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**SUPPLEMENTARY TABLES**

ESM Table 1. PRISMA checklist.

| Section and Topic    | Item # | Checklist item                                                                                                                                                                                                 | Location where item is reported |
|---------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| TITLE               |        |                                                                                                                                                                                                            |                                 |
| Title               | 1      | Identify the report as a systematic review.                                                                                                                                                                  | Page 1                          |
| ABSTRACT            |        |                                                                                                                                                                                                            |                                 |
| Abstract            | 2      | See the PRISMA 2020 for Abstracts checklist.                                                                                                                                                                 | Page 1                          |
| INTRODUCTION        |        |                                                                                                                                                                                                            |                                 |
| Rationale           | 3      | Describe the rationale for the review in the context of existing knowledge.                                                                                                                                 | Page 3                          |
| Objectives          | 4      | Provide an explicit statement of the objective(s) or question(s) the review addresses.                                                                                                                                                       | Page 3                          |
| METHODS             |        |                                                                                                                                                                                                            |                                 |
| Eligibility criteria| 5      | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.                                                                                                     | Page 3, Figure 1                 |
| Information sources | 6      | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. | Page 3                          |
| Search strategy     | 7      | Present the full search strategies for all databases, registers and websites, including any filters and limits used.                                                                                         | Page 3, Supplementary Table 2   |
| Selection process   | 8      | Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process. | Page 3                          |
| Data collection process | 9   | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | Page 3                          |
| Data items          | 10a    | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect. | Page 3                          |
|                     | 10b    | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.                                                                                 | Page 3, Supplementary Tables 5,10 |
| Study risk of bias assessment | 11 | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process. | Page 3,4                        |
| Effect              | 12     | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of                                                                                                                                 | Page 4                          |
| Section and Topic | Item # | Checklist item | Location where item is reported |
|-------------------|--------|----------------|---------------------------------|
| measures          |        |                |                                 |
| Synthesis methods | 13a    | Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)). | Page 4 |
|                   | 13b    | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. | Page 4 |
|                   | 13c    | Describe any methods used to tabulate or visually display results of individual studies and syntheses. | Page 4 |
|                   | 13d    | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used. | Page 4 |
|                   | 13e    | Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression). | Page 4 |
|                   | 13f    | Describe any sensitivity analyses conducted to assess robustness of the synthesized results. | Page 4 |
| Reporting bias    | 14     | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases). | Page 4 |
| assessment        |        |                |                                 |
| Certainty         | 15     | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome. | Page 4 |

