDDM (Ti)		LCHF (TiAb)		AND International (TiAb)
Prediabetes (Ti)		LCHP (TiAb)		OR World (TiAb)
Prediabetic (Ti)		LCKD (TiAb)		OR Annual (TiAb)
Hyperglycemic (Ti)		Ketogenic diet (TiAb)		
Glucose intolerance (Ti)		Dietary carbohydrates (KW)		
Impaired fasting glucose (Ti)				
High fasting glucose (Ti)		Dietary fats (KW)		
Impaired glucose tolerance (Ti)		OR Dietary proteins (KW)		
		AND Carbohydrate/s (TiAb)		
		OR Carb/s (Ti)		
		OR Carbohydrates (KW)		

((diabetes mellitus):kw OR (diabetes mellitus, type 1):kw OR (diabetes mellitus, type 2):kw OR (prediabetic state):kw OR (hyperglycemia):ti,kw OR (diabetes):ti OR (diabetic):ti OR (diabetics):ti OR (NIDDM):ti OR (IDDM):ti OR (prediabetes):ti OR (prediabetic):ti OR (hyperglycemic):ti OR (glucose intolerance):ti OR (impaired fasting glucose):ti OR (high fasting glucose):ti OR (impaired glucose tolerance):ti) AND ((diet, carbohydrate restricted):kw OR (carbohydrate restricted):ti,ab OR (low carbohydrate):ti,ab OR (low carb):ti,ab OR (south beach):ti,ab OR (atkins diet):ti,ab OR (high fat diet):ti,ab OR (high protein diet):ti,ab OR (lchf):ti,ab OR (lchp):ti,ab OR (lckd):ti,ab OR (ketogenic diet):ti,ab OR (dietary carbohydrates):kw OR (((dietary fats):kw OR (dietary proteins):kw) AND ((carbohydrate):ti,ab OR (carbohydrates):ti,ab OR (carb):ti OR (carbs):ti OR (carbohydrates):kw))) NOT ((meeting):so OR (conference):so OR (abstract):ti OR (proceedings):so OR (((congress):ti,ab OR (meeting):ti,ab OR (proceedings):ti,ab) AND ((international):ti,ab OR (world):ti,ab OR (annual):ti,ab)))

Individual foods, glycemic index, mufa-enriched food and dietary fiber

PubMed (NLM) september 2009

Diabetes mellitus (Me)	AND	Glycemic index (Ti)	AND	Randomized controlled trial (PT)
Diabetes (TiAb)		OR Glycemic load (Ti)		OR Randomized (TiAb)
Diabetic (TiAb)		OR GI diet (Ti)		OR Random (TiAb)
NIDDM (TiAb)		OR Low sucrose (Ti)		OR Randomly (TiAb)
IDDM (TiAb)		OR Low sugar (Ti)		OR Multicenter (TiAb)
Prediabetic state (Me)		OR Reduced sucrose (Ti)		OR Controlled (Ti)
Hyperglycemia (Me, TIAb)		OR Reduced sugar (Ti)		OR Controlled clinical trial (PT)
Prediabetes (TiAb)		OR MUFA (Ti)		OR Multicenter study (PT)
Prediabetic (TiAb)		OR PUFA (TI)		OR Meta analysis (PT)
Hyperglycemic (TiAb)		OR Fatty acids (Ti)		OR Cohort studies (Me)
Glucose intolerance (TiAb)		OR Avocado (Ti)		OR Cohort (Ti)
Impaired fasting glucose (TiAb)		OR Peanut butter (Ti)		OR Prospective (Ti)
High fasting glucose (TiAb)		OR Nuts (Ti)		OR Long term (Ti)
Impaired fasting plasma glucose (TiAb)		OR Almonds (Ti)		OR Observational (Ti)
High fasting plasma glucose (TiAb)		AND Diet/s (TiAb)		OR Secondary prevention (TiAb)
Impaired fasting blood glucose (TiAb)				OR Case control (Ti)
High fasting blood glucose (TiAb)		Mediterranean diet (Ti)		OR Case control studies (Me)
Impaired glucose tolerance (TiAb)		South European diet (Ti)		OR Risk (Ti)
IGT (TiAb)		Glycemic index (Me)		OR Incidence (Ti)
IFG (TiAb)		Dietary carbohydrates (Me)		OR Incident (TI)
Insulin resistance (Me, TiAb)		Fatty acids, unsaturated (Me)		OR Risk factors (Me)
Metabolic syndrome (TiAb)		Diet, mediterranean (Me)		OR Review (PT)
		Dietary fiber (Me)		AND Systematic (TiAb)
		Fiber (Ti)		NOT Comment (PT)
		Cereals (Me, Ti)		OR Letter (PT)
		Fruit (Me, Ti)		OR Editorial (PT)
		Vegetables (Me, Ti)		OR Animals (Me)
		Vegetable (Ti)		NOT Humans (Me)
		Legumes (Ti)		
		Whole grain (Ti)		
		Seafood (Me, Ti)		
		Fishes (Me)		
		Fish (Ti)		
		Fish intake (TiAb)		
		Dietary fish (TiAb)		

(”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND ((((”glycemic index”[ti] OR ”glycemic load”[ti] OR ”GI diet”[ti] OR ”low sucrose”[ti] OR ”low sugar”[ti] OR ”reduced sugar”[ti] OR ”MUFA”[ti] OR ”PUFA”[ti] OR ”fatty acids”[ti] OR ”avocado”[ti] OR ”peanut butter”[ti] OR ”nuts”[ti] OR ”almonds”[ti]) AND (”diet”[tiab] OR ”diets”[tiab])) OR ”Mediterranean diet”[ti] OR ”South European diet”[ti] OR ”Glycemic Index”[Mesh] OR ”Dietary Carbohydrates”[Mesh] OR ”Fatty Acids, Unsaturated”[Mesh] OR ”Diet, Mediterranean”[Mesh] OR ”dietary fiber”[mesh] OR ”fiber”[ti] OR ”cereals”[mesh] OR ”fruit”[mesh] OR ”vegetables”[mesh] OR ”cereals”[ti] OR fruit[ti] OR ”vegetable”[ti] OR ”vegetables”[ti] OR ”legumes”[ti] OR ”whole grain”[ti] OR ”Seafood”[mesh] OR ”seafood”[ti] OR ”Fishes”[mesh] OR ”fish”[ti] OR ”fish intake”[tiab] OR ”dietary fish”[tiab]) AND (”randomized controlled trial”[pt] OR randomized[tiab] OR random[tiab] OR randomly[tiab] OR multicenter[tiab] OR controlled[ti] OR ”controlled clinical trial”[pt] OR ”multicenter study”[pt] OR (review[pt] AND ”systematic”[tiab]) OR ”meta analysis”[pt] OR ”cohort studies”[mesh] OR ”cohort”[ti] OR ”prospective”[ti] OR ”long term”[ti] OR ”observational”[ti] OR ”secondary prevention”[tiab] OR ”case control”[tiab] OR ”case control studies”[mesh] OR ”risk”[ti] OR ”incidence”[ti] OR ”incident”[ti] OR ”risk factors”[mesh]) NOT (comment[pt] OR letter[pt] OR editorial[pt] OR (”animals”[mesh] NOT ”humans”[mesh]))

Indivdual foods, glycemic index, mufa-enriched food and dietary fiber

EMBASE.COM (Elsevier) september 2009

Diabetes mellitus (Exp)
Hyperglycemia (De, TiAb)
Diabetes (TiAb)
Diabetic (TiAb)
NIDDM (TiAb)
IDDM (TiAb)
Prediabetes (TiAb)
Prediabetic (TiAb)
Hyperglycemic (TiAb)
Glucose intolerance (TiAb)
Impaired fasting glucose (TiAb)
High fasting glucose (TiAb)
Impaired glucose tolerance (TiAb)

AND

Glycemic index (Ti)
OR Glycemic load (Ti)
OR GI diet (Ti)
OR Slow carbohydrates (Ti)
OR Slow carbs (Ti)
OR Low sucrose (Ti)
OR Low sugar (Ti)
OR Reduced sucrose (Ti)
OR Reduced sugar (Ti)
OR Reduced fructose (Ti)
OR Low fructose (Ti)
OR MUFA (Ti)
OR PUFA (Ti)
OR Fatty acids (Ti)
OR Fish (Ti)
OR Avocado (Ti)
OR Peanut butter (Ti)
OR Nuts (Ti)
OR Almonds (Ti)
OR Carbohydrates (Exp)
OR Unsaturated fatty acid (Exp)
AND Diet/s (TiAb)

South european diet (Ti)
Mediterranean diet (Ti, De)
Glycemic index (De)
Dietary fiber (De)
Vegetable (Exp)
Fruit (Exp, Ti)
Fiber (Ti)
Vegetable/s (Ti)
Legumes (Ti)
Grain (Exp)
Whole grain (Ti)

AND

Controlled clinical trial (Exp)
OR Meta analysis (De)
OR Systematic review (TiAb, De)
OR Randomized (TiAb)
OR Randomised (TiAb)
OR Random (TiAb)
OR Randomly (TiAb)
OR Controlled (Ti)
OR Cohort analysis (De)
OR Case control study (Exp)
OR Observational study (De)
OR Observational (Ti)
NOT Letter (De)
OR Editorial (De)

('diabetes mellitus'/exp OR 'hyperglycemia':ti,ab,de OR 'diabetes':ti,ab OR 'diabetic':ti,ab OR 'NIDDM':ti,ab OR 'iddm':ti,ab OR 'prediabetes':ti,ab OR 'prediabetic':ti,ab OR 'hyperglycemic':ti,ab OR 'glucose intolerance':ti,ab OR 'impaired fasting glucose':ti,ab OR 'high fasting glucose':ti,ab OR 'impaired glucose tolerance':ti,ab) AND ((('glycemic index':ti OR 'glycemic load':ti OR 'GI diet':ti OR 'slow carbohydrates':ti OR 'slow carbs':ti OR 'low sucrose':ti OR 'low sugar':ti OR 'reduced sucrose':ti OR 'reduced sugar':ti OR 'reduced fructose':ti OR 'low fructose':ti OR 'MUFA':ti OR 'PUFA':ti OR 'fatty acids':ti OR 'fish':ti OR 'avocado':ti OR 'peanut butter':ti OR 'nuts':ti OR 'almonds':ti OR 'carbohydrates'/exp OR 'unsaturated fatty acid'/exp) AND ('diet':ti,ab OR 'diets':ti,ab)) OR 'South European diet':ti OR 'Mediterranean diet':ti,de OR 'Glycemic Index':de OR 'dietary fiber':de OR 'vegetable'/exp OR 'fruit'/exp OR 'fiber':ti OR 'vegetable':ti OR 'vegetables':ti OR 'fruit':ti OR 'legumes':ti OR 'grain'/exp OR 'whole grain':ti) AND ('controlled clinical trial'/exp OR 'meta analysis':de OR 'systematic review':ti,ab,de OR 'randomized':ti,ab OR 'rando-mised':ti,ab OR 'random':ti,ab OR 'randomly':ti,ab OR controlled:ti OR 'cohort analysis':de OR 'case control study'/exp OR 'observational study':de OR 'observational':ti) NOT ('letter':de OR 'editorial':de) AND [embase]/lim

Indivdual foods, glycemic index, mufa-enriched food and dietary fiber

Cochrane central registry of controlled trials (CENTRAL; wiley) september 2009

Diabetes mellitus (KW)	AND	Glycemic index (Ti)	NOT	Meeting (SO)
Diabetes mellitus, type 1 (KW)		OR Glycemic load (Ti)		Conference (SO)
Diabetes mellitus, type 2 (KW)		OR GI diet (Ti)		Abstract (Ti)
Prediabetic state (KW)		OR Slow carbohydrates (Ti)		Proceedings (SO)
Hyperglycemia (Ti,KW)		OR Slow carbs (Ti)		
Diabetes (Ti)		OR Low sucrose (Ti)		Congress (TiAb)
Diabetic/s (Ti)		OR Low sugar (Ti)		OR Meeting (TiAb)
NIDDM (Ti)		OR Reduced sucrose (Ti)		OR Proceedings (TiAb)
IDDM (Ti)		OR Reduced sugar (Ti)		AND International (TiAb)
Prediabetes (Ti)		OR Reduced fructose (Ti)		OR World (TiAb)
Prediabetic (Ti)		OR Low sugar (Ti)		OR Annual (TiAb)
Hyperglycemic (Ti)		OR MUFA (Ti)		
Glucose intolerance (Ti)		OR PUFA (Ti)		
Impaired fasting glucose (Ti)		OR Fatty acids (Ti)		
High fasting glucose (Ti)		OR Fish (Ti)		
Impaired glucose tolerance (Ti)		OR Avocado (Ti)		
		OR Peanut butter (Ti)		
		OR Nuts (Ti)		
		OR Almonds (Ti)		
		AND diet/s (TiAb)		
		Mediterranean diet (Ti)		
		South european diet (Ti)		
		Glycemic index (KW)		
		Dietary carbohydrates (KW)		
		Fatty acids, unsaturated (KW)		
		Diet, mediterranean (KW)		
		Dietary fiber (KW)		
		Fiber (Ti)		
		Cereals (Ti,KW)		
		Fruit (Ti,KW)		
		Vegetables (Ti,KW)		
		Vegetable (Ti)		
		Legumes (Ti)		
		Whole grain (Ti)		

((diabetes mellitus):kw OR (diabetes mellitus, type 1):kw OR (diabetes mellitus, type 2):kw OR (prediabetic state):kw OR (hyperglycemia):ti,kw OR (diabetes):ti OR (diabetic):ti OR (diabetics):ti OR (NIDDM):ti OR (IDDM):ti OR (prediabetes):ti OR (prediabetic):ti OR (hyperglycemic):ti OR (glucose intolerance):ti OR (impaired fasting glucose):ti OR (high fasting glucose):ti OR (impaired glucose tolerance):ti) AND ((((glycemic index):ti OR (glycemic load):ti OR (GI diet):ti OR (slow carbohydrates):ti OR (slow carbs):ti OR (low sucrose):ti OR (low sugar):ti OR (reduced sucrose):ti OR (reduced sugar):ti OR (reduced fructose):ti OR (low sugar):ti OR (MUFA):ti OR (PUFA):ti OR (fatty acids):ti OR (fish):ti OR (avocado):ti OR (peanut butter):ti OR (nuts):ti OR (almonds):ti) AND ((diet):ti,ab OR (diets):ti,ab)) OR (mediterranean diet):ti OR (south european diet):ti OR (glycemic index):kw OR (dietary carbohydrates):kw OR (fatty acids, unsaturated):kw OR (diet, mediterranean):kw OR (dietary fiber):kw OR (fiber):ti OR (cereals):ti,kw OR (fruit):ti,kw OR (vegetables):ti,kw OR (vegetable):ti OR (legumes):ti OR (whole grain):ti) NOT ((meeting):so OR (conference):so OR (abstract):ti OR (proceedings):so OR (((congress):ti,ab OR (meeting):ti,ab OR (proceedings):ti,ab) AND ((international):ti,ab OR (world):ti,ab OR (annual):ti,ab)))

Beverages

PubMed (NLM) september 2009

Diabetes mellitus (Me)	AND	Beverages (NoExp)	AND	Randomized controlled trial (PT)
Diabetes (TiAb)		Alcoholic bevarages (Me)		OR Randomized (TiAb)
Diabetic (TiAb)		Carbonated beverages (Me)		OR Random (TiAb)
NIDDM (TiAb)		Coffee (Me, TiAb)		OR Randomly (TiAb)
IDDM (TiAb)		Milk (NoExp, TiAb)		OR Multicenter (TiAb)
Prediabetic state (Me)		Cultured milk products (Me)		OR Controlled (Ti)
Hyperglycemia (Me, TIAb)		Tea (Me, TiAb))		OR Controlled clinical trial (PT)
Prediabetes (TiAb)		Hot chocolate (TIAb)		OR Multicenter study (PT)
Prediabetic (TiAb)		Soft drink/s (TiAb)		OR Meta analysis (PT)
Hyperglycemic (TiAb)		Beer (TiAb)		OR Cohort studies (Me)
Glucose intolerance (TiAb)		Cider (TiAb)		OR Cohort (Ti)
Impaired fasting glucose (TiAb)		Wine/s (TiAb)		OR Prospective (Ti)
High fasting glucose (TiAb)		Spirits (TiAb)		OR Long term (Ti)
Impaired fasting plasma glucose (TiAb)		Liquor/s (TiAb)		OR Observational (Ti)
High fasting plasma glucose (TiAb)		Decaffeinated (TiAb)		OR Secondary prevention (TiAb)
Impaired fasting blood glucose (TiAb)		Beverage/s (TiAb)		OR Case control (Ti)
High fasting blood glucose (TiAb)		Coca cola (TIAb)		OR Case control studies (Me)
Impaired glucose tolerance (TiAb)		Energy drink/s (TiAb)		OR Risk (Ti)
IGT (TiAb)		Juice/s (TiAb)		OR Incidence (Ti)
IFG (TiAb)		Dairy (TiAb)		OR Incident (TI)
Insulin resistance (Me, TiAb)		Dairy products (Me)		OR Risk factors (Me)
Metabolic syndrome (TiAb)		Alcohol drinking (Ti)		OR Review (PT)
		Alcohol consumption (Ti)		AND Systematic (TiAb)
		Alcohol intake (Ti)		NOT Comment (PT)
				OR Letter (PT)
		Alcohol drinking (Me)		OR Editorial (PT)
		OR Alcohol intake (TiAb)		OR Animals (Me)
		AND Diabetes mellitus, type 2/CI (Me)		NOT Humans (Me)
		OR Diabetes mellitus, type 2/EP (Me)		
		OR Diabetes mellitus, type 2/ET (Me)		

(”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes” [tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose” [tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance” [mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (”Beverages” [Mesh:noexp] OR ”Alcoholic Beverages”[Mesh] OR ”Carbonated Beverages”[Mesh] OR ”Coffee”[Mesh] OR ”Milk”[Mesh:noexp] OR ”Cultured Milk Products”[Mesh] OR ”Tea” [Mesh] OR ”hot chocolate”[tiab] OR ”milk”[tiab] OR ”soft drink”[tiab] OR ”soft drinks” [tiab] OR ”beer”[tiab] OR ”cider”[tiab] OR ”wine”[tiab] OR ”wines”[tiab] OR ”spirits” [tiab] OR ”liquor”[tiab] OR ”liquors”[tiab] OR ”coffee”[tiab] OR ”decaffeinated”[tiab] OR ”tea”[tiab] OR ”beverage”[tiab] OR ”beverages”[tiab] OR ”coca cola”[tiab] OR ”energy drink”[tiab] OR ”energy drinks”[tiab] OR ”juice”[tiab] OR ”juices”[tiab] OR ”dairy”[tiab] OR ”Dairy products”[mesh] OR ”alcohol drinking”[ti] OR ”alcohol consumption”[ti] OR ”alcohol intake”[ti] OR ((”alcohol drinking”[mesh] OR ”alcohol intake”[tiab]) AND (”diabetes mellitus, type 2/chemically induced”[mesh] OR ”diabetes mellitus, type 2/epidemiology”[mesh] OR ”diabetes mellitus, type 2/etiology”[mesh]))) AND (”randomized controlled trial”[pt] OR randomized[tiab] OR random[tiab] OR randomly[tiab] OR multicenter[tiab] OR controlled[ti] OR ”controlled clinical trial”[pt] OR ”multicenter study”[pt] OR (review[pt] AND ”systematic”[tiab]) OR ”meta analysis” [pt] OR ”cohort studies”[mesh] OR ”cohort”[ti] OR ”prospective”[ti] OR ”long term” [ti] OR ”observational”[ti] OR ”secondary prevention”[tiab] OR ”case control”[tiab] OR ”case control studies”[mesh] OR ”risk”[ti] OR ”incidence”[ti] OR ”incident”[ti] OR ”risk factors”[mesh]) NOT ((comment[pt] OR letter[pt] OR editorial[pt]) OR (”animals”[mesh] NOT ”humans”[mesh]))

Beverages

EMBASE.COM (Elsevier) september 2009

Diabetes mellitus (Exp)	AND	Beverage (Exp)	AND	Controlled clinical trial (Exp)
Hyperglycemia (De, TiAb)		Hot chocolate (TiAb)		OR Meta analysis (De)
Diabetes (TiAb)		Milk (TiAb)		OR Systematic review (TiAb, De)
Diabetic (TiAb)		Soft drink/s (TiAb)		OR Randomized (TiAb)
NIDDM (TiAb)		Beer (TiAb)		OR Randomised (TiAb)
IDDM (TiAb)		Cider (TiAb)		OR Random (TiAb)
Prediabetes (TiAb)		Wine/s (TiAb)		OR Randomly (TiAb)
Prediabetic (TiAb)		Spirits (TiAb)		OR Controlled (Ti)
Hyperglycemic (TiAb)		Liquor/s (TiAb)		OR Cohort analysis (De)
Glucose intolerance (TiAb)		Coffee (TiAb)		OR Case control study (Exp)
Impaired fasting glucose (TiAb)		Decaffeinated (TiAb)		OR Observational study (De)
High fasting glucose (TiAb)		Tea (TiAb)		OR Observational (Ti)
Impaired glucose tolerance (TiAb)		Beverage/s (TiAb)		NOT Letter (De)
		Coca cola (TiAb)		OR Editorial (De)
		Energy drink/s (TiAb)		
		Juice/s (TiAb)		

('diabetes mellitus'/exp OR 'hyperglycemia':ti,ab,de OR 'diabetes':ti,ab OR 'diabetic':ti,ab OR 'NIDDM':ti,ab OR 'iddm':ti,ab OR 'prediabetes':ti,ab OR 'prediabetic':ti,ab OR 'hyperglycemic':ti,ab OR 'glucose intolerance':ti,ab OR 'impaired fasting glucose':ti,ab OR 'high fasting glucose':ti,ab OR 'impaired glucose tolerance':ti,ab) AND ('beverage'/exp OR 'hot chocolate':ti,ab OR 'milk':ti,ab OR 'soft drink':ti,ab OR 'soft drinks':ti,ab OR 'beer':ti,ab OR 'cider':ti,ab OR 'wine':ti,ab OR 'wines':ti,ab OR 'spirits':ti,ab OR 'liquor':ti,ab OR 'liquors':ti,ab OR 'coffee':ti,ab OR 'decaffeinated':ti,ab OR 'tea':ti,ab OR 'beverage':ti,ab OR 'beverages':ti,ab OR 'coca cola':ti,ab OR 'energy drink':ti,ab OR 'energy drinks':ti,ab OR 'juice':ti,ab OR 'juices':ti,ab) AND ('controlled clinical trial'/exp OR 'meta analysis':de OR 'systematic review':ti,ab,de OR 'randomized':ti,ab OR 'randomised':ti,ab OR 'random':ti,ab OR 'randomly':ti,ab OR controlled:ti OR 'cohort analysis':de OR 'case control study'/exp OR 'observational study':de OR 'observational':ti) NOT ('letter':de OR 'editorial':de) AND [embase]/lim

Beverages

Cochrane central registry of controlled trials (CENTRAL; wiley) september 2009

Diabetes mellitus (KW)	AND	Beverages (TiAb, KW)	NOT	Meeting (SO)
Diabetes mellitus, type 1 (KW)		Alcoholic beverages (TiAb,KW)		Conference (SO)
Diabetes mellitus, type 2 (KW)		Carbonated beverages (TiAb,KW)		Abstract (Ti)
Prediabetic state (KW)		Coffee (TiAb,KW)		Proceedings (SO)
Hyperglycemia (Ti,KW)		Milk (TiAb,KW)		
Diabetes (Ti)		Cultured milk products (TiAb,KW)		Congress (TiAb)
Diabetic/s (Ti)		Tea (TiAb,KW)		OR Meeting (TiAb)
NIDDM (Ti)		Hot chocolate (TiAb)		OR Proceedings (TiAb)
IDDM (Ti)		Soft drink/s (TiAb)		AND International (TiAb)
Prediabetes (Ti)		Beer (TiAb)		OR World (TiAb)
Prediabetic (Ti)		Cider (TiAb)		OR Annual (TiAb)
Hyperglycemic (Ti)		Liquor/s (TiAb)		
Glucose intolerance (Ti)		Wine/s (TiAb)		
Impaired fasting glucose (Ti)		Spirits (TiAb)		
High fasting glucose (Ti)		Decaffeinated (TiAb)		
Impaired glucose tolerance (Ti)		Beverage (TiAb)		
		Coca cola (TiAb)		
		Energy drink/s (TiAb)		
		Juice/s (TiAb)		

((diabetes mellitus):kw OR (diabetes mellitus, type 1):kw OR (diabetes mellitus, type 2): kw OR (prediabetic state):kw OR (hyperglycemia):ti,kw OR (diabetes):ti OR (diabetic):ti OR (diabetics):ti OR (NIDDM):ti OR (IDDM):ti OR (prediabetes):ti OR (prediabetic):ti OR (hyperglycemic):ti OR (glucose intolerance):ti OR (impaired fasting glucose):ti OR (high fasting glucose):ti OR (impaired glucose tolerance):ti) AND ((beverages):ti,ab,kw OR (alcoholic beverages):ti,ab,kw OR (carbonated beverages):ti,ab,kw OR (coffee): ti,ab,kw OR (milk):ti,ab,kw OR (cultured milk products):ti,ab,kw OR (tea):ti,ab,kw OR (hot chocolate):ti,ab OR (soft drink):ti,ab OR (soft drinks):ti,ab OR (beer):ti,ab OR (cider):ti,ab OR (liquor):ti,ab OR (liquors):ti,ab OR (wine):ti,ab OR (wines):ti,ab OR (spirits):ti,ab OR (decaffeinated):ti,ab OR (beverage):ti,ab OR (coca cola):ti,ab OR (energy drink):ti,ab OR (energy drinks):ti,ab OR (juice):ti,ab OR (juices):ti,ab) NOT ((meeting):so OR (conference):so OR (abstract):ti OR (proceedings):so OR (((congress):ti,ab OR (meeting):ti,ab OR (proceedings):ti,ab) AND ((international): ti,ab OR (world):ti,ab OR (annual):ti,ab)))

Other diets

PubMed (NLM) september 2009

Diabetes mellitus (Me)	AND	Diet (NoExp)	AND	Randomized controlled trial (PT)
Diabetes (TiAb)		Diet fads (Me)		OR Randomized (TiAb)
Diabetic (TiAb)		Diet, protein-restricted (Me)		OR Random (TiAb)
NIDDM (TiAb)		Diet, reducing (Me)		OR Randomly (TiAb)
IDDM (TiAb)		Diet, sodium-restricted (Me)		OR Multicenter (TiAb)
Prediabetic state (Me)		Diet, vegetarian (Me)		OR Controlled (Ti)
Hyperglycemia (Me, TIAb)		Diet therapy (NoExp)		OR Controlled clinical trial (PT)
Prediabetes (TiAb)		Diet/s (Ti)		OR Multicenter study (PT)
Prediabetic (TiAb)		Food/s (Ti)		OR Meta analysis (PT)
Hyperglycemic (TiAb)		Macronutrient/s (Ti)		OR Cohort studies (Me)
Glucose intolerance (TiAb)		Nutrition (Ti)		OR Cohort (Ti)
Impaired fasting glucose (TiAb)				OR Prospective (Ti)
High fasting glucose (TiAb)				OR Long term (Ti)
Impaired fasting plasma glucose (TiAb)				OR Observational (Ti)
High fasting plasma glucose (TiAb)				OR Secondary prevention (TiAb)
Impaired fasting blood glucose (TiAb)				OR Case control (Ti)
High fasting blood glucose (TiAb)				OR Case control studies (Me)
Impaired glucose tolerance (TiAb)				OR Risk (Ti)
IGT (TiAb)				OR Incidence (Ti)
IFG (TiAb)				OR Incident (TI)
Insulin resistance (Me, TiAb)				OR Risk factors (Me)
Metabolic syndrome (TiAb)				OR Review (PT)
				AND Systematic (TiAb)
			NOT	Comment (PT)
				OR Letter (PT)
				OR Editorial (PT)
				OR Animals (Me)
				NOT Humans (Me)

("diabetes mellitus"[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR "prediabetic state"[mesh] OR "hyperglycemia"[mesh] OR "prediabetes"[tiab] OR prediabetic[tiab] OR "hyperglycemia"[tiab] OR "hyperglycemic"[tiab] OR "glucose intolerance"[tiab] OR "impaired fasting glucose"[tiab] OR "high fasting glucose"[tiab] OR "impaired fasting plasma glucose"[tiab] OR "high fasting plasma glucose"[tiab] OR "impaired fasting blood glucose"[tiab] OR "high fasting blood glucose"[tiab] OR "impaired glucose tolerance"[tiab] OR "igt"[tiab] OR "ifg"[tiab] OR "insulin resistance"[mesh] OR "insulin resistance"[tiab] OR "metabolic syndrome"[tiab]) AND ("Diet"[Mesh:NoExp] OR "Diet Fads"[Mesh] OR "Diet, Protein-Restricted"[Mesh] OR "Diet, Reducing"[Mesh] OR "Diet, Sodium-Restricted"[Mesh] OR "Diet, Vegetarian"[Mesh] OR "Diet Therapy"[Mesh:NoExp] OR "diet"[ti] OR "diets"[ti] OR "food"[ti] OR "foods"[ti] OR "macronutrient"[ti] OR "macronutrients"[ti] OR "nutrition"[ti]) AND ("randomized controlled trial"[pt] OR randomized[tiab] OR random[tiab] OR randomly[tiab] OR multicenter[tiab] OR controlled[ti] OR "controlled clinical trial"[pt] OR "multicenter study"[pt] OR (review[pt] AND "systematic"[tiab]) OR "meta analysis"[pt] OR "cohort studies"[mesh] OR "cohort"[ti] OR "prospective"[ti] OR "long term"[ti] OR "observational"[ti] OR "secondary prevention"[tiab] OR "case control"[tiab] OR "case control studies"[mesh] OR "risk"[ti] OR "incidence"[ti] OR "incident"[ti] OR "risk factors"[mesh]) NOT ((comment[pt] OR letter[pt] OR editorial[pt]) OR ("animals"[mesh] NOT "humans"[mesh]))

Other diets

EMBASE.COM (Elsevier) september 2009

Diabetes mellitus (Exp)	AND	Diet (De)	AND	Controlled clinical trial (Exp)
Hyperglycemia (De, TiAb)		Macrobiotic diet (De)		OR Meta analysis (De)
Diabetes (TiAb)		Protein diet (De)		OR Systematic review (TiAb, De)
Diabetic (TiAb)		Carbohydrate diet (De)		OR Randomized (TiAb)
NIDDM (TiAb)		Vegetarian diet (De)		OR Randomised (TiAb)
IDDM (TiAb)		Vegetarian diet (De)		OR Random (TiAb)
Prediabetes (TiAb)		Diet therapy (De)		OR Randomly (TiAb)
Prediabetic (TiAb)		Diet/s (Ti)		OR Controlled (Ti)
Hyperglycemic (TiAb)		Food/s (Ti)		OR Cohort analysis (De)
Glucose intolerance (TiAb)		Macronutrient/s (Ti)		OR Case control study (Exp)
Impaired fasting glucose (TiAb)				OR Observational study (De)
High fasting glucose (TiAb)				OR Observational (Ti)
Impaired glucose tolerance (TiAb)				NOT Letter (De)
				OR Editorial (De)

('diabetes mellitus'/exp OR 'hyperglycemia':ti,ab,de OR 'diabetes':ti,ab OR 'diabetic':ti,ab OR 'NIDDM':ti,ab OR 'iddm':ti,ab OR 'prediabetes':ti,ab OR 'prediabetic':ti,ab OR 'hyperglycemic':ti,ab OR 'glucose intolerance':ti,ab OR 'impaired fasting glucose':ti,ab OR 'high fasting glucose':ti,ab OR 'impaired glucose tolerance':ti,ab) AND ('diet':de OR 'macrobiotic diet':de OR 'protein diet':de OR 'carbohydrate diet':de OR 'vegetarian diet':de OR 'diet therapy':de OR 'diet':ti OR 'diets':ti OR 'food':ti OR 'foods':ti OR 'macronutrient':ti OR 'macronutrients':ti) AND ('controlled clinical trial'/exp OR 'meta analysis':de OR 'systematic review':ti,ab,de OR 'randomized':ti,ab OR 'randomised':ti,ab OR 'random':ti,ab OR 'randomly':ti,ab OR controlled:ti OR 'cohort analysis':de OR 'case control study'/exp OR 'observational study':de OR 'observational':ti) NOT ('letter':de OR 'editorial':de) AND [embase]/lim