**RESULTS**

| Study selection   | 16a    | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. | Page 4 |
|                   | 16b    | Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded. | Page 4,8 |
| Study characteristics | 17 | Cite each included study and present its characteristics. | Page 4,8 |
| Risk of bias in   | 18     | Present assessments of risk of bias for each included study. | Supplementary Table 8, Supplementary Figure 6 |
| studies           |        |                |                                 |
| Results of        | 19     | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots. | Table 1, 2, Figure 1, 2 |
| individual studies|        |                |                                 |
| Results of        | 20a    | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies. | Page 8,12 |
| syntheses         | 20b    | Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. | Figure 1, 2 |
|                   | 20c    | Present results of all investigations of possible causes of heterogeneity among study results. | Page 9,12 |
|                   | 20d    | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results. | Page 8,12 |
| Reporting         | 21     | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed. | Page 13 |
| biases            |        |                |                                 |
| Section and Topic | Item # | Checklist item                                                                                                                                 | Location where item is reported |
|------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Certainty of evidence | 22     | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.                                           | Page 13                         |
| DISCUSSION       |        |                                                                                                                                              |                                 |
| Discussion       | 23a    | Provide a general interpretation of the results in the context of other evidence.                                                            | Page 13                         |
|                  | 23b    | Discuss any limitations of the evidence included in the review.                                                                             | Page 14                         |
|                  | 23c    | Discuss any limitations of the review processes used.                                                                                       | Page 14                         |
|                  | 23d    | Discuss implications of the results for practice, policy, and future research.                                                               | Page 14                         |
| OTHER INFORMATION|        |                                                                                                                                              |                                 |
| Registration and protocol | 24a    | Provide registration information for the review, including register name and registration number, or state that the review was not registered. | Page 3                          |
|                  | 24b    | Indicate where the review protocol can be accessed, or state that a protocol was not prepared.                                               | Page 3                          |
|                  | 24c    | Describe and explain any amendments to information provided at registration or in the protocol.                                               | NA                              |
| Support          | 25     | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.                 | Page 15                         |
| Competing interests | 26    | Declare any competing interests of review authors.                                                                                           | Page 15                         |
| Availability of data, code and other materials | 27     | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. | Page 15                         |
| ESM Table 2. Search strategy. | MEDLINE | EMBASE | The Cochrane library |
|-------------------------------|---------|--------|-----------------------|
| **Through March 9th, 2021**   |         |        | **Through March 9th, 2021** |
| 1 Diet, Scandinavian/         | 1       | Diet, Scandinavian/ | (Scandinavian adj3 diet).mp. |
| (Scandinavian adj3 diet).mp.  | 2       | (Scandinavian adj3 diet).mp. | Scandinavian diet*.mp. |
| Scandinavian diet*.mp.       | 3       | Scandinavian diet*.mp. | (Baltic sea adj3 diet).mp. |
| Diet, Baltic sea/            | 4       | Diet, Baltic sea/ | Baltic sea diet*.mp. |
| (Baltic sea adj3 diet).mp.    | 5       | (Baltic sea adj3 diet).mp. | Finnish adj3 diet).mp. |
| Baltic sea diet*.mp.         | 6       | Baltic sea diet*.mp. | Finnish diet*.mp. |
| Diet, Finnish/               | 7       | Diet, Finnish/ | (Danish adj3 diet).mp. |
| (Finnish adj3 diet).mp.       | 8       | (Finnish adj3 diet).mp. | Danish diet*.mp. |
| Finnish diet*.mp.            | 9       | Finnish diet*.mp. | (Swedish adj3 diet).mp. |
| Diet, Danish/                | 10      | Diet, Danish/ | Swedish diet*.mp. |
| (Danish adj3 diet).mp.        | 11      | (Danish adj3 diet).mp. | (Icelandic adj3 diet).mp. |
| Danish diet*.mp.             | 12      | Danish diet*.mp. | Icelandic diet*.mp. |
| Diet, Swedish/               | 13      | Diet, Swedish/ | (Nordic adj3 diet).mp. |
| (Swedish adj3 diet).mp.       | 14      | (Swedish adj3 diet).mp. | Nordic diet*.mp. |
| Swedish diet*.mp.            | 15      | Swedish diet*.mp. | (Malmo adj3 diet).mp. |
| Diet, Icelandic/             | 16      | Diet, Icelandic/ | Malmo diet*.mp. |
| (Icelandic adj3 diet).mp      | 17      | (Icelandic adj3 diet).mp | (Sami adj3 diet).mp. |
| Icelandic diet*.mp.          | 18      | Icelandic diet*.mp. | Sami diet*.mp. |
| Diet, Nordic/                | 19      | Diet, Nordic/ | (Norwegian adj3 diet).mp. |
| (Nordic adj3 diet).mp.        | 20      | (Nordic adj3 diet).mp. | Norwegian diet*.mp. |
| Nordic diet*.mp.             | 21      | Nordic diet*.mp. | (Faroese islands adj3 diet).mp. |
| Diet, Malmo /               | 22      | Diet, Malmo / | Malmo diet*.mp. |
| (Malmo adj3 diet).mp.        | 23      | (Malmo adj3 diet).mp. | Stroke/ |
| Malmo diet*.mp.              | 24      | Malmo diet*.mp. | stroke.mp. |
| Diet, Faroese islands/       | 25      | Diet, Faroese islands/ | }
|   |   |   |   |   |
|---|---|---|---|---|
| 26 | (Faroese islands adj3 diet).mp. | 26 | (Faroese islands adj3 diet).mp. | 26 | cerebrovascular accident.mp. |
| 27 | Faroese islands diet*.mp. | 27 | Faroese islands diet*.mp. | 27 | (fatal adj3 stroke).mp. |
| 28 | (Sami adj3 diet).mp. | 28 | (Sami adj3 diet).mp. | 28 | Cerebral Hemorrhage/ hemorrhagic stroke.mp. |
| 29 | Sami diet*.mp. | 29 | Sami diet*.mp. | 29 |   |
| 30 | Diet, Sami/ | 30 | Diet, Sami/ | 30 | Intracranial Hemorrhages/ |
| 31 | (Norwegian adj3 diet).mp. | 31 | (Norwegian adj3 diet).mp. | 31 | Brain Ischemia/ |
| 32 | Norwegian diet*.mp. | 32 | Norwegian diet*.mp. | 32 | brain ischemia.mp. |
| 33 | Diet, Norwegian/ or/1-33 | 33 | Diet, Norwegian/ or/1-33 | 33 | Cerebral Infarction/ |
| 34 | exp Stroke/ | 34 | exp Stroke/ | 34 | Peripheral Arterial Disease/ |
| 35 | exp cerebrovascular accident/ stroke.mp. | 35 | exp cerebrovascular accident/ stroke.mp. | 35 | peripheral arterial disease.mp. |
| 36 | (fatal adj3 stroke).mp. | 36 | (fatal adj3 stroke).mp. | 36 | Heart Failure/ |
| 37 | non fatal stroke.mp. | 37 | non fatal stroke.mp. | 37 | Myocardial Ischemia/ |
| 38 | hemorrhagic stroke.mp. | 38 | hemorrhagic stroke.mp. | 38 | myocardial ischemia.mp. |
| 39 | exp Intracranial Hemorrhages/ | 39 | exp Intracranial Hemorrhages/ | 39 | Myocardial Infarction/ |
| 40 | exp Intracranial arterial diseases/ | 40 | exp Intracranial arterial diseases/ | 40 | myocardial infarction.mp. |
| 41 | ischemic stroke.mp. | 41 | intracranial hemorrhage.mp. | 41 | cardiovascular disease mortality.mp. |
| 42 | exp Brain Ischemia/ | 42 | exp Brain Ischemia/ | 42 | cardiovascular disease death.mp. |
| 43 | exp Cerebral Infarction/ | 43 | intracranial arterial disease.mp. | 43 | CVD mortality.mp. |
| 44 | exp Peripheral Arterial Disease/ | 44 | ischemic stroke.mp. | 44 | Cardiovascular Diseases/ |
| 45 | peripheral artery disease.mp. | 45 | exp brain ischemia/ | 45 | cardiovascular disease.mp. |
| 46 | exp heart failure/ | 46 | exp brain infarction/ | 46 | CVD.mp. |
| 47 | heart failure.mp. | 47 | exp peripheral occlusive artery disease/ | 47 | Coronary Disease/ |
| 48 | exp myocardial ischemia/ | 48 | peripheral artery disease.mp. | 48 | coronary disease.mp. |
| 49 | exp myocardial infarction/ | 49 | exp heart failure/ | 49 | cerebrovascular. mp. |
| 50 | cardiovascular disease mortality.mp. | 50 | heart failure.mp. | 50 | OGTT.mp. |
| 51 | cardiovascular disease | 51 | exp heart muscle | 51 | oral glucose tolerance |
| 78 | Circumference/ | 78 | mellitus/ | 78 | pressure.mp. |
|----|---------------|----|----------|----|-------------|
|    | waist         |    | exp insulin |    | dependent | systolic blood |
|    | circumference.t |    | diabetes |    | mellitus/ | pressure.mp. |
|    | w. |    |          |    |            |             |
| 79 | exp overweight/ | 79 | exp non insulin | 79 | dependent | diastolic blood |
|    |          |    | diabetes |    | mellitus/ | pressure.mp. |
| 80 | overweight.tw. | 80 | exp pregnancy | 80 | diabetes | hypertension.m |
|    |          |    | mellitus/ |    |            | p.             |
| 81 | exp Obesity/ | 81 | exp metabolic | 81 | syndrome X/ | SBP.mp. |
| 82 | exp Obesity, | 82 | exp Body | 82 | Weight/ | DBP.mp. |
|    | Abdominal/ |    |          |    |            |             |
| 83 | exp Obesity, | 83 | body | 83 | weight*.tw. | exp lipoproteins/ |
|    | Morbid/ |    |          |    |            | or exp cholesterol/ |
|    |          |    |          |    |            | or exp hyperlipidemias |
|    |          |    |          |    |            | / or (lipid or |
|    |          |    |          |    |            | lipids).mp. |
| 84 | obesity.tw. | 84 | exp Body | 84 | Mass | (cholesterol or |
|    |          |    | Weight/ |    | Index/ | cholesterolols).mp. |
| 85 | body fat.tw. | 85 | body mass | 85 | index.tw. | hdl.mp. |
| 86 | exp | 86 | BMI.tw. | 86 |          | ("high density |
|    | Hypertension/ |    |          |    |          | lipoprotein" or |
|    |          |    |          |    |          | "high density |
|    |          |    |          |    |          | lipoproteins").m |
|    |          |    |          |    |          | p.             |
| 87 | Blood Pressure/ | 87 | exp Waist | 87 | Circumference/ | ldl.mp. |
|    |          |    | waist | 87 | circumference.t |    |
|    |          |    | circumference.t | 87 | w. |    |
| 88 | "diastolic blood | 88 | "systolic blood | 88 | pressure".mp. | (hyperlipemia* |
|    | pressure".mp. |    | pressure".mp. |    | .mp. | or hyperlipaemia*) |
| 89 | "systolic blood | 89 | exp | 89 | Overweight/ | .mp. |
|    | pressure".mp. |    |          |    |            | (hyperlipidemia* |
|    |          |    |          |    |            | or hyperlipidaemia* |
|    |          |    |          |    |            | ).mp. |
| 90 | hypertension.m | 90 | overweight.tw. | 90 |          | (lipemia* or |
|    | p. |    |          |    |            | lipaemia*).mp. |
| 91 | SBP.mp. | 91 | exp Obesity/ | 91 |          | (lipemic or |
|    |          |    |          |    |            | lipaemic).mp. |
| 92 | DBP.mp. | 92 | exp Obesity, | 92 | Abdominal/ | (lipemia* or |
|    |          |    |          |    |            | lipaemia*).mp. |
| 93 | exp lipoproteins/ | 93 | Obesity, | 93 | Morbid/ | (lipemic or |
|    | or exp cholesterol/ |    |          |    |            | lipaemic).mp. |
|    | or exp hyperlipidemias |   |          |    |            |             |
|    | / or (lipid or |    |          |    |            |             |
|    | lipids).mp. |    |          |    |            |             |
| 94 | (cholesterol or cholesterol).mp | 94 | obesity.tw. | 94 | triglycerides.mp |
| 95 | hdl.mp. | 95 | body fat.tw. | 95 | hypertriglyceridemia.mp |
| 96 | ("high density lipoprotein" or "high density lipoproteins").mp | 96 | exp Hypertension/ | 96 | TAG.mp |
| 97 | ldl.mp. | 97 | exp Blood Pressure/ | 97 | triacylglycerol*.mp |
| 98 | ("low density lipoprotein" or "low density lipoproteins").mp | 98 | "systolic blood pressure".mp. | 98 | TAG.mp |
| 99 | (hyperlipemia* or hyperlipaemia*).mp | 99 | "diastolic blood pressure".mp. | 99 | dyslipidemia.mp |
| 100 | (hyperlipidemia * or hyperlipidaemia *).mp | 100 | SBP.mp. | 100 | Inflamm*.mp |
| 101 | (lipidemia* or lipidaemia*).mp | 101 | DBP.mp. | 101 | C-reactive protein.mp |
| 102 | (lipemia* or lipaemia*).mp | 102 | (cholesterol or cholesterol).mp | 102 | CRP.mp |
| 103 | (lipemic or lipaemic).mp | 103 | hdl.mp. | 103 | or/24-103 |
| 104 | exp Triglycerides/ | 104 | exp lipoproteins/ or exp cholesterol/ or exp hyperlipidemias / or (lipid or lipids).mp | |
| 105 | triglyceride*.mp | 105 | ("high density lipoprotein" or "high density lipoproteins").mp | |
| 106 | hypertriglyceridemia*.mp | 106 | ldl.mp. | |
| 107 | exp Hypertriglyceridemia/ | 107 | ("low density lipoprotein" or "low density lipoproteins").mp | |
| 108 | exp Dyslipidemias/ | 108 | (hyperlipemia* or hyperlipaemia*).mp | |
| 109 | triacylglycerol*.mp | 109 | (hyperlipidemia * or hyperlipidaemia *).mp | |
| 110 | dyslipidaemia*.mp. | 110 | (lipidemia* or lipidaemia*).mp. |
| 111 | dyslipidemia.mp. | 111 | (lipemia* or lipaemia*).mp. |
| 112 | Inflamm*.mp | 112 | (lipemic or lipaemic).mp. |
| 113 | C-reactive protein.mp | 113 | exp Triglycerides/ exp Hypertriglyceridemia/ |
| 114 | CRP.mp | 114 | |
| 115 | or/35-114 | 115 | hypertriglyceridemia*.mp. |
| 116 | exp cohort studies/ | 116 | triglyceride*.mp. |
| 117 | cohort$.tw. | 117 | triacylglycerol*.mp. |
| 118 | controlled clinical trial.pt. | 118 | dyslipidemia*.mp. |
| 119 | epidemiologic methods/ | 119 | dyslipidaemia*.mp. |
| 120 | limit 35 to yr=1971-1988 | 120 | exp Dyslipidemias/ |
| 121 | 116 or 117 or 118 or 120 | 121 | Inflamm*.mp |
| 122 | 34 and 115 and 121 | 122 | C-reactive protein.mp |
| 123 | "randomized controlled trial".pt. | 123 | CRP.mp |
| 124 | (random$ or placebo$ or single blind$ or double blind$ or triple blind$).ti,ab. | 124 | or/35-123 |
| 125 | (retraction of publication or retracted publication).pt. | 125 | exp cohort analysis/ |
| 126 | 123 or 124 or 125 | 126 | exp longitudinal study/ |
| 127 | (animals not humans).sh. | 127 | exp prospective study/ |
| 128 | ((comment or editorial or meta-analysis or practice-guideline or review or letter or journal correspondence) not "randomized controlled trial").pt. | 128 | exp follow up/ |
| 129 | (random samp$ or random digit$ or random | 129 | cohort$.tw. |
| 130 | 126 not (127 or 128 or 129) | 130 | 125 or 126 or 127 or 128 or 129 |
|-----|--------------------------|-----|---------------------------------|
| 131 | 34 and 115 and 128       | 131 | 34 and 123 and 130              |
| 132 | 121 or 131               | 132 | (random$ or placebo$ or single blind$ or double blind$ or triple blind$).ti,ab. |
| 133 |                          |     | RETRACTED ARTICLE/              |
| 134 |                          | 134 | 131 or 133                      |
| 135 |                          | 135 | (animal$ not human$).sh,hw.     |
| 136 |                          |     | (book or conference paper or editorial or letter or review).pt. not exp randomized controlled trial/ |
| 137 |                          |     | (random sample$ or random digit$ or random effect$ or random survey or random regression).ti, ab. not exp randomized controlled trial/ |
| 138 |                          | 138 | 133 not (135 or 136 or 137)     |
| 139 |                          | 139 | 34 and 123 and 138              |
| 140 |                          | 140 | 131 or 139                      |
### ESM Table 3. Eligibility criteria for prospective cohort studies