Other diets

Cochrane central registry of controlled trials (CENTRAL; wiley) september 2009

Diabetes mellitus (KW)	AND	Diet (KW)	NOT	Meeting (SO)
Diabetes mellitus, type 1 (KW)		Diet fads (KW)		Conference (SO)
Diabetes mellitus, type 2 (KW)		Diet, protein-restricted (KW)		Abstract (Ti)
Prediabetic state (KW)		Diet, reducing (KW)		Proceedings (SO)
Hyperglycemia (Ti,KW)		Diet, sodium-restricted (KW)		
Diabetes (Ti)		Diet, vegetarian (KW)		Congress (TiAb)
Diabetic/s (Ti)		Diet therapy (KW)		OR Meeting (TiAb)
NIDDM (Ti)		Diet/s (Ti)		OR Proceedings (TiAb)
IDDM (Ti)		Food/s (Ti)		AND International (TiAb)
Prediabetes (Ti)		Macronutrient/s (Ti)		OR World (TiAb)
Prediabetic (Ti)				OR Annual (TiAb)
Hyperglycemic (Ti)				
Glucose intolerance (Ti)				
Impaired fasting glucose (Ti)				
High fasting glucose (Ti)				
Impaired glucose tolerance (Ti)				

((diabetes mellitus):kw OR (diabetes mellitus, type 1):kw OR (diabetes mellitus, type 2): kw OR (prediabetic state):kw OR (hyperglycemia):ti,kw OR (diabetes):ti OR (diabetic):ti OR (diabetics):ti OR (NIDDM):ti OR (IDDM):ti OR (prediabetes):ti OR (prediabetic):ti OR (hyperglycemic):ti OR (glucose intolerance):ti OR (impaired fasting glucose):ti OR (high fasting glucose):ti OR (impaired glucose tolerance):ti) AND ((diet):kw OR (diet fads):kw OR (diet, protein-restricted):kw OR (diet, reducing):kw OR (diet, sodium-restricted):kw OR (diet, vegetarian):kw OR (diet therapy):kw OR (diet):ti OR (diets): ti OR (food):ti OR (foods):ti OR (macronutrient):ti OR (macronutrients):ti) NOT ((meeting):so OR (conference):so OR (abstract):ti OR (proceedings):so OR (((congress): ti,ab OR (meeting):ti,ab OR (proceedings):ti,ab) AND ((international):ti,ab OR (world): ti,ab OR (annual):ti,ab)))

Economic aspects

PubMed (NLM) september 2009				
Diabetes mellitus (Me) Diabetes (TiAb) Diabetic (TiAb) NIDDM (TiAb) IDDM (TiAb) Prediabetic state (Me) Hyperglycemia (Me, TIAb) Prediabetes (TiAb) Prediabetic (TiAb) Hyperglycemic (TiAb) Glucose intolerance (TiAb) Impaired fasting glucose (TiAb) High fasting glucose (TiAb) Impaired fasting plasma glucose (TiAb) High fasting plasma glucose (TiAb) Impaired fasting blood glucose (TiAb) High fasting blood glucose (TiAb) Impaired glucose tolerance (TiAb) IGT (TiAb) IFG (TiAb) Insulin resistance (Me, TiAb) Metabolic syndrome (TiAb)	AND	Search strings for individual dietary interventions	AND	Cost/s (Ti) Economic (Ti) Costs and cost analysis (Me) /EC

(((”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (”diet, fat restricted”[mesh] OR ”low-fat”[tiab] OR ”fat intake”[tiab] OR Fats[mesh] OR ”dietary fats”[Substance Name] OR ((”ornish”[tiab] OR ”zone”[tiab] OR ”life style”[MeSH Major Topic]) AND (”diet”[tiab] OR ”diets”[tiab])) OR ”weight watchers”[tiab] OR ”new glucose revolution”[tiab] OR ”diabetes mellitus/diet therapy”[mesh] OR ”diabetic diet”[mesh])) OR ((”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”

[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (”diet, carbohydrate restricted”[mesh] OR ”carbohydrate restricted”[tiab] OR ”low carbohydrate”[tiab] OR ”low carb”[tiab] OR ”south beach”[tiab] OR ”atkins diet”[tiab] OR ”high fat diet”[tiab] OR ”high protein diet”[tiab] OR ”lchf”[tiab] OR ”lchp”[tiab] OR ”lckd”[tiab] OR ”ketogenic diet”[tiab] OR ”dietary carbohydrates”[mesh] OR ((”dietary fats”[mesh] OR ”dietary proteins”[mesh]) AND (carbohydrate[tiab] OR carbohydrates[tiab] OR carb[ti] OR carbs[ti] OR carbohydrates[mesh])))) OR ((”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (((”glycemic index”[ti] OR ”glycemic load”[ti] OR ”GI diet”[ti] OR ”slow carbohydrates”[ti] OR ”slow carbs”[ti] OR ”low sucrose”[ti] OR ”low sugar”[ti] OR ”reduced sucrose”[ti] OR ”reduced sugar”[ti] OR ”reduced fructose”[ti] OR ”low sugar”[ti] OR ”monounsaturated fatty acids”[ti] OR ”MUFA”[ti] OR ”high-MUFA”[ti] OR ”MUFA-enriched”[ti] OR ”polyunsaturated fatty acids”[ti] OR ”PUFA”[ti] OR ”high-PUFA”[ti] OR ”PUFA-enriched”[ti] OR ”fatty acids”[ti] OR ”unsaturated fatty acids”[ti] OR ”fish”[ti] OR ”avocado”[ti] OR ”peanut butter”[ti] OR ”nuts”[ti] OR ”almonds”[ti]) AND (”diet”[tiab] OR ”diets”[tiab])) OR ”Mediterranean diet”[ti] OR ”South European diet”[ti] OR ”Glycemic Index”[Mesh] OR ”Dietary Carbohydrates”[Mesh] OR ”Fatty Acids, Unsaturated”[Mesh] OR ”Diet, Mediterranean”[Mesh])) OR ((”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (”Beverages”[Mesh:noexp] OR ”Alcoholic Beverages”[Mesh] OR ”Carbonated Beverages”[Mesh] OR ”Coffee”[Mesh] OR ”Milk”[Mesh:noexp] OR ”Cultured Milk Products”[Mesh] OR ”Tea”[Mesh] OR ”hot chocolate”[tiab] OR ”milk”[tiab] OR ”soft drink”[tiab] OR ”soft drinks”[tiab] OR ”beer”[tiab] OR ”cider”[tiab] OR ”wine”[tiab] OR ”wines”[tiab] OR ”spirits”[tiab] OR ”liquor”[tiab] OR ”liquors”[tiab] OR ”coffee”[tiab] OR ”decaffeinated”[tiab] OR ”tea”[tiab] OR ”beverage”[tiab] OR ”beverages”[tiab] OR ”coca cola”[tiab] OR ”energy drink”[tiab] OR ”energy drinks”[tiab] OR ”juice”[tiab] OR ”juices”[tiab] OR ”dairy”[tiab] OR ”Dairy products”[mesh] OR ”alcohol drinking”[ti] OR ”alcohol consumption”[ti] OR ”alcohol intake”[ti] OR ((”alcohol drinking”[mesh] OR ”alcohol intake”[tiab]) AND (”diabetes mellitus, type 2/chemically induced”[mesh] OR ”diabetes mellitus, type 2/epidemiology”[mesh] OR ”diabetes mellitus, type 2/etiology”[mesh])))) OR ((”diabetes mellitus”[mesh] OR diabetes[tiab] OR diabetic[tiab] OR NIDDM[tiab] OR IDDM[tiab] OR ”prediabetic state”[mesh] OR ”hyperglycemia”[mesh] OR ”prediabetes”[tiab] OR prediabetic[tiab] OR ”hyperglycemia”[tiab] OR ”hyperglycemic”[tiab] OR ”glucose intolerance”[tiab] OR ”impaired fasting glucose”[tiab] OR ”high fasting glucose”[tiab] OR ”impaired fasting plasma glucose”[tiab] OR ”high fasting plasma glucose”[tiab] OR ”impaired fasting blood glucose”[tiab] OR ”high fasting blood glucose”[tiab] OR ”impaired glucose tolerance”[tiab] OR ”igt”[tiab] OR ”ifg”[tiab] OR ”insulin resistance”[mesh] OR ”insulin resistance”[tiab] OR ”metabolic syndrome”[tiab]) AND (”Diet”[Mesh:noexp] OR ”Diet Fads”[Mesh] OR ”Diet, Protein-Restricted”[Mesh] OR ”Diet, Reducing”[Mesh] OR ”Diet, Sodium-Restricted”[Mesh] OR ”Diet, Vegetarian”[Mesh] OR ”Diet Therapy”[Mesh:noexp] OR ”diet”[ti] OR ”diets”[ti] OR ”food”[ti] OR ”foods”[ti] OR ”macronutrient”[ti] OR ”macronutrients”[ti] OR ”nutrition”[ti]))) AND (costs[ti] OR cost[ti] OR economic[ti] OR ”costs and cost analysis”[mesh] OR ”economics”[MeSH Subheading])

Economic aspects

NHS economic evaluations database (NHSEED; wiley) september 2009

Diabetes mellitus (KW)	AND	Diet (KW)	NOT	Meeting (SO)
Diabetes mellitus, type 1 (KW)		Diet fads (KW)		Conference (SO)
Diabetes mellitus, type 2 (KW)		Diet, protein restricted (KW)		Abstract (Ti)
Prediabetic state (KW)		Diet, reducing (KW)		Proceedings (SO)
Hyperglycemia (Ti,KW)		Diet, sodium-restricted (KW)		
Diabetes (Ti)		Diet, vegetarian (KW)		Congress (TiAb)
Diabetic/s (Ti)		Diet therapy (KW)		OR Meeting (TiAb)
NIDDM (Ti)		Diet/s (TI)		OR Proceedings (TiAb)
IDDM (Ti)		Food/s (Ti)		AND International (TiAb)
Prediabetes (Ti)		Macronutrient/s (Ti)		OR World (TiAb)
Prediabetic (Ti)		Nutrition (Ti)		OR Annual (TiAb)
Hyperglycemic (Ti)				
Glucose intolerance (Ti)				
Impaired fasting glucose (Ti)				
High fasting glucose (Ti)				
Impaired glucose tolerance (Ti)				

((diabetes mellitus):kw OR (diabetes mellitus, type 1):kw OR (diabetes mellitus, type 2) :kw OR (prediabetic state):kw OR (hyperglycemia):ti,kw OR (diabetes):ti OR (diabetic):ti OR (diabetics):ti OR (NIDDM):ti OR (IDDM):ti OR (prediabetes):ti OR (prediabetic):ti OR (hyperglycemic):ti OR (glucose intolerance):ti OR (impaired fasting glucose):ti OR (high fasting glucose):ti OR (impaired glucose tolerance):ti) AND ((diet):kw OR (diet fads):kw OR (diet, protein-restricted):kw OR (diet, reducing):kw OR (diet, sodium-restricted):kw OR (diet, vegetarian):kw OR (diet therapy):kw OR (diet):ti OR (diets): ti OR (food):ti OR (foods):ti OR (macronutrient):ti OR (macronutrients):ti OR (nutrition):ti) NOT ((meeting):so OR (conference):so OR (abstract):ti OR (proceedings): so OR (((congress):ti,ab OR (meeting):ti,ab OR (proceedings):ti,ab) AND ((international): ti,ab OR (world):ti,ab OR (annual):ti,ab)))

Economic aspects

Health economic evaluations database (HEED; wiley) september 2009

Diabetes (AF)	AND	Diet/s (AF)
Diabetic (AF)		Food/s (AF)
Diabetics (AF)		Beverage/s (AF)
NIDDM (AF)		Nutrients (AF)
IDDM (AF)		Macronutrients (AF)
Prediabetes (AF)		Nutrition (AF)
Prediabetic (AF)		
Hyperglycemia (AF)		
Glucose intolerance (AF)		
Impaired fasting glucose (AF)		

(diabetes OR diabetic OR diabetics OR NIDDM OR IDDM OR prediabetes OR prediabetic OR hyperglycemia OR (glucose intolerance) OR (impaired fasting glucose)) AND (diet OR diets OR food OR foods OR beverage OR beverages OR nutrients OR macronutrients OR nutrition)

Economic aspects

EMBASE.COM (Elsevier) September 2009

Diabetes mellitus (Exp)	AND	Search strings for individual dietary interventions	AND	Health economics (Exp)
Hyperglycemia (De, TiAb)				Economy (Ti)
Diabetes (TiAb)				Economic (Ti)
Diabetic (TiAb)				Economics (Ti)
NIDDM (TiAb)				Cost/s (Ti)
IDDM (TiAb)				
Prediabetes (TiAb)				
Prediabetic (TiAb)				
Hyperglycemic (TiAb)				
Glucose intolerance (TiAb)				
Impaired fasting glucose (TiAb)				
High fasting glucose (TiAb)				
Impaired glucose tolerance (TiAb)				

(('diabetes mellitus'/exp OR 'hyperglycemia':ti,de OR 'diabetes':ti OR 'diabetic':ti OR 'NIDDM':ti OR 'iddm':ti OR 'prediabetes':ti OR 'prediabetic':ti OR 'hyperglycemic':ti OR

'glucose intolerance':ti OR 'impaired fasting glucose':ti OR 'high fasting glucose':ti OR 'impaired glucose tolerance':ti) AND (('beverage'/exp OR 'hot chocolate':ti OR 'milk':ti OR 'soft drink':ti OR 'soft drinks':ti OR 'beer':ti OR 'cider':ti OR 'wine':ti OR 'wines':ti OR 'spirits':ti OR 'liquor':ti OR 'liquors':ti OR 'coffee':ti OR 'decaffeinated':ti OR 'tea':ti OR 'beverage':ti OR 'beverages':ti OR 'coca cola':ti OR 'energy drink':ti OR 'energy drinks':ti OR 'juice':ti OR 'juices':ti) OR ('diet':de OR 'macrobiotic diet':de OR 'protein diet':de OR 'cabohydrate diet':de OR 'vegetarian diet':de OR 'diet therapy':de OR 'diet':ti OR 'diets':ti OR 'food':ti OR 'foods':ti OR 'macronutrient':ti OR 'macronutrients':ti) OR ('low carbohydrate diet':de OR 'carbohydrate restricted':ti OR 'low carbohydrate':ti OR 'low carb':ti OR 'low-carbohydrate':ti OR 'low-carb':ti OR 'south beach diet':ti OR 'atkins diet':ti OR 'high fat':ti OR 'high-fat':ti OR 'high protein':ti OR 'high-protein':ti OR 'protein rich':ti OR 'lchf':ti OR 'lchp':ti OR 'ketogenic diet':ti OR 'lckd':ti OR ('fatty acid'/exp AND (carbohydrate:ti,de OR carbohydrates:ti))) OR ('low fat diet':ti,de OR 'diabetic diet':ti,de OR 'fat':de OR 'fat intake'/exp OR 'diet therapy':de OR 'low-fat':ti OR 'fat intake':ti OR 'weight watchers':ti OR 'new glucose revolution':ti OR (('ornish':ti OR 'zone':ti OR 'life style':ti,de OR 'lifestyle modofication':de) AND ('diet':ti OR 'diets':ti))) OR ('dietary fiber':de OR 'vegetable'/exp OR 'fruit'/exp OR 'fiber':ti OR 'vegetable':ti OR 'vegetables':ti OR 'fruit':ti OR 'legumes':ti OR 'grain'/exp OR 'whole grain':ti) OR ((('glycemic index':ti OR 'glycemic load':ti OR 'GI diet':ti OR 'slow carbohydrates':ti OR 'slow carbs':ti OR 'low sucrose':ti OR 'low sugar':ti OR 'reduced sucrose':ti OR 'reduced sugar':ti OR 'reduced fructose':ti OR 'low fructose':ti OR 'monounsaturated fatty acids':ti OR 'MUFA':ti OR 'high-MUFA':ti OR 'MUFA-enriched':ti OR 'polyunsaturated fatty acids':ti OR 'PUFA':ti OR 'high-PUFA':ti OR 'PUFA-enriched':ti OR 'fatty acids':ti OR 'unsaturated fatty acids':ti OR 'fish':ti OR 'avocado':ti OR 'peanut butter':ti OR 'nuts':ti OR 'almonds':ti OR 'carbohydrates'/exp OR 'unsaturated fatty acid'/exp) AND ('diet':ti OR 'diets':ti)) OR 'South European diet':ti OR 'Mediterranean diet':ti,de OR 'Glycemic Index':de)) AND ('health economics'/exp OR economy:ti OR economic:ti OR economics:ti OR cost:ti OR costs:ti) AND [embase]/lim)

Abbreviations

/CI	Chemically induced (MeSH Subheading)
/EC	Economics (MeSH Subheading)
/EP	Epidemiology (MeSH Subheading)
/ET	Etiology (MeSH Subheading)
AF	All fields
De	Descriptor (EMBASE)
Exp	Explode (EMBASE)
GI	Glycemic index
IDDM	Insulin dependent diabetes mellitus
IFG	Impaired fasting glucose
IGT	Impaired glucose tolerance
KW	Keyword (Cochrane Library)
LCHF	Low Carbohydrate High Fat
LCHP	Low Carbohydrate High Protein
LCKD	Low Carbohydrate Ketogenic Diet
Me	Medical Subject Headings (MeSH, PubMed)
MUFA	Monounsaturated fatty acids
NIDDM	Non-insulin dependent diabetes mellitus
NoExp	MeSH No Explode (PubMed)
PT	Publication type
PUFA	Polyunsaturated fatty acids
SB	Subset
SN	Substance Name
SO	Source
Ti	Title
TiAb	Title/Abstract

Bilaga 3. Granskningsmallar

Granskningsmall för RCT (Mat vid diabetes)

Alternativet ”kan inte svara” används när uppgiften inte går att få fram från texten.
Alternativet ”ej tillämpligt” väljs när frågan inte är relevant.

Författare	
År	
Artikelnummer	

1. Relevans	**Ja**	**Nej**	**Kan inte svara**	**Ej tillämpligt**
1.1 Rekrytering av prövningsdeltagare				
a) Är den population som deltagarna togs från, klart beskriven och acceptabel?	❑	❑	❑	❑
b) Är sättet att rekrytera deltagare acceptabelt? (här bedöms faktorer som annonsrekrytering, konsekutiv rekrytering etc)	❑	❑	❑	❑
c) Är inklusionskriterierna tydligt formulerade och acceptabla?	❑	❑	❑	❑
d) Är exklusionskriterierna tydligt formulerade och acceptabla?	❑	❑	❑	❑
e) Framgår det hur många personer som exkluderades före randomiseringen och varför?	❑	❑	❑	❑
f) Är redovisningen av de personer som inte deltog trots att de var valbara (”eligible”) acceptabel? (antal, orsaker)	❑	❑	❑	❑
g) Summering rekrytering: Är studiepopulationen jämförbar med den aktuella svenska populationen?	❑	❑	❑	❑
1.2 Kostintervention				
a) Är de undersökta kosterna tydligt definierade avseende makronutrienter, energi, livsmedel och/eller fiberinnehåll?	❑	❑	❑	❑
b) Kan interventionen genomföras under svenska förhållanden med rimliga insatser?	❑	❑	❑	❑
c) Ger studien grund för breda kostrekommendationer (dvs avser inte ett enskilt livsmedel)?	❑	❑	❑	❑

Om svaret på alla dessa **fyra** frågor är Ja är studiens relevans **Hög**.
Om **tre** av frågorna besvarats med Ja är studiens relevans **Medelhög**.
Om **en eller två** av frågorna besvarats med Ja är studiens relevans **Låg**.
Om **ingen** av frågorna besvarats med Ja är studiens relevans **Otillräcklig**.

Summering relevans:

Hög	❑
Medelhög	❑
Låg	❑
Otillräcklig	❑

2. Studiekvalitet: Randomisering, jämförbarhet	**Ja**	**Nej**	**Kan inte svara**	**Ej tillämpligt**
2.1 Tilldelning av åtgärd/intervention/behandling				
a) Är randomiseringsproceduren beskriven på ett tillfredsställande sätt?	❑	❑	❑	❑
b) Användes en randomiseringsmetod som inte kan manipuleras?	❑	❑	❑	❑
c) Var randomiseringen utförd så att fördelningen blev oförutsägbar och slumpmässig?	❑	❑	❑	❑
d) Har randomisering skett på ett adekvat sätt? (summering a-c)	❑	❑	❑	❑
2.2 Gruppernas jämförbarhet				
a) Redovisas egenskaper hos deltagarna (t ex ålder, kön, sjukdoms svårighetsgrad) som kan påverka resultatet?	❑	❑	❑	❑
b) Var grupperna väl balanserade vid baseline?	❑	❑	❑	❑
c) Om det fanns obalanser, gjordes några försök att korrigera dem i den statistiska analysen?	❑	❑	❑	❑

3. Studiekvalitet: Följsamhet, bortfall	**Ja**	**Nej**	**Kan inte svara**	**Ej tillämpligt**
3.1 Följsamhet (compliance, adherence)				
a) Har följsamhet till interventionen uppmätts på adekvat sätt och redovisats?	❑	❑	❑	❑
3.2 Bortfall (antalet deltagare som inte har följts upp enligt studieprotokollet, avser ej följsamhet)				
a) Redovisas hur stort bortfallet är, och anges orsakerna till bortfallet?	❑	❑	❑	❑
b) Är bortfallet lågt (6 mån <20%, 12 mån <30%, 24 mån <40%)?	❑	❑	❑	❑
c) Är bortfallet acceptabelt (6 mån <30%, 12 mån <40%, 24 mån <50%)?	❑	❑	❑	❑

På dessa tre frågor krävs svaret **JA** för **HÖG** studiekvalitet

Om svaret på någon av dessa frågor är **NEJ** har studien som högst **LÅG** studiekvalitet

4. Studiekvalitet: Utfallsmått, resultat och analys	**Ja**	**Nej**	**Kan inte svara**	**Ej tillämpligt**
a) Redovisade artikeln någon hypotes?	❑	❑	❑	❑
b) Uppgavs det primära effektmåttet/resultatvariabeln *och* baserades slutsatsen på det måttet?	❑	❑	❑	❑
c) Var effektmåttet kliniskt relevant?	❑	❑	❑	❑

4. Studiekvalitet: Utfallsmått, resultat och analys	Ja	Nej	Kan inte svara	Ej tillämpligt
d) Var sekundära effektmått definierade?	❑	❑	❑	❑
e) Är personer med primärt effektmått adekvat identifierade/diagnostiserade?	❑	❑	❑	❑
f) Var den som analyserade resultaten omedveten om vilken åtgärd som gavs?	❑	❑	❑	❑
g) Mättes biverkningar/komplikationer på ett tillfredsställande sätt?	❑	❑	❑	❑
h) Har resultaten beräknats med hjälp av en ITT (intention-to-treat)-analys?	❑	❑	❑	❑

5. Studiekvalitet: kostspecifika frågor	Ja	Nej	Kan inte svara	Ej tillämpligt
a) Är metoden för kostregistrering valid? [1]	❑	❑	❑	❑
b) Har man justerat resultaten med avseende på energiintag?	❑	❑	❑	❑

6. Studiekvalitet: Resultat och precision	Ja	Nej	Kan inte svara	Ej tillämpligt
6.1 Resultat	❑	❑	❑	❑
a) Mättes observatörsöverensstämmelsen på ett acceptabelt sätt?	❑	❑	❑	❑
b) Var den minsta kliniskt relevanta effekten definierad på förhand?	❑	❑	❑	❑
c) Är den valda minsta kliniska relevanta effekten av rimlig storlek?	❑	❑	❑	❑
6.2 Undersökningens statistiska styrka				
a) Är de överväganden och beräkningar som ligger till grund för urvalsstorleken (”sample size”) tydligt beskrivna? [2]	❑	❑	❑	❑
b) Är den statistiska styrkan (power) tillfredsställande hög?	❑	❑	❑	❑

7. Studiekvalitet: Bindningar och jäv	Ja	Nej	Kan inte svara	Ej tillämpligt
a) Finns en förteckning över eventuella bindningar och jäv? (conflict of interests)?	❑	❑	❑	❑
b) Bedömer du att studiens resultat inte påverkats av intressekonflikter?	❑	❑	❑	❑

På dessa två frågor krävs svaret **JA** för **HÖG** studiekvalitet

Om svaret på denna fråga är **NEJ** har studien som högst **LÅG** studiekvalitet

[1] Om hela kohorten bedöms vara homogen i detta avseende anges alternativet ”Ej tillämpligt”.

Summering av studiekvalitet

För HÖG studiekvalitet krävs svaret JA på följande frågor:	Ja	Nej
2.1 d) Har randomisering skett på ett adekvat sätt?	❑	❑
3.1 a) Har följsamhet uppmätts på adekvat sätt och redovisats?	❑	❑
3.2 b) Är bortfallet lågt (6 mån <20%, 12 mån <30%, 24 mån <40%)?	❑	❑
4. e) Är personer med primärt effektmått adekvat identifierade/diagnostiserade?	❑	❑
5. a) Är metoden för kostregistrering valid?	❑	❑

Om svaret på någon av följande frågor är NEJ är studiekvaliteten som mest LÅG	Ja	Nej
2.1 d) Har randomisering skett på ett adekvat sätt?	❑	❑
3.2 c) Är bortfallet acceptabelt (6 mån <30%, 12 mån <40%, 24 mån <50%)?	❑	❑
4. e) Är personer med primärt effektmått adekvat identifierade/diagnostiserade?	❑	❑

Det kan finnas ytterligare kvalitetskriterier som framgår av granskningsmallen som kan visa på andra förtjänster eller brister i studiedesign eller genomgörande än de som listats här. Dessa kvalitetskriterier kan vägas in för att höja eller sänka graden av studiekvalitet. Notera i så fall dessa kriterier här:

Summering relevans:

Hög	❑
Medelhög	❑
Låg	❑
Otillräcklig	❑

Granskningsmall för observationsstudier (MVD)

Författare	
År	
Artikelnummer	

1. Övergripande frågor	**Ja**	**Nej**	**Kan inte svara**	**Ej tillämpligt**
a) Är frågan/hypotesen klart formulerad?	❑	❑	❑	❑

2. Relevans	**Ja**	**Nej**	**Kan inte svara**	**Ej tillämpligt**
2.1 Rekrytering av studiens deltagare				
a) Är sättet att rekrytera deltagare acceptabelt? (här bedöms faktorer som annonsrekrytering, konsekutiv rekrytering etc)	❑	❑	❑	❑
b) Är inklusionskriterierna tydligt formulerade och acceptabla?	❑	❑	❑	❑
c) Är exklusionskriterierna tydligt formulerade och acceptabla?	❑	❑	❑	❑
d) Redovisas antalet personer som inte deltog trots att de var valbara (”eligible”) och redovisas orsakerna till att de inte deltog?	❑	❑	❑	❑
e) Summering studiedeltagare: Är studiepopulationen jämförbar med den aktuella svenska populationen?	❑	❑	❑	❑
1.2 Kostintervention				
a) Är de undersökta kosterna tydligt definierade avseende makronutrienter, energi, livsmedel och/eller fiberinnehåll?	❑	❑	❑	❑
b) Kan interventionen genomföras under svenska förhållanden med rimliga insatser?	❑	❑	❑	❑
c) Ger studien grund för breda kostrekommendationer (dvs avser inte ett enskilt livsmedel)?	❑	❑	❑	❑

Om svaret på alla dessa **fyra** frågor är **Ja** eller **Ej tillämpligt** är studiens relevans **HÖG**.
Om **tre** av frågorna besvarats med **Ja** eller **Ej tillämpligt** är studiens relevans **MEDELHÖG**.
Om **en eller två** av frågorna besvarats med **Ja** eller **Ej tillämpligt** är studiens relevans **LÅG**.
Om **ingen** av frågorna besvarats med **Ja** eller **Ej tillämpligt** är studiens relevans **OTILLRÄCKLIG**.

Summering relevans:

Hög	❑
Medelhög	❑
Låg	❑
Otillräcklig	❑

3. Studiekvalitet: Jämförbarhet	Ja	Nej	Kan inte svara	Ej tillämpligt
3.1 Jämförelse/referensgrupp				
a) Är jämförelse/referensgruppen eller grupperna adekvat valda?	❑	❑	❑	❑
b) Är det en kliniskt relevant jämförelse/ referensgrupp?	❑	❑	❑	❑
3.2 Jämförbarhet och förväxlingsfaktorer (confounders)				
a) Har man justerat för skillnader i utbildning eller socioekonomisk status? [1]	❑	❑	❑	❑
b) Har man justerat för andra viktiga förväxlingsfaktorer (confounders)	❑	❑	❑	❑
c) Finns det några väsentliga skillnader mellan grupperna (obalanser) i baslinjedata?	❑	❑	❑	❑
d) Är risken för selektions- eller indikationsbias acceptabelt låg?	❑	❑	❑	❑
e) Ange viktiga möjliga förväxlingsfaktorer som inte har studerats?				

3. Studiekvalitet: Följsamhet, bortfall	Ja	Nej	Kan inte svara	Ej tillämpligt
3.3 Följsamhet (compliance, adherence)				
a) Framgår det i vilken utsträckning deltagarna under observationstiden fortfarande tillhörde den kostgrupp de allokerats till?	❑	❑	❑	❑
b) Var andelen som fullföljde behandlingen acceptabel?	❑	❑	❑	❑
3.4 Bortfall (antalet deltagare som inte har följts upp enligt studieprotokollet)				
a) Redovisas hur stort bortfallet är? Anges orsakerna till bortfallet?	❑	❑	❑	❑
b) Är bortfallet acceptabelt?	❑	❑	❑	❑

4. Studiekvalitet: Utfallsmått	Ja	Nej	Kan inte svara	Ej tillämpligt
a) Är det primära effektmåttet väl definierat? Baserades slutsatsen på detta mått?	❑	❑	❑	❑
b) Är personer med primärt effektmått adekvat identifierade/diagnostiserade?	❑	❑	❑	❑
c) Var de som bedömde utfallen/resultaten omedvetna om vilken intervention individerna/patienterna fått?	❑	❑	❑	❑
d) Bedömer du att risken för betydande registrerings-/mätningsbias är låg?	❑	❑	❑	❑
e) Är storleksskillnaderna kliniskt relevanta?	❑	❑	❑	❑

På dessa frågor krävs svaret **Ja** eller **Ej tillämpligt** för **HÖG** studiekvalitet

Om svaret på någon av dessa frågor är **Nej** har studien som högst **LÅG** studiekvalitet

[1] Om hela kohorten bedöms vara homogen i detta avseende anges alternativet ”Ej tillämpligt”.

5. Studiekvalitet: Statistisk styrka	Ja	Nej	Kan inte svara	Ej tillämpligt
a) Är de överväganden och beräkningar som ligger till grund för urvalsstorleken (sample size) tydligt beskrivna? [2]	❑	❑	❑	❑
b) Är den statistiska styrkan (power) tillfredsställande hög?	❑	❑	❑	❑

6. Studiekvalitet: Analys	Ja	Nej	Kan inte svara	Ej tillämpligt
Har den statistiska analysen av osäkerhet hanterats på ett adekvat sätt?	❑	❑	❑	❑

7. Studiekvalitet: Biverkningar	Ja	Nej	Kan inte svara	Ej tillämpligt
Mättes biverkningar/komplikationer på ett tillfredsställande sätt?	❑	❑	❑	❑

8. Studiekvalitet: Bindningar och jäv	Ja	Nej	Kan inte svara	Ej tillämpligt
a) Finns en förteckning över eventuella bindningar och jäv? (conflict of interests)?	❑	❑	❑	❑
b) Bedömer du att studiens resultat inte påverkats av intressekonflikter?	❑	❑	❑	❑

9. Studiekvalitet: Kostspecifika frågor	Ja	Nej	Kan inte svara	Ej tillämpligt
a) Är metoden för kostregistrering valid? [3]	❑	❑	❑	❑
b) Har man justerat resultaten med avseende på energiintag?	❑	❑	❑	❑

På denna fråga krävs svaret **Ja** eller **Ej tillämpligt** för **HÖG** studiekvalitet

[2] Vid negativt resultat kan powerberäkning vara en kritisk kvalitetsindikator.