| Participants | Inclusion criteria | Exclusion criteria | Outcome |
|--------------|--------------------|--------------------|---------|
| All individuals, both children, and adults, regardless of health status. | • Prospective cohort studies  
• Duration >= 1 year  
• Assessment of the exposure of a Nordic Diet  
• Ascertainment of viable data by level of exposure | • Ecological, cross-sectional, retrospective observational studies, clinical trials, and non-human studies  
• Duration < 1 year  
• non assessment of exposure of a Nordic diet  
• No ascertainment viable clinical outcome data by level of exposure | Cardiovascular Diseases  
Coronary Heart Disease  
Stroke  
Mortality  
Diabetes |

### ESM Table 4. PICOTS\(^a\) framework for inclusion of randomized controlled trials

| Participants | Intervention | Comparison | Outcome | Time | Study Design |
|--------------|--------------|------------|---------|------|--------------|
| All individuals, both children, and adults, regardless of health status. | Nordic diets intervention | Habitual or usual or western diet | Adiposity, glycemic control, established blood lipid targets, blood pressure, inflammation | ≥ 3 weeks | Human randomized controlled trials |

\(^a\) Population, Intervention, Comparator, Outcome, Time, and Study design

### ESM Table 5. Characteristics of included cohorts.
| Study, year | Cohort | Sex | Population* | Country | Ethnicity | N | Cases | Age | Follow-up (years) | Mean Follow-up (years) | Method of Measurement of Exposure | Quantile divisions (score division) | Nordic diet index | Outcome | Funding Sources |
|------------|--------|-----|-------------|---------|-----------|---|-------|-----|------------------|---------------------|----------------------------------|--------------------------------|------------------|---------|----------------|
| Gunge et al. 2017 | Danish Diet, Cancer and Health cohort | M | Free of cancer | Denmark | Caucasian | 25,759 | 1,669 | 50-64<sup>a</sup> | 1993-2009 | 13.6 | 192-item SFFQ | Category, (0,1,2,3,4,5, 6) | HNFI | CHD incidence | A |
| | | F | | | | 28,809 | 653 | | | | | | |
| Warenosjo Lemming et al. 2018 | Swedish Mammography Cohort | F | General | Sweden | Caucasian | 33,341 | 3003 | 61<sup>b</sup> | 1997-2014 | 17 | 96-item FFQ | Tertiles (0–1, 2-4,5-6) | HNFI | CVD mortality | A |
| Tertsunen et al 2020 | Kuopio Ischaemic Heart Disease Risk Factor Study | M | General | Finland | Caucasian | 1547 | 250 | 42-60<sup>b</sup> | 1984–1989, 2014 | 23.6 | Dietary records 4-day | Tertiles (0–1, 2-4,5-6) | Modified Baltic Sea Diet Score | CVD mortality | A |
| Lacoppidan et al 2015 | Danish Diet, Cancer and Health cohort | M | Free of cancer | Denmark | Caucasian | 26,107 | 4097 | 50-64<sup>a</sup> | 1993-1997,2011 | 15.3<sup>a</sup> | 192-item SFFQ | Category, (0,1,2,3,4,5, 6) | HNFI | T2DM | A |
| Ewers et al 2020 | The Copenhagen General Population Study | M + F | General | Denmark | Caucasian | 88,818 | 2982 | 58<sup>b</sup> | 2003-2015,2018 | 9.2 | Short FFQ | Quantiles (Very high/High, Intermediat e, Very Low/Low) | Danish food-based dietary guideline s | CVD mortality | A |
| Lassale et al. 2016 | EPIC | M + F | Free of cancer and diabetes | Denmark, France, Germany, Greece, Italy, the Netherlands, Norway, Spain, Sweden, and the United Kingdom | Caucasian | 451,256 | 3761 | 25-70<sup>a</sup> | Recruit 1992 - 2000 | 12.8 | Dietary questionnaires (validation with 24h recalls, FFQ, dietary records) | Quantiles (0,1,2,3,4,5, 6) | HNFI | CVD mortality | A |
| Drake et al. 2013 | Malmö Diet and Cancer cohort | M | Free of diabetes | Sweden | Caucasian | 6940 | 444 | 45–73<sup>a</sup> | Recruit 1991-1996, 2008 | 14.2<sup>a</sup> | 7-d food diary, 168-item FFQ, diet history interview | Tertiles (0-1, 2-3,4-6) | DQI-SNR | CVD mortality | A |
| | | F | | | | 10,186 | 265 | 44–73<sup>a</sup> | | | | | |
| Hansen et al. 2017 | Danish Diet, Cancer and Health cohort | M + F | Free of cancer | Denmark | Caucasian | 55,338 | 2283 | 56.1<sup>a</sup> | Recruit 1993-1997 | 13.5 | 192-tom SFFQ | Tertiles (0-1, 2-3,4-6) | HNFI | Stroke incidence | A |
| Hlebowicz et al. 2013 | Malmö Diet and Cancer cohort | M | Free of diabetes | Sweden | Caucasian | 6940 | 1093 | 45–73<sup>a</sup> | 1991-2008 | 14<sup>a</sup> | 7-d food diary, 168-item FFQ, diet history interview | Tertiles (0-1, 2-3,4-6) | DQI-SNR | CVD incidence | A |
| | | F | | | | 10,186 | 703 | 44–74<sup>a</sup> | | | | | |
| Raswall et al. 2015 | Swedish Women’s Lifestyle and Health Cohort | F | General | Sweden | Caucasian | 43,310 | 8383 | 29–49<sup>a</sup> | 1991–1992,2012 | 21.3 | 80-item FFQ, 7-day records in 129 women | Tertiles (0-1, 2-3,4-6) | HNFI | Stroke incidence | A |

Notes:
- <sup>a</sup> Age at baseline.
- CHD: Coronary Heart Disease
- CVD: Cardiovascular Disease
- T2DM: Type 2 Diabetes Mellitus
- HHF: Heart Health Foundation
- DQI-SNR: Diet Quality Index - Screening Nutritional Risk
- EPIC: European Prospective Investigation into Cancer and Nutrition
| Study                          | Population | Country          | Ethnicity | Sample size | Age range | Follow-up | Dietary assessment | Diet quality index | CHD incidence       |
|-------------------------------|------------|------------------|-----------|-------------|------------|------------|-------------------|-------------------|---------------------|
| Roswall et al. 2015           | F          | Sweden           | Caucasian | 44,961      | 270        | 1991–1992,2012 | 80-item FFQ, 7-day records in 129 women | Tertiles (0-1, 2-3,4-6) | HNFI                |
| Kanerva et al. 2014           | M + F      | Denmark          | Caucasian | 6744        | 541        | 2000-2010 | 128-item FFQ | Quantiles (0-25) | Baltic Sea Diet Score | T2DM                |
| Mandalaz et al. 2016          | M + F      | Sweden           | Caucasian | 26,868      | 1,859      | 1991–1996,2014 | 10-item FFQ, 188-item FFQ, diet history interview | Tertiles (0-1, 2-4,5-6) | DQI-SNR | T2DM | A |
| Galbete et al. 2018           | M + F      | Germany          | Caucasian | 23,485      | 312        | 1994–1998, 2009 | 148-item FFQ | Tertiles (0-7, 8-10,11-18) | Nordic diet score | CHD incidence | Stroke incidence | T2DM | A |
| Puaschitz et al. 2019         | M + F      | Norway           | Caucasian | 2019        | 171        | 1999-2004, 2013 | 169-item FFQ | Tertiles (0-1, 2-3,4-6) | HNFI | CVD mortality | CHD incidence | A |

Abbreviations: A, Agency; M, males; F, females; NA, not available; SFFQ, Short Food Frequency Questionnaire; HNFI, Healthy Nordic Food Index; I, Industry; MI, myocardial infarction; T2DM, Type 2 diabetes mellitus; FFQ, food frequency questionnaire; DQI-SNR, diet quality index (DQI) that assesses adherence to the 2005 Swedish Nutrition Recommendations (SNR); IHD, ischemic heart disease.

*Age range; Median value given *Population excludes individuals with CVD at baseline
| Studies               | Nordic Diet Index                                                                 | Scoring Categories                                                                 | Primary Food Components                                                                 | Cut-offs                  | Reference Guidelines                                      |
|----------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------|
| [76, 77, 79-81, 83, 85, 88] | Healthy Nordic food index                                                          | 0 - 6 *(low adherence – high adherence)*                                            | Fish, cabbage, root vegetables, rye bread, oatmeal, apples, pears                      | Population based          | A priori chosen food items due to expected beneficial health effects |
| [78, 84, 89]         | Diet quality index (DQI) that assesses adherence to the Swedish nutrition recommendations (SNR) and the Swedish dietary guidelines (SDG) (DQI-SNR) | 0-6 *(0 or 1 low, 2 or 3 medium, 4-6 high score)*                                  | SFA*, PUFA*, fish and shellfish dietary fiber, fruit and vegetables, and sucrose.    | Serving based             | Swedish nutrition recommendations, Swedish dietary guidelines |
| [82]                 | Nordic diet score                                                                  | 0-18 *(0-7, 8-10, 11-18 low adherence – high adherence)*                           | Fish, cabbage and cruciferous vegetables, root vegetables, potatoes, whole grain and rye bread, berries, apples, pears, low-fat dairy products, vegetable fats (excluding olive oil) | Population based          | Healthy Nordic Food Index, New Nordic Diet, The Baltic Sea diet score |
| [87]                 | Baltic Sea Diet Score                                                              | Population-based consumption quartiles or medians as cut-offs                      | Berries, apples, pears, tomato, cucumber, cabbage, roots, peas, lettuce, rye, oats, barley, fat-free milk and milk < 2% fat, salmon, freshwater fish, beef, pork, processed meat products, sausages, total fat as a percentage of total energy intake, Ratio of PUFA to SFA + trans-fatty acids, Ethanol | Population based          | Baltic Sea Diet Pyramid, Nordic multicenter SYSDIET study   |
|   | Modified Baltic Sea Diet Score | 2-25 (2–10, 11–12, 13–15, 16–25 low adherence – high adherence) | All fruits, berries, roots, pulses, vegetables, whole grains, fat-free milk and milk < 2% fat, salmon, freshwater fish, processed and unprocessed meat, total fat as a percentage of total energy intake Ratio of PUFA to SFA + trans-fatty acids Ethanol | Population based | Baltic Sea Diet Score |
|---|---|---|---|---|---|
|   | Danish food-based dietary guidelines | Q1-Q5 (Very high-Q1, high, intermediate, low, very low adherence-Q5) | High intakes of unsaturated fats, vegetables, fruits, fish Low intakes for sugar sweetened beverages, cold meat cuts and fast food. | Serving based | Danish food-based dietary guidelines |
**ESM Table 7. Confounding variables of included cohorts.**