[3] 24 h recall upprepat vid med än 3 tillfällen, matdagbok förd under minst 3 dagar eller validerad food frequency questionnaire (FFQ).

Summering av studiekvalitet

För HÖG studiekvalitet krävs svaret JA el. EJ TILLÄMPLIGT (ET) på följande frågor:	**Ja/ ET**	**Nej**
3.2 a) Har man justerat för skillnader i utbildning eller socioekonomisk status?	❑	❑
3.2 b) Har man justerat för andra viktiga förväxlingsfaktorer (confounders)?	❑	❑
4. b) Är personer med primärt effektmått adekvat identifierade/ diagnostiserade?	❑	❑
9. a) Är metoden för kostregistrering valid?	❑	❑

Om svaret på någon av följande frågor är NEJ är studie-kvaliteten som mest LÅG	**Ja**	**Nej**
3.2 b) Har man justerat andra viktiga förväxlingsfaktorer (confounders)?	❑	❑
4. b) Är personer med primärt effektmått adekvat identifierade/ diagnostiserade?	❑	❑

Det kan finnas ytterligare kvalitetskriterier som framgår av granskningsmallen som kan visa på andra förtjänster eller brister i studiedesign eller genomgörande än de som listats här. Dessa kvalitetskriterier kan vägas in för att höja eller sänka graden av studiekvalitet. Notera i så fall dessa kriterier här:

Studiekvalitet:

Hög	❑
Medelhög	❑
Låg	❑
Otillräcklig	❑

Additional File 1 – AMSTAR

1. Was an 'a priori' design provided? The research question and inclusion criteria should be established before the conduct of the review.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
2. Was there duplicate study selection and data extraction? There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
3. Was a comprehensive literature search performed? At least two electronic sources should be searched. The report must include years and databases used (e.g. Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
4. Was the status of publication (i.e. grey literature) used as an inclusion criterion? The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
5. Was a list of studies (included and excluded) provided? A list of included and excluded studies should be provided.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
6. Were the characteristics of the included studies provided? In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable

7. Was the scientific quality of the included studies assessed and documented? 'A priori' methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
8. Was the scientific quality of the included studies used appropriately in formulating conclusions? The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
9. Were the methods used to combine the findings of studies appropriate? For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chi-squared test for homogeneity, I^2). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?).	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
10. Was the likelihood of publication bias assessed? An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test).	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable
11. Was the conflict of interest stated? Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.	❑ Yes ❑ No ❑ Can't answer ❑ Not applicable

Bilaga 4. Checklista för bedömning av hälsoekonomiska studiers relevans och kvalitet

Instruktion

Fråga 1 besvaras av projektets medicinska experter.

Frågorna 2–4 besvaras av projektets ekonomiska experter.

Svarsalternativ för frågorna 2–4: Ja Nej ? (när oklart) # (ej relevant)

Författare: .....

Titel: .....

Tidskrift/År/Volym/Sidor: .....

1. Bedömning av studiens kvalitet vad gäller medicinska data
(projektets medicinska experter avgör, ange med ett kryss i tillämplig ruta)

Hög kvalitet	Medelhög kvalitet	Låg kvalitet	Otillräcklig kvalitet

2–4. Bedömning av studiens kvalitet vad gäller ekonomiska aspekter
Frågorna 2–4 besvaras av projektets ekonomiska experter, fråga 4 avser bedömning av studiens kvalitet.

Svarsalternativ för frågorna 2–4: Ja, Nej, ? (när oklart), # (ej tillämpbart), markera med ett kryss.

2. Frågor om studiens relevans (”PICO”) för projektets frågeställningar med krav på Ja-svar för inklusion	**Ja**	**Nej**	**?**	**#**
Är studerad patientpopulation relevant?				
Är interventionen relevant?				
Är jämförelseinterventionen relevant?				
Är utfallsmåttet relevant (t ex QALY, LYS)?				

3. Frågor om ekonomi med krav på Ja-svar för inklusion	**Ja**	**Nej**	**?**	**#**
Anges studiens perspektiv eller framgår detta indirekt?				
Studeras både kostnader och effekter (eller anges lika effekt)?				
Är effekterna värderade på rätt (adekvat) sätt?				
Är sjukvårdsorganisationen relevant för svenska förhållanden?				
Är relativpriserna relevanta för svensk sjukvård?				
Är jävsförhållandena utan problem för studien?				

4. Frågor för bedömning av studiens kvalitet vad avser den ekonomiska analysen	**Ja**	**Nej**	**?**	**#**
Presentation av studiens resultat				
Är frågeställningarnas ekonomiska betydelse redovisad?				
Är vald form av ekonomisk analys motiverad med avseende på frågeställningarna?				
Anges sättet för datainsamling?				
Är slutsatserna välgrundade och tydligt uttryckta?				
Bestämdes om skattningar från subgruppsanalys vid studiestart?				
Har jämförelser gjorts med andra studier?				
Visas generaliserbarhet?				
Diskuteras fördelningsfrågor?				
Visas negativa resultatutfall?				
Finns adekvat konsekvensanalys?				
Förs resonemang om alternativkostnader?				

Känslighetsanalys				
Har lämpliga statistiska metoder använts?				
Är spridningen på utfallsmått acceptabel?				
Är utfallet robust för undersökta variabelvärden?				
Ingår patientföljsamhet i analysen?				
Inkrementell analys				
Har inkrementell analys gjort av både kostnader och effekter?				
Diskontering (vid studier längre än 1 år)				
• av kostnader?				
• av effekter?				
Modellstudie				
Är modellen relevant för aktuell frågeställning?				
Är modellen transparent?				
Är vald tidshorisont rimlig jämfört med empiriska data?				
Markov: Är tidscyklerna tydligt beskrivna?				
Markov: Är tidscyklerna motiverade?				
Summera svaren för relevanta frågor under fråga 4				

Vägledning för bedömningen av studiens kvalitet

Förutsättning: Ja-svar på frågorna i Avsnitt 1–3,
samt andelen Ja-svar på de relevanta frågorna i Avsnitt 4:

Över 80%	Hög kvalitet
>60 till <80%	Medelhög kvalitet
>40 till <60%	Låg kvalitet
Under 40%	Otillräcklig kvalitet

Ev kommentarer till studien: .....

Kriterier, förtydliganden av några punkter på checklistan (under punkt 4):

Är resultaten generaliserbara?

Ja = Resultaten är rimligt överförbara med avseende på ”setting” dvs den miljö där studien genomförts (jfr generaliserbarhet för en studie utförd vid universitetsklinik och studiens generaliserbarhet för patienter i primärvården)

Diskuteras fördelningsfrågor?

Ja = Diskussion med avseende på nationella prioriteringar; diskussion med avseende på ålder, kön, geografisk hemvist, socioekonomiska aspekter osv

Visas negativa resultatutfall?

Ja = Negativa resultatutfall återfinns i text eller i figur, eller anges att negativa resultat ej förekommer (t ex inga biverkningar av läkemedel)

Finns adekvat konsekvensanalys?

Ja = Konsekvensanalys av studiens resultat helst från samhällsperspektiv, men åtminstone från sjukvårdsperspektiv

Förs resonemang om alternativkostnader?

Ja = Förekommer åtminstone i diskussionsavsnittet

Är spridningen för utfallsmått acceptabelt?

Ja = Smala konfidensintervall; låg variationskoefficient (standardavvikelse jfr med medelvärde)

Bilaga 5. Exkluderade studier

Exklusionskriterier: Ej diabetes/IGT; Fel studiedesign; Gruppstorlek för liten; Uppföljningstid för kort; Intervention ej relevant; Effektmått ej relevant; "Fel" språk.

American Diabetes Association Task Force for Writing Nutrition Principles and Recommendations for the Management of Diabetes and Related Complications. Nuposition. American Diabetes Association position statement: evidence-based nutrition principles and recommendations for the treatment and prevention of diabetes and related complications. J Am Diet Assoc 2002;102:109-18.

American Diabetes Association. Evidence-based nutrition principles and recommendations for the treatment and prevention of diabetes. Nutr Clin Care 2003;6:115-9.

Diabetes and Nutrition Study Group of the Spanish Diabetes Association (GSEDNu). Diabetes Nutrition and Complications Trial: adherence to the ADA nutritional recommendations, targets of metabolic control, and onset of diabetes complications. A 7-year, prospective, population-based, observational multicenter study. J Diabetes Complications 2006;20:361-6.

American Diabetes Association. Nutrition recommendations and interventions for diabetes: A position statement of the American Diabetes Association. Diabetes Care 2007;30: S48-S65.

Adams SM, Standridge JB. What should we eat? Evidence from observational studies. South Med J 2006; 99:744-8.

Adeney KL, Williams MA, Schiff MA, Qiu C, Sorensen TK. Coffee consumption and the risk of gestational diabetes mellitus. Acta Obstet Gynecol Scand 2007;86:161-6.

Agardh EE, Ahlbom A, Andersson T, Ostenson CG. The magnitude of bias in a cross-sectional study on lifestyle factors in relation to Type 2 diabetes. Scand J Public Health 2006;34:665-8.

Agardh EE, Carlsson S, Ahlbom A, Efendic S, Grill V, Hammar N, et al. Coffee consumption, type 2 diabetes and impaired glucose tolerance in Swedish men and women. J Intern Med 2004;255:645-52.

Agrawal RP, Beniwal R, Kochar DK, Tuteja FC, Ghorui SK, Sahani MS, et al. Camel milk as an adjunct to insulin therapy improves long-term glycemic control and reduction in doses of insulin in patients with type-1 diabetes A 1 year randomized controlled trial. Diabetes Res Clin Pract 2005;68:176-7.

Agrawal RP, Swami SC, Beniwal R, Kochar DK, Kothari RP. Effect of camel milk on glycemic control, risk factors and diabetes quality of life in type-1 diabetes: A randomised prospective controlled study. Int J Diabetes Dev Ctries 2002;22:70-4.

Agrawal RP, Swami SC, Beniwal R, Kochar DK, Sahani MS, Tuteja FC, et al. Effect of camel milk on glycemic control, risk factors and diabetes quality

of life in type-1 diabetes: a randomised prospective controlled study. Journal of Camel Practice and Research 2003;10:45.

Agurs-Collins TD, Kumanyika SK, Ten Have TR, Adams-Campbell LL. A randomized controlled trial of weight reduction and exercise for diabetes management in older African-American subjects. Diabetes Care 1997;20:1503-11.

Ajani UA, Hennekens CH, Spelsberg A, Manson JE. Alcohol consumption and risk of type 2 diabetes mellitus among US male physicians. Arch Intern Med 2000;160:1025-30.

Alekseeva RI, Sharafetdinov K, Plotnikova OA, Meshcheriakova VA, Mal'tsev G, Kulakova SN. [Effects of diet therapy including eiconol on clinical and metabolic parameters in patients with type 2 diabetes mellitus]. Vopr Pitan 2000;69:36-9.

Allen P, Thompson JL, Herman CJ, Whyte AN, Wolfe VK, Qualls C, et al. Impact of periodic follow-up testing among urban American Indian women with impaired fasting glucose. Prev Chronic Dis 2008;5:A76.

Al-Maatouq MA, El-Desouki MI, Othman SA, Mattar EH, Babay ZA, Addar M. Prevalence of osteoporosis among postmenopausal females with diabetes mellitus. Saudi Med J 2004; 25:1423-7.

Alvarez Leon EE, Henriquez P, Serra-Majem L. Mediterranean diet and metabolic syndrome: a cross-sectional study in the Canary Islands. Public Health Nutr 2006;9:1089-98.

Amano Y, Sugiyama M, Lee JS, Kawakubo K, Mori K, Tang AC, et al. Glycemic index-based nutritional education improves blood glucose control in Japanese adults: a randomized controlled trial. Diabetes Care 2007; 30:1874-6.

Anderson JW, Randles KM, Kendall CW, Jenkins DJ. Carbohydrate and fiber recommendations for individuals with diabetes: a quantitative assessment and meta-analysis of the evidence. J Am Coll Nutr 2004;23:5-17.

Anderson JW, Ward K. Long-term effects of high-carbohydrate, high-fiber diets on glucose and lipid metabolism: a preliminary report on patients with diabetes. Diabetes Care 1978;1:77-82.

Anderssen SA, Carroll S, Urdal P, Holme I. Combined diet and exercise intervention reverses the metabolic syndrome in middle-aged males: results from the Oslo Diet and Exercise Study. Scand J Med Sci Sports 2007;17:687-95.

Andersson J, Boman K, Jansson JH, Nilsson TK, Lindahl B. Effect of intensive lifestyle intervention on C-reactive protein in subjects with impaired glucose tolerance and obesity. Results from a randomized controlled trial with 5-year follow-up. Biomarkers 2008;13:671-9.

Appel LJ, Sacks FM, Carey VJ, Obarzanek E, Swain JF, Miller ER, 3rd, et al. Effects of protein, monounsaturated fat, and carbohydrate intake on blood pressure and serum lipids: results of the OmniHeart randomized trial. JAMA 2005;294: 2455-64.

Archer SL, Greenlund KJ, Valdez R, Casper ML, Rith-Najarian S, Croft JB. Differences in food habits and cardiovascular disease risk factors among Native Americans with and without diabetes: the Inter-Tribal Heart Project. Public Health Nutr 2004;7:1025-32.

Arora SK, McFarlane SI. The case for low carbohydrate diets in diabetes management. Nutr Metab (Lond) 2005;2:16.

Ash S, Reeves MM, Yeo S, Morrison G, Carey D, Capra S. Effect of intensive dietetic interventions on weight and glycaemic control in overweight men with Type II diabetes: A randomised trial. Int J Obes 2003;27:797-802.

Assy N, Nasser G, Kamayse I, Nseir W, Beniashvili Z, Djibre A, et al. Soft drink consumption linked with fatty liver in the absence of traditional risk factors. Can J Gastroenterol 2008;22:811-6.

Aucott LS. Influences of weight loss on long-term diabetes outcomes. Proc Nutr Soc 2008;67:54-9.

Aude YW, Agatston AS, Lopez-Jimenez F, Lieberman EH, Almon M, Hansen M, et al. The national cholesterol education program diet vs a diet lower in carbohydrates and higher in protein and monounsaturated fat: A randomized trial. Arch Int Med 2004;164:2141-6.

Azadbakht L, Mirmiran P, Esmaillzadeh A, Azizi T, Azizi F. Beneficial effects of a dietary approaches to stop hypertension eating plan on features of the metabolic syndrome. Diabetes Care 2005;28: 2823-31.

Baik I, Shin C. Prospective study of alcohol consumption and metabolic syndrome. Am J Clin Nutr 2008;87: 1455-63.

Barclay AW, Flood VM, Rochtchina E, Mitchell P, Brand-Miller JC. Glycemic index, dietary fiber, and risk of type 2 diabetes in a cohort of older Australians. Diabetes Care 2007;30:2811-3.

Barclay AW, Petocz P, McMillan-Price J, Flood VM, Prvan T, Mitchell P, et al. Glycemic index, glycemic load, and chronic disease risk--a meta-analysis of observational studies. Am J Clin Nutr 2008;87:627-37.

Barger MK, Bidgood-Wilson M. Caring for a woman at high risk for type 2 diabetes. J Midwifery Women's Health 2006; 51:222-6.

Barnard ND, Cohen J, Jenkins DJ, Turner-McGrievy G, Gloede L, Jaster B, et al. A low-fat vegan diet improves glycemic control and cardiovascular risk factors in a randomized clinical trial in individuals with type 2 diabetes. Diabetes Care 2006;29:1777-83.

Barnard ND, Gloede L, Cohen J, Jenkins DJ, Turner-McGrievy G, Green AA, et al. A low-fat vegan diet elicits greater macronutrient changes, but is comparable in adherence and acceptability, compared with a more conventional diabetes diet among individuals with type 2 diabetes. J Am Diet Assoc 2009;109:263-72.

Barnard ND, Noble EP, Ritchie T, Cohen J, Jenkins DJ, Turner-McGrievy G, et al. D2 dopamine receptor Taq1A polymorphism, body weight, and dietary

intake in type 2 diabetes. Nutrition 2009;25:58-65.

Barnard RJ, Lattimore L, Holly RG, Cherny S, Pritikin N. Response of non-insulin-dependent diabetic patients to an intensive program of diet and exercise. Diabetes Care 1982;5:370-4.

Barnard RJ, Massey MR, Cherny S, O'Brien LT, Pritikin N. Long-term use of a high-complex-carbohydrate, high-fiber, low-fat diet and exercise in the treatment of NIDDM patients. Diabetes Care 1983;6:268-73.

Barratt R, Frost G, Millward DJ, Truby H. A randomised controlled trial investigating the effect of an intensive lifestyle intervention v. standard care in adults with type 2 diabetes immediately after initiating insulin therapy. Br J Nutr 2008;99:1025-31.

Barrera M, Strycker LA, Mackinnon DP, Toobert DJ. Social-ecological resources as mediators of two-year diet and physical activity outcomes in type 2 diabetes patients. Health Psychol 2008;27:S118-25.

Barrera M, Jr., Toobert DJ, Angell KL, Glasgow RE, Mackinnon DP. Social support and social-ecological resources as mediators of lifestyle intervention effects for type 2 diabetes. J Health Psychol 2006;11:483-95.

Bazzano LA, Li TY, Joshipura KJ, Hu FB. Intake of fruit, vegetables, and fruit juices and risk of diabetes in women. Diabetes Care 2008;31: 1311-7.

Bazzano LA, Serdula M, Liu S. Prevention of type 2 diabetes by diet and lifestyle modification. J Am Coll Nutr 2005;24:310-9.

Beattie VA, Edwards CA, Hosker JP, Cullen DR, Ward JD, Read NW. Does adding fibre to a low energy, high carbohydrate, low fat diet confer any benefit to the management of newly diagnosed overweight type II diabetics? Br Med J (Clin Res Ed) 1988;296:1147-9.

Becker W, Lyhne N, Pedersen AN, Aro A, Fogelholm M, Phorsdottir I, Alexander J, et al. Nordic Nutrition Recommendations 2004 – integrating nutrion and physical acitvity. Scand J Nutr 2004;48:178-87.

Ben-Avraham S, Harman-Boehm I, Schwarzfuchs D, Shai I. Dietary strategies for patients with type 2 diabetes in the era of multi-approaches; review and results from the Dietary Intervention Randomized Controlled Trial (DIRECT). Diabetes Res Clin Pract 2009;86 Suppl 1:S41-8.

Berg CM, Lappas G, Strandhagen E, Wolk A, Toren K, Rosengren A, et al. Food patterns and cardiovascular disease risk factors: the Swedish INTERGENE research program. Am J Clin Nutr 2008; 88:289-97.

Beulens JW, de Bruijne LM, Stolk RP, Peeters PH, Bots ML, Grobbee DE, et al. High dietary glycemic load and glycemic index increase risk of cardiovascular disease among middle-aged women: a population-based follow-up study. J Am Coll Cardiol 2007;50:14-21.

Beulens JW, Stolk RP, van der Schouw YT, Grobbee DE, Hendriks HF, Bots ML. Alcohol consumption and risk of type 2 diabetes among older women. Diabetes Care 2005;28:2933-8.

Beydoun MA, Gary TL, Caballero BH, Lawrence RS, Cheskin LJ, Wang Y. Ethnic differences in dairy and related nutrient

consumption among US adults and their association with obesity, central obesity, and the metabolic syndrome. Am J Clin Nutr 2008;87:1914-25.

Blundell JE, Stubbs RJ, Golding C, Croden F, Alam R, Whybrow S, et al. Resistance and susceptibility to weight gain: individual variability in response to a high-fat diet. Physiol Behav 2005; 86:614-22.

Bo S, Ciccone G, Guidi S, Gambino R, Durazzo M, Gentile L, et al. Diet or exercise: what is more effective in preventing or reducing metabolic alterations? Eur J Endocrinol 2008;159:685-91.

Boden G, Sargrad K, Homko C, Mozzoli M, Stein TP. Effect of a low-carbohydrate diet on appetite, blood glucose levels, and insulin resistance in obese patients with type 2 diabetes. Ann Intern Med 2005;142:403-11.

Boehm S, Schlenk EA, Funnell MM, Powers H, Ronis DL. Predictors of adherence to nutrition recommendations in people with non-insulin-dependent diabetes mellitus. Diabetes Educ 1997; 23:157-65.

Bolling BW, Chen CY, Blumberg JB. Tea and health: preventive and therapeutic usefulness in the elderly? Curr Opin Clin Nutr Metab Care 2009; 12:42-8.

Bongard V, Ruidavets JB, Dallongeville J, Simon C, Amouyel P, Arveiler D, et al. Nutritional intakes of 1072 French free-living men with and without diagnosed cardiovascular risk factors. Eur J Clin Nutr 2004;58:787-95.

Bonow RO, Eckel RH. Diet, obesity, and cardiovascular risk. N Engl J Med 2003;348:2057-8.

Bos G, Poortvliet MC, Scheffer PG, Dekker JM, Ocke MC, Nijpels G, et al. Dietary polyunsaturated fat intake is associated with low-density lipoprotein size, but not with susceptibility to oxidation in subjects with impaired glucose metabolism and type II diabetes: the Hoorn study. Eur J Clin Nutr 2007; 61:205-11.

Bouhanick B, Suraniti S, Berrut G, Bled F, Simard G, Lejeune JJ, et al. Relationship between fat intake and glomerular filtration rate in normotensive insulin-dependent diabetic patients. Diabete Metab 1995;21:168-72.

Bourdel-Marchasson I, Dubroca B, Letenneur L, Fourrier A, Richard-Harston S, Decamps A, et al. Incidence and predictors of drug-treated diabetes in elderly French subjects. The PAQUID Epidemiological Survey. Diabet Med 2000;17:675-81.

Bourn DM. The potential for lifestyle change to influence the progression of impaired glucose tolerance to non-insulin-dependent diabetes mellitus. Diabet Med 1996;13:938-45.

Brand JC, Colagiuri S, Crossman S, Allen A, Roberts DC, Truswell AS. Low-glycemic index foods improve long-term glycemic control in NIDDM. Diabetes Care 1991;14:95-101.

Brand-Miller J, Hayne S, Petocz P, Colagiuri S. Low-glycemic index diets in the management of diabetes: a meta-

analysis of randomized controlled trials. Diabetes Care 2003;26:2261-7.

Brand-Miller JC, Holt SH, Pawlak DB, McMillan J. Glycemic index and obesity. Am J Clin Nutr 2002;76:281S-5S.

Bravata DM, Sanders L, Huang J, Krumholz HM, Olkin I, Gardner CD. Efficacy and safety of low-carbohydrate diets: a systematic review. JAMA 2003; 289:1837-50.

Bray GA. Is there something special about low-carbohydrate diets? Ann Intern Med 2005;142:469-70.

Brehm BJ, D'Alessio DA. Weight loss and metabolic benefits with diets of varying fat and carbohydrate content: separating the wheat from the chaff. Nat Clin Pract Endocrinol Metab 2008;4:140-6.

Brehm BJ, Seeley RJ, Daniels SR, D'Alessio DA. A randomized trial comparing a very low carbohydrate diet and a calorie-restricted low fat diet on body weight and cardiovascular risk factors in healthy women. J Clin Endocrinol Metab 2003;88:1617-23.

Brehm BJ, Spang SE, Lattin BL, Seeley RJ, Daniels SR, D'Alessio DA. The role of energy expenditure in the differential weight loss in obese women on low-fat and low-carbohydrate diets. J Clin Endocrinol Metab 2005;90: 1475-82.

Brekke HK, Jansson PA, Lenner RA. Long-term (1- and 2-year) effects of lifestyle intervention in type 2 diabetes relatives. Diabetes Res Clin Pract 2005;70:225-34.

Brinkworth GD, Noakes M, Keogh JB, Luscombe ND, Wittert GA, Clifton PM. Long-term effects of a high-protein, low-carbohydrate diet on weight control and cardiovascular risk markers in obese hyperinsulinemic subjects. Int J Obes Relat Metab Disord 2004;28:661-70.

Brinkworth GD, Noakes M, Parker B, Foster P, Clifton PM. Long-term effects of advice to consume a high-protein, low-fat diet, rather than a conventional weight-loss diet, in obese adults with Type 2 diabetes: One-year follow-up of a randomised trial. Diabetologia 2004;47:1677-186.

Brown JS, Wing R, Barrett-Connor E, Nyberg LM, Kusek JW, Orchard TJ, et al. Lifestyle intervention is associated with lower prevalence of urinary incontinence: The diabetes prevention program. Diabetes Care 2006;29:385-90.

Brug J, Spikmans F, Aartsen C, Breedveld B, Bes R, Fereira I. Training dietitians in basic motivational interviewing skills results in changes in their counseling style and in lower saturated fat intakes in their patients. J Nutr Educ Behav 2007;39:8-12.

Brunner EJ, Mosdol A, Witte DR, Martikainen P, Stafford M, Shipley MJ, et al. Dietary patterns and 15-y risks of major coronary events, diabetes, and mortality. Am J Clin Nutr 2008;87: 1414-21.

Brunner EJ, Wunsch H, Marmot MG. What is an optimal diet? Relationship of macronutrient intake to obesity, glucose tolerance, lipoprotein cholesterol levels and the metabolic syndrome in the Whitehall II study. Int J Obes Relat Metab Disord 2001;25:45-53.

Burchfiel CM, Curb JD, Rodriguez BL, Yano K, Hwang LJ, Fong KO, et al. Incidence and predictors of diabetes in Japanese-American men. The Honolulu Heart Program. Ann Epidemiol 1995;5: 33-43.

Burge MR, Zeise TM, Sobhy TA, Rassam AG, Schade DS. Low-dose ethanol predisposes elderly fasted patients with type 2 diabetes to sulfonylurea-induced low blood glucose. Diabetes Care 1999;22:2037-43.

Burke V, Zhao Y, Lee AH, Hunter E, Spargo RM, Gracey M, et al. Predictors of type 2 diabetes and diabetes-related hospitalisation in an Australian Aboriginal cohort. Diabetes Res Clin Pract 2007;78:360-8.

Burnet DL, Elliott LD, Quinn MT, Plaut AJ, Schwartz MA, Chin MH. Preventing diabetes in the clinical setting. J Gen Intern Med 2006;21: 84-93.

Buyken AE, Toeller M, Heitkamp G, Irsigler K, Holler C, Santeusanio F, et al. Carbohydrate sources and glycaemic control in type 1 diabetes mellitus. Diabet Med 2000;17:351-9.

Buyken AE, Toeller M, Heitkamp G, Karamanos B, Rottiers R, Muggeo M, et al. Glycemic index in the diet of European outpatients with type 1 diabetes: relations to glycated hemoglobin and serum lipids. Am J Clin Nutr 2001;73: 574-81.

Buyken AE, Toeller M, Heitkamp G, Vitelli F, Stehle P, Scherbaum WA, et al. Relation of fibre intake to HbA1c and the prevalence of severe ketoacidosis and severe hypoglycaemia. EURODIAB IDDM Complications Study Group. Diabetologia 1998;41:882-90.

Cai H, Shu XO, Gao YT, Li H, Yang G, Zheng W. A prospective study of dietary patterns and mortality in Chinese women. Epidemiology 2007;18:393-401.

Campbell LV, Barth R, Gosper JK, Jupp JJ, Simons LA, Chisholm DJ. Impact of intensive educational approach to dietary change in NIDDM. Diabetes Care 1990;13:841-7.

Campos H, Baylin A. Coffee consumption and risk of type 2 diabetes and heart disease. Nutr Rev 2007;65:173-9.

Cao Y, Mauger DT, Pelkman CL, Zhao G, Townsend SM, Kris-Etherton PM. Effects of moderate (MF) versus lower fat (LF) diets on lipids and lipoproteins: a meta-analysis of clinical trials in subjects with and without diabetes. J Clin Lipid 2009;3:19-32.

Cardenas C, Bordiu E, Bagazgoitia J, Calle-Pascual AL. Polyunsaturated fatty acid consumption may play a role in the onset and regression of microalbuminuria in well-controlled type 1 and type 2 diabetic people: a 7-year, prospective, population-based, observational multicenter study. Diabetes Care 2004;27:1454-7.

Carlin NO. Kolhydratfattig kost bör provas när den traditionella inte hjälper. Läkartidningen 2005;102:3923-4.

Carlsson S, Hammar N, Grill V, Kaprio J. Coffee consumption and risk of type 2 diabetes in Finnish twins. Int J Epidemiol 2004;33:616-7.

Carnethon MR, Loria CM, Hill JO, Sidney S, Savage PJ, Liu K. Risk factors for the metabolic syndrome: the Coronary

Artery Risk Development in Young Adults (CARDIA) study, 1985-2001. Diabetes Care 2004;27:2707-15.

Casper RC. Nutrients, neurodevelopment, and mood. Curr Psychiatry Rep 2004;6:425-9.

Cassady BA, Charboneau NL, Brys EE, Crouse KA, Beitz DC, Wilson T. Effects of low carbohydrate diets high in red meats or poultry, fish and shellfish on plasma lipids and weight loss. Nutr Metab (Lond) 2007;4:23.

Celik F, Celik M, Akpolat V. Nutritional risk factors for the development of hypertension in diabetic patients. J Diabetes Complications 2009;23:304-9.

Chambers BK, Camire ME. Can cranberry supplementation benefit adults with type 2 diabetes? Diabetes Care 2003;26:2695-6.

Chantelau E, Schmolke B, Gosseringer G, Hansen I, Berger M. [Liberalized diabetic diet for type I diabetics under intensive insulin injection therapy. Follow-up observations for over 2 years]. Dtsch Med Wochenschr 1985;110:1119-24.

Chen YD, Coulston AM, Zhou MY, Hollenbeck CB, Reaven GM. Why do low-fat high-carbohydrate diets accentuate postprandial lipemia in patients with NIDDM? Diabetes Care 1995;18:10-6.

Cheskin LJ, Mitchell AM, Jhaveri AD, Mitola AH, Davis LM, Lewis RA, et al. Efficacy of meal replacements versus a standard food-based diet for weight loss in type 2 diabetes: a controlled clinical trial. Diabetes Educ 2008;34: 118-27.

Chiu CJ, Milton RC, Gensler G, Taylor A. Association between dietary glycemic index and age-related macular degeneration in nondiabetic participants in the Age-Related Eye Disease Study. Am J Clin Nutr 2007; 86:180-8.

Choi HK, Willett WC, Stampfer MJ, Rimm E, Hu FB. Dairy consumption and risk of type 2 diabetes mellitus in men: a prospective study. Arch Intern Med 2005;165:997-1003.

Ciccarone E, Di Castelnuovo A, Salcuni M, Siani A, Giacco A, Donati MB, et al. A high-score Mediterranean dietary pattern is associated with a reduced risk of peripheral arterial disease in Italian patients with Type 2 diabetes. J Thromb Haemost 2003;1:1744-52.

Colditz GA, Manson JE, Stampfer MJ, Rosner B, Willett WC, Speizer FE. Diet and risk of clinical diabetes in women. Am J Clin Nutr 1992;55:1018-23.

Collins RW, Anderson JW. Medication cost savings associated with weight loss for obese non-insulin-dependent diabetic men and women. Prev Med 1995;24:369-74.

Comi D, Brugnani M, Gianino A. Metabolic effects of hypocaloric high-carbohydrate/high-fibre diet in non-insulin dependent diabetic patients. Eur J Clin Nutr 1995;49 Suppl 3:S242-4.

Conigrave KM, Hu BF, Camargo CA, Jr, Stampfer MJ, Willett WC, Rimm EB. A prospective study of drinking patterns in relation to risk of type 2 diabetes among men. Diabetes 2001;50:2390-5.

Conigrave KM, Rimm EB. Alcohol for the prevention of type 2 diabetes mellitus? Treat Endocrinol 2003;2:145-52.

Cornier MA. Obesity and diabetes. Curr Opin Endocrinol Diabetes 2005; 12:260-6.

Cornier MA, Donahoo WT, Pereira R, Gurevich I, Westergren R, Enerback S, et al. Insulin sensitivity determines the effectiveness of dietary macronutrient composition on weight loss in obese women. Obes Res 2005;13:703-9.

Corpeleijn E, Feskens EJ, Jansen EH, Mensink M, Saris WH, Blaak EE. Lifestyle intervention and adipokine levels in subjects at high risk for type 2 diabetes: the Study on Lifestyle intervention and Impaired glucose tolerance Maastricht (SLIM). Diabetes Care 2007;30:3125-7.