| Study | Gunge et al. 2017 Danish Diet, Cancer and Health cohort | Warenajo Lemming et al. 2018 Swedish Mammography Cohort | Lassale et al. 2016 EPIC | Drake et al. 2013 Malmö Diet and Cancer cohort | Hansen et al. 2017 Danish Diet, Cancer and Health cohort | Puaschitz et al. 2019 Western Norway B-vitamin Intervention Trial | Hebowicz et al. 2013 Malmö Diet and Cancer cohort | Roswall et al. 2015 Swedish Women’s Lifestyle and Health Cohort [93] |
|-------|---------------------------------------------------------|------------------------------------------------------|--------------------------|-----------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Number of variables in fully adjusted model | 17 | 7 | 7 | 12 | 12 | 9 | 8 | 11 |
| Number of multivariable models presented | 4 | 2 | 2 | 2 | 3 | 3 | 2 | 4 |
| Timing of measurement of confounding variables | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline |
| Pre-specified primary confounding variables | | | | | | | | |
| Age | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pre-specified secondary confounding variables | | | | | | | | |
| Sex | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Body mass index, weight | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Waist circumference | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Family history of CVD | | | | | | | | |
| Energy Intake | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Smoking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Exercise/physical activity | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Diabetes/Dysglycemia | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Dystipidemia | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hypertension/SBP | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Other confounding variables | | | | | | | | |
| Education | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Alcohol | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Alcohol from wine | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Alcohol from beer/spirits | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Total Cholesterol | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Non-fermented milk | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Meat, red meat | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hormonal replacement therapy | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Menopause | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Method of assessment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cohabiting status | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Processed meat consumption | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Tobacco consumption | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Time since cessation of smoking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Charlson’s comorbidity index | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Other | Time under study | Diet score, non-fermented milk | Study centre | Season | Atrial fibrilation | Statin use | Economic status, Season | |

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### ESM Table 7. Confounding variables of included cohorts (continued).

| Study                                             | Mandalazi et al. 2016 Malmö Diet and Cancer cohort | Karneva et al. 2014 Helsinki Birth Cohort Study, Health 2000 Survey | Ewers et al. 2020 the Copenhagen General Population Study | Lacoppidan et al. 2015 Danish Diet, Cancer and Health cohort | Tertsunen et al. 2020 Kuopio Ischaemic Heart Disease Risk Factor Study | Roswall et al. 2015 Swedish Women’s Lifestyle and Health Cohort [92] | Galbete et al. 2018 EPIC-Potsdam |
|--------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------|
| Number of variables in fully adjusted model       | 10                                                 | 8                                                                   | 11                                                       | 9                                                          | 9                                                                   | 12                                                                   | 12                                                           |
| Number of multivariable models presented          | 5                                                  | 3                                                                   | 3                                                       | 4                                                          | 2                                                                   | 4                                                                    | 2                                                             |
| Timing of measurement of confounding variables    | Baseline                                          | Baseline                                                           | Baseline                                                | Baseline                                                  | Baseline                                                            | Baseline                                                            | Baseline                                                     |
| Pre-specified primary confounding variables       | Age                                                |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
| Pre-specified secondary confounding variables     | Sex                                                |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Body mass index, weight                           |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Waist circumference                              |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Family history of CVD                             |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Energy Intake                                     |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Smoking                                           |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Exercise/physical activity                        |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Diabetes/Dysglycemia                              |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Dyslipidemia                                      |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Hypertension/SBP                                  |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
| Other confounding variables                      | Education                                         |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Alcohol                                           |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Alcohol from wine                                |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Alcohol from beer/spirits                         |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Total Cholesterol                                 |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Non-fermented milk                                |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Meat, red meat                                    |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Hormonal replacement therapy                      |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Menopause                                         |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Method of assessment                              |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Cohabiting status                                 |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Processed meat consumption                        |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Tobacco consumption                               |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Time since cessation of smoking                   |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
|                                                  | Charlson’s comorbidity index                      |                                                                     |                                                         |                                                            |                                                                     |                                                                      |                                                               |
| Other                                             | season, method of dietary assessment              | Abdominal obesity, vitamin D intake                               | LDL-Cholesterol, Income                                  | Income, marital status, examination year                    | Multivitamin                                                       |                                                                      |                                                               |

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# ESM Table 8. Newcastle-Ottawa Scale (NOS) scores of included cohorts.

| Study                                      | Selection | Outcome | Comparability | Total |
|--------------------------------------------|-----------|---------|---------------|-------|
| The Danish Diet, Cancer and Health cohort [76] | 3         | 3       | 1             | 7     |
| Swedish Mammography Cohort [81]            | 2         | 3       | 1             | 6     |
| EPIC [85]                                  | 3         | 3       | 1             | 7     |
| Malmö Diet and Cancer cohort [84]          | 4         | 3       | 1             | 8     |
| The Danish Diet, Cancer and Health cohort [77] | 3         | 3       | 2             | 8     |
| Western Norway B-vitamin Intervention Trial [83] | 3         | 3       | 1             | 7     |
| EPIC-Potsdam [82]                          | 3         | 3       | 1             | 7     |
| Malmö Diet and Cancer cohort [78]          | 4         | 3       | 1             | 8     |
| Swedish Women’s Lifestyle and Health Cohort [83] | 2         | 3       | 1             | 6     |
| Swedish Women’s Lifestyle and Health Cohort [82] | 3         | 3       | 1             | 7     |
| Malmö Diet and Cancer cohort [89]          | 3         | 4       | 1             | 8     |
| Helsinki Birth Cohort Study, Health 2000 Survey [87] | 3         | 4       | 1             | 8     |
| The Copenhagen General Population Study [86] | 3         | 3       | 2             | 8     |
| The Danish Diet, Cancer and Health Cohort Study [88] | 3         | 3       | 2             | 8     |
| Kuopio Ischaemic Heart Disease Risk Factor Study [90] | 3         | 3       | 2             | 8     |

Abbreviations: EPIC=European Prospective Investigation into Cancer and Nutrition

*Maximum 4 points awarded for cohort representativeness, selection of non-exposed cohort, exposure assessment, and demonstration outcome not present at baseline

*Maximum 3 points awarded for follow-up length, adequacy of follow-up, and outcome assessment

*Maximum 2 points awarded for controlling for the pre-specified primary confounding variable (age) and 4 of the 5 secondary (markers of overweight/obesity, family history of diabetes, energy intake, physical activity, sex) confounding variables

*Maximum of 9 points could be awarded. Cohorts with NOS ≥6 are considered high quality.
### ESM Table 9. Selected sensitivity analyses in which the systematic removal of a cohort study altered the significance of the effect estimate or the evidence for heterogeneity.