Corpeleijn E, Feskens EJ, Jansen EH, Mensink M, Saris WH, de Bruin TW, Blaak EE. Improvements in glucose tolerance and insulin sensitivity after lifestyle intervention are related to changes in serum fatty acid profile and desaturase activities: The SLIM study. Diabetologia 2006;49:2392-2401.

Costacou T. Evaluation of epidemiologic evidence on the role of nutrition in the development of diabetes and its complications. Curr Diab Rep 2005;5:366-73.

Costacou T, Mayer-Davis EJ. Nutrition and prevention of type 2 diabetes. Annu Rev Nutr 2003;23:147-70.

Crowe TC. Safety of low-carbohydrate diets. Obes Rev 2005;6:235-45.

Cundiff DK, Lanou AJ, Nigg CR. Relation of omega-3 Fatty Acid intake to other dietary factors known to reduce coronary heart disease risk. Am J Cardiol 2007;99:1230-3.

Dahlquist GG, Blom LG, Persson LA, Sandstrom AI, Wall SG. Dietary factors and the risk of developing insulin dependent diabetes in childhood. BMJ 1990;300:1302-6.

Daly ME, Paisey R, Millward BA, Eccles C, Williams K, Hammersley S, et al. Short-term effects of severe dietary carbohydrate-restriction advice in Type 2 diabetes – a randomized controlled trial. Diabet Med 2006;23:15-20.

Dalziel K, Segal L. Time to give nutrition interventions a higher profile: cost-effectiveness of 10 nutrition interventions. Health Promot Int 2007;22:271-83.

Dansinger ML, Gleason JA, Griffith JL, Selker HP, Schaefer EJ. Comparison of the Atkins, Ornish, Weight Watchers, and Zone diets for weight loss and heart disease risk reduction: a randomized trial. JAMA 2005;293:43-53.

Dansinger ML, Schaefer EJ. Low-carbohydrate or low-fat diets for the metabolic syndrome? Curr Diab Rep 2006;6:55-63.

Dansinger ML, Tatsioni A, Wong JB, Chung M, Balk EM. Meta-analysis: the effect of dietary counseling for weight loss. Ann Intern Med 2007;147:41-50.

Daubenmier JJ, Weidner G, Sumner MD, Mendell N, Merritt-Worden T, Studley J, et al. The contribution of changes in diet, exercise, and stress management to changes in coronary risk in women and men in the multisite cardiac lifestyle intervention program. Ann Behav Med 2007;33:57-68.

Davidson JK, Delcher HK, Englund A. Spin-off cost/benefits of expanded nutritional care. J Am Diet Assoc 1979; 75:250-7.

Davy BM, Melby CL. The effect of fiber-rich carbohydrates on features of Syndrome X. J Am Diet Assoc 2003;103: 86-96.

de Bont AJ, Baker IA, St Leger AS, Sweetnam PM, Wragg KG, Stephens SM, et al. A randomised controlled trial of the effect of low fat diet advice on dietary response in insulin independent diabetic women. Diabetologia 1981;21: 529-33.

de Koning L, Anand SS. Vascular viewpoint. Vasc Med 2004;9:145-6.

de Luis Roman DA, Aller R, Perez Castrillon JL, De Luis J, Gonzalez Sagrado M, Izaola O, et al. Effects of dietary intake and life style on bone density in patients with diabetes mellitus type 2. Ann Nutr Metab 2004;48:141-5.

de Munter JS, Hu FB, Spiegelman D, Franz M, van Dam RM. Whole grain, bran, and germ intake and risk of type 2 diabetes: a prospective cohort study and systematic review. PLoS Med 2007;4:e261.

De Natale C, Annuzzi G, Bozzetto L, Mazzarella R, Costabile G, Ciano O, et al. Effects of a plant-based high-carbohydrate/high-fiber diet versus high-monounsaturated fat/low-carbohydrate diet on postprandial lipids in type 2 diabetic patients. Diabetes Care 2009;32:2168-73.

de Rougemont A, Normand S, Nazare JA, Skilton MR, Sothier M, Vinoy S, et al. Beneficial effects of a 5-week low-glycaemic index regimen on weight control and cardiovascular risk factors in overweight non-diabetic subjects. Br J Nutr 2007;98:1288-98.

de Weerdt I, Visser AP, Kok GJ, de Weerdt O, van der Veen EA. Randomized controlled multicentre evaluation of an education programme for insulin-treated diabetic patients: effects on metabolic control, quality of life, and costs of therapy. Diabet Med 1991;8:338-45.

Delahanty LM, Nathan DM. Implications of the diabetes prevention program and Look AHEAD clinical trials for lifestyle interventions. J Am Diet Assoc 2008;108:S66-72.

Delvarianzadeh M, Bagheri H, Sadeghian F. Effectiveness of diabetes dietary counseling on quality of life in type 2 diabetic patients. Iranian Journal of Diabetes and Lipid Disorders 2006;5:89-96.

Devore EE, Stampfer MJ, Breteler MM, Rosner B, Hee Kang J, Okereke O, et al. Dietary fat intake and cognitive decline in women with type 2 diabetes. Diabetes Care 2009;32:635-40.

Dhingra R, Sullivan L, Jacques PF, Wang TJ, Fox CS, Meigs JB, et al. Soft drink consumption and risk of developing cardiometabolic risk factors and the metabolic syndrome in middle-aged adults in the community. Circulation 2007;116:480-8.

Dijkstra SC, Brouwer IA, van Rooij FJ, Hofman A, Witteman JC, Geleijnse JM. Intake of very long chain n-3 fatty acids from fish and the incidence of heart failure: the Rotterdam Study. Eur J Heart Fail 2009;11:922-8.

Djousse L, Biggs ML, Mukamal KJ, Siscovick DS. Alcohol consumption

and type 2 diabetes among older adults: the Cardiovascular Health Study. Obesity (Silver Spring) 2007;15:1758-65.

Djousse L, Gaziano JM. Egg consumption in relation to cardiovascular disease and mortality: the Physicians' Health Study. Am J Clin Nutr 2008;87:964-9.

Dodson PM, Pacy PJ, Bal P, Kubicki AJ, Fletcher RF, Taylor KG. A controlled trial of a high fibre, low fat and low sodium diet for mild hypertension in Type 2 (non-insulin-dependent) diabetic patients. Diabetologia 1984;27:522-6.

Dodson PM, Pacy PJ, Beevers M, Bal P, Fletcher RF, Taylor KG. The effects of a high fibre, low fat and low sodium dietary regime on diabetic hypertensive patients of different ethnic groups. Postgrad Med J 1983;59:641-4.

Du H, van der AD, van Bakel MM, van der Kallen CJ, Blaak EE, van Greevenbroek MM, et al. Glycemic index and glycemic load in relation to food and nutrient intake and metabolic risk factors in a Dutch population. Am J Clin Nutr 2008;87:655-61.

Due A, Larsen TM, Hermansen K, Stender S, Holst JJ, Toubro S, et al. Comparison of the effects on insulin resistance and glucose tolerance of 6-mo high-monounsaturated-fat, low-fat, and control diets. Am J Clin Nutr 2008;87:855-62.

Dullaart RP, Beusekamp BJ, Meijer S, Hoogenberg K, van Doormaal JJ, Sluiter WJ. Long-term effects of linoleic-acid-enriched diet on albuminuria and lipid levels in type 1 (insulin-dependent) diabetic patients with elevated urinary albumin excretion. Diabetologia 1992; 35:165-72.

Dyson PA. A review of low and reduced carbohydrate diets and weight loss in type 2 diabetes. J Hum Nutr Diet 2008; 21:530-8.

Dyson PA, Beatty S, Matthews DR. A low-carbohydrate diet is more effective in reducing body weight than healthy eating in both diabetic and non-diabetic subjects. Diabet Med 2007;24:1430-5.

Dyson PA, Hammersley MS, Morris RJ, Holman RR, Turner RC. The fasting hyperglycaemia study: II. Randomized controlled trial of reinforced healthy-living advice in subjects with increased but not diabetic fasting plasma glucose. Metab Clin Exp 1997;46:50-5.

Eakin E, Reeves M, Lawler S, Graves N, Oldenburg B, Del Mar C, et al. Telephone counseling for physical activity and diet in primary care patients. Am J Prev Med 2009;36:142-9.

Eakin EG, Bull SS, Riley KM, Reeves MM, McLaughlin P, Gutierrez S. Resources for Health: A primary-care-based diet and physical activity intervention targeting urban latinos with multiple chronic conditions. Health Psychol 2007;26:392-400.

Ebbeling CB, Leidig MM, Feldman HA, Lovesky MM, Ludwig DS. Effects of a low-glycemic load vs low-fat diet in obese young adults: a randomized trial. JAMA 2007;297:2092-102.

Ebbesson SO, Risica PM, Ebbesson LO, Kennish JM, Tejero ME. Omega-3 fatty acids improve glucose tolerance and components of the metabolic syndrome in Alaskan Eskimos: the Alaska Siberia project. Int J Circumpolar Health 2005; 64:396-408.

Ebbesson SO, Tejero ME, Nobmann ED, Lopez-Alvarenga JC, Ebbesson L, Romenesko T, et al. Fatty acid consumption and metabolic syndrome components: the GOCADAN study. J Cardiometab Syndr 2007;2:244-9.

Eddy DM, Schlessinger L, Kahn R. Clinical outcomes and cost-effectiveness of strategies for managing people at high risk for diabetes. Ann Intern Med 2005;143:251-64.

Eilat-Adar S, Xu J, Goldbourt U, Zephier E, Howard BV, Resnick HE. Sex may modify the effects of macronutrient intake on metabolic syndrome and insulin resistance in American Indians: the strong heart study. J Am Diet Assoc 2008;108:794-802.

Elhayany A, Lustman A, Abel R, Attal-Singer J, Vinker S. A low carbohydrate Mediterranean diet improves cardiovascular risk factors and diabetes control among overweight patients with type 2 diabetes mellitus: a 1-year prospective randomized intervention study. Diabetes Obes Metab 2010;12:204-9.

Elias MF, Elias PK, Sullivan LM, Wolf PA, D'Agostino RB. Obesity, diabetes and cognitive deficit: The Framingham Heart Study. Neurobiol Aging 2005;26 Suppl 1:11-6.

Elixhauser A, Weschler JM, Kitzmiller JL, Marks JS, Bennert HW, Jr., Coustan DR, et al. Cost-benefit analysis of preconception care for women with established diabetes mellitus. Diabetes Care 1993;16:1146-57.

Ello-Martin JA, Ledikwe JH, Rolls BJ. The influence of food portion size and energy density on energy intake: implications for weight management. Am J Clin Nutr 2005;82:236S-241S.

Ello-Martin JA, Roe LS, Ledikwe JH, Beach AM, Rolls BJ. Dietary energy density in the treatment of obesity: a year-long trial comparing 2 weight-loss diets. Am J Clin Nutr 2007;85:1465-77.

Elwood PC, Givens DI, Beswick AD, Fehily AM, Pickering JE, Gallacher J. The survival advantage of milk and dairy consumption: an overview of evidence from cohort studies of vascular diseases, diabetes and cancer. J Am Coll Nutr 2008;27:723S-34S.

Elwood PC, Pickering JE, Fehily AM. Milk and dairy consumption, diabetes and the metabolic syndrome: the Caerphilly prospective study. J Epidemiol Community Health 2007;61:695-8.

Eriksson J, Lindstrom J, Valle T, Aunola S, Hamalainen H, Ilanne-Parikka P, et al. Prevention of Type II diabetes in subjects with impaired glucose tolerance: The Diabetes Prevention Study (DPS) in Finland. Study design and 1-year interim report on the feasibility of the lifestyle intervention programme. Diabetologia 1999;42:793-801.

Eriksson KF, Lindgarde F. No excess 12-year mortality in men with impaired glucose tolerance who participated in the Malmo Preventive Trial with diet and exercise. Diabetologia 1998;41: 1010-6.

Eriksson MK, Franks PW, Eliasson M. A 3-year randomized trial of lifestyle intervention for cardiovascular risk reduction in the primary care setting: The Swedish Björknäs study. PLoS One 2009;4:e5195.

Erkkila AT, Lichtenstein AH, Mozaffarian D, Herrington DM. Fish intake is associated with a reduced progression of coronary artery atherosclerosis in postmenopausal women with coronary artery disease. Am J Clin Nutr 2004;80:626-32.

Esposito K, Ciotola M, Giugliano D. Mediterranean diet and the metabolic syndrome. Mol Nutr Food Res 2007; 51:1268-74.

Esposito K, Ciotola M, Maiorino MI, Giugliano D. Lifestyle approach for type 2 diabetes and metabolic syndrome. Curr Atheroscler Rep 2008;10:523-8.

Esposito K, Marfella R, Ciotola M, Di Palo C, Giugliano F, Giugliano G, et al. Effect of a mediterranean-style diet on endothelial dysfunction and markers of vascular inflammation in the metabolic syndrome: a randomized trial. JAMA 2004;292:1440-6.

Everson SA, Maty SC, Lynch JW, Kaplan GA. Epidemiologic evidence for the relation between socioeconomic status and depression, obesity, and diabetes. J Psychosom Res 2002;53:891-5.

Facchini FS, Saylor KL. A low-iron-available, polyphenol-enriched, carbohydrate-restricted diet to slow progression of diabetic nephropathy. Diabetes 2003;52: 1204-9.

Faerch K, Lau C, Tetens I, Pedersen OB, Jorgensen T, Borch-Johnsen K, et al. A statistical approach based on substitution of macronutrients provides additional information to models analyzing single dietary factors in relation to type 2 diabetes in danish adults: the Inter99 study. J Nutr 2005;135:1177-82.

Fagerberg B, Wikstrand J, Berglund G, Samuelsson O, Agewall S, Andersson OK, et al. Mortality rates in treated hypertensive men with additional risk factors are high but can be reduced. A randomized intervention study. Am J Hypertens 1998;11: 14-22.

Fagot-Campagna A, Narayan KM, Hanson RL, Imperatore G, Howard BV, Nelson RG, et al. Plasma lipoproteins and incidence of non-insulin-dependent diabetes mellitus in Pima Indians: protective effect of HDL cholesterol in women. Atherosclerosis 1997;128:113-9.

Farinaro E, Stamler J, Upton M, Mojonnier L, Hall Y, Moss D, et al. Plasma glucose levels: long-term effect of diet in the Chicago Coronary Prevention Evaluation Program. Ann Intern Med 1977;86:147-54.

Feinglos MN, Totten SE. Are you what you eat, or how much you eat? The case of type 2 diabetes mellitus. Arch Intern Med 2008;168:1485-6.

Feinman RD, Vernon MC, Westman EC. Low carbohydrate diets in family practice: what can we learn from an internet-based support group. Nutr J 2006;5:26.

Feinman RD, Volek JS. Low carbohydrate diets improve atherogenic dyslipidemia even in the absence of weight loss. Nutr Metab (Lond) 2006;3:24.

Feinman RD, Volek JS. Carbohydrate restriction as the default treatment for type 2 diabetes and metabolic syndrome. Scand Cardiovasc J 2008;42:256-63.

Ferreira I, Twisk JW, van Mechelen W, Kemper HC, Stehouwer CD. Development of fatness, fitness, and lifestyle

from adolescence to the age of 36 years: determinants of the metabolic syndrome in young adults: the amsterdam growth and health longitudinal study. Arch Intern Med 2005;165:42-8.

Ferro-Luzzi A, James WP, Kafatos A. The high-fat Greek diet: a recipe for all? Eur J Clin Nutr 2002;56:796-809.

Feskens EJ, Bowles CH, Kromhout D. Carbohydrate intake and body mass index in relation to the risk of glucose intolerance in an elderly population. Am J Clin Nutr 1991;54:136-40.

Feskens EJ, Kromhout D. Cardiovascular risk factors and the 25-year incidence of diabetes mellitus in middle-aged men. The Zutphen Study. Am J Epidemiol 1989;130:1101-8.

Feskens EJM, Virtanen SM, Rasanen L, Tuomilehto J, Stengard J, Pekkanen J, et al. Dietary factors determining diabetes and impaired glucose tolerance: A 20-year follow-up of the Finnish and Dutch cohorts of the Seven Countries Study. Diabetes Care 1995;18:1104-12.

Fitzgerald N, Damio G, Segura-Perez S, Perez-Escamilla R. Nutrition knowledge, food label use, and food intake patterns among Latinas with and without type 2 diabetes. J Am Diet Assoc 2008;108: 960-7.

Flint A, Moller BK, Raben A, Pedersen D, Tetens I, Holst JJ, et al. The use of glycaemic index tables to predict glycaemic index of composite breakfast meals. Br J Nutr 2004;91:979-89.

Folsom AR, Demissie Z, Harnack L. Glycemic index, glycemic load, and incidence of endometrial cancer: the Iowa women's health study. Nutr Cancer 2003;46:119-24.

Foot EA, Eastmond R. Good metabolic and safety profile of troglitazone alone and following alcohol in NIDDM subjects. Diabetes Res Clin Pract 1997;38: 41-51.

Ford ES, Mokdad AH. Fruit and vegetable consumption and diabetes mellitus incidence among U.S. adults. Prev Med 2001;32:33-9.

Foster GD, Wyatt HR, Hill JO, McGuckin BG, Brill C, Mohammed BS, et al. A randomized trial of a low-carbohydrate diet for obesity. N Engl J Med 2003;348:2082-90.

Foster-Powell K, Holt SH, Brand-Miller JC. International table of glycemic index and glycemic load values: 2002. Am J Clin Nutr 2002;76:5-56.

Franz MJ, Wylie-Rosett J. The 2006 American Diabetes Association nutrition recommendations and interventions for the prevention and treatment of diabetes. Diabetes Spectrum 2007;20:49-52.

Fraser A, Abel R, Lawlor DA, Fraser D, Elhayany A. A modified Mediterranean diet is associated with the greatest reduction in alanine aminotransferase levels in obese type 2 diabetes patients: results of a quasi-randomised controlled trial. Diabetologia 2008;51:1616-22.

Fuhrman B, Smit E, Crespo C, Garcia-Palmieri M. Coffee intake and risk of incident diabetes in Puerto Rican men: results from the Puerto Rico Heart Health Program. Public Health Nutr 2008:1-7.

Fung TT, Chiuve SE, McCullough ML, Rexrode KM, Logroscino G, Hu FB. Adherence to a DASH-style diet and risk of coronary heart disease and stroke in women. Arch Intern Med 2008;168: 713-20.

Fung TT, Hu FB, Pereira MA, Liu S, Stampfer MJ, Colditz GA, et al. Whole-grain intake and the risk of type 2 diabetes: a prospective study in men. Am J Clin Nutr 2002;76:535-40.

Fung TT, McCullough M, van Dam RM, Hu FB. A prospective study of overall diet quality and risk of type 2 diabetes in women. Diabetes Care 2007;30:1753-7.

Fung TT, Schulze M, Manson JE, Willett WC, Hu FB. Dietary patterns, meat intake, and the risk of type 2 diabetes in women. Arch Intern Med 2004; 164:2235-40.

Gaede P, Beck M, Vedel P, Pedersen O. Limited impact of lifestyle education in patients with type 2 diabetes mellitus and microalbuminuria: Results from a randomized intervention study. Diabet Med 2001;18:104-108.

Gaede P, Vedel P, Larsen N, Jensen GV, Parving HH, Pedersen O. Multifactorial intervention and cardiovascular disease in patients with type 2 diabetes. N Engl J Med 2003;348:383-93.

Gaede P, Vedel P, Parving HH, Pedersen O. Intensified multifactorial intervention in patients with type 2 diabetes mellitus and microalbuminuria: The Steno type 2 randomised study. Lancet 1999;353:617-22.

Gaede PH. Intensified multifactorial intervention in patients with type 2 diabetes and microalbuminuria: rationale and effect on late-diabetic complications. Dan Med Bull 2006;53:258-84.

Gaede PH, Jepsen PV, Larsen JN, Jensen GV, Parving HH, Pedersen OB. [The Steno-2 study. Intensive multifactorial intervention reduces the occurrence of cardiovascular disease in patients with type 2 diabetes]. Ugeskr Laeger 2003; 165:2658-61.

Gagliardi L, Wittert G. Management of obesity in patients with type 2 diabetes mellitus. Curr Diabetes Rev 2007;3:95-101.

Galani C, Schneider H. Prevention and treatment of obesity with lifestyle interventions: Review and meta-analysis. Int J Public Health 2007;52:348-359.

Gale TJ, Daly M. 'New diets' for weight loss in Type 2 diabetes. Diabet Med, Supplement 2004;21:13-5.

Gallagher A, Henderson W, Abraira C. Dietary patterns and metabolic control in diabetic diets: a prospective study of 51 outpatient men on unmeasured and exchange diets. J Am Coll Nutr 1987;6: 525-32.

Gannon MC, Nuttall FQ. Effect of a high-protein, low-carbohydrate diet on blood glucose control in people with type 2 diabetes. Diabetes 2004; 53:2375-82.

Gannon MC, Nuttall FQ, Saeed A, Jordan K, Hoover H. An increase in dietary protein improves the blood glu-

cose response in persons with type 2 diabetes. Am J Clin Nutr 2003;78:734-41.

Gardner CD, Kiazand A, Alhassan S, Kim S, Stafford RS, Balise RR, et al. Comparison of the atkins, zone, ornish, and LEARN diets for change in weight and related risk factors among overweight premenopausal women. The A to Z weight loss study: A randomized trial. Obstet Gynecol Surv 2007;62:454-6.

Garg A. High-monounsaturated-fat diets for patients with diabetes mellitus: a meta-analysis. Am J Clin Nutr 1998; 67:577S-82S.

Garg A, Bonanome A, Grundy SM, Zhang ZJ, Unger RH. Comparison of a high-carbohydrate diet with a high-monounsaturated-fat diet in patients with non-insulin-dependent diabetes mellitus. N Engl J Med 1988;319: 829-34.

Garg A, Grundy SM, Unger RH. Comparison of effects of high and low carbohydrate diets on plasma lipoproteins and insulin sensitivity in patients with mild NIDDM. Diabetes 1992;41:1278-85.

Gerhard GT, Ahmann A, Meeuws K, McMurry MP, Duell PB, Connor WE. Effects of a low-fat diet compared with those of a high-monounsaturated fat diet on body weight, plasma lipids and lipoproteins, and glycemic control in type 2 diabetes. Am J Clin Nutr 2004; 80:668-73.

Gilbertson HR, Brand-Miller JC, Thorburn AW, Evans S, Chondros P, Werther GA. The effect of flexible low glycemic index dietary advice versus measured carbohydrate exchange diets on glycemic control in children with type 1 diabetes. Diabetes Care 2001; 24:1137-43.

Gilbertson HR, Thorburn AW, Brand-Miller JC, Chondros P, Werther GA. Effect of low-glycemic-index dietary advice on dietary quality and food choice in children with type 1 diabetes. Am J Clin Nutr 2003;77:83-90.

Gillen LJ, Tapsell LC, Patch CS, Owen A, Batterham M. Structured dietary advice incorporating walnuts achieves optimal fat and energy balance in patients with type 2 diabetes mellitus. J Am Diet Assoc 2005;105:1087-96.

Gillman MW, Cupples LA, Millen BE, Ellison RC, Wolf PA. Inverse association of dietary fat with development of ischemic stroke in men. JAMA 1997;278:2145-50.

Giugliano D, Ceriello A, Esposito K. Glucose metabolism and hyperglycemia. Am J Clin Nutr 2008;87:217S-222S.

Giugliano D, Esposito K. Mediterranean diet and metabolic diseases. Curr Opin Lipidol 2008;19:63-8.

Glasgow RE, Toobert DJ, Hampson SE. Effects of a brief office-based intervention to facilitate diabetes dietary self-management. Diabetes Care 1996;19:835-42.

Glasgow RE, Toobert DJ, Hampson SE, Noell JW. A brief office-based intervention to facilitate diabetes dietary self-management. Health Educ Res 1995;10:467-78.

Goderis G, Boland B. Cardiovascular prevention in type 2 diabetic patients: Review of efficacious treatments. Acta Clin Belg 2004;59:329-339.

Goff Jr DC, Gerstein HC, Ginsberg HN, Cushman WC, Margolis KL, Byington RP, et al. Prevention of cardiovascular disease in persons with type 2 diabetes mellitus: Current Knowledge and Rationale for the Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial. Am J Cardiol 2007;99:S4-S20.

Greenberg JA, Axen KV, Schnoll R, Boozer CN. Coffee, tea and diabetes: the role of weight loss and caffeine. Int J Obes (Lond) 2005;29:1121-9.

Greenberg JA, Boozer CN, Geliebter A. Coffee, diabetes, and weight control. Am J Clin Nutr 2006;84:682-93.

Griffin MD, Sanders TA, Davies IG, Morgan LM, Millward DJ, Lewis F, et al. Effects of altering the ratio of dietary n-6 to n-3 fatty acids on insulin sensitivity, lipoprotein size, and postprandial lipemia in men and postmenopausal women aged 45-70 y: the OPTILIP Study. Am J Clin Nutr 2006;84:1290-8.

Gross LS, Li L, Ford ES, Liu S. Increased consumption of refined carbohydrates and the epidemic of type 2 diabetes in the United States: an ecologic assessment. Am J Clin Nutr 2004;79:774-9.

Guo LX, Pan Q, Wang XX, Li H, Zhang LN, Chi JM, et al. Effect of short term intensive multitherapy on carotid intima-media thickness in patients with newly diagnosed type 2 diabetes mellitus. Chin Med J 2008;121:687-90.

Haines AP, Sanders TA, Imeson JD, Mahler RF, Martin J, Mistry M, et al. Effects of a fish oil supplement on platelet function, haemostatic variables and albuminuria in insulin-dependent diabetics. Thromb Res 1986;43:643-55.

Hallberg M. Vetenskapliga kontroverser oundvikliga i dagens samhälle. Läkartidningen 2007;104:577-581.

Halton TL, Liu S, Manson JE, Hu FB. Low-carbohydrate-diet score and risk of type 2 diabetes in women. Am J Clin Nutr 2008;87:339-46.

Halton TL, Willett WC, Liu S, Manson JE, Stampfer MJ, Hu FB. Potato and french fry consumption and risk of type 2 diabetes in women. Am J Clin Nutr 2006;83:284-90.

Hamer M, Chida Y. Intake of fruit, vegetables, and antioxidants and risk of type 2 diabetes: systematic review and meta-analysis. J Hypertens 2007; 25:2361-9.

Hamer M, Witte DR, Mosdol A, Marmot MG, Brunner EJ. Prospective study of coffee and tea consumption in relation to risk of type 2 diabetes mellitus among men and women: the Whitehall II study. Br J Nutr 2008;100:1046-53.

Hamman RF, Wing RR, Edelstein SL, Lachin JM, Bray GA, Delahanty L, et al. Effect of weight loss with lifestyle intervention on risk of diabetes. Diabetes Care 2006;29:2102-7.

Hanefeld M, Fischer S, Schmechel H, Rothe G, Schulze J, Dude H, et al. Diabetes intervention study: Multi-intervention trial in newly diagnosed NIDDM. Diabetes Care 1991;14: 308-17.

Happonen P, Laara E, Hiltunen L, Luukinen H. Coffee consumption and mortality in a 14-year follow-up of an elderly northern Finnish population. Br J Nutr 2008;99:1354-61.

Harding AH, Day NE, Khaw KT, Bingham S, Luben R, Welsh A, et al. Dietary fat and the risk of clinical type 2 diabetes: the European prospective investigation of Cancer-Norfolk study. Am J Epidemiol 2004;159: 73-82.

Harding AH, Sargeant LA, Welch A, Oakes S, Luben RN, Bingham S, et al. Fat consumption and HbA(1c) levels: the EPIC-Norfolk study. Diabetes Care 2001;24:1911-6.

Harding AH, Wareham NJ, Bingham SA, Khaw K, Luben R, Welch A, et al. Plasma vitamin C level, fruit and vegetable consumption, and the risk of new-onset type 2 diabetes mellitus: the European prospective investigation of cancer – Norfolk prospective study. Arch Intern Med 2008;168:1493-9.

Harriss LR, English DR, Powles J, Giles GG, Tonkin AM, Hodge AM, et al. Dietary patterns and cardiovascular mortality in the Melbourne Collaborative Cohort Study. Am J Clin Nutr 2007;86:221-9.

Hartweg J, Farmer AJ, Holman RR, Neil HA. Meta-analysis of the effects of n-3 polyunsaturated fatty acids on haematological and thrombogenic factors in type 2 diabetes. Diabetologia 2007;50:250-8.

Hartweg J, Perera R, Montori V, Dinneen S, Neil HA, Farmer A. Omega-3 polyunsaturated fatty acids (PUFA) for type 2 diabetes mellitus. Cochrane Database Syst Rev 2008:CD003205.

Hartwell SL, Kaplan RM, Wallace JP. Comparison of behavioral interventions for control of type II diabetes mellitus. Behav Ther 1986;17:447-61.

Hays NP, Starling RD, Liu X, Sullivan DH, Trappe TA, Fluckey JD, et al. Effects of an ad libitum low-fat, high-carbohydrate diet on body weight, body composition, and fat distribution in older men and women: a randomized controlled trial. Arch Intern Med 2004;164:210-7.

He K, Song Y, Daviglus ML, Liu K, Van Horn L, Dyer AR, et al. Accumulated evidence on fish consumption and coronary heart disease mortality: a meta-analysis of cohort studies. Circulation 2004;109: 2705-11.

Heidemann C, Hoffmann K, Spranger J, Klipstein-Grobusch K, Mohlig M, Pfeiffer AF, et al. A dietary pattern protective against type 2 diabetes in the European Prospective Investigation into Cancer and Nutrition (EPIC) – Potsdam Study cohort. Diabetologia 2005;48:1126-34.

Hellenius ML. Motstridiga råd om mat skapar förvirring. Lakartidningen 2008;105:1116-7.

Heller SR, Clarke P, Daly H, Davis I, McCulloch DK, Allison SP, et al. Group education for obese patients with type 2 diabetes: greater success at less cost. Diabet Med 1988;5:552-6.

Herder C, Baumert J, Thorand B, Koenig W, de Jager W, Meisinger C, et al. Chemokines as risk factors for type 2 diabetes: results from the MONICA/KORA Augsburg study, 1984–2002. Diabetologia 2006;49: 921-9.

Herder C, Peltonen M, Koenig W, Kraft I, Muller-Scholze S, Martin S, et al. Systemic immune mediators and lifestyle changes in the prevention of type 2 dia-

betes: results from the Finnish Diabetes Prevention Study. Diabetes 2006;55: 2340-6.

Herman WH, Hoerger TJ, Brandle M, Hicks K, Sorensen S, Zhang P, et al. The cost-effectiveness of lifestyle modification or metformin in preventing type 2 diabetes in adults with impaired glucose tolerance. Ann Intern Med 2005;142:323-32.

Hernandez JM, Moccia T, Fluckey JD, Ulbrecht JS, Farrell PA. Fluid snacks to help persons with type 1 diabetes avoid late onset postexercise hypoglycemia. Med Sci Sports Exerc 2000;32:904-10.

Hession M, Rolland C, Kulkarni U, Wise A, Broom J. Systematic review of randomized controlled trials of low-carbohydrate vs. low-fat/low-calorie diets in the management of obesity and its comorbidities. Obes Rev 2009;10:36-50.

Hockaday TD, Hockaday JM, Mann JI, Turner RC. Prospective comparison of modified fat-high-carbohydrate with standard low-carbohydrate dietary advice in the treatment of diabetes: one year follow-up study. Br J Nutr 1978; 39:357-62.

Hodge AM, Dowse GK, Collins VR, Zimmet PZ. Abnormal glucose tolerance and alcohol consumption in three populations at high risk of non-insulin-dependent diabetes mellitus. Am J Epidemiol 1993;137:178-89.

Hodge AM, English DR, O'Dea K, Giles GG. Glycemic index and dietary fiber and the risk of type 2 diabetes. Diabetes Care 2004;27:2701-6.

Hodge AM, English DR, O'Dea K, Giles GG. Alcohol intake, consumption pattern and beverage type, and the risk of Type 2 diabetes. Diabet Med 2006;23:690-7.

Hodge AM, English DR, O'Dea K, Sinclair AJ, Makrides M, Gibson RA, et al. Plasma phospholipid and dietary fatty acids as predictors of type 2 diabetes: interpreting the role of linoleic acid. Am J Clin Nutr 2007;86:189-97.