| Outcome          | Removal of                              | MD [95% CI], P MD | I², P Q |
|------------------|-----------------------------------------|------------------|---------|
| **CVD INCIDENCE**| Roswall et al. 2015 [83]b               | 0.70 [0.61, 0.81], P MD<0.001, I²=0%, P Q=0.63 |
|                  | Hlebowicz et al. 2013 - Males c        | 0.96 [0.90, 1.02], P MD=0.16, I²=85%, P Q=0.01 |
|                  | Hlebowicz et al. 2013 - Females c      | 0.95 [0.89, 1.01], P MD=0.08, I²=92%, P Q<0.001 |
| **T2DM INCIDENCE**| Lacoppidan et al. 2015 – Males b       | 1.01 [0.93, 1.09], P MD=0.89, I²=0%, P Q=0.59 |
| **CHD INCIDENCE**| Roswall et al. 2015 [83]b               | 0.82 [0.68, 0.97], P MD=0.02, I²=27%, P Q=0.25 |
|                  | Gunge et al. 2017 b                     | 0.96 [95% CI 0.85, 1.09], P MD=0.51, I²=7%, P Q=0.56 |
| **STROKE INCIDENCE**| Hansen et al. 2017 c                   | 0.86 [0.82, 1.17], P MD=0.80, I²=0%, P Q=0.96 |
|                  | Galbete et al. 2018 c                  | 0.88 [0.75, 1.03], P=0.10, I²=36%, P Q=0.21 |

P MD, mean difference p-value, P Q, Cochrane Q p-value, T2DM, Type 2 Diabetes Mellitus.
a removal of this study results in significance of the overall effect
b removal of this study explains heterogeneity
c removal of this study results in a loss of significance of the overall effect
## ESM Table 10. Characteristics of included RCTs.

| Study, Year | Intervention/Control | Participants (M, W) | Mean age, y (SD or range) | Baseline BMI (kg/m²), mean (SD) | Baseline LDL-C (mmol/L), mean (SD) | Setting | Design | Feeding Control¹ | Intervention or Comparator | Diet (% C:F:P)² | Energy Balance³ | Outcome | Follow-up duration, weeks | Funding Sources⁴ |
|-------------|----------------------|---------------------|---------------------------|--------------------------------|----------------------------------|---------|--------|------------------|--------------------------|----------------|----------------|---------|---------------------------|------------------|
| **Gotfredsen et al. 2020** | Intervention | 72 individuals with IHD Risk Factors (25M, 43W) | 51.8 (9.8) | 26.9 (3.6) | 3.10 (0.91) | Denmark | Parallel | DA | Official dietary guidelines | Not available | Neutral | 24 | A |
| | Control | 72 individuals with IHD Risk Factors (30M, 43W) | 49.2 (9.8) | 26.5 (3.9) | 3.24 (0.76) | | | | Habitual diet | Not available | |
| **Poulsen et al. 2014** | Intervention | 91 OB | 42.7 (13.1)* | 30.1 (4.6)* | 2.95 (0.84)* | Denmark | Parallel | Suppl | New Nordic Diet | 52:30:18 | Neutral | 26 | A, I |
| | Control | 56 OB | 41.0 (13.0)* | 30.5 (5.3)* | 2.96 (0.81)* | | | | Average Danish Diet | 50:35:15 | |
| **Uusitupa et al. 2013** | Intervention | 96 MetS (~29M, 67W) | 54.0 (8.5)* | 31.6 (3.5)* | 3.25 (0.80) | Nordic Countries⁵ | Parallel | Suppl, DA | Healthy Nordic Diet | 45-52:30-35:18-20 | Neutral | 18 (24-wk for 2 sites) | A, I |
| | Control | 70 MetS (~21M, 49W) | 54.9 (8.6)* | 31.7 (2.8)* | 3.21 (0.89) | | | | Usual Nordic diet | 45-47:35:18-20 | |
| **Adamsson et al. 2010** | Intervention | 44 mildly HC (17M, 27W) | 52.6 (7.8) | 26.3 (3.2) | 4.0 (0.6) | Sweden | Parallel | Suppl to ND only | Healthy Nordic Diet | 45-60:25-35:10-20 | Neutral | 6 | A |
| | Control | 42 mildly HC (15M, 27W) | 53.4 (8.1) | 26.5 (3.3) | 4.2 (1.0) | | | | Usual Western diet | NR | |
| **Huseinovic et al. 2016** | Intervention | 47 OW postpartum (6M, 47W) | 31.8 (4.5)* | 31.8 (4.0) | NR | Sweden | Parallel | DA, text messages and phone calls | Nordic Nutrition Recommendations 2004 | 50-60:<30:10-20 | Negative | 12 | A |
| | Control | 53 OW postpartum (0M, 53W) | 32.6 (4.7)* | 31.6 (3.4) | NR | | | | DA only | General healthy eating | NR |
| **Due et al. 2008** | Intervention | 48 OW/OB (~21M, 27W) | 27.3 (4.9)* | 31.6 (2.7)* | 2.78 (0.81) | Denmark | Parallel | Suppl, DA | Nordic Nutrition Recommendations 2004 | 60:25:15 | Neutral | –24 | A, I |
| | Control | 25 OW/OB (~11M, 14W) | 27.6 (5.1)* | 31.3 (2.5)* | 2.71 (0.71) | | | | Average Danish Diet | 50:35:15 | |

¹ Feeding Control: DA = Dietary Advice, Suppl = Supplementation. ² Diet (% C:F:P) is not available for all studies. ³ Energy Balance: Neutral indicates no significant difference in energy intake. ⁴ Funding Sources: NR = Not Reported.
"IHD, Ischemic Heart Disease; A, agency; C, carbohydrate; DA, dietary advice; F, fat; HC, hypercholesterolemia; I, industry; M, men; MetS, metabolic syndrome; ND, Nordic diet intervention; NR, not reported; OB, obese; OW, overweight; P, protein; Suppl, supplemental feeding control; W, women; BW, body weight; WC, waist circumference; TG, triglycerides; ApoB, apoprotein B; SBP and DBP, systolic and diastolic blood pressure; CRP, c-reactive protein.

a Supplemental feeding control (Supp) is the provision of some meals and foods consumed during the study. Dietary advice (DA) is the provision of counseling on the appropriate intervention and control diets.
b Planned macronutrient composition of intervention and control diets.
c Negative energy balance refers to a deficit in normal energy intake and/or intake below energy requirements. Neutral energy balance refers to the maintenance of usual energy intake and/or meeting energy requirements.
d For ROB, an assessment was performed using the Cochrane Risk of Bias tool, including the evaluation of individual domains of risk of bias (sequence generation, allocation concealment, blinding of participants/ personnel and outcome assessors, incomplete outcome data, selective outcome reporting). Each of the 5 domains was evaluated as either low, high or unclear ROB and the overall ROB category was determined based on the most selected category.
e Agency funding is that from government, university, or not-for-profit sources. Industry funding is that from trade organizations that obtain revenue from the sale of products.

* Calculated before dropout
** Non-HDL-C calculated
† Finland, Sweden, Denmark, Iceland
**ESM Table 11.** Selected sensitivity analyses in which the systematic removal of an individual trial altered the significance of the effect estimate or the evidence for heterogeneity.

| Outcome | Removal of | MD [95% CI], P_md | I², P_q |
|---------|------------|------------------|---------|
| **BLOOD LIPIDS** | | | |
| LDL-C, (mmol/l) | Adamsson et al. 2010 \(^{b,c}\) | -0.10 [-0.19, -0.02], P_md=0.02 | 88%, P_q=0.64 |
| | Due et al. 2008 \(^{c}\) | -0.29 [-0.61, 0.02], P_md=0.06 | 92%, P_q<0.001 |
| | Poulsen et al. 2014\(^{c}\) | -0.61 [-1.66, -0.45], P_md=0.26 | 57%, P_q=0.1 |
| | Uusitupa et al. 2013\(^{c}\) | -0.30 [-0.65, 0.05], P_md=0.10 | 92%, P_q<0.001 |
| Non-HDL-C, (mmol/l) | Adamsson et al. 2010 \(^{b,c}\) | -0.14 [-0.48, 0.20], P_md=0.42 | 0%, P_q=1 |
| HDL-C, (mmol/l) | Adamsson et al. 2010 \(^{b}\) | -0.00 [-0.04, 0.04], P_md=0.92 | 32%, P_q=0.22 |
| Triglycerides, (mmol/l) | Adamsson et al. 2010\(^{b}\) | -0.09 [-0.16, -0.01], P_md=0.02 | 0%, P_q=0.4 |
| | Poulsen et al. 2014\(^{c}\) | -0.01 [-0.09, 0.08], P_md=0.90 | 0%, P_q=0.52 |
| Apo-B, (g/l) | Adamsson et al. 2010\(^{c}\) | -0.04 [-0.10, 0.02], P_md=0.19 | n/a |
| **ADIPOSY** | | | |
| BMI, (kg/m²) | Due et al. 2008\(^{b}\) | -1.04 [-1.27, -0.82], P_md=0.008 | 0%, P_q=0.60 |
| Waist circumference, (cm) | Poulsen et al. 2014\(^{c}\) | -0.61 [-1.66, -0.45], P_md=0.26 | 57%, P_q=0.1 |
| | Gotfredsen et al. 2020\(^{b}\) | -2.49 [-3.66, -1.33], P_md=0.001 | 0%, P_q=0.60 |
| **BLOOD PRESSURE** | | | |
| Diastolic blood pressure, (mmHg) | Gotfredsen et al. 2020\(^{b}\) | -2.32 [-3.83, -0.82], P_md=0.39 | 0%, P_q=0.002 |
| | Poulsen et al. 2014\(^{b,c}\) | -1.02 [-2.29, 0.25], P_md=0.11 | 0%, P_q=0.37 |
| **INFLAMMATION** | | | |
| CRP, (nmol/l) | Poulsen et al. 2014\(^{b}\) | -0.02 [-0.43, 0.39], P_md=0.92 | 0%, P_q=0.51 |

CRP, c-reactive protein; MD, mean difference

\(^{a}\) removal of this study results in significance of the overall effect

\(^{b}\) removal of this study explains heterogeneity

\(^{c}\) removal of this study results in a loss of significance of the overall effect
ESM Table 12. GRADE assessment for the association between Nordic dietary patterns and cardiometabolic disease outcomes for prospective cohort studies.

| Outcome         | Cohort comparisons, n | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | RR (95% CI)       | Certainty     | Interpretation of the magnitude of the association |
|-----------------|------------------------|--------------|---------------|--------------|-------------|----------------------|-------------------|--------------|---------------------------------------------------|
| CVD incidence   | 3                      | not serious  | serious<sup>a</sup> | not serious  | serious<sup>b</sup> | dose response gradient<sup>c</sup> | 0.93 (0.88, 0.99)<sup>l</sup> | LOW          | Small important                                   |
| CVD mortality   | 8                      | not serious  | not serious   | not serious  | dose response gradient<sup>d</sup> | 0.81 (0.73, 0.90)<sup>l</sup> | MODERATE      | Moderate                                          |
| CHD             | 5                      | not serious  | not serious<sup>e</sup> | not serious  | serious<sup>f</sup> | dose response gradient<sup>g</sup> | 0.88 (0.72, 1.06)<sup>j</sup> | LOW          | Small important                                   |
| Stroke          | 3                      | not serious  | not serious   | not serious  | serious<sup>b</sup> | dose response gradient<sup>i</sup> | 0.88 (0.79, 0.98)<sup>j</sup> | LOW          | Small important                                   |
| T2D             | 6                      | not serious  | not serious   | not serious  | serious<sup>j</sup> | dose response gradient<sup>k</sup> | 0.96 (0.86, 1.06)<sup>j</sup> | LOW          | Small important                                   |

Cohorts start at low-certainty evidence from which the evidence can be upgraded or downgraded based on prespecified criteria. Criteria to upgrade included a dose-response gradient, large magnitude of the effect (RR ≥2 or RR ≤0.5 and attenuation by plausible confounding. Criteria to downgrade included study limitations (NOS [46]); inconsistency (substantial unexplained inter-study heterogeneity, I² ≥ 50% and P<0.10); indirectness (presence of factors relating to the population, exposures and outcomes that limit generalizability), imprecision (95% CIs for pooled estimates crossed prespecified MIDs, as shown in the table, and publication bias (significant detection of small-study effects).

<sup>a</sup> Downgrade applied due to serious inconsistency (I² = 88%, P=0.0002).
<sup>b</sup> Downgrade for serious imprecision for CVD incidence, as the 95% CI [0.88, 0.99] overlap with the minimally important difference for clinical benefit (RR=0.95).
<sup>c</sup> Upgrade for a dose-response gradient, as the GLST analysis revealed a significant linear inverse relationship between the Nordic diet and incident CVD (P<0.001).
<sup>d</sup> Upgrade for a dose-response gradient, as the GLST analysis revealed a significant linear inverse relationship between the Nordic diet and CVD mortality (P<0.001).
<sup>e</sup> No downgrade for serious inconsistency for the relation of adherence of the Nordic dietary pattern with CHD incidence, as although there was evidence of substantial heterogeneity (I² = 58% (P<0.05) ), removal of the Danish Diet, Cancer and Health women cohort explained most of the heterogeneity (I² = 7%, P=0.36) without altering the direction, magnitude or significance of the pooled effect estimate (RR 0.96 [95% CI 0.85, 1.09], P=0.51).
<sup>f</sup> Downgrade for serious inconsistency for CHD incidence, as the 95% CI [0.72, 1.06] overlap with the minimally important difference for clinical benefit (RR=0.95) and harm (RR=1.05).
<sup>g</sup> Upgrade for a dose-response gradient, as the GLST analysis revealed a significant linear inverse relationship between the Nordic diet and incident CHD (P<0.001).
<sup>h</sup> Downgrade for serious imprecision for stroke incidence, as the 95% CI [0.79, 0.98] overlap with the minimally important difference for clinical benefit (RR=0.95).
<sup>i</sup> Upgrade for a dose-response gradient, as the GLST analysis revealed a significant linear inverse relationship between the Nordic diet and incident stroke (P<0.001).
<sup>j</sup> Downgrade for serious imprecision for T2D incidence, as the 95% CI [0.86, 1.06] overlap with the minimally important difference for clinical benefit (RR=0.95) and harm (RR=1.05).
<sup>k</sup> Upgrade for a dose-response gradient, as the GLST analysis revealed a significant linear inverse relationship between the Nordic diet and incident stroke (P<0.001).
<sup>l</sup> Extreme quantiles.
<sup>m</sup> Global dose-response meta-analysis (DRM) estimates.
ESM Table 13. NutriGRADE Assessment for association of Nordic dietary patterns with cardiometabolic outcomes in Cohort studies.