Hodge AM, Montgomery J, Dowse GK, Mavo B, Watt T, Zimmet PZ. A case-control study of diet in newly diagnosed NIDDM in the Wanigela people of Papua New Guinea. Diabetes Care 1996;19: 457-62.

Holbrook TL, Barrett-Connor E, Wingard DL. A prospective population-based study of alcohol use and non-insulin-dependent diabetes mellitus. Am J Epidemiol 1990;132:902-9.

Holman RR, Paul SK, Bethel MA, Matthews DR, Neil HAW. 10-Year follow-up of intensive glucose control in type 2 diabetes. N Engl J Med 2008; 359:1577-89.

Houtsmuller AJ, Zahn KJ, Henkes HE. Unsaturated fats and progression of diabetic retinopathy. Doc Ophthalmol 1980;48:363-71.

Howard AA, Arnsten JH, Gourevitch MN. Effect of alcohol consumption on diabetes mellitus: a systematic review. Ann Intern Med 2004;140:211-9.

Howard BV. Dietary fat as a risk factor for type 2 diabetes. Ann N Y Acad Sci 2002;967:324-8.

Howard BV, Abbott WG, Swinburn BA. Evaluation of metabolic effects of substitution of complex carbohydrates for satu-

rated fat in individuals with obesity and NIDDM. Diabetes Care 1991;14: 786-95.

Howard BV, Van Horn L, Hsia J, Manson JE, Stefanick ML, Wassertheil-Smoller S, et al. Low-fat dietary pattern and risk of cardiovascular disease: the Women's Health Initiative Randomized Controlled Dietary Modification Trial. JAMA 2006;295:655-66.

Howard BV, Manson JE, Stefanick ML, Beresford SA, Frank G, Jones B, et al. Low-fat dietary pattern and weight change over 7 years: The women's health initiative dietary modification trial. JAMA 2008;295:39-49.

Hsieh CJ, Wang PW. Effectiveness of weight loss in the elderly with type 2 diabetes mellitus. J Endocrinol Invest 2005;28:973-7.

Hu FB. Diet and cardiovascular disease prevention the need for a paradigm shift. J Am Coll Cardiol 2007;50:22-4.

Hu FB, Manson JE, Stampfer MJ, Colditz G, Liu S, Solomon CG, et al. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. N Engl J Med 2001;345:790-7.

Hu FB, Stampfer MJ, Manson JE, Rimm EB, Colditz GA, Rosner BA, et al. Frequent nut consumption and risk of coronary heart disease in women: prospective cohort study. BMJ 1998; 317:1341-5.

Hu FB, van Dam RM, Liu S. Diet and risk of Type II diabetes: the role of types of fat and carbohydrate. Diabetologia 2001;44:805-17.

Hu G, Jousilahti P, Peltonen M, Bidel S, Tuomilehto J. Joint association of coffee consumption and other factors to the risk of type 2 diabetes: a prospective study in Finland. Int J Obes (Lond) 2006;30: 1742-9.

Hu G, Jousilahti P, Peltonen M, Lindstrom J, Tuomilehto J. Urinary sodium and potassium excretion and the risk of type 2 diabetes: a prospective study in Finland. Diabetologia 2005;48:1477-83.

Hu G, Qiao Q, Silventoinen K, Eriksson JG, Jousilahti P, Lindstrom J, et al. Occupational, commuting, and leisure-time physical activity in relation to risk for Type 2 diabetes in middle-aged Finnish men and women. Diabetologia 2003; 46:322-9.

Hung T, Sievenpiper JL, Marchie A, Kendall CW, Jenkins DJ. Fat versus carbohydrate in insulin resistance, obesity, diabetes and cardiovascular disease. Curr Opin Clin Nutr Metab Care 2003;6:165-76.

Iso H, Date C, Wakai K, Fukui M, Tamakoshi A. The relationship between green tea and total caffeine intake and risk for self-reported type 2 diabetes among Japanese adults. Ann Intern Med 2006;144:554-62.

Iso H, Sato S, Umemura U, Kudo M, Koike K, Kitamura A, et al. Linoleic acid, other fatty acids, and the risk of stroke. Stroke 2002;33:2086-93.

Jacobs DR, Jr., Andersen LF, Blomhoff R. Whole-grain consumption is associated with a reduced risk of noncardiovascular, noncancer death attributed to inflamma-

tory diseases in the Iowa Women's Health Study. Am J Clin Nutr 2007;85:1606-14.

Janket SJ, Manson JE, Sesso H, Buring JE, Liu S. A prospective study of sugar intake and risk of type 2 diabetes in women. Diabetes Care 2003;26:1008-15.

Jarrett RJ, Keen H, McCartney P. The Whitehall study: Ten year follow-up report on men with impaired glucose tolerance with reference to worsening to diabetes and predictors of death. Diabetic Med 1984;1:279-283.

Jenkins DJ, Hu FB, Tapsell LC, Josse AR, Kendall CW. Possible benefit of nuts in type 2 diabetes. J Nutr 2008; 138:1752S-6S.

Jenkins DJ, Kendall CW, Augustin LS, Franceschi S, Hamidi M, Marchie A, et al. Glycemic index: overview of implications in health and disease. Am J Clin Nutr 2002;76:266S-73S.

Jenkins DJ, Kendall CW, Marchie A, Parker TL, Connelly PW, Qian W, et al. Dose response of almonds on coronary heart disease risk factors: blood lipids, oxidized low-density lipoproteins, lipoprotein(a), homocysteine, and pulmonary nitric oxide: a randomized, controlled, crossover trial. Circulation 2002;106:1327-32.

Jenkins DJ, Wolever TM, Taylor RH, Barker H, Fielden H, Baldwin JM, et al. Glycemic index of foods: a physiological basis for carbohydrate exchange. Am J Clin Nutr 1981;34:362-6.

Jensen MK, Koh-Banerjee P, Franz M, Sampson L, Gronbaek M, Rimm EB. Whole grains, bran, and germ in relation to homocysteine and markers of glycemic control, lipids, and inflammation 1. Am J Clin Nutr 2006;83:275-83.

Jiang R, Manson JE, Stampfer MJ, Liu S, Willett WC, Hu FB. Nut and peanut butter consumption and risk of type 2 diabetes in women. JAMA 2002;288: 2554-60.

Jinlin F, Binyou W, Terry C. A new approach to the study of diet and risk of type 2 diabetes. J Postgrad Med 2007; 53:139-43.

Johansen OE, Birkeland KI. Preventing macrovascular disease in patients with type 2 diabetes mellitus. Am J Cardiovasc Drugs 2003;3:283-297.

Jonsson T, Granfeldt Y, Ahren B, Branell UC, Palsson G, Hansson A, et al. Beneficial effects of a Paleolithic diet on cardiovascular risk factors in type 2 diabetes: a randomized cross-over pilot study. Cardiovasc Diabetol 2009;8:35.

Jorgensen ME, Bjeregaard P, Borch-Johnsen K. Diabetes and impaired glucose tolerance among the inuit population of Greenland. Diabetes Care 2002;25:1766-71.

Josse AR, Kendall CW, Augustin LS, Ellis PR, Jenkins DJ. Almonds and postprandial glycemia – a dose-response study. Metabolism 2007;56:400-4.

Kaline K, Bornstein SR, Bergmann A, Hauner H, Schwarz PE. The importance and effect of dietary fiber in diabetes prevention with particular consideration of whole grain products. Horm Metab Res 2007;39:687-93.

Kallio P, Kolehmainen M, Laaksonen DE, Pulkkinen L, Atalay M, Mykkanen H, et

al. Inflammation markers are modulated by responses to diets differing in postprandial insulin responses in individuals with the metabolic syndrome. Am J Clin Nutr 2008;87:1497-503.

Kao WH, Puddey IB, Boland LL, Watson RL, Brancati FL. Alcohol consumption and the risk of type 2 diabetes mellitus: atherosclerosis risk in communities study. Am J Epidemiol 2001;154:748-57.

Kaplan RM, Atkins CJ, Wilson DK. The cost-utility of diet and exercise interventions in non-insulin-dependent diabetes mellitus. Health Promot 1987; 2:331-40.

Kaplan RM, Davis WK. Evaluating the costs and benefits of outpatient diabetes education and nutrition counseling. Diabetes Care 1986;9:81-6.

Kaplan RM, Hartwell SL, Wilson DK, Wallace JP. Effects of diet and exercise interventions on control and quality of life in non-insulin-dependent diabetes mellitus. J Gen Intern Med 1987;2: 220-8.

Kaplan RM, Wilson DK, Hartwell SL, Merino KL, Wallace JP. Prospective evaluation of HDL cholesterol changes after diet and physical conditioning programs for patients with type II diabetes mellitus. Diabetes Care 1985;8:343-8.

Kelishadi R, Gouya MM, Adeli K, Ardalan G, Gheiratmand R, Majdzadeh R, et al. Factors associated with the metabolic syndrome in a national sample of youths: CASPIAN Study. Nutr Metab Cardiovasc Dis 2008;18:461-70.

Kelly S, Frost G, Whittaker V, Summerbell C. Low glycaemic index diets for coronary heart disease. Cochrane Database Syst Rev 2004:CD004467.

Kennedy RL, Chokkalingam K, Farshchi HR. Nutrition in patients with Type 2 diabetes: are low-carbohydrate diets effective, safe or desirable? Diabet Med 2005;22: 821-32.

Keogh JB, Brinkworth GD, Noakes M, Belobrajdic DP, Buckley JD, Clifton PM. Effects of weight loss from a very-low-carbohydrate diet on endothelial function and markers of cardiovascular disease risk in subjects with abdominal obesity. Am J Clin Nutr 2008;87:567-76.

Keogh JB, Luscombe-Marsh ND, Noakes M, Wittert GA, Clifton PM. Long-term weight maintenance and cardiovascular risk factors are not different following weight loss on carbohydrate-restricted diets high in either monounsaturated fat or protein in obese hyperinsulinaemic men and women. Br J Nutr 2007;97:405-10.

Kim SH, Lee SJ, Kang ES, Kang S, Hur KY, Lee HJ, et al. Effects of lifestyle modification on metabolic parameters and carotid intima-media thickness in patients with type 2 diabetes mellitus. Metab Clin Exp 2006;55:1053-9.

Kirk JK, Graves DE, Craven TE, Lipkin EW, Austin M, Margolis KL. Restricted-carbohydrate diets in patients with type 2 diabetes: a meta-analysis. J Am Diet Assoc 2008;108:91-100.

Klein-Platat C, Drai J, Oujaa M, Schlienger JL, Simon C. Plasma fatty acid composition is associated with the metabolic syndrome and low-grade inflammation in overweight adolescents. Am J Clin Nutr 2005;82:1178-84.

Kochar J, Djousse L, Gaziano JM. Breakfast cereals and risk of type 2 diabetes in the Physicians' Health Study I. Obesity (Silver Spring) 2007;15:3039-44.

Kodama S, Saito K, Tanaka S, Maki M, Yachi Y, Sato M, et al. Influence of fat and carbohydrate proportions on the metabolic profile in patients with type 2 diabetes: a meta-analysis. Diabetes Care 2009;32:959-65.

Koppes LL, Dekker JM, Hendriks HF, Bouter LM, Heine RJ. Meta-analysis of the relationship between alcohol consumption and coronary heart disease and mortality in type 2 diabetic patients. Diabetologia 2006;49:648-52.

Korhonen T, Uusitupa M, Aro A, Kumpulainen T, Siitonen O, Voutilainen E, et al. Efficacy of dietary instructions in newly diagnosed non-insulin-dependent diabetic patients. Comparison of two different patient education regimens. Acta Med Scand 1987;222:323-31.

Krachler B, Norberg M, Eriksson JW, Hallmans G, Johansson I, Vessby B, et al. Fatty acid profile of the erythrocyte membrane preceding development of Type 2 diabetes mellitus. Nutr Metab Cardiovasc Dis 2008;18:503-10.

Krashenitsa GM, Botvineva LA, Mogila AV. [Effectiveness of increased contents of dietary fiber in early stages of non-insulin-dependent diabetes mellitus]. Vopr Pitan 1994:35-7.

Krauss RM, Eckel RH, Howard B, Appel LJ, Daniels SR, Deckelbaum RJ, et al. AHA Dietary Guidelines: revision 2000: A statement for healthcare professionals from the Nutrition Committee of the American Heart Association. Stroke 2000;31:2751-66.

Krebs JD, Browning LM, McLean NK, Rothwell JL, Mishra GD, Moore CS, et al. Additive benefits of long-chain n-3 polyunsaturated fatty acids and weight-loss in the management of cardiovascular disease risk in overweight hyper-insulinaemic women. Int J Obes (Lond) 2006;30:1535-44.

Kris-Etherton PM, Binkoski AE, Zhao G, Coval SM, Clemmer KF, Hecker KD, et al. Dietary fat: assessing the evidence in support of a moderate-fat diet; the benchmark based on lipoprotein metabolism. Proc Nutr Soc 2002;61:287-98.

Krishnan S, Rosenberg L, Singer M, Hu FB, Djousse L, Cupples LA, et al. Glycemic index, glycemic load, and cereal fiber intake and risk of type 2 diabetes in US black women. Arch Intern Med 2007;167:2304-9.

Kromhout D, Feskens EJ. Nutrition and diabetes: the role of fat. Acta Cardiol 1993;48:444-5.

Kulkarni K. Diets do not fail: The success of medical nutrition therapy in patients with diabetes. Endocr Pract 2006; 12:121-3.

Kulkarni K, Castle G, Gregory R, Holmes A, Leontos C, Powers M, et al. Nutrition Practice Guidelines for Type 1 Diabetes Mellitus positively affect dietitian practices and patient outcomes. The Diabetes Care and Education Dietetic Practice Group. J Am Diet Assoc 1998;98:62-70; quiz 71-2.

La Vecchia C, Decarli A, Pagano R. Vegetable consumption and risk of

chronic disease. Epidemiology 1998; 9:208-10.

Laaksonen DE, Lakka TA, Lakka HM, Nyyssonen K, Rissanen T, Niskanen LK, et al. Serum fatty acid composition predicts development of impaired fasting glycaemia and diabetes in middle-aged men. Diabet Med 2002;19:456-64.

LaHaye SA, Hollett PM, Vyselaar JR, Shalchi M, Lahey KA, Day AG. Comparison between a low glycemic load diet and a Canada Food Guide diet in cardiac rehabilitation patients in Ontario. Can J Cardiol 2005;21:489-94.

Lairon D. Intervention studies on Mediterranean diet and cardiovascular risk. Mol Nutr Food Res 2007;51:1209-14.

Laitinen J, Uusitupa M, Ahola I, Laakso M, Siitonen O. Metabolic and dietary variables associated with glycaemic control in patients with recently diagnosed Type II diabetes mellitus. Diabetes, Nutrition and Metabolism Clinical and Experimental. 1994;7:77-87.

Laitinen J, Uusitupa M, Ahola I, Siitonen O. Metabolic and dietary determinants of serum lipids in obese patients with recently diagnosed non-insulin-dependent diabetes. Ann Med 1994;26:119-24.

Laitinen JH, Ahola IE, Sarkkinen ES, Winberg RL, Harmaakorpi-Iivonen PA, Uusitupa MI. Impact of intensified dietary therapy on energy and nutrient intakes and fatty acid composition of serum lipids in patients with recently diagnosed non-insulin-dependent diabetes mellitus. J Am Diet Assoc 1993; 93:276-83.

Lamarche B. Review of the effect of dairy products on non-lipid risk factors for cardiovascular disease. J Am Coll Nutr 2008;27:741S-6S.

Lamb MM, Yin X, Barriga K, Hoffman MR, Baron AE, Eisenbarth GS, et al. Dietary glycemic index, development of islet autoimmunity, and subsequent progression to type 1 diabetes in young children. J Clin Endocrinol Metab 2008; 93:3936-42.

Lapidus L, Bengtsson C, Bergfors E, Bjorkelund C, Spak F, Lissner L. Alcohol intake among women and its relationship to diabetes incidence and all-cause mortality: the 32-year follow-up of a population study of women in Gothenburg, Sweden. Diabetes Care 2005;28:2230-5.

Ledikwe JH, Rolls BJ, Smiciklas-Wright H, Mitchell DC, Ard JD, Champagne C, et al. Reductions in dietary energy density are associated with weight loss in overweight and obese participants in the PREMIER trial. Am J Clin Nutr 2007;85:1212-21.

Leeds AR. Glycemic index and heart disease. Am J Clin Nutr 2002;76:286S-9S.

Leosdottir M, Nilsson PM, Nilsson JA, Berglund G. Cardiovascular event risk in relation to dietary fat intake in middle-aged individuals: data from The Malmo Diet and Cancer Study. Eur J Cardiovasc Prev Rehabil 2007;14:701-6.

Ley SJ, Metcalf PA, Scragg RK, Swinburn BA. Long-term effects of a reduced fat diet intervention on cardiovascular disease risk factors in individuals with glucose intolerance. Diabetes Res Clin Pract 2004;63: 103-12.

Li G, Hu Y, Yang W, Jiang Y, Wang J, Xiao J, et al. Effects of insulin resistance and insulin secretion on the efficacy of interventions to retard development of type 2 diabetes mellitus: the DA Qing IGT and Diabetes Study. Diabetes Res Clin Pract 2002;58:193-200.

Li Z, Hong K, Saltsman P, DeShields S, Bellman M, Thames G, et al. Long-term efficacy of soy-based meal replacements vs an individualized diet plan in obese type II DM patients: Relative effects on weight loss, metabolic parameters, and C-reactive protein. Eur J Clin Nutr 2005;59:411-8.

Liberopoulos EN, Tsouli S, Mikhailidis DP, Elisaf MS. Preventing type 2 diabetes in high risk patients: An overview of lifestyle and pharmacological measures. Curr Drug Targets 2006;7:211-28.

Liese AD, Schulz M, Moore CG, Mayer-Davis EJ. Dietary patterns, insulin sensitivity and adiposity in the multi-ethnic Insulin Resistance Atherosclerosis Study population. Br J Nutr 2004;92:973-84.

Liese AD, Weis KE, Schulz M, Tooze JA. Food intake patterns associated with incident type 2 diabetes: The Insulin Resistance Atherosclerosis Study. Diabetes Care 2009;32:263-8.

Lindahl B, Nilsson TK, Borch-Johnsen K, Roder ME, Soderberg S, Widman L, et al. A randomized lifestyle intervention with 5-year follow-up in subjects with impaired glucose tolerance: pronounced short-term impact but long-term adherence problems. Scand J Public Health 2009;37:434-42.

Lindahl B, Nilsson TK, Jansson JH, Asplund K, Hallmans G. Improved fibrinolysis by intense lifestyle intervention. A randomized trial in subjects with impaired glucose tolerance. J Intern Med 1999;246:105-12.

Lindeberg S. Stärkelse eller fett till diabetiker – ett skenbart dilemma. Läkartidningen 2008;105:269-70.

Lindeberg S, Jonsson T, Granfeldt Y, Borgstrand E, Soffman J, Sjostrom K, et al. A Palaeolithic diet improves glucose tolerance more than a Mediterranean-like diet in individuals with ischaemic heart disease. Diabetologia 2007;50:1795-1807.

Lindi VI, Uusitupa MI, Lindstrom J, Louheranta A, Eriksson JG, Valle TT, et al. Association of the Pro12Ala polymorphism in the PPAR-gamma2 gene with 3-year incidence of type 2 diabetes and body weight change in the Finnish Diabetes Prevention Study. Diabetes 2002; 51:2581-6.

Lindner H, Muller R, Rahn U, Ritz JP, Tillmann W. [Long-term observations on the value of fasting and reducing diets]. Med Klin 1970;65:1914-9.

Lindstrom J, Eriksson JG, Valle TT, Aunola S, Cepaitis Z, Hakumaki M, et al. Prevention of diabetes mellitus in subjects with impaired glucose tolerance in the finnish diabetes prevention study: Results from a randomized clinical trial. J Am Soc Nephrol 2003;14:S108-S13.

Lindstrom J, Ilanne-Parikka P, Peltonen M, Aunola S, Eriksson JG, Hemio K, et al. Sustained reduction in the incidence of type 2 diabetes by lifestyle intervention: follow-up of the Finnish Diabetes Prevention Study. Lancet 2006;368:1673-9.

Lindstrom J, Louheranta A, Mannelin M, Rastas M, Salminen V, Eriksson J, et al.

The Finnish Diabetes Prevention Study (DPS): Lifestyle intervention and 3-year results on diet and physical activity. Diabetes Care 2003;26:3230-6.

Lindstrom J, Peltonen M, Tuomilehto J. Lifestyle strategies for weight control: Experience from the Finnish Diabetes Prevention Study. Proc Nutr Soc 2005; 64:81-8.

Liu S. Intake of refined carbohydrates and whole grain foods in relation to risk of type 2 diabetes mellitus and coronary heart disease. J Am Coll Nutr 2002;21: 298-306.

Liu S, Choi HK, Ford E, Song Y, Klevak A, Buring JE, et al. A prospective study of dairy intake and the risk of type 2 diabetes in women. Diabetes Care 2006; 29:1579-84.

Liu S, Manson JE. Dietary carbohydrates, physical inactivity, obesity, and the 'metabolic syndrome' as predictors of coronary heart disease. Curr Opin Lipidol 2001;12:395-404.

Liu S, Manson JE, Stampfer MJ, Hu FB, Giovannucci E, Colditz GA, et al. A prospective study of whole-grain intake and risk of type 2 diabetes mellitus in US women. Am J Public Health 2000; 90:1409-15.

Liu S, Willett WC. Dietary glycemic load and atherothrombotic risk. Curr Atheroscler Rep 2002;4:454-61.

Livesey G, Taylor R, Hulshof T, Howlett J. Glycemic response and health – a systematic review and meta-analysis: the database, study characteristics, and macronutrient intakes. Am J Clin Nutr 2008; 87:223S-36S.

Lopez-Espinoza I, Howard-Williams J, Mann JI, Carter RD, Hockaday TD. Fatty acid composition of platelet phospholipids in non-insulin-dependent diabetics randomized for dietary advice. Br J Nutr 1984;52:41-7.

Lovejoy JC, Most MM, Lefevre M, Greenway FL, Rood JC. Effect of diets enriched in almonds on insulin action and serum lipids in adults with normal glucose tolerance or type 2 diabetes. Am J Clin Nutr 2002;76:1000-6.

Loveman E, Frampton GK, Clegg AJ. The clinical effectiveness of diabetes education models for Type 2 diabetes: A systematic review. Health Technology Assessment 2008;12:9.

Luisi ML, Gensini GF. [Comparison between low-carbohydrate and mediterranean diet]. Recenti Prog Med 2004;95:427-31.

Lundgren H, Bengtsson C, Blohme G, Isaksson B, Lapidus L, Lenner RA, et al. Dietary habits and incidence of noninsulin-dependent diabetes mellitus in a population study of women in Gothenburg, Sweden. Am J Clin Nutr 1989;49:708-12.

Luscombe ND, Clifton PM, Noakes M, Parker B, Wittert G. Effects of energy-restricted diets containing increased protein on weight loss, resting energy expenditure, and the thermic effect of feeding in type 2 diabetes. Diabetes Care 2002;25:652-7.

Lutsey PL, Jacobs DR, Jr., Kori S, Mayer-Davis E, Shea S, Steffen LM, et al. Whole grain intake and its cross-sectional association with obesity, insulin resistance, inflammation, diabetes and subclinical CVD: The MESA Study. Br J Nutr 2007; 98:397-405.

Lutsey PL, Steffen LM, Stevens J. Dietary intake and the development of the metabolic syndrome: the Atherosclerosis Risk in Communities study. Circulation 2008;117:754-61.

Ma Y, Li Y, Chiriboga DE, Olendzki BC, Hebert JR, Li W, et al. Association between carbohydrate intake and serum lipids. J Am Coll Nutr 2006;25:155-63.

Ma Y, Olendzki BC, Hafner AR, Chiriboga DE, Culver AL, Andersen VA, et al. Low-carbohydrate and high-fat intake among adult patients with poorly controlled type 2 diabetes mellitus. Nutrition 2006;22:1129-36.

Ma Y, Olendzki BC, Merriam PA, Chiriboga DE, Culver AL, Li W, et al. A randomized clinical trial comparing low-glycemic index versus ADA dietary education among individuals with type 2 diabetes. Nutrition 2008;24:45-56.

Mackenzie T, Brooks B, O'Connor G. Beverage intake, diabetes, and glucose control of adults in America. Ann Epidemiol 2006;16:688-91.

MacMahon Tone J, Agha A, Sherlock M, Finucane F, Tormey W, Thompson CJ. An intensive nurse-led, multi-interventional clinic is more successful in achieving vascular risk reduction targets than standard diabetes care. Ir J Med Sci 2009;178:179-86.

Madden SG, Loeb SJ, Smith CA. An integrative literature review of lifestyle interventions for the prevention of type II diabetes mellitus. J Clin Nurs 2008; 17:2243-56.

Madigan C, Ryan M, Owens D, Collins P, Tomkin GH. Comparison of diets high in monounsaturated versus polyunsaturated fatty acid on postprandial lipoproteins in diabetes. Ir J Med Sci 2005;174:8-20.

Mann J, McAuley K. Carbohydrates: is the advice to eat less justified for diabetes and cardiovascular health? Curr Opin Lipidol 2007;18:9-12.

Mann JI. Diet and diabetes. Diabetologica 1980;18:89-95.

Mann JI. Diet and risk of coronary heart disease and type 2 diabetes. Lancet 2002; 360:783-9.

Mann JI. Nutrition recommendations for the treatment and prevention of type 2 diabetes and the metabolic syndrome: an evidenced-based review. Nutr Rev 2006;64:422-7.

Mann JI, De Leeuw I, Hermansen K, Karamanos B, Karlstrom B, Katsilambros N, et al. Evidence-based nutritional approaches to the treatment and prevention of diabetes mellitus. Nutr Metab Cardiovasc Dis 2004;14:373-94.

Mann JI, Hockaday TD, Hockaday JM, Turner RC. A prospective study of modified-fat and low-carbohydrate dietary advice in the treatment of maturity-onset diabetes [proceedings]. Proc Nutr Soc 1976;35:72A-73A.

Manning PJ, Sutherland WH, Hendry G, de Jong SA, McGrath M, Williams SM. Changes in circulating postprandial pro-inflammatory cytokine concentrations in diet-controlled type 2 diabetes and the effect of ingested fat. Diabetes Care 2004;27:2509-11.

Mantzoros CS, Williams CJ, Manson JE, Meigs JB, Hu FB. Adherence to the

Mediterranean dietary pattern is positively associated with plasma adiponectin concentrations in diabetic women. Am J Clin Nutr 2006;84:328-35.

Marshall AL, Chetwynd A, Morris JA, Placzek M, Smith C, Olabi A, et al. Type 1 diabetes mellitus in childhood: a matched case control study in Lancashire and Cumbria, UK. Diabet Med 2004;21:1035-40.

Marshall JA, Weiss NS, Hamman RF. The role of dietary fiber in the etiology of non-insulin-dependent diabetes mellitus. The San Luis Valley Diabetes Study. Ann Epidemiol 1993;3:18-26.

Martin WF, Armstrong LE, Rodriguez NR. Dietary protein intake and renal function. Nutr Metab (Lond) 2005;2:25.

Martinez-Gonzalez MA. The SUN cohort study (Seguimiento University of Navarra). Public Health Nutr 2006;9:127-31.

Martinez-Gonzalez MA, de la Fuente-Arrillaga C, Nunez-Cordoba JM, Basterra-Gortari FJ, Beunza JJ, Vazquez Z, et al. Adherence to Mediterranean diet and risk of developing diabetes: prospective cohort study. BMJ 2008;336:1348-51.

Mattisson I, Wirfalt E, Wallstrom P, Gullberg B, Olsson H, Berglund G. High fat and alcohol intakes are risk factors of postmenopausal breast cancer: a prospective study from the Malmo diet and cancer cohort. Int J Cancer 2004;110:589-97.

McAuley KA, Smith KJ, Taylor RW, McLay RT, Williams SM, Mann JI. Long-term effects of popular dietary approaches on weight loss and features of insulin resistance. Int J Obes (Lond) 2006;30:342-9.

McAuley KA, Williams SM, Mann JI, Goulding A, Chisholm A, Wilson N, et al. Intensive lifestyle changes are necessary to improve insulin sensitivity: a randomized controlled trial. Diabetes Care 2002; 25:445-52.

McCarron DA, Heaney RP. Estimated healthcare savings associated with adequate dairy food intake. Am J Hypertens 2004; 17:88-97.

McCarron DA, Reusser ME. Reducing cardiovascular disease risk with diet. Obes Res 2001;9 Suppl 4:335S-340S.

McCarty MF. An elevation of triglycerides reflecting decreased triglyceride clearance may not be pathogenic – relevance to high-carbohydrate diets. Med Hypotheses 2004; 63:1065-73.

McCarty MF. Nutraceutical resources for diabetes prevention – an update. Med Hypotheses 2005;64:151-8.

McCulloch DK, Mitchell RD, Ambler J, Tattersall RB. A prospective comparison of 'conventional' and high carbohydrate/high fibre/low fat diets in adults with established type 1 (insulin-dependent) diabetes. Diabetologia 1985;28:208-12.

McKeown NM, Meigs JB, Liu S, Saltzman E, Wilson PW, Jacques PF. Carbohydrate nutrition, insulin resistance, and the prevalence of the metabolic syndrome in the Framingham Offspring Cohort. Diabetes Care 2004;27:538-46.

McKeown NM, Meigs JB, Liu S, Wilson PW, Jacques PF. Whole-grain intake is favorably associated with metabolic risk factors for type 2 diabetes and cardiovas-

cular disease in the Framingham Offspring Study. Am J Clin Nutr 2002;76:390-8.

McKibbin CL, Patterson TL, Norman G, Patrick K, Jin H, Roesch S, et al. A lifestyle intervention for older schizophrenia patients with diabetes mellitus: A randomized controlled trial. Schizophr Res 2006;86:36-44.

McLaughlin T, Carter S, Lamendola C, Abbasi F, Schaaf P, Basina M, et al. Clinical efficacy of two hypocaloric diets that vary in overweight patients with type 2 diabetes: comparison of moderate fat versus carbohydrate reductions. Diabetes Care 2007;30:1877-9.

McLaughlin T, Carter S, Lamendola C, Abbasi F, Yee G, Schaaf P, et al. Effects of moderate variations in macronutrient composition on weight loss and reduction in cardiovascular disease risk in obese, insulin-resistant adults. Am J Clin Nutr 2006;84:813-21.

McNaughton SA, Mishra GD, Brunner EJ. Dietary patterns, insulin resistance, and incidence of type 2 diabetes in the Whitehall II Study. Diabetes Care 2008; 31:1343-8.

Meckling KA, O'Sullivan C, Saari D. Comparison of a low-fat diet to a low-carbohydrate diet on weight loss, body composition, and risk factors for diabetes and cardiovascular disease in free-living, overweight men and women. J Clin Endocrinol Metab 2004;89:2717-23.

Meisinger C, Thorand B, Schneider A, Stieber J, Doring A, Lowel H. Sex differences in risk factors for incident type 2 diabetes mellitus: the MONICA Augsburg cohort study. Arch Intern Med 2002;162:82-9.

Mellen PB, Liese AD, Tooze JA, Vitolins MZ, Wagenknecht LE, Herrington DM. Whole-grain intake and carotid artery atherosclerosis in a multiethnic cohort: the Insulin Resistance Atherosclerosis Study. Am J Clin Nutr 2007;85:1495-502.

Mensink M. Lifestyle intervention, glucose tolerance and risk of developing type 2 diabetes mellitus. Metab Syndr Relat Disord 2005;3:26-34.

Mensink M, Blaak EE, Corpeleijn E, Saris WH, de Bruin TW, Feskens EJ. Lifestyle intervention according to general recommendations improves glucose tolerance. Obes Res 2003;11:1588-96.

Mensink M, Corpeleijn E, Feskens EJ, Kruijshoop M, Saris WH, de Bruin TW, et al. Study on lifestyle-intervention and impaired glucose tolerance Maastricht (SLIM): design and screening results. Diabetes Res Clin Pract 2003;61:49-58.

Mensink M, Feskens EJM, Saris WHM, De Bruin TWA, Blaak EE. Study on lifestyle intervention and impaired glucose tolerance Maastricht (SLIM): Preliminary results after one year. Int J Obes 2003;27: 377-84.

Mente A, de Koning L, Shannon HS, Anand SS. A systematic review of the evidence supporting a causal link between dietary factors and coronary heart disease. Arch Intern Med 2009;169:659-69.