| Outcome          | Cohort comparisons, $n$ | Risk of bias, study quality and study limitations | Precision** | Heterogeneity | Directness | Publication Bias | Funding Bias | Effect Size | Dose | Pooled Effect Estimate | Meta-evidence (Final point) |
|------------------|-------------------------|---------------------------------------------------|-------------|---------------|------------|------------------|--------------|-------------|------|------------------------|----------------------------|
| CVD incidence    | 3                       | ≥500 participants or ≥500 events were included, and the 95% CI excludes the null value | 1           | 0             | 1          | 0                | 1            | 0           | 1    | 0.93 (0.88, 0.99)      | Low                        |
| Reasons          | Low risk of bias        | 2-5 studies x multiply by 0                        | Publication bias not assessed | No point was awarded because effect estimate showed small effect size (RR: 0.80 - 1.20). | 1 point was awarded for the dose-response association. |
| CVD mortality    | 8                       | ≥500 participants or ≥500 events were included, and the 95% CI excludes the null value | 1           | 0.5           | 1          | 0                | 1            | 0           | 1    | 0.81 (0.73, 0.90)      | 5.5 Low                    |
| Reasons          | Low risk of bias        | 0.5 point was awarded for reporting no important heterogeneity ($I^2$<40%) from 8 cohort comparisons (multiplier: 1). | Publication bias not assessed | No point was awarded because effect estimate showed small effect size (RR: 0.80 - 1.20). | 1 point was awarded for the dose-response association. |
| CHD              | 5                       | ≥500 events were included, but 95% CI overlaps the null value and 95% CI excludes important benefit (RR <0.8) or harm (RR >1.2). | 1           | 0             | 1          | 0                | 1            | 0           | 1    | 0.88 (0.72, 1.06)      | 5 Low                      |
| Reasons          | Low risk of bias        | 2-5 studies x multiply by 0                        | Publication bias not assessed | No point was awarded because effect estimate showed small effect size (RR: 0.80 - 1.20). | 1 point was awarded for the dose-response association. |
| Stroke           | 3                       | ≥500 events were included, but 95% CI overlaps the null value and 95% CI excludes important benefit (RR <0.8) or harm (RR >1.2). | 1           | 0.5           | 1          | 0                | 1            | 0           | 1    | 0.88 (0.79, 0.98)      | 5.5 Low                    |

Note: **Precision is defined as RR of <0.8 and harm RR of >1.2.
| Reasons | Low risk of bias | ≥500 participants or ≥500 events were included, and the 95% CI excludes the null value | Publication bias not assessed | No point was awarded because effect estimate showed small effect size (RR: 0.80 - 1.20) | 1 point was awarded for the dose-response association. | T2DM | 6 | 13,121/112,157 | 1 | 1 | 0.2 | 1 | 0 | 1 | 0 | 1 | 0.96 (0.86, 1.06) | 5.2 | Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Reference: Schwingshackl L, Knüppel S, Schwedhelm C, Hoffmann G, Missbach B, Stelmach-Mardas M, Dietrich S, Eichelmann F, Kontopantelis E, Iqbal K, Aleksandrova K, Lorkowski S, Leitzmann MF, Kroke A, Boeing H. Perspective: NutriGrade: A Scoring System to Assess and Judge the Meta-Evidence of Randomized Controlled Trials and Cohort Studies in Nutrition Research. Adv Nutr 2016;7:994-
ESM Table 14. GRADE assessment for the effect of Nordic dietary patterns and cardiometabolic risk factors in RCTs.

| Outcome                  | Studies | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Publication Bias | Effect (MD [95%CI], P<0.05) | Interpretation of magnitude of effect | Quality |
|--------------------------|---------|--------------|--------------|---------------|--------------|-------------|-----------------|-------------------------------|--------------------------------------|---------|
| Blood lipids             |         |              |              |               |              |             |                 |                               |                                      |         |
| LDL-C, mmol/L            | 5 RCTs  | not serious  | serious¹     | not serious   | serious²    | not serious | -0.26 [-0.52, -0.00], p=0.050 | Small important effect             | LOW     |
| Non-HDL-C, mmol/L        | 4 RCTs  | not serious  | serious³     | not serious   | not serious | not serious | -0.69 [-0.90, -0.48], p <0.0001 | Large effect                     | MODERATE |
| HDL-C, mmol/L            | 5 RCTs  | not serious  | not serious  | not serious   | not serious | not serious | -0.03 [-0.10, 0.03], p=0.35  | No effect                          | HIGH    |
| Triglycerides, mmol/L    | 5 RCTs  | not serious  | not serious  | not serious   | serious⁵    | not serious | -0.05 [-0.14, 0.05], p=0.34 | No effect                          | MODERATE |
| ApoB, g/L                | 2 RCTs  | not serious  | serious⁶     | not serious   | not serious | not serious | -0.15 [-0.19, -0.11], p<0.0001 | Moderate effect                   | MODERATE |
| Glycemic control         |         |              |              |               |              |             |                 |                               |                                      |         |
| HbA1c, %                 | 1 RCTs  | not serious  | not serious  | serious⁷     | not serious | not serious | 0.01 [-0.06, 0.08], p=0.79  | No effect                          | MODERATE |
| Fasting glucose, mmol/L  | 5 RCTs  | not serious  | not serious  | not serious   | not serious | not serious | -0.04 [-0.10, 0.02], p=0.46 | No effect                          | HIGH    |
| Fasting insulin, pmol/L  | 4 RCTs  | not serious  | not serious  | not serious   | serious⁸    | not serious | -7.83 [-12.26, -3.39], p=0.0005 | Small important effect          | MODERATE |
| Adiposity                |         |              |              |               |              |             |                 |                               |                                      |         |
| Body weight, kg          | 6 RCTs  | not serious  | serious⁹     | not serious   | not serious | not serious | -2.00 [-3.24, -0.75], p=0.002 | Moderate effect                   | MODERATE |
| BMI, kg/m²               | 4 RCTs  | not serious  | not serious  | not serious   | not serious | not serious | -0.98 [-1.19, -0.77], p=0.0001 | Small important effect           | HIGH    |
| Waist circumference, cm  | 4 RCTs  | not serious  | not serious  | not serious   | serious¹⁰   | not serious | -1.32 [-2.20, -0.43], p=0.003 | Trivial effect                    | MODERATE |
| Blood pressure           |         |              |              |               |              |             |                 |                               |                                      |         |
| Systolic, mmHg           | 4 RCTs  | not serious  | not serious  | not serious   | not serious | not serious | -3.35 [-5.12, -1.59], p=0.0002 | Small important effect           | MODERATE |
| Diastolic, mmHg          | 4 RCTs  | not serious  | not serious  | not serious   | not serious | not serious | -1.50 [-2.62, -0.37], p=0.009 | Trivial effect                    | MODERATE |
| Inflammation             |         |              |              |               |              |             |                 |                               |                                      |         |
| CRP, mmol/L              | 5 RCTs  | not serious  | not serious  | not serious   | serious¹¹   | not serious | -1.91 [-6.37, 2.55], p=0.4  | No effect                         | MODERATE |

Apo-B, apolipoprotein-B; BMI, body mass index; CI, confidence interval; CRP, C-reactive protein; HbA1c, hemoglobin A1c; LDL-C, low density lipoprotein cholesterol; HDL-C, high density lipoprotein cholesterol; MD, mean difference; N/A, not applicable; Non-HDL-C, non-high density lipoprotein cholesterol; RCTs, randomized controlled trials; Small important: quantitative small but important association; Trivial: quantitative small but biologically