Meyer KA, Kushi LH, Jacobs DR, Jr, Folsom AR. Dietary fat and incidence of type 2 diabetes in older Iowa women. Diabetes Care 2001;24:1528-35.

Meyer KA, Kushi LH, Jacobs DR, Jr, Slavin J, Sellers TA, Folsom AR. Carbohydrates, dietary fiber, and incident type

2 diabetes in older women. Am J Clin Nutr 2000;71:921-30.

Michalsen A. [Nutritional and fasting therapy in complementary medicine]. Schweizerische Zeitschrift fur GanzheitsMedizin 2007;19:260-8.

Miles JM. A role for the glycemic index in preventing or treating diabetes? Am J Clin Nutr 2008;87:1-2.

Miller CK, Gutschall M. A Randomized trial about glycemic index and glycemic load improves outcomes among adults with type 2 diabetes. Health Educ Behav 2009;36:615-26. Epub 2008.

Miller CK, Gutshcall MD, Mitchell DC. Change in food choices following a glycemic load intervention in adults with type 2 diabetes. J Am Diet Assoc 2009; 109:319-24.

Milne RM, Mann JI, Chisholm AW, Williams SM. Long-term comparison of three dietary prescriptions in the treatment of NIDDM. Diabetes Care 1994;17:74-80.

Mita T, Watada H, Ogihara T, Nomiyama T, Ogawa O, Kinoshita J, et al. Eicosapentaenoic acid reduces the progression of carotid intima-media thickness in patients with type 2 diabetes. Atherosclerosis 2007; 191:162-7.

Mizoue T, Yamaji T, Tabata S, Yamaguchi K, Ogawa S, Mineshita M, et al. Dietary patterns and glucose tolerance abnormalities in Japanese men. J Nutr 2006;136: 1352-8.

Mohamad RH, Zekry ZK, Al-Mehdar HA, Salama O, El-Shaieb SE, El-Basmy AA, et al. Camel milk as an adjuvant therapy for the treatment of type 1 diabetes: verification of a traditional ethnomedical practice. J Med Food 2009;12:461-5.

Mohan V, Sudha V, Radhika G, Radha V, Rema M, Deepa R. Gene-environment interactions and the diabetes epidemic in India. Forum Nutr 2007;60:118-26.

Mollsten AV, Dahlquist GG, Stattin EL, Rudberg S. Higher intakes of fish protein are related to a lower risk of microalbuminuria in young Swedish type 1 diabetic patients. Diabetes Care 2001;24:805-10.

Monterrosa AE, Haffner SM, Stern MP, Hazuda HP. Sex difference in lifestyle factors predictive of diabetes in Mexican-Americans. Diabetes Care 1995;18:448-56.

Montonen J, Jarvinen R, Heliovaara M, Reunanen A, Aromaa A, Knekt P. Food consumption and the incidence of type II diabetes mellitus. Eur J Clin Nutr 2005;59:441-8.

Montonen J, Jarvinen R, Knekt P, Heliovaara M, Reunanen A. Consumption of sweetened beverages and intakes of fructose and glucose predict type 2 diabetes occurrence. J Nutr 2007;137: 1447-54.

Montonen J, Knekt P, Harkanen T, Jarvinen R, Heliovaara M, Aromaa A, et al. Dietary patterns and the incidence of type 2 diabetes. Am J Epidemiol 2005; 161:219-27.

Montonen J, Knekt P, Jarvinen R, Aromaa A, Reunanen A. Whole-grain and fiber intake and the incidence of type 2 diabetes. Am J Clin Nutr 2003;77:622-9.

Moore H, Summerbell C, Hooper L, Cruickshank K, Vyas A, Johnstone P, et al. Dietary advice for treatment of type 2

diabetes mellitus in adults. Cochrane Database Syst Rev 2004:CD004097.

Moore H, Summerbell C, Hooper L, Gandhi GY, Smith SA. Review: Limited data on dietary treatment of type 2 diabetes show that dietary advice plus exercise appears more beneficial than dietary advice alone. Evid Based Med 2004;9:177.

Moretti L, Canada T. A randomized study comparing the effects of a low-carbohydrate diet and a conventional diet on lipoprotein subfractions and C-reactive protein levels in patients with severe obesity: Commentary. Nutr Clin Pract 2006;21:187-8.

Morris MC, Manson JE, Rosner B, Buring JE, Willett WC, Hennekens CH. Fish consumption and cardiovascular disease in the physicians' health study: a prospective study. Am J Epidemiol 1995;142:166-75.

Mosdol A, Witte DR, Frost G, Marmot MG, Brunner EJ. Dietary glycemic index and glycemic load are associated with high-density-lipoprotein cholesterol at baseline but not with increased risk of diabetes in the Whitehall II study. Am J Clin Nutr 2007;86:988-94.

Moses RG, Luebcke M, Davis WS, Coleman KJ, Tapsell LC, Petocz P, et al. Effect of a low-glycemic-index diet during pregnancy on obstetric outcomes. Am J Clin Nutr 2006;84:807-12.

Moses RG, Luebke M, Petocz P, Brand-Miller JC. Maternal diet and infant size 2 y after the completion of a study of a low-glycemic-index diet in pregnancy. Am J Clin Nutr 2007;86:1806.

Moss SE, Klein R, Klein BE. Alcohol consumption and the prevalence of diabetic retinopathy. Ophthalmology 1992; 99:926-32.

Mozaffarian D, Marfisi R, Levantesi G, Silletta MG, Tavazzi L, Tognoni G, et al. Incidence of new-onset diabetes and impaired fasting glucose in patients with recent myocardial infarction and the effect of clinical and lifestyle risk factors. Lancet 2007;370:667-75.

Murakami K, Okubo H, Sasaki S. Effect of dietary factors on incidence of type 2 diabetes: a systematic review of cohort studies. J Nutr Sci Vitaminol (Tokyo) 2005;51:292-310.

Murakami K, Sasaki S, Takahashi Y, Okubo H, Hosoi Y, Horiguchi H, et al. Dietary glycemic index and load in relation to metabolic risk factors in Japanese female farmers with traditional dietary habits. Am J Clin Nutr 2006;83:1161-9.

Murata GH, Shah JH, Duckworth WC, Wendel CS, Mohler MJ, Hoffman RM. Food frequency questionnaire results correlate with metabolic control in insulin-treated veterans with type 2 diabetes: the Diabetes Outcomes in Veterans Study. J Am Diet Assoc 2004;104:1816-26.

Murtaugh MA, Jacobs DR, Jr., Jacob B, Steffen LM, Marquart L. Epidemiological support for the protection of whole grains against diabetes. Proc Nutr Soc 2003;62:143-9.

Muzio F, Mondazzi L, Harris WS, Sommariva D, Branchi A. Effects of moderate variations in the macronutrient content of the diet on cardiovascular disease risk factors in obese patients with the metabolic syndrome. Am J Clin Nutr 2007;86:946-51.

Nadeau J, Koski KG, Strychar I, Yale JF. Teaching subjects with type 2 diabetes how to incorporate sugar choices into their daily meal plan promotes dietary compliance and does not deteriorate metabolic profile. Diabetes Care 2001;24:222-7.

Nakamura T, Fujiwara N, Sugaya T, Ueda Y, Koide H. Effect of red wine on urinary protein, 8-hydroxydeoxyguanosine, and liver-type fatty acid-binding protein excretion in patients with diabetic nephropathy. Metabolism 2009;58:1185-90.

Neff LM. Evidence-based dietary recommendations for patients with type 2 diabetes mellitus. Nutr Clin Care 2003;6: 51-61.

Nettleton JA, Harnack LJ, Scrafford CG, Mink PJ, Barraj LM, Jacobs DR, Jr. Dietary flavonoids and flavonoid-rich foods are not associated with risk of type 2 diabetes in postmenopausal women. J Nutr 2006;136:3039-45.

Nettleton JA, Katz R. n-3 long-chain polyunsaturated fatty acids in type 2 diabetes: a review. J Am Diet Assoc 2005;105:428-40.

Nettleton JA, Steffen LM, Loehr LR, Rosamond WD, Folsom AR. Incident heart failure is associated with lower whole-grain intake and greater high-fat dairy and egg intake in the Atherosclerosis Risk in Communities (ARIC) study. J Am Diet Assoc 2008;108:1881-7.

Nettleton JA, Steffen LM, Ni H, Liu K, Jacobs DR, Jr. Dietary patterns and risk of incident type 2 diabetes in the Multi-Ethnic Study of Atherosclerosis (MESA). Diabetes Care 2008;31:1777-82.

Nicholson AS. Effect of a low-fat, unrefined, vegan diet on type 2 diabetes. Am J Clin Nutr 1999;70:624S-5S.

Nield L, Moore HJ, Hooper L, Cruickshank JK, Vyas A, Whittaker V, et al. Dietary advice for treatment of type 2 diabetes mellitus in adults. Cochrane Database Syst Rev 2007:CD004097.

Nield L, Summerbell CD, Hooper L, Whittaker V, Moore H. Dietary advice for the prevention of type 2 diabetes mellitus in adults. Cochrane Database Syst Rev 2008:CD005102.

Nilsson P, Attvall S, Eliasson M. Aktivare terapi vid diabetes typ 2 motiveras av fynd i milstolpestudie. 20 års uppföljning av mer än 5 000 patienter; Praktiska konklusioner för svenska förhållanden. Läkartidningen 1998;95:4983-7.

Noakes M, Foster PR, Keogh JB, James AP, Mamo JC, Clifton PM. Comparison of isocaloric very low carbohydrate/high saturated fat and high carbohydrate/low saturated fat diets on body composition and cardiovascular risk. Nutr Metab (Lond) 2006;3:7.

Noel PH, Larme AC, Meyer J, Marsh G, Correa A, Pugh JA. Patient choice in diabetes education curriculum. Nutritional versus standard content for type 2 diabetes. Diabetes Care 1998;21:896-901.

Nordmann AJ, Nordmann A, Briel M, Keller U, Yancy WS, Jr., Brehm BJ, et al. Effects of low-carbohydrate vs low-fat diets on weight loss and cardiovascular risk factors: a meta-analysis of randomized controlled trials. Arch Intern Med 2006;166:285-93.

Norris JM, Yin X, Lamb MM, Barriga K, Seifert J, Hoffman M, et al. Omega-3 polyunsaturated fatty acid intake and islet autoimmunity in children at increased risk for type 1 diabetes. JAMA 2007;298: 1420-8.

Norris SL, Zhang X, Avenell A, Gregg E, Bowman B, Schmid CH, et al. Long-term effectiveness of weight-loss interventions in adults with pre-diabetes: a review. Am J Prev Med 2005;28:126-39.

Norris SL, Zhang X, Avenell A, Gregg E, Bowman B, Serdula M, et al. Long-term effectiveness of lifestyle and behavioral weight loss interventions in adults with type 2 diabetes: a meta-analysis. Am J Med 2004;117:762-74.

Norris SL, Zhang X, Avenell A, Gregg E, Schmid CH, Lau J. Long-term non-pharmacological weight loss interventions for adults with prediabetes. Cochrane Database Syst Rev 2005:CD005270.

Odegaard AO, Pereira MA. Trans fatty acids, insulin resistance, and type 2 diabetes. Nutr Rev 2006;64:364-72.

Odegaard AO, Pereira MA, Koh WP, Arakawa K, Lee HP, Yu MC. Coffee, tea, and incident type 2 diabetes: the Singapore Chinese Health Study. Am J Clin Nutr 2008;88:979-85.

Ohlson LO, Larsson B, Bjorntorp P, Eriksson H, Svardsudd K, Welin L, et al. Risk factors for type 2 (non-insulin-dependent) diabetes mellitus. Thirteen and one-half years of follow-up of the participants in a study of Swedish men born in 1913. Diabetologia 1988;31: 798-805.

Okoro EO, Funsho SO, Oyedokun OA, Oyejola BA. Effects of dietary sucrose intake on glycaemic control in Nigerians with type 2 diabetes. Int J Clin Pract 2007;61:916-9.

Oldroyd JC, Unwin NC, White M, Imrie K, Mathers JC, Alberti KG. Randomised controlled trial evaluating the effectiveness of behavioural interventions to modify cardiovascular risk factors in men and women with impaired glucose tolerance: outcomes at 6 months. Diabetes Res Clin Pract 2001;52:29-43.

Oldroyd JC, Unwin NC, White M, Mathers JC, Alberti KG. Randomised controlled trial evaluating lifestyle interventions in people with impaired glucose tolerance. Diabetes Res Clin Pract 2006; 72:117-27.

Olsen J, Willaing I, Ladelund S, Jorgensen T, Gundgaard J, Sorensen J. Cost-effectiveness of nutritional counseling for obese patients and patients at risk of ischemic heart disease. Int J Technol Assess Health Care 2005;21:194-202.

Opperman AM, Venter CS, Oosthuizen W, Thompson RL, Vorster HH. Meta-analysis of the health effects of using the glycaemic index in meal-planning. Br J Nutr 2004;92:367-81.

Opperman M, Venter CS, Oosthuizen W, Thompson RL. Some health benefits of low glycaemic index diets – A systematic review. South Afr J Clin Nutr 2005;18:214-221.

Orozco LJ, Buchleitner AM, Gimenez-Perez G, Roque IFM, Richter B, Mauricio D. Exercise or exercise and diet for prevent-

ing type 2 diabetes mellitus. Cochrane Database Syst Rev 2008:CD003054.

Osei K, Bossetti B. Dietary fructose as a natural sweetener in poorly controlled type 2 diabetes: a 12-month crossover study of effects on glucose, lipoprotein and apolipoprotein metabolism. Diabet Med 1989;6:506-11.

Ottelin AM, Lindström J, Peltonen M, Martikainen J, Uusitupa M, Gylling H, et al. Costs of a self-selected, health-promoting diet among the participants of the Finnish Diabetes Prevention Study. Diabetes Care 2007;30:1275-7.

Padgett D, Mumford E, Hynes M, Carter R. Meta-analysis of the effects of educational and psychological interventions on management of diabetes mellitus. J Clin Epidemiol 1988;41: 1007-30.

Paisey RB, Arredondo G, Villalobos A, Lozano O, Guevara L, Kelly S. Association of differing dietary, metabolic, and clinical risk factors with macrovascular complications of diabetes: a prevalence study of 503 Mexican type II diabetic subjects. I. Diabetes Care 1984;7:421-7.

Palmer JR, Boggs DA, Krishnan S, Hu FB, Singer M, Rosenberg L. Sugar-sweetened beverages and incidence of type 2 diabetes mellitus in African American women. Arch Intern Med 2008;168:1487-92.

Pan Y, Pratt CA. Metabolic syndrome and its association with diet and physical activity in US adolescents. J Am Diet Assoc 2008;108:276-86.

Panagiotakos D, Bountziouka V, Zeimbekis A, Vlachou I, Polychronopoulos E. Food pattern analysis and prevalence of cardiovascular disease risk factors among elderly people from Mediterranean islands. J Med Food 2007;10:615-21.

Panagiotakos DB, Pitsavos C, Chrysohoou C, Skoumas J, Tousoulis D, Toutouza M, et al. Impact of lifestyle habits on the prevalence of the metabolic syndrome among Greek adults from the ATTICA study. Am Heart J 2004;147:106-12.

Panagiotakos DB, Pitsavos C, Chrysohoou C, Stefanadis C. The epidemiology of Type 2 diabetes mellitus in Greek adults: the ATTICA study. Diabet Med 2005;22:1581-8.

Panagiotakos DB, Pitsavos C, Chrysohoou C, Stefanadis C, Toutouzas P. Primary prevention of acute coronary events through the adoption of a Mediterranean-style diet. East Mediterr Health J 2002;8:593-602.

Panagiotakos DB, Pitsavos C, Skoumas Y, Stefanadis C. The association between food patterns and the metabolic syndrome using principal components analysis: The ATTICA Study. J Am Diet Assoc 2007;107:979-87.

Panagiotakos DB, Polystipioti A, Papairakleous N, Polychronopoulos E. Long-term adoption of a Mediterranean diet is associated with a better health status in elderly people; a cross-sectional survey in Cyprus. Asia Pac J Clin Nutr 2007;16:331-7.

Panagiotakos DB, Tzima N, Pitsavos C, Chrysohoou C, Zampelas A, Toussoulis D, et al. The association between adherence to the Mediterranean diet and fasting indices of glucose homoeostasis: the ATTICA Study. J Am Coll Nutr 2007; 26:32-8.

Panza F, Capurso C, Solfrizzi V. Cardiovascular factors and cognitive impairment: a role for unsaturated fatty acids and Mediterranean diet? Am J Cardiol 2006;98:1120-1.

Parillo M, Riccardi G. Diet composition and the risk of type 2 diabetes: epidemiological and clinical evidence. Br J Nutr 2004;92:7-19.

Parks EJ, Hellerstein MK. Carbohydrate-induced hypertriacylglycerolemia: historical perspective and review of biological mechanisms. Am J Clin Nutr 2000;71: 412-33.

Pascale RW, Mullen M, Wing RR, Bononi P, Butler BA. Effects of a behavioral weight loss program stressing calorie restriction versus calorie plus fat restriction in obese individuals with NIDDM or a family history of diabetes. Diabetes Care 1995;18:1241-8.

Patel JC, Metha AB, Dhirawani MK, Juthani VJ, Aiyer L. High carbohydrate diet in the treatment of diabetes mellitus. Diabetologia 1969;5:243-7.

Patja K, Jousilahti P, Hu G, Valle T, Qiao Q, Tuomilehto J. Effects of smoking, obesity and physical activity on the risk of type 2 diabetes in middle-aged Finnish men and women. J Intern Med 2005;258:356-62.

Patterson RE, Kristal A, Rodabough R, Caan B, Lillington L, Mossavar-Rahmani Y, et al. Changes in food sources of dietary fat in response to an intensive low-fat dietary intervention: early results from the Women's Health Initiative. J Am Diet Assoc 2003;103:454-60.

Pavlovich WD, Waters H, Weller W, Bass EB. Systematic review of literature on the cost-effectiveness of nutrition services. J Am Diet Assoc 2004;104: 226-32.

Paynter NP, Yeh HC, Voutilainen S, Schmidt MI, Heiss G, Folsom AR, et al. Coffee and sweetened beverage consumption and the risk of type 2 diabetes mellitus: the atherosclerosis risk in communities study. Am J Epidemiol 2006;164:1075-84.

Pearce KL, Noakes M, Keogh J, Clifton PM. Effect of carbohydrate distribution on postprandial glucose peaks with the use of continuous glucose monitoring in type 2 diabetes. Am J Clin Nutr 2008;87:638-44.

Pedersen O, Gaede P. Intensified multifactorial intervention and cardiovascular outcome in type 2 diabetes: the Steno-2 study. Metabolism 2003;52:19-23.

Pereira MA, Parker ED, Folsom AR. Coffee consumption and risk of type 2 diabetes mellitus: an 11-year prospective study of 28 812 postmenopausal women. Arch Intern Med 2006;166:1311-6.

Perez-Escamilla R, Hromi-Fiedler A, Vega-Lopez S, Bermudez-Millan A, Segura-Perez S. Impact of peer nutrition education on dietary behaviors and health outcomes among Latinos: a systematic literature review. J Nutr Educ Behav 2008;40:208-25.

Perry IJ, Wannamethee SG, Walker MK, Thomson AG, Whincup PH, Shaper AG. Prospective study of risk factors for development of non-insulin dependent diabetes in middle aged British men. BMJ 1995;310:560-4.

Perry TL, Mann JI, Lewis-Barned NJ, Duncan AW, Waldron MA, Thompson C. Lifestyle intervention in people with

insulin-dependent diabetes mellitus (IDDM). Eur J Clin Nutr 1997;51: 757-63.

Pfeuffer M, Schrezenmeir J. Milk and the metabolic syndrome. Obes Rev 2007;8:109-18.

Pick ME, Hawrysh ZJ, Gee MI, Toth E. Barley bread products improve glycemic control of type 2 subjects. Int J Food Sci Nutr 1998;49:71-8.

Pirozzo S, Summerbell C, Cameron C, Glasziou P. Should we recommend low-fat diets for obesity? Obes Rev 2003;4: 83-90.

Pischke CR, Weidner G, Elliott-Eller M, Scherwitz L, Merritt-Worden TA, Marlin R, et al. Comparison of coronary risk factors and quality of life in coronary artery disease patients with versus without diabetes mellitus. Am J Cardiol 2006;97: 1267-73.

Pischon T, Boeing H, Hoffmann K, Bergmann M, Schulze MB, Overvad K, et al. General and abdominal adiposity and risk of death in Europe. N Engl J Med 2008;359:2105-20.

Pissarek D, Panzram G, Lundershausen R, Adolph W, Senf L. [Intensified therapy of newly detected maturity onset diabetes]. Endokrinologie 1980;75:105-15.

Pi-Sunyer FX. How effective are lifestyle changes in the prevention of type 2 diabetes mellitus? Nutr Rev 2007;65:101-10.

Pi-Sunyer X. Glycemic index in early type 2 diabetes. Am J Clin Nutr 2008; 87:3-4.

Pitsavos C, Makrilakis K, Panagiotakos DB, Chrysohoou C, Ioannidis I, Dimosthenopoulos C, et al. The J-shape effect of alcohol intake on the risk of developing acute coronary syndromes in diabetic subjects: the CARDIO2000 II Study. Diabet Med 2005;22:243-8.

Pitsavos C, Panagiotakos DB, Chrysohoou C, Papaioannou I, Papadimitriou L, Tousoulis D, et al. The adoption of Mediterranean diet attenuates the development of acute coronary syndromes in people with the metabolic syndrome. Nutr J 2003;2:1.

Pittas AG, Lau J, Hu FB, Dawson-Hughes B. The role of vitamin D and calcium in type 2 diabetes. A systematic review and meta-analysis. J Clin Endocrinol Metab 2007;92:2017-29.

Pittas AG, Roberts SB, Das SK, Gilhooly CH, Saltzman E, Golden J, et al. The effects of the dietary glycemic load on type 2 diabetes risk factors during weight loss. Obesity (Silver Spring) 2006;14: 2200-9.

Poppitt SD, Keogh GF, Prentice AM, Williams DE, Sonnemans HM, Valk EE, et al. Long-term effects of ad libitum low-fat, high-carbohydrate diets on body weight and serum lipids in overweight subjects with metabolic syndrome. Am J Clin Nutr 2002;75:11-20.

Porta M, Pigino M, Minonne A, Morisio Guidetti L. Moderate amounts of sucrose with mixed meals do not impair metabolic control in patients with Type II (non-insulin dependent) diabetes. Diabetes, Nutrition and Metabolism – Clinical and Experimental 1989;2:133-7.

Pouwer F, Nijpels G, Beekman AT, Dekker JM, van Dam RM, Heine RJ, et al. Fat food for a bad mood. Could we treat and prevent depression in Type 2 diabetes by means of omega-3 polyunsaturated fatty acids? A review of the evidence. Diabet Med 2005;22:1465-75.

Pritchard DA, Hyndman J, Taba F. Nutritional counselling in general practice: a cost effective analysis. J Epidemiol Community Health 1999;53:311-6.

Psaltopoulou T, Kyrozis A, Stathopoulos P, Trichopoulos D, Vassilopoulos D, Trichopoulou A. Diet, physical activity and cognitive impairment among elders: the EPIC-Greece cohort (European Prospective Investigation into Cancer and Nutrition). Public Health Nutr 2008;11:1054-62.

Qi L, Kraft P, Hunter DJ, Hu FB. The common obesity variant near MC4R gene is associated with higher intakes of total energy and dietary fat, weight change and diabetes risk in women. Hum Mol Genet 2008;17:3502-8.

Qi L, Meigs JB, Liu S, Manson JE, Mantzoros C, Hu FB. Dietary fibers and glycemic load, obesity, and plasma adiponectin levels in women with type 2 diabetes. Diabetes Care 2006;29:1501-5.

Qi L, Rimm E, Liu S, Rifai N, Hu FB. Dietary glycemic index, glycemic load, cereal fiber, and plasma adiponectin concentration in diabetic men. Diabetes Care 2005;28:1022-8.

Qi L, van Dam RM, Liu S, Franz M, Mantzoros C, Hu FB. Whole-grain, bran, and cereal fiber intakes and markers of systemic inflammation in diabetic women. Diabetes Care 2006;29:207-11.

Racette SB, Weiss EP, Obert KA, Kohrt WM, Holloszy JO. Modest lifestyle intervention and glucose tolerance in obese African Americans. Obes Res 2001;9: 348-55.

Radesky JS, Oken E, Rifas-Shiman SL, Kleinman KP, Rich-Edwards JW, Gillman MW. Diet during early pregnancy and development of gestational diabetes. Paediatr Perinat Epidemiol 2008;22:47-59.

Ranheim T, Halvorsen B. Coffee consumption and human health – beneficial or detrimental? – Mechanisms for effects of coffee consumption on different risk factors for cardiovascular disease and type 2 diabetes mellitus. Mol Nutr Food Res 2005;49:274-84.

Rasmussen OW, Thomsen CH, Hansen KW, Vesterlund M, Winther E, Hermansen K. [Favourable effect of olive oil in patients with non-insulin-dependent diabetes. The effect on blood pressure, blood glucose and lipid levels of a high-fat diet rich in monounsaturated fat compared with a carbohydrate-rich diet]. Ugeskr Laeger 1995;157:1028-32.

Redmon JB, Raatz SK, Reck KP, Swanson JE, Kwong CA, Fan Q, et al. One-year outcome of a combination of weight loss therapies for subjects with type 2 diabetes: a randomized trial. Diabetes Care 2003; 26:2505-11.

Reece EA, Hagay Z, Gay LJ, O'Connor T, DeGennaro N, Homko CJ, et al. A randomized clinical trial of a fiber-enriched diabetic diet vs. the standard American Diabetes Association-recommended diet in the management of diabetes mellitus in pregnancy. J Matern Fetal Investig 1995;5:8-12.

Rehm J, Room R, Graham K, Monteiro M, Gmel G, Sempos CT. The relationship of average volume of alcohol consumption and patterns of drinking to burden of disease: an overview. Addiction 2003;98:1209-28.

Rettig BA, Shrauger DG, Recker RR, Gallagher TF, Wiltse H. A randomized study of the effects of a home diabetes education program. Diabetes Care 1986; 9:173-8.

Riccardi G, Giacco R, Parillo M, Turco S, Rivellese AA, Ventura MR, et al. Efficacy and safety of acarbose in the treatment of Type 1 diabetes mellitus: a placebo-controlled, double-blind, multicentre study. Diabet Med 1999;16:228-32.

Riccardi G, Rivellese AA. Dietary treatment of the metabolic syndrome – the optimal diet. Br J Nutr 2000;83 Suppl 1:S143-8.

Riksen NP, Rongen GA, Smits P. Acute and long-term cardiovascular effects of coffee: Implications for coronary heart disease. Pharmacol Ther 2009;121:185-91.

Rimm EB, Chan J, Stampfer MJ, Colditz GA, Willett WC. Prospective study of cigarette smoking, alcohol use, and the risk of diabetes in men. BMJ 1995;310: 555-9.

Rivellese A, Riccardi G, Giacco A, Postiglione A, Mastranzo P, Mattioli PL. Reduction of risk factors for atherosclerosis in diabetic patients treated with a high-fiber diet. Prev Med 1983;12:128-32.

Rivellese AA, De Natale C, Lilli S. Type of dietary fat and insulin resistance. Ann N Y Acad Sci 2002;967:329-35.

Rivellese AA, Iovine C, Ciano O, Costagliola L, Galasso R, Riccardi G, et al. Nutrient determinants of postprandial triglyceride response in a population-based sample of type II diabetic patients. Eur J Clin Nutr 2006;60:1168-73.

Rizkalla SW, Bellisle F, Slama G. Health benefits of low glycaemic index foods, such as pulses, in diabetic patients and healthy individuals. Br J Nutr 2002;88:S255-S62.

Rojo-Martinez G, Esteva I, Ruiz de Adana MS, Garcia-Almeida JM, Tinahones F, Cardona F, et al. Dietary fatty acids and insulin secretion: a population-based study. Eur J Clin Nutr 2006;60:1195-200.

Rosenfalck AM, Almdal T, Viggers L, Madsbad S, Hilsted J. A low-fat diet improves peripheral insulin sensitivity in patients with Type 1 diabetes. Diabet Med 2006;23:384-92.

Rosengren A, Dotevall A, Wilhelmsen L, Thelle D, Johansson S. Coffee and incidence of diabetes in Swedish women: a prospective 18-year follow-up study. J Intern Med 2004;255:89-95.

Roumen C, Corpeleijn E, Feskens EJM, Mensink M, Saris WHM, Blaak EE. Impact of 3-year lifestyle intervention on postprandial glucose metabolism: The SLIM study. Diabet Med 2008; 25:597-605.

Ruidavets JB, Bongard V, Dallongeville J, Arveiler D, Ducimetiere P, Perret B, et al. High consumptions of grain, fish, dairy products and combinations of these are associated with a low prevalence of metabolic syndrome. J Epidemiol Community Health 2007;61:810-7.

Ryu OH, Lee J, Lee KW, Kim HY, Seo JA, Kim SG, et al. Effects of green tea consumption on inflammation, insulin resistance and pulse wave velocity in type 2 diabetes patients. Diabetes Res Clin Pract 2006;71:356-8.

Sahyoun NR, Anderson AL, Kanaya AM, Koh-Banerjee P, Kritchevsky SB, de Rekeneire N, et al. Dietary glycemic index and load, measures of glucose metabolism, and body fat distribution in older adults. Am J Clin Nutr 2005; 82:547-52.

Sahyoun NR, Anderson AL, Tylavsky FA, Lee JS, Sellmeyer DE, Harris TB. Dietary glycemic index and glycemic load and the risk of type 2 diabetes in older adults. Am J Clin Nutr 2008;87: 126-31.

Sahyoun NR, Jacques PF, Zhang XL, Juan W, McKeown NM. Whole-grain intake is inversely associated with the metabolic syndrome and mortality in older adults. Am J Clin Nutr 2006;83: 124-31.

Salas-Salvado J, Fernandez-Ballart J, Ros E, Martinez-Gonzalez MA, Fito M, Estruch R, et al. Effect of a Mediterranean Diet Supplemented With Nuts on Metabolic Syndrome Status: One-Year Results of the PREDIMED Randomized Trial. Arch Intern Med 2008;168:2449-58.

Salas-Salvado J, Garcia-Arellano A, Estruch R, Marquez-Sandoval F, Corella D, Fiol M, et al. Components of the Mediterranean-type food pattern and serum inflammatory markers among patients at high risk for cardiovascular disease. Eur J Clin Nutr 2008;62:651-9.

Salazar-Martinez E, Willett WC, Ascherio A, Manson JE, Leitzmann MF, Stampfer MJ, et al. Coffee consumption and risk for type 2 diabetes mellitus. Ann Intern Med 2004;140:1-8.

Salmela S, Poskiparta M, Kasila K, Vahasarja K, Vanhala M. Transtheoretical model-based dietary interventions in primary care: a review of the evidence in diabetes. Health Educ Res 2009;24: 237-52.

Salmeron J, Ascherio A, Rimm EB, Colditz GA, Spiegelman D, Jenkins DJ, et al. Dietary fiber, glycemic load, and risk of NIDDM in men. Diabetes Care 1997;20:545-50.

Salmeron J, Hu FB, Manson JE, Stampfer MJ, Colditz GA, Rimm EB, et al. Dietary fat intake and risk of type 2 diabetes in women. Am J Clin Nutr 2001;73:1019-26.

Samaha FF, Foster GD, Makris AP. Low-carbohydrate diets, obesity, and metabolic risk factors for cardiovascular disease. Curr Atheroscler Rep 2007;9:441-7.

Samaha FF, Iqbal N, Seshadri P, Chicano KL, Daily DA, McGrory J, et al. A low-carbohydrate as compared with a low-fat diet in severe obesity. N Engl J Med 2003;348:2074-81.

Samson SL, Pownall HJ, Scott LW, Ballantyne CM, Smith EO, Sekhar RV, et al. Heart positive: Design of a randomized controlled clinical trial of intensive lifestyle intervention, niacin and fenofibrate for HIV lipodystrophy/ dyslipidemia. Contemp Clin Trials 2006;27:518-30.

Sanchez-Tainta A, Estruch R, Bullo M, Corella D, Gomez-Gracia E, Fiol M, et al. Adherence to a Mediterranean-type diet and reduced prevalence of clustered cardiovascular risk factors in a cohort of 3,204 high-risk patients. Eur J Cardiovasc Prev Rehabil 2008;15:589-93.

Sanders TAB. High- versus low-fat diets in human diseases. Current Opinion in Clinical Nutrition and Metabolic Care 2003;6:151-5.

Santacroce G, Forlani G, Giangiulio S, Galuppi V, Pagani M, Vannini P. Long-term effects of eating sucrose on metabolic control of type 1 (insulin-dependent) diabetic outpatients. Acta Diabetol Lat 1990; 27:365-70.

Sanz Paris A, Barragan Angulo A, Albero Gamboa R. [Clinical evidence on nutritional support in diabetes: A systematic review]. Endocrinol Nutr 2005; 52:47-55.

Saremi A, Tulloch-Reid M, Knowler WC. Coffee consumption and the incidence of type 2 diabetes. Diabetes Care 2003;26:2211-2.

Sargeant LA, Khaw KT, Bingham S, Day NE, Luben RN, Oakes S, et al. Fruit and vegetable intake and population glycosylated haemoglobin levels: the EPIC-Norfolk Study. Eur J Clin Nutr 2001;55:342-8.

Sargrad KR, Homko C, Mozzoli M, Boden G. Effect of high protein vs high carbohydrate intake on insulin sensitivity, body weight, hemoglobin A1c, and blood pressure in patients with type 2 diabetes mellitus. J Am Diet Assoc 2005; 105:573-80.

Sartorelli DS, Franco LJ, Cardoso MA. [Nutritional intervention and primary prevention of type 2 diabetes mellitus: a systematic review]. Cad Saude Publica 2006;22:7-18.

Sawyer L, Gale EA. Diet, delusion and diabetes. Diabetologia 2009;52:1-7.

Schaefer EJ, Gleason JA, Dansinger ML. The effects of low-fat, high-carbohydrate diets on plasma lipoproteins, weight loss, and heart disease risk reduction. Curr Atheroscler Rep 2005;7:421-7.

Schafer S, Kantartzis K, Machann J, Venter C, Niess A, Schick F, et al. Lifestyle intervention in individuals with normal versus impaired glucose tolerance. Eur J Clin Invest 2007;37:535-43.

Scheen AJ. Current management strategies for coexisting diabetes mellitus and obesity. Drugs 2003;63:1165-84.

Schimmler W, Schuderer A, Kurz M. [Weight reduction and sugar deprivation in glucose tolerance disturbance. A two-year study of 131 normal and overweight subjects (author's transl)]. MMW Munch Med Wochenschr 1976;118:1481-4.

Scholl TO, Chen X, Khoo CS, Lenders C. The dietary glycemic index during pregnancy: influence on infant birth weight, fetal growth, and biomarkers of carbohydrate metabolism. Am J Epidemiol 2004;159:467-74.

Schulze MB, Hoffmann K, Manson JE, Willett WC, Meigs JB, Weikert C, et al. Dietary pattern, inflammation, and incidence of type 2 diabetes in women. Am J Clin Nutr 2005;82: 675-84.

Schulze MB, Hu FB. Primary prevention of diabetes: what can be done and how much can be prevented? Annu Rev Public Health 2005;26:445-67.

Schulze MB, Liu S, Rimm EB, Manson JE, Willett WC, Hu FB. Glycemic index, glycemic load, and dietary fiber intake and incidence of type 2 diabetes in younger and middle-aged women. Am J Clin Nutr 2004;80:348-56.

Schulze MB, Manson JE, Ludwig DS, Colditz GA, Stampfer MJ, Willett WC, et al. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. JAMA 2004;292:927-34.

Schulze MB, Manson JE, Willett WC, Hu FB. Processed meat intake and incidence of Type 2 diabetes in younger and middle-aged women. Diabetologia 2003;46:1465-73.

Schulze MB, Schulz M, Heidemann C, Schienkiewitz A, Hoffmann K, Boeing H. Fiber and magnesium intake and incidence of type 2 diabetes: a prospective study and meta-analysis. Arch Intern Med 2007;167:956-65.

Schwarz JM, Linfoot P, Dare D, Aghajanian K. Hepatic de novo lipogenesis in normoinsulinemic and hyperinsulinemic subjects consuming high-fat, low-carbohydrate and low-fat, high-carbohydrate isoenergetic diets. Am J Clin Nutr 2003;77:43-50.

Schwenke DC. Insulin resistance, low-fat diets, and low-carbohydrate diets: Time to test new menus. Curr Opin Lipidol 2005;16:55-60.

Serra-Majem L, Roman B, Estruch R. Scientific evidence of interventions using the Mediterranean diet: a systematic review. Nutr Rev 2006;64:S27-47.

Seshadri P, Iqbal N, Stern L, Williams M, Chicano KL, Daily DA, et al. A randomized study comparing the effects of a low-carbohydrate diet and a conventional diet on lipoprotein subfractions and C-reactive protein levels in patients with severe obesity. Am J Med 2004;117:398-405.

Sesso HD, Cook NR, Buring JE, Manson JE, Gaziano JM. Alcohol consumption and the risk of hypertension in women and men. Hypertension 2008;51:1080-7.

Seyyednozadi M, Shakeri MT, Rajabian R, Vafaee A. Role of physical activiy and nutrition in controlling type 2 diabetes mellitus-2007. J Biol Sci 2008;8:794-8.

Shah M, Adams-Huet B, Garg A. Effect of high-carbohydrate or high-cis-monounsaturated fat diets on blood pressure: a meta-analysis of intervention trials. Am J Clin Nutr 2007;85:1251-6.

Shah MA-H, Grundy, S. M. Garg, A. Effect of a high-carbohydrate vs a high–cis-monounsaturated fat diet on lipid and lipoproteins in individuals with and without type 2 diabetes. Nutr Res 2004;24:969-79.

Shahar DR, Abel R, Elhayany A, Vardi H, Fraser D. Does dairy calcium intake enhance weight loss among overweight diabetic patients? Diabetes Care 2007; 30:485-9.

Shai I, Jiang R, Manson JE, Stampfer MJ, Willett WC, Colditz GA, et al. Ethnicity, obesity, and risk of type 2 diabetes

in women: A 20-year follow-up study. Diabetes Care 2006;29:1585-90.

Shai I, Schwarzfuchs D, Henkin Y, Shahar DR, Witkow S, Greenberg I, et al. Weight loss with a low-carbohydrate, Mediterranean, or low-fat diet. N Engl J Med 2008;359:229-41.

Sharman MJ, Gomez AL, Kraemer WJ, Volek JS. Very low-carbohydrate and low-fat diets affect fasting lipids and postprandial lipemia differently in overweight men. J Nutr 2004;134:880-5.

Sheard NF, Clark NG, Brand-Miller JC, Franz MJ, Pi-Sunyer FX, Mayer-Davis E, et al. Dietary carbohydrate (amount and type) in the prevention and management of diabetes: A statement by the American Diabetes Association. Diabetes Care 2004; 27:2266-71.

Shearer A, Bagust A, Sanderson D, Heller S, Roberts S. Cost-effectiveness of flexible intensive insulin management to enable dietary freedom in people with Type 1 diabetes in the UK. Diabet Med 2004; 21:460-7.

Sheils JF, Rubin R, Stapleton DC. The estimated costs and savings of medical nutrition therapy: the Medicare population. J Am Diet Assoc 1999;99:428-35.

Shimakawa T, Herrera-Acena MG, Colditz GA, Manson JE, Stampfer MJ, Willett WC, et al. Comparison of diets of diabetic and nondiabetic women. Diabetes Care 1993;16:1356-62.

Sievenpiper JL, Kendall CWC, Esfahani A, Wong JMW, Carleton AJ, Jiang HY, et al. Effect of non-oil-seed pulses on glycaemic control: A systematic review and meta-analysis of randomised controlled experimental trials in people with and without diabetes. Diabetologia 2009;52:1479-95.

Simonsson M, Schmidt C, Sigurdadottir V, Helenius ML, Fagerberg B. Life style habits such as alcohol consumption and physical activity in relation to serum apoB / apoA-I ratio amongst 64-year-old women with varying degrees of glucose tolerance. J Intern Med 2007;262:537-44.

Simpson RW, Mann JI, Eaton J, Carter RD, Hockaday TD. High-carbohydrate diets and insulin-dependent diabetics. Br Med J 1979;2:523-5.

Sirtori CR, Crepaldi G, Manzato E, Mancini M, Rivellese A, Paoletti R, et al. One-year treatment with ethyl esters of n-3 fatty acids in patients with hypertriglyceridemia and glucose intolerance: reduced triglyceridemia, total cholesterol and increased HDL-C without glycemic alterations. Atherosclerosis 1998;137: 419-27.

Skeaff CM, Miller J. Dietary fat and coronary heart disease: summary of evidence from prospective cohort and randomised controlled trials. Ann Nutr Metab 2009;55:173-201.

Skilton MR, Laville M, Cust AE, Moulin P, Bonnet F. The association between dietary macronutrient intake and the prevalence of the metabolic syndrome. Br J Nutr 2008;100:400-7.

Smith GD, Bracha Y, Svendsen KH, Neaton JD, Haffner SM, Kuller LH. Incidence of type 2 diabetes in the randomized multiple risk factor intervention trial. Ann Int Med 2005;142:313-22.

Snijder MB, van der Heijden AA, van Dam RM, Stehouwer CD, Hiddink GJ,

Nijpels G, et al. Is higher dairy consumption associated with lower body weight and fewer metabolic disturbances? The Hoorn Study. Am J Clin Nutr 2007;85:989-95.

Sofi F, Cesari F, Abbate R, Gensini GF, Casini A. Adherence to Mediterranean diet and health status: meta-analysis. BMJ 2008;337:a1344.

Sondike SB, Copperman N, Jacobson MS. Effects of a low-carbohydrate diet on weight loss and cardiovascular risk factor in overweight adolescents. J Pediatr 2003;142:253-8.

Sone H, Katagiri A, Ishibashi S, Abe R, Saito Y, Murase T, et al. Effects of lifestyle modifications on patients with type 2 diabetes: the Japan Diabetes Complications Study (JDCS) study design, baseline analysis and three year-interim report. Horm Metab Res 2002;34:509-15.

Song Y, Manson JE, Buring JE, Sesso HD, Liu S. Associations of dietary flavonoids with risk of type 2 diabetes, and markers of insulin resistance and systemic inflammation in women: a prospective study and cross-sectional analysis. J Am Coll Nutr 2005;24:376-84.

Soriguer F, Esteva I, Rojo-Martinez G, Ruiz de Adana MS, Dobarganes MC, Garcia-Almeida JM, et al. Oleic acid from cooking oils is associated with lower insulin resistance in the general population (Pizarra study). Eur J Endocrinol 2004;150:33-9.

Stampfer MJ, Colditz GA, Willett WC, Manson JE, Arky RA, Hennekens CH, et al. A prospective study of moderate alcohol drinking and risk of diabetes in women. Am J Epidemiol 1988;128: 549-58.

Stene LC, Joner G. Use of cod liver oil during the first year of life is associated with lower risk of childhood-onset type 1 diabetes: a large, population-based, case-control study. Am J Clin Nutr 2003;78:1128-34.

Stern L, Iqbal N, Seshadri P, Chicano KL, Daily DA, McGrory J, et al. The effects of low-carbohydrate versus conventional weight loss diets in severely obese adults: one-year follow-up of a randomized trial. Ann Intern Med 2004;140:778-85.

Stevens J, Ahn K, Juhaeri, Houston D, Steffan L, Couper D. Dietary fiber intake and glycemic index and incidence of diabetes in African-American and white adults: the ARIC study. Diabetes Care 2002;25:1715-21.

Steyn NP, Mann J, Bennett PH, Temple N, Zimmet P, Tuomilehto J, et al. Diet, nutrition and the prevention of type 2 diabetes. Public Health Nutr 2004;7: 147-65.

Story L, Anderson JW, Chen WJ, Karounos D, Jefferson B. Adherence to high-carbohydrate, high-fiber diets: long-term studies of non-obese diabetic men. J Am Diet Assoc 1985;85:1105-10.

Stote KS, Baer DJ. Tea consumption may improve biomarkers of insulin sensitivity and risk factors for diabetes. J Nutr 2008;138:1584S-1588S.

Sugimori H, Miyakawa M, Yoshida K, Izuno T, Takahashi E, Tanaka C, et al. Health risk assessment for diabetes mel-

litus based on longitudinal analysis of MHTS database. J Med Syst 1998;22: 27-32.

Sun J, Wang Y, Chen X, Chen Y, Feng Y, Zhang X, et al. An integrated intervention program to control diabetes in overweight Chinese women and men with type 2 diabetes. Asia Pac J Clin Nutr 2008;3: 514-24.

Sun JQ, Zhang XY, Zong M, Chen YQ, Zhang M, Chen XF, et al. Effect of low glycemic index dietary on oxidative stress in overweight old patients with type 2 diabetes. Journal of Clinical Rehabilitative Tissue Engineering Research 2007;11:9499-502.

Sundberg R, Hedbrant J. Vilseledande om fett – kritisk granskning av kostråd från expertgruper. Läkartidningen 2008; 105:1480-2.

Suter PM. Carbohydrates and dietary fiber. Handb Exp Pharmacol 2005:231-61.

Swerdlow AJ, Laing SP, Qiao Z, Slater SD, Burden AC, Botha JL, et al. Cancer incidence and mortality in patients with insulin-treated diabetes: a UK cohort study. Br J Cancer 2005;92:2070-5.

Swinburn BA, Metcalf PA, Ley SJ. Long-term (5-year) effects of a reduced-fat diet intervention in individuals with glucose intolerance. Diabetes Care 2001;24:619-24.

Swinburn BA, Woollard GA, Chang EC, Wilson MR. Effects of reduced-fat diets consumed ad libitum on intake of nutrients, particularly antioxidant vitamins. J Am Diet Assoc 1999;99:1400-5.

Tan J, Wang JJ, Flood V, Kaushik S, Barclay A, Brand-Miller J, et al. Carbohydrate nutrition, glycemic index, and the 10-y incidence of cataract. Am J Clin Nutr 2007;86:1502-8.

Tanasescu M, Hu FB. Alcohol consumption and risk of coronary heart disease among individuals with type 2 diabetes. Curr Diab Rep 2001;1:187-91.

Tao M, McDowell MA, Saydah SH, Eberhardt MS. Relationship of polyunsaturated fatty acid intake to peripheral neuropathy among adults with diabetes in the National Health and Nutrition Examination Survey (NHANES) 1999 2004. Diabetes Care 2008;31:93-5.

Tapsell LC, Gillen LJ, Patch CS, Batterham M, Owen A, Bare M, et al. Including walnuts in a low-fat/modified-fat diet improves HDL cholesterol-to-total cholesterol ratios in patients with type 2 diabetes. Diabetes Care 2004;27:2777-83.

Tay J, Brinkworth GD, Noakes M, Keogh J, Clifton PM. Metabolic effects of weight loss on a very-low-carbohydrate diet compared with an isocaloric high-carbohydrate diet in abdominally obese subjects. J Am Coll Cardiol 2008;51:59-67.

Taylor KG, John WG, Matthews KA, Wright AD. A prospective study of the effect of 12 months treatment on serum lipids and apolipoproteins A-I and B in Type 2 (non-insulin-dependent) diabetes. Diabetologia 1982;23:507-10.

Teuscher A. [Carbohydrates and dietary fiber in the diabetic diet]. Schweiz Med Wochenschr 1986;116:282-7.

Thanopoulou AC, Karamanos BG, Angelico FV, Assaad-Khalil SH, Barbato AF, Del Ben MP, et al. Dietary fat intake as risk factor for the development of dia-

betes: multinational, multicenter study of the Mediterranean Group for the Study of Diabetes (MGSD). Diabetes Care 2003;26:302-7.

Thomas DE, Elliott EJ. Low glycaemic index, or low glycaemic load, diets for diabetes mellitus. Cochrane Database of Systematic Reviews 2006: CD006296.

Thomas DE, Elliott EJ, Baur L. Low glycaemic index or low glycaemic load diets for overweight and obesity. Cochrane Database Syst Rev 2007: CD005105.

Thompson JL, Allen P, Helitzer DL, Qualls C, Whyte AN, Wolfe VK, et al. Reducing diabetes risk in American Indian women. Am J Prev Med 2008;34:192-201.

Tieu J, Crowther CA, Middleton P. Dietary advice in pregnancy for preventing gestational diabetes mellitus. Cochrane Database of Systematic Reviews 2008: CD006674.

Tinker LF, Bonds DE, Margolis KL, Manson JE, Howard BV, Larson J, et al. Low-fat dietary pattern and risk of treated diabetes mellitus in postmenopausal women: the Women's Health Initiative randomized controlled dietary modification trial. Arch Intern Med 2008;168:1500-11.

Toeller M. Fibre consumption, metabolic effects and prevention of complications in diabetic patients: epidemiological evidence. Dig Liver Dis 2002;34 Suppl 2:S145-9.

Toeller M, Buyken AE, Heitkamp G, Scherbaum WA, Krans HM, Fuller JH. Associations of fat and cholesterol intake with serum lipid levels and cardiovascular disease: the EURODIAB IDDM Complications Study. Exp Clin Endocrinol Diabetes 1999;107:512-21.

Toobert DJ, Glasgow RE, Strycker LA, Barrera M, Jr., Radcliffe JL, Wander RC, et al. Biologic and quality-of-life outcomes from the Mediterranean Lifestyle Program: a randomized clinical trial. Diabetes Care 2003;26:2288-93.

Torjesen PA, Birkeland KI, Anderssen SA, Hjermann I, Holme I, Urdal P. Lifestyle changes may reverse development of the insulin resistance syndrome. The Oslo Diet and Exercise Study: a randomized trial. Diabetes Care 1997;20:26-31.

Tremblay A, Gilbert JA. Milk products, insulin resistance syndrome and type 2 diabetes. J Am Coll Nutr 2009;28 Suppl 1:91S-102S.

Trento M, Passera P, Bajardi M, Tomalino M, Grassi G, Borgo E, et al. Lifestyle intervention by group care prevents deterioration of Type II diabetes: a 4-year randomized controlled clinical trial. Diabetologia 2002;45:1231-9.

Trento M, Passera P, Tomalino M, Bajardi M, Pomero F, Allione A, et al. Group visits improve metabolic control in type 2 diabetes: a 2-year follow-up. Diabetes Care 2001;24:995-1000.

Trichopoulou A, Psaltopoulou T, Orfanos P, Hsieh CC, Trichopoulos D. Low-carbohydrate-high-protein diet and long-term survival in a general population cohort. Eur J Clin Nutr 2007;61:575-81.

Trinidad TP, Mallillin AC, Loyola AS, Sagum RS, Encabo RR. The potential health benefits of legumes as a good source of dietary fibre. Br J Nutr 2010; 103:569-74.

Truby H, Baic S, deLooy A, Fox KR, Livingstone MB, Logan CM, et al. Randomised controlled trial of four commercial weight loss programmes in the UK: initial findings from the BBC "diet trials". BMJ 2006;332:1309-14.

Tsai CJ, Leitzmann MF, Willett WC, Giovannucci EL. Glycemic load, glycemic index, and carbohydrate intake in relation to risk of cholecystectomy in women. Gastroenterology 2005;129: 105-12.

Tsihlias EB, Gibbs AL, McBurney MI, Wolever TM. Comparison of high- and low-glycemic-index breakfast cereals with monounsaturated fat in the long-term dietary management of type 2 diabetes. Am J Clin Nutr 2000;72:439-49.

Tsumura K, Hayashi T, Suematsu C, Endo G, Fujii S, Okada K. Daily alcohol consumption and the risk of type 2 diabetes in Japanese men: the Osaka Health Survey. Diabetes Care 1999;22:1432-7.

Tuomilehto J, Hu G, Bidel S, Lindstrom J, Jousilahti P. Coffee consumption and risk of type 2 diabetes mellitus among middle-aged Finnish men and women. JAMA 2004;291:1213-9.

Turner R, Cull C, Holman R. United Kingdom prospective diabetes study 17: A 9-year update of a randomized, controlled trial on the effect of improved metabolic control on complications in non-insulin-dependent diabetes mellitus. Ann Int Med 1996;124:136-145.

Turner RC, Cull CA, Frighi V, Holman RR. Glycemic control with diet, sulfonylurea, metformin, or insulin in patients with type 2 diabetes mellitus: progressive requirement for multiple therapies (UKPDS 49). UK Prospective Diabetes Study (UKPDS) Group. JAMA 1999;281:2005-12.

Turner-McGrievy GM, Barnard ND, Cohen J, Jenkins DJ, Gloede L, Green AA. Changes in nutrient intake and dietary quality among participants with type 2 diabetes following a low-fat vegan diet or a conventional diabetes diet for 22 weeks. J Am Diet Assoc 2008;108:1636-45.

Tuttle KR, Shuler LA, Packard DP, Milton JE, Daratha KB, Bibus DM, et al. Comparison of low-fat versus Mediterranean-style dietary intervention after first myocardial infarction (from The Heart Institute of Spokane Diet Intervention and Evaluation Trial). Am J Cardiol 2008;101:1523-30.

Tzima N, Pitsavos C, Panagiotakos DB, Skoumas J, Zampelas A, Chrysohoou C, et al. Mediterranean diet and insulin sensitivity, lipid profile and blood pressure levels, in overweight and obese people; the Attica study. Lipids Health Dis 2007;6:22.

U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans 2005. 6th Edition W, DC: U.S. Government Printing Office, January 2005.

Uusitupa MI. Early lifestyle intervention in patients with non-insulin-dependent diabetes mellitus and impaired glucose tolerance. Ann Med 1996;28:445-9.

Vaarala O, Knip M, Paronen J, Hamalainen AM, Muona P, Vaatainen M, et al. Cow's milk formula feeding induces primary immunization to insulin in infants at genetic risk for type 1 diabetes. Diabetes 1999;48:1389-94.

Wadden TA, West DS, Delahanty L, Jakicic J, Rejeski J, Williamson D, et al. The Look AHEAD study: a description of the lifestyle intervention and the evidence supporting it. Obesity (Silver Spring) 2006;14:737-52.

Wadden TA, West DS, Neiberg RH, Wing RR, Ryan DH, Johnson KC, et al. One-year weight losses in the Look AHEAD study: factors associated with success. Obesity (Silver Spring) 2009;17: 713-22.

Valachovicova M, Krajcovicova-Kudlackova M, Blazicek P, Babinska K. No evidence of insulin resistance in normal weight vegetarians. A case control study. Eur J Nutr 2006;45:52-4.

Walker KZ, O'Dea K, Johnson L, Sinclair AJ, Piers LS, Nicholson GC, et al. Body fat distribution and non-insulin-dependent diabetes: comparison of a fiber-rich, high-carbohydrate, low-fat (23%) diet and a 35% fat diet high in monounsaturated fat. Am J Clin Nutr 1996;63:254-60.

Wall JR, Pyke DA, Oakley WG. Effect of carbohydrate restriction in obese diabetics: relationship of control to weight loss. Br Med J 1973;1:577-8.

Valmadrid CT, Klein R, Moss SE, Klein BE. The risk of cardiovascular disease mortality associated with microalbuminuria and gross proteinuria in persons with older-onset diabetes mellitus. Arch Intern Med 2000;160:1093-100.

Van Dam RM. The epidemiology of lifestyle and risk for type 2 diabetes. Eur J Epidemiol 2003;18:1115-25.

van Dam RM. Coffee and type 2 diabetes: from beans to beta-cells. Nutr Metab Cardiovasc Dis 2006;16:69-77.

van Dam RM, Dekker JM, Nijpels G, Stehouwer CD, Bouter LM, Heine RJ. Coffee consumption and incidence of impaired fasting glucose, impaired glucose tolerance, and type 2 diabetes: the Hoorn Study. Diabetologia 2004; 47:2152-9.

van Dam RM, Feskens EJ. Coffee consumption and risk of type 2 diabetes mellitus. Lancet 2002;360:1477-8.

van Dam RM, Hu FB. Coffee consumption and risk of type 2 diabetes: a systematic review. JAMA 2005;294:97-104.

van Dam RM, Hu FB, Rosenberg L, Krishnan S, Palmer JR. Dietary calcium and magnesium, major food sources, and risk of type 2 diabetes in U.S. black women. Diabetes Care 2006;29:2238-43.

van Dam RM, Willett WC, Manson JE, Hu FB. Coffee, caffeine, and risk of type 2 diabetes: a prospective cohort study in younger and middle-aged U.S. women. Diabetes Care 2006;29:398-403.

van Dam RM, Willett WC, Rimm EB, Stampfer MJ, Hu FB. Dietary fat and meat intake in relation to risk of type 2 diabetes in men. Diabetes Care 2002;25: 417-24.

van de Laar FA, Akkermans RP, van Binsbergen JJ. Limited evidence for effects of diet for type 2 diabetes from systematic reviews. Eur J Clin Nutr 2007;61:929-37.

van de Laar FA, van de Lisdonk EH, Lucassen PL, Stafleu A, Mulder J, van den Hoogen HJ, et al. Eating behaviour and adherence to diet in patients with Type 2 diabetes mellitus. Diabet Med 2006;23:788-94.

Vang A, Singh PN, Lee JW, Haddad EH, Brinegar CH. Meats, processed meats, obesity, weight gain and occurrence of diabetes among adults: findings from Adventist Health Studies. Ann Nutr Metab 2008;52:96-104.

Wang HW, Yang YX, Zhang YF, Han JH, Wang Z. Acceptance of knowledge to food glycemic index and dietary adjustment in diabetic patients. Journal of Clinical Rehabilitative Tissue Engineering Research 2007;11:10701-3.

Wang L, Folsom AR, Zheng ZJ, Pankow JS, Eckfeldt JH. Plasma fatty acid composition and incidence of diabetes in middle-aged adults: the Atherosclerosis Risk in Communities (ARIC) Study. Am J Clin Nutr 2003;78:91-8.

Wannamethee SG, Camargo CA, Jr, Manson JE, Willett WC, Rimm EB. Alcohol drinking patterns and risk of type 2 diabetes mellitus among younger women. Arch Intern Med 2003;163:1329-36.

Vanninen E, Uusitupa M, Lansimies E, Siitonen O, Laitinen J. Effect of metabolic control on autonomic function in obese patients with newly diagnosed type 2 diabetes. Diabet Med 1993;10: 66-73.

Warensjo E, Jansson JH, Berglund L, Boman K, Ahren B, Weinehall L, et al. Estimated intake of milk fat is negatively associated with cardiovascular risk factors and does not increase the risk of a first acute myocardial infarction. A prospective case-control study. Br J Nutr 2004;91:635-42.

Warensjo E, Sundstrom J, Lind L, Vessby B. Factor analysis of fatty acids in serum lipids as a measure of dietary fat quality in relation to the metabolic syndrome in men. Am J Clin Nutr 2006;84:442-8.

Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. Am J Public Health 2007;97:667-75.

Watanabe M, Barzi F, Neal B, Ueshima H, Miyoshi Y, Okayama A, et al. Alcohol consumption and the risk of diabetes by body mass index levels in a cohort of 5,636 Japanese. Diabetes Res Clin Pract 2002;57:191-7.

Watanabe M, Yamaoka K, Yokotsuka M, Tango T. Randomized controlled trial of a new dietary education program to prevent type 2 diabetes in a high-risk group of Japanese male workers. Diabetes Care 2003;26:3209-14.

Wei M, Gibbons LW, Mitchell TL, Kampert JB, Blair SN. Alcohol intake and incidence of type 2 diabetes in men. Diabetes Care 2000;23:18-22.

Welsh J, Dietz W. Sugar-sweetened beverage consumption is associated with weight gain and incidence of type 2 diabetes. Clin Diabetes 2005; 23:150-2.

Vernay M, Balkau B, Moreau JG, Sigalas J, Chesnier MC, Ducimetiere P. Alcohol consumption and insulin resistance syndrome parameters: associations and evolutions

in a longitudinal analysis of the French DESIR cohort. Ann Epidemiol 2004;14: 209-14.

Vernon MC, Mavropoulos J, Transue M, Yancy WS, Westman EC. Clinical experience of a carbohydrate-restricted diet: effect on diabetes mellitus. Metab Syndr Relat Disord 2003;1:233-7.

Vessby B. n-3 fatty acids and blood glucose control in diabetes mellitus. J Intern Med Suppl 1989;731:207-10.

Vesti-Nielsen J, Joensson E. Low-carbohydrate diet in type 2 diabetes. Stable improvement of bodyweight and glycemic control during 22 months follow-up. Nutr Metab (Lond) 2006;3:22.

Vesti-Nielsen J, Jonsson E, Nilsson AK. Lasting improvement of hyperglycaemia and bodyweight: low-carbohydrate diet in type 2 diabetes. A brief report. Ups J Med Sci 2005;110:179-83.

Vesti-Nielsen J, Westerlund P, Bygren P. A low-carbohydrate diet may prevent end-stage renal failure in type 2 diabetes. A case report. Nutr Metab (Lond) 2006; 3:23.

Westman EC, Feinman RD, Mavropoulos JC, Vernon MC, Volek JS, Wortman JA, et al. Low-carbohydrate nutrition and metabolism. Am J Clin Nutr 2007;86:276-84.

Wien MA, Sabate JM, Ikle DN, Cole SE, Kandeel FR. Almonds vs complex carbohydrates in a weight reduction program. Int J Obes Relat Metab Disord 2003;27: 1365-72.

Vijgen SM, Hoogendoorn M, Baan CA, de Wit GA, Limburg W, Feenstra TL. Cost effectiveness of preventive interventions in type 2 diabetes mellitus: a systematic literature review. Pharmacoeconomics 2006;24:425-41.

Wild SH, Byrne CD. Treatment of lipids to reduce cardiovascular risk among people with the metabolic syndrome or type 2 diabetes. British Journal of Diabetes and Vascular Disease 2005;5:315-9.

Villegas R, Gao YT, Yang G, Li HL, Elasy TA, Zheng W, et al. Legume and soy food intake and the incidence of type 2 diabetes in the Shanghai Women's Health Study. Am J Clin Nutr 2008;87: 162-7.

Villegas R, Liu S, Gao YT, Yang G, Li H, Zheng W, et al. Prospective study of dietary carbohydrates, glycemic index, glycemic load, and incidence of type 2 diabetes mellitus in middle-aged Chinese women. Arch Intern Med 2007;167:2310-6.

Villegas R, Shu XO, Gao YT, Yang G, Elasy T, Li H, et al. Vegetable but not fruit consumption reduces the risk of type 2 diabetes in Chinese women. J Nutr 2008;138:574-80.

Willett W, Manson J, Liu S. Glycemic index, glycemic load, and risk of type 2 diabetes. Am J Clin Nutr 2002;76: 274S-80S.

Willett WC. The Mediterranean diet: science and practice. Public Health Nutr 2006;9:105-10.

Williams CJ, Fargnoli JL, Hwang JJ, van Dam RM, Blackburn GL, Hu FB, et al. Coffee consumption is associated with higher plasma adiponectin concentrations in women with or without

type 2 diabetes: a prospective cohort study. Diabetes Care 2008;31:504-7.

Williams DE, Wareham NJ, Cox BD, Byrne CD, Hales CN, Day NE. Frequent salad vegetable consumption is associated with a reduction in the risk of diabetes mellitus. J Clin Epidemiol 1999;52:329-35.

Williams DEM, Prevost AT, Whichelow MJ, Cox BD, Day NE, Wareham NJ. A cross-sectional study of dietary patterns with glucose intolerance and other features of the metabolic syndrome. Br J Nutr 2000;83:257-66.

Wing RR, Marquez B. Behavioral aspects of weight loss in type 2 diabetes. Current Diabetes Reports 2008;8:126-131.

Wing RR, Venditti E, Jakicic JM, Polley BA, Lang W. Lifestyle intervention in overweight individuals with a family history of diabetes. Diabetes Care 1998; 21:350-9.

Winters SM, Visser H, Steerneman AH, Thomas G, Bots ML, van der Heijden GJ. Is there a need for dietary measures to further reduce LDL cholesterol in patients with type II diabetes mellitus on statin therapy? Prim Care Diabetes 2008;2:51-4.

Wirfalt E, Hedblad B, Gullberg B, Mattisson I, Andren C, Rosander U, et al. Food patterns and components of the metabolic syndrome in men and women: a cross-sectional study within the Malmo Diet and Cancer cohort. Am J Epidemiol 2001;154:1150-9.

Volek J, Sharman M, Gomez A, Judelson D, Rubin M, Watson G, et al. Comparison of energy-restricted very low-carbohydrate and low-fat diets on weight loss and body composition in overweight men and women. Nutr Metab (Lond) 2004;1:13.

Wolever TM, Schrade KB, Vogt JA, Tsihlias EB, McBurney MI. Do colonic short-chain fatty acids contribute to the long-term adaptation of blood lipids in subjects with type 2 diabetes consuming a high-fiber diet? Am J Clin Nutr 2002;75:1023-30.

Wolever TMS, Mehling C, Chiasson JL, Josse RG, Leiter LA, Maheux P, et al. Low glycaemic index diet and disposition index in type 2 diabetes (the Canadian trial of Carbohydrates in Diabetes): A randomised controlled trial. Diabetologia 2008;51:1607-15.

Wolever TMS, Tsihlias EB, McBurney MI, Le NA. Long-term effect of reduced carbohydrate or increased fiber intake on LDL particle size and HDL composition in subjects with type 2 diabetes. Nutr Res 2003;23:15-26.

Women's Health Initiative Study Group. Dietary adherence in the Women's Health Initiative Dietary Modification Trial. J Am Diet Assoc 2004;104:654-8.

Woo J, Sea MMM, Tong P, Ko GTC, Lee Z, Chan J, et al. Effectiveness of a lifestyle modification programme in weight maintenance in obese subjects after cessation of treatment with Orlistat. J Eval Clin Pract 2007;13:853-9.

Wood ER. Evaluation of a hospital-based education program for patients with diabetes. J Am Diet Assoc 1989; 89:354-8.

Wood RJ, Volek JS, Davis SR, Dell'Ova C, Fernandez ML. Effects of a carbohydrate-restricted diet on emerging plasma markers for cardiovascular disease. Nutr Metab (Lond) 2006;3:19.

Wu T, Giovannucci E, Pischon T, Hankinson SE, Ma J, Rifai N, et al. Fructose, glycemic load, and quantity and quality of carbohydrate in relation to plasma C-peptide concentrations in US women. Am J Clin Nutr 2004;80: 1043-9.

Yamaoka K, Tango T. Efficacy of lifestyle education to prevent type 2 diabetes: a meta-analysis of randomized controlled trials. Diabetes Care 2005;28:2780-6.

Yancy WS Jr, Foy M, Chalecki AM, Vernon, MC. Westman, EC. A low-carbohydrate, ketogenic diet to treat type 2 diabetes. Nutr Metab 2005;2:34.

Yancy WS Jr, Olsen MK, Guyton JR, Bakst RP, Westman EC. A low-carbohydrate, ketogenic diet versus a low-fat diet to treat obesity and hyperlipidemia: a randomized, controlled trial. Ann Intern Med 2004;140:769-77.

Yancy WS, Vernon MC, Westman EC. A pilot trial of a low-carbohydrate, ketogenic diet in patients with type 2 diabetes. Metab Syndr Relat Disord 2003;1:239-43.

Ying H, Wang DF. [Effects of dietary fat on onset of gestational diabetes mellitus]. Zhonghua Fu Chan Ke Za Zhi 2006;41:729-31.

Yu Y, Tsai CME. LDL cholesterol and oxidation are significantly reduced in type 2 diabetic patients receiving a barley leaf essence supplemented olive oil diet. Food Sci Agric Chem 2003;5:1.

Yusuf S, Hawken S, Ounpuu S, Dans T, Avezum A, Lanas F, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. Lancet 2004;364:937-52.

Zazpe I, Sanchez-Tainta A, Estruch R, Lamuela-Raventos RM, Schroder H, Salas-Salvado J, et al. A large randomized individual and group intervention conducted by registered dietitians increased adherence to Mediterranean-type diets: the PREDIMED study. J Am Diet Assoc 2008;108:1134-44.

Zehle K, Smith BJ, Chey T, McLean M, Bauman AE, Cheung NW. Psychosocial factors related to diet among women with recent gestational diabetes: opportunities for intervention. Diabetes Educ 2008;34: 807-14.

Zemel MB, Zemel PC, Bryg RJ, Sowers JR. Dietary calcium induces regression of left ventricular hypertrophy in hypertensive non-insulin-dependent diabetic blacks. Am J Hypertens 1990; 3:458-63.

Zhang C, Liu S, Solomon CG, Hu FB. Dietary fiber intake, dietary glycemic load, and the risk for gestational diabetes mellitus. Diabetes Care 2006; 29:2223-30.

Zhang C, Schulze MB, Solomon CG, Hu FB. A prospective study of dietary patterns, meat intake and the risk of gestational diabetes mellitus. Diabetologia 2006;49:2604-13.

Zhang LY, Yin CC. New development of exercise therapy for type 2 diabetes. Journal of Clinical Rehabilitative Tissue Engineering Research 2007;11:9201-3.

Zhi XY, Wang JH. Risk factors for diabetic peripheral neuropathy in type 2 diabetes mellitus: A one-to-one pair-matched investigation. Journal of Clinical Rehabilitative Tissue Engineering Research 2007; 11:8813-5.

Ziemer DC, Berkowitz KJ, Panayioto RM, El-Kebbi IM, Musey VC, Anderson LA, et al. A simple meal plan emphasizing healthy food choices is as effective as an exchange-based meal plan for urban African Americans with type 2 diabetes. Diabetes Care 2003;26:1719-24.

Zilli F, Croci M, Tufano A, Caviezel F. The compliance of hypocaloric diet in type 2 diabetic obese patients: a brief-term study. Eat Weight Disord 2000;5:217-22.

Bilaga 6. Praxisenkät om kostråd till personer med diabetes

SBU genomför en systematisk kunskapsöversikt över det vetenskapliga underlaget för de kostråd hälso- och sjukvården ger till personer med diabetes. I anslutning till denna översikt görs en kartläggning av dagens svenska praxis på området. I denna kartläggning riktar vi oss till läkare, sjuksköterskor och dietister som ger råd i livsstilsfrågor till personer med diabetes. Såväl primärvård som vård vid medicin- och barnklinikernas öppenvårdsmottagning täcks in.

Vi frågar om kostråd för dels typ 1-diabetes, dels typ 2-diabetes. Speciella förhållanden, t ex graviditetsdiabetes eller diabetes med njursvikt, täcks inte in av enkäten.

** Med "konventionell diabeteskost" avses en kost som är:*
- *energianpassad till den enskilde individens behov*
- *snål på mättade fetter*
- *rik på "långsamma" men fattig på "snabba" livsmedel*
- *fiberrik*
- *jämn fördelning av måltiderna över dagen*

1. Vilka patienter ger du kostråd till:
- Ger du kostråd både till patienter med typ 1-diabetes och typ 2-diabetes JA ❍
- Ger du kostråd bara till patienter med typ 2-diabetes JA ❍

2. Hur stor andel av de personer med diabetes som du ger råd till uppskattar du får råd som i huvudsak handlar om "konventionell diabeteskost"?

a) Typ 1-diabetes

❍ ≥90% ❍ 50–89% ❍ ≤49% ❍ Osäkert/ej tillämpligt

b) Typ 2-diabetes

❍ ≥90% ❍ 50–89% ❍ ≤49% ❍ Osäkert/ej tillämpligt

Vi ber dig nu att ange hur ofta du ger olika kostråd på en femgradig skala

3. Mer frukt

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

4. Mer grönsaker
a) Typ 1-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

5. Bönor, linser och andra baljväxter i utbyte mot potatis och andra snabba kolhydrater, helt eller delvis
a) Typ 1-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

6. Nötter, avokado och olja i utbyte mot spannmålsprodukter och potatis
a) Typ 1-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

7. Nötter, avokado och olja i utbyte mot mättade fetter (feta mejeriprodukter, konditorivaror, snacks/chips m m)
a) Typ 1-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

8. Fiberrika spannmålsprodukter (t ex bröd och flingor) i utbyte mot mättade fetter (feta mejeriprodukter, konditorivaror, snacks/chips m m)
a) Typ 1-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes
❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

9. Protein (kött, fisk, fågel och/eller mjölkprodukter) i utbyte mot spannmålsprodukter och potatis

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

10. Fisk i utbyte mot rött kött/charkuteriprodukter

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

11. Lågkolhydrat (t ex Atkins, LCHF)

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

12. Måltidsersättning med mycket lågt energiinnehåll (VLCD)

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

13. Annat, ange vad

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

14. Känner du osäkerhet kring vilka kostråd som är evidensbaserade vid diabetes?

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

15. Ifrågasätts de kostråd du ger av dina patienter?

a) Typ 1-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

b) Typ 2-diabetes

❍ Alltid ❍ Ofta ❍ Ibland ❍ Sällan ❍ Aldrig

Något om dig själv

Vi vill kartlägga om de praxisvariationer som kan förekomma kan knytas till kön, yrke, var man arbetar och när/var man fått sin grundutbildning

16. Kön

❍ Man
❍ Kvinna

17. Yrke

❍ Läkare
❍ Sjuksköterska
❍ Dietist

18. Arbetar i/vid

❍ Primärvård
❍ Medicinklinik
❍ Barn/ungdomsklinik
❍ Annat, ange vad i nedan fält:

19. När avslutade du din grundutbildning till ditt nuvarande yrke?

❍ Före 1980
❍ På 1980-talet
❍ På 1990-talet
❍ På 2000-talet

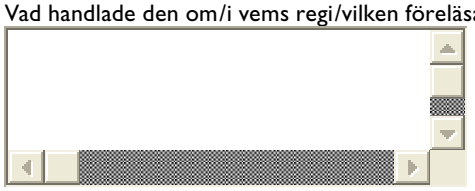
20. Inom vilken sjukvårdsregion genomgick du merparten av din grundutbildning?

❍ Norra
❍ Uppsala-Örebro
❍ Stockholm
❍ Sydöstra
❍ Västsvenska
❍ Södra

21. När fick du senast professionell vidareutbildning om kostråd vid diabetes?

❍ Senaste året
❍ 1 till 5 år sedan
❍ 6 till 10 år sedan
❍ Mer än 10 år sedan
❍ Aldrig

Vad handlade den om/i vems regi/vilken föreläsare



22. Ange postnummer för din arbetsplats (ej mellanslag)

23. Hur många patienter med diabetes behandlas vid din klinik?

❍ Mindre än 20
❍ 20 till 50
❍ 50 till 100
❍ 100 till 400
❍ Över 400

Skicka

Bilaga 7. Praxisundersökning

Bakgrund

Det finns begränsad kunskap om i vilken utsträckning olika kostråd ges till personer med diabetes. Till exempel finns inga register motsvarande dem som finns för läkemedel och många andra behandlingsmetoder. För att närmare kartlägga praxis kring kostrådgivning vid diabetes genomfördes en enkätstudie. Syftet var att få en översikt av vilka kostrekommendationer som läkare, sjuksköterskor och dietister idag ger vid diabetes samt att kartlägga eventuella skillnader som kan förklaras av rådgivarens yrke, utbildningstidpunkt och arbetsplats. Dessutom undersöktes förekomsten av geografiska skillnader. Resultaten av praxisundersökningen sammanfattas i Kapitel 6 i rapporten.

Metod och genomförande

Som undersökningsmetod valdes anonym webbenkät med flervalsfrågor (se Bilaga 6). Kontaktpersonerna för samtliga kliniker anslutna till Nationella Diabetesregistret (NDR) fick ett mejl med en länk till enkäten och uppmanades att vidarebefordra denna till en läkare, en sjuksköterska samt en dietist på sin klinik. Enkäten tog mindre än 10 minuter att besvara och en pilotstudie med 20 deltagare visade att ingen av frågorna var svårbesvarad. Data samlades in mellan 27 september och 13 november 2009. Under denna period skickades ett introduktionsmejl och tre påminnelser.

På flera ställen i enkäten hänvisas till ”konventionell diabeteskost”, som definierades som en kost som är:

- energianpassad till den enskilde individens behov
- snål på mättade fetter
- rik på ”långsamma” men fattig på ”snabba” livsmedel
- fiberrik
- jämn fördelning av måltiderna över dagen

Svarsfrekvens

Enkätlänken nådde 1 093 kontaktpersoner i diabetesregistret. Totalt 557 svar registrerades från 454 unika postnummer. Eftersom enkäten var anonym kunde inte enskilda personer eller kliniker identifieras, men under antagandet att varje klinik var ensam om sitt postnummer beräknades att svar inkommit från 42 procent av de tillfrågade klinikerna.

Bortfallsanalys

Generellt sett finns i den här typen av undersökningar en risk för snedvridning eftersom de som är mest intresserade och engagerade av en viss typ av diet kan antas vara mer benägna att besvara enkäten än de som inte har lika starka åsikter. Studiedesignen medger tyvärr inte någon djupgående bortfallsanalys.

Resultat

Resultaten av denna praxisundersökning baseras på sammanlagt 557 svar. Av dessa gav 359 personer enbart råd till personer med typ 2-diabetes medan 198 även gav råd till personer med typ 1-diabetes. Jämförelser gjordes med utgångspunkt från typ av diabetes, rådgivarens yrkesgrupp, geografisk region, rådgivarens examensår och klinikens storlek. Den låga svarsfrekvensen gör dock att resultaten måste tolkas med stor försiktighet.

Bakgrundsfakta

Av de svarande var 431 sjuksköterskor (78 procent), 91 läkare (16 procent) och 34 dietister (6 procent). Fyrahundrasextiotvå arbetade inom primärvården (84 procent) och 76 på medicinkliniker (13 procent). Tre procent har angivit andra arbetsplatser, t ex specialistmottagning, företagshälsovård eller barn/ungdomsklinik. Av de svarande var 479 kvinnor (87 procent) och 74 män (13 procent). De svarande var jämnt fördelade över landet.

a) Råd vid typ 1- respektive typ 2-diabetes

Ungefär två tredjedelar av de svarande uppgav att de ger råd om konventionell diabeteskost till över 90 procent av sina patienter. Mindre än en tiondel ger råd om konventionell diabeteskost till mindre än hälften av sina patienter. Jämförelsen visar att personer med typ 1-diabetes får råd om konventionell diabeteskost i samma utsträckning som personer med typ 2-diabetes (Tabell 1).

Tabell 1 *Svarsfördelning på frågan: "Hur stor andel av de personer med diabetes som du ger kostråd till uppskattar du får råd som i huvudsak handlar om konventionell diabeteskost?".*

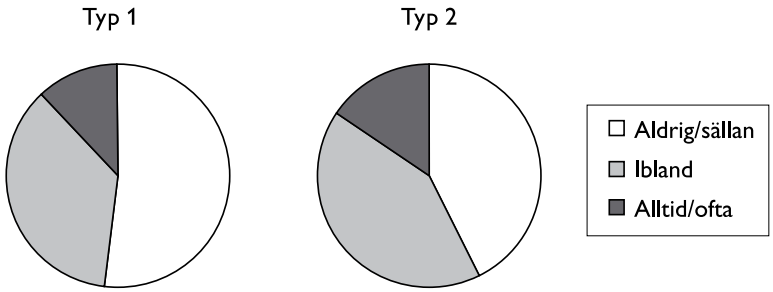
	>90%	50–89%	<49%
Typ 2 (n=557)	65%	26%	9%
Typ 1 (n=198)	69%	25%	5%

Råd till personer med typ 1-diabetes om frukt och grönsaker samt livsmedelsutbyten som syftar till att ersätta mättat fett och "snabba" kolhydrater med omättat fett, protein och "långsamma" kolhydrater skiljer sig inte väsentligt från råd till personer med typ 2-diabetes (Tabell 2). Detsamma gäller råd om måltidsersättning med mycket lågt kaloriinnehåll. Däremot är det vanligare att personer med typ 2-diabetes får råd om lågkolhydratkost än personer med typ 1-diabetes.

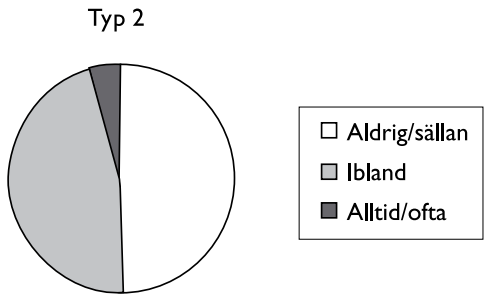
Tabell 2 *Andel av de svarande som uppger att de ger följande kostråd alltid, ofta eller ibland till personer med typ 1- respektive typ 2-diabetes.*

	Typ 1-diabetes (n=198) %	**Typ 2-diabetes (n=557)** %
Mer frukt	81	87
Mer grönsaker	96	100
Bönor, linser och andra baljväxter i utbyte mot potatis och andra snabba kolhydrater, helt eller delvis	75	88
Nötter, avokado och olja i utbyte mot spannmåls-produkter och potatis	43	52
Nötter, avokado och olja i utbyte mot mättade fetter	81	88
Fiberrika spannmålsprodukter i utbyte mot mättade fetter	75	82
Protein i utbyte mot spannmålsprodukter och potatis	49	61
Fisk i utbyte mot rött kött/charkuteriprodukter	74	81
Lågkolhydrat (t ex Atkins, LCHF)	8	18
Måltidsersättning med mycket lågt kaloriinnehåll (VLCD)	4	7

Det finns en något större osäkerhet om vilka kostråd som är evidensbaserade vid råd till personer med typ 2-diabetes (Figur 1). Denna skillnad beror sannolikt på att de som ger råd till båda typer av diabetes uppger sig vara säkrare på vad som är evidensbaserat än de som bara ger råd till personer med typ 2-diabetes. Personer med typ 2-diabetes ifrågasätter dessutom kostråden oftare än personer med typ 1-diabetes (Figur 2). Denna siffra (cirka 50 procent känner sig ibland, ofta eller alltid ifrågasatta av personer med typ 2-diabetes) var oberoende av om de rådgivande bara arbetar med typ 2-diabetes eller med bägge typer.



Figur 1 *Känner du osäkerhet kring vilka kostråd som är evidensbaserade vid diabetes?*



Figur 2 *Ifrågasätts de kostråd du ger av dina patienter?*

b) Yrkestillhörighet

Man kan se vissa skillnader för vad de tre olika yrkesgrupperna rekommenderar sina patienter, och dessa skillnader var oberoende av typ av diabetes. Här diskuteras därför enbart resultaten angående råd till personer med typ 2-diabetes.

Dietister uppger sig i högre grad än de läkare och sjuksköterskor ge råd om *konventionell diabeteskost* (Tabell 3). Läkare är den yrkesgrupp som i högst grad rekommenderar sina typ 2-patienter *lågkolhydratkost* (25 procent) medan inga av de svarande dietisterna uppger att de gör det (Tabell 4).

Tabell 3 *Svarsfördelning på frågan: ”Hur stor andel av de personer med*

diabetes som du ger råd till uppskattar du får råd som handlar om konventionell diabeteskost?”.

	>90%	50–89%	<49%
Dietist	85%	12%	3%
Läkare	63%	27%	10%
Sjuksköterska	70%	26%	4%

Dietisterna skiljer sig från läkarna och sjuksköterskorna också i fråga om råd om livsmedelsutbyten som syftar till att ersätta mättat fett och ”snabba” kolhydrater med omättat fett, protein och ”långsamma” kolhydrater. De rekommenderar oftare *utbyte av mättade till omättade fetter* samt i linje med detta *ersättning av kött med fisk*. De är betydigt mindre benägna än de andra yrkesgrupperna, att *ersätta spannmål och potatis* med vare sig *baljväxter, omättade fetter* eller *animaliska proteiner*. Dessutom är de mer benägna att rekommendera *måltidsersättning med mycket lågt kaloriinnehåll*. Läkare är något mindre benägna än dietister och sjuksköterskor att rekommendera *utbyte av mättade till omättade fetter* samt *ökat grönsaksintag*. Sjuksköterskor är minst benägna att *rekommendera måltidsersättning med mycket lågt kaloriinnehåll* (Tabell 4).

Tabell 4 *Andel i procent som uppger att de ger följande kostråd alltid, ofta eller ibland.*

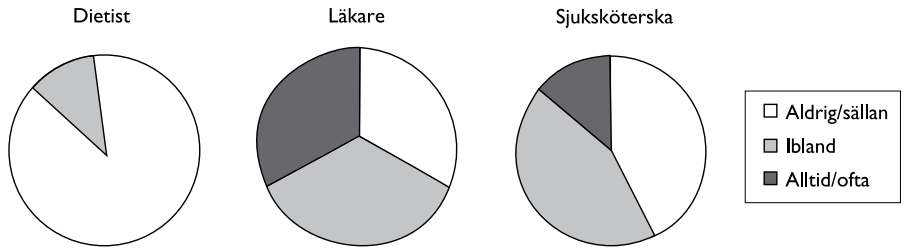
Kostråd (till personer med typ 2-diabetes)	Dietister %	Läkare %	Sjuksköterskor %
Mer frukt	88	81	89
Mer grönsaker	100	100	100
Bönor, linser och andra baljväxter i utbyte mot potatis och andra snabba kolhydrater, helt eller delvis	82	92	87
Nötter avokado och olja i utbyte mot spannmålsprodukter och potatis	16	51	55

Tabellen fortsätter på nästa sida

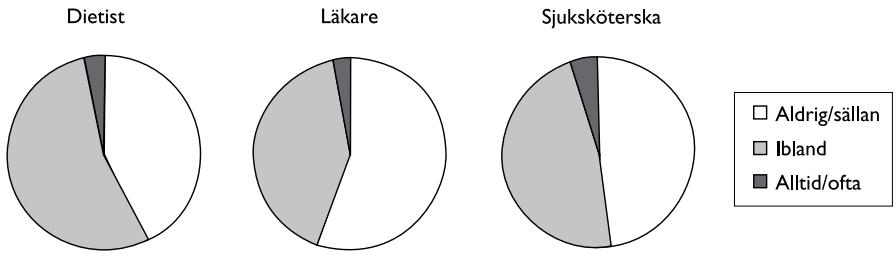
Tabell 4 *fortsättning*

Kostråd (till personer med typ 2-diabetes)	Dietister %	Läkare %	Sjuksköterskor %
Nötter, avokado och olja i utbyte mot mättade fetter	100	83	88
Fiberrika spannmålsprodukter i utbyte mot mättade fetter	72	83	83
Protein i utbyte mot spannmålsprodukter och potatis	39	66	62
Fisk i utbyte mot rött kött/charkuteri-produkter	94	83	80
Lågkolhydrat (t ex Atkins, LCHF)	0	25	18
Måltidsersättning med mycket lågt kaloriinnehåll (VLCD)	21	13	5

Läkarna är den yrkesgrupp som uppger att de känner störst osäkerhet kring vilka kostråd som är evidensbaserade medan de flesta dietister uppger att de sällan eller aldrig upplever osäkerhet (Figur 3). Läkarna är däremot den yrkesgrupp som i minst grad upplever att deras råd ifrågasätts av patienterna (Figur 4). Samtliga upplever att patienter med typ 2-diabetes oftare ifrågasätter kostråden än de med typ 1-diabetes.



Figur 3 *Känner du osäkerhet kring vilka kostråd som är evidensbaserade inom diabetes? (typ 2-diabetes).*



Figur 4 *Ifrågasätts de kostråd du ger av dina patienter? (typ 2-diabetes).*

c) Geografisk indelning

I SBU:s praxisrapport har klinikerna delats in i sjukvårdsregioner för att se om det finns några geografiska skillnader i de kostråd som ges. Svarande som ger råd till personer med typ 1-diabetes är, när man delar in dem i sjukvårdsregioner, för få för att några slutsatser ska kunna dras. Därför har endast svar om kostråd till personer med typ 2-diabetes analyserats avseende geografisk indelning.

Tabell 5 *Andel i procent som uppger de ger följande kostråd alltid, ofta eller ibland (typ 2-diabetes).*

	Norra (n=81) %	**Uppsala-Örebro (n=119)** %	**Stock-holm (n=72)** %	**Syd-västra (n=86)** %	**Syd-östra (n=59)** %	**Södra (n=105)** %	**Hela riket (n=557)** %
Mer frukt	81	92	92	86	91	88	87
Mer grönsaker	99	99	100	100	100	100	100
Bönor, linser och andra baljväxter i utbyte mot potatis och andra snabba kolhydrater, helt eller delvis	89	87	82	92	89	90	88
Nötter, avokado och olja i utbyte mot spannmåls-produkter och potatis	58	53	49	49	53	51	52
Nötter, avokado och olja i utbyte mot mättade fetter	85	91	86	90	78	91	88
Fiberrika spann-målsprodukter i utbyte mot mättade fetter	84	81	89	86	81	76	82
Protein i utbyte mot spannmåls-produkter och potatis	70	58	59	67	63	57	61
Fisk i utbyte mot rött kött/ charkuteri-produkter	83	85	81	84	80	78	81
Lågkolhydrat (t ex Atkins, LCHF)	28	16	13	13	16	17	18

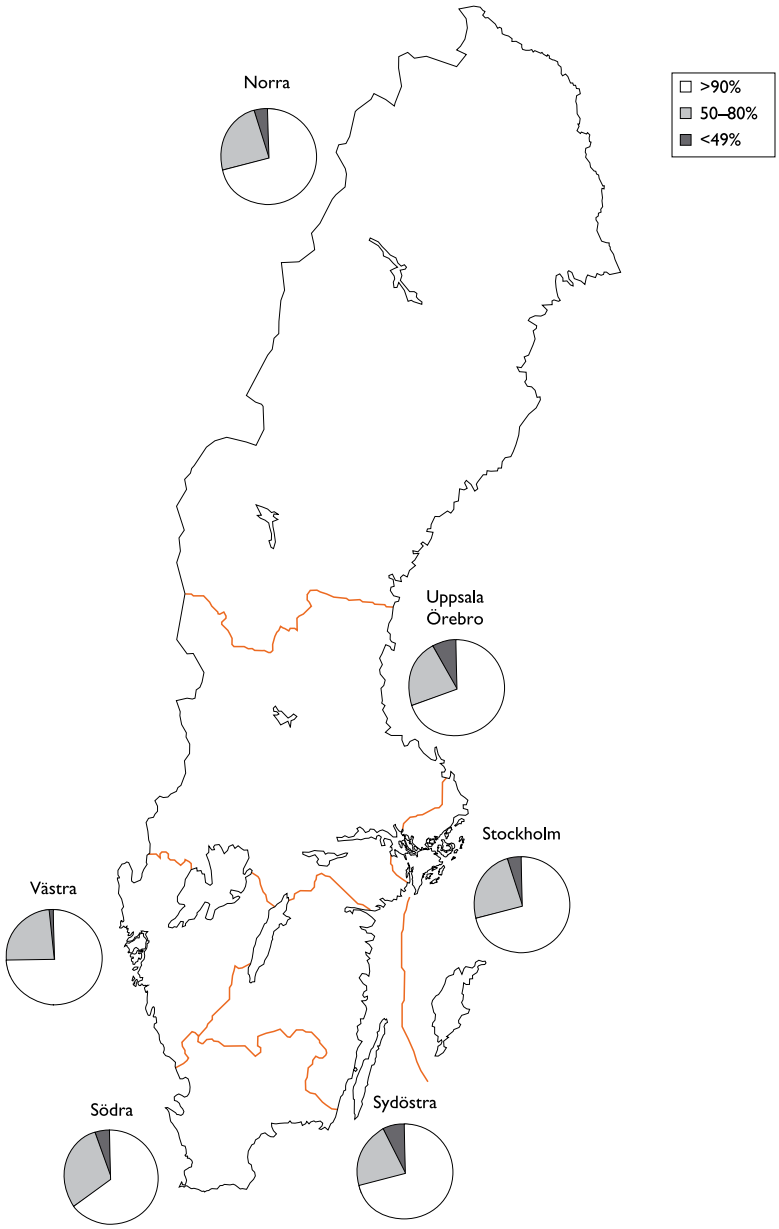
Måltidsersättning med mycket lågt kaloriinnehåll (VLCD)	3	7	4	13	10	6	7

Skillnaderna i kostråd beroende på geografisk placering är inte så dramatiska. Några tendenser som kan skönjas är dock att man i Sydöstra regionen i minst utsträckning rekommenderar *omättade istället för mättade fetter*, och att man i Västra regionen i störst utsträckning rekommenderar *måltidsersättning med mycket lågt kaloriinnehåll* (13 procent).

Norra regionen är den region som mest avviker från de andra. Här ger 28 procent sina patienter åtminstone ibland råd om *lågkolhydratkost* vilket är tio procentenheter högre än riksgenomsnittet. Samtidigt är man i Norra regionen minst benägna att rekommendera *måltidsersättning med mycket lågt kaloriinnehåll*. I Norra regionen ger man oftare än i övriga regioner råden att *ersätta spannmål med protein och omättade fetter* och rekommenderar i minst utsträckning patienterna att *äta mer frukt*.

Konventionell diabeteskost

Den regionala utbredningen av rekommendationer om konventionell diabeteskost illustreras i Figur 5. Konventionell diabeteskost rekommenderas i högst utsträckning i Västra sjukvårdsregionen. Skillnaderna mellan övriga regioner i detta avseende är mindre.



Figur 5 *Hur stor andel av de personer med diabetes som du ger råd till uppskattar du får råd som handlar om konventionell diabeteskost?*

Osäkerhet och ifrågasättande

I Norra sjukvårdsregionen känner man i störst utsträckning osäkerhet kring vilka kostråd som är evidensbaserade. Minst osäkerhet upplever man i Stockholm, Västra och Sydöstra regionen (Tabell 6). Inga regionala skillnader kunde uppmätas för hur ofta rådgivaren upplever att patienterna ifrågasätter kostråden.

Tabell 6 *Andel i procent som uppger att de känner osäkerhet kring vilka kostråd som är evidensbaserade vid diabetes.*

	Aldrig/sällan %	Ibland %	Alltid/ofta %
Norra	28	45	27
Uppsala-Örebro	41	46	13
Stockholm	50	40	10
Västra	49	36	15
Sydöstra	49	37	14
Södra	40	45	14

d) Grundutbildning och storlek på klinik

I enkäten inhämtades dessutom uppgifter om när grundutbildningen avslutats och klinikens storlek. Dessa variabler saknade dock betydelse för eventuella skillnader i kostråden till personer med diabetes.

Diskussion och slutsats

Syftet med praxiskartläggningen var att få en översiktlig bild av hur dagens praxis gällande kostrådgivning ser ut, samt om det finns skillnader i rådgivningen beroende på egenskaper hos den rådgivande eller dennes klinik. Då svarsfrekvensen blev relativt låg (42 procent) och man kan anta att de som valt att svara skiljer sig från de som inte svarat t ex

genom ett större intresse för kostfrågor är det svårt att dra alltför långtgående slutsatser.

Praxisenkäten visar att majoriteten av de svarande rekommenderar personer med diabetes konventionell diabeteskost i hög utsträckning. Dietister är mer benägna, och läkare mindre benägna, att göra detta.

Majoriteten av de som ger råd till personer med typ 2-diabetes rekommenderar livsmedelsutbyten som syftar till att ersätta mättat fett med omättat fett eller fiberrika spannmålsprodukter och att ersätta ”snabba” med ”långsamma” kolhydrater. Ungefär hälften av de svarande rekommenderar livsmedelsutbyten som syftar till att ersätta ”snabba” kolhydrater med omättade fetter eller protein. Alla svarande rekommenderar ökat intag av grönsaker, och något färre rekommenderar ökat intag av frukt.

Dietisterna som deltog i denna undersökning skiljer sig betydligt från läkarna och sjuksköterskorna i sina kostråd genom att de mer konsekvent rekommenderar konventionell diabeteskost och aldrig lågkolhydratkost. Dietisterna tycks också vara mindre benägna att rekommendera utbyten av spannmål och potatis med baljväxter, omättade fetter eller animaliska proteiner. Då enbart 34 dietister svarat på enkäten är det svårt att dra några långtgående slutsatser ur dessa fynd.

Läkarna uppger oftare än sjuksköterskor att de rekommenderar lågkolhydratkost. Läkarna är också den yrkesgrupp som i lägst grad rekommenderar ökat intag av frukt, och i högst grad rekommenderar utbyte av ”snabba” kolhydrater mot baljväxter och protein, råd som är förenliga med principerna för lågkolhydratkost.

I Norra sjukvårdsregionen får personer med diabetes i större utsträckning än i övriga regioner råd som är förenliga med lågkolhydratkost, men det är också i Norra regionen som rådgivarna upplever störst osäkerhet om vilka kostråd som är evidensbaserade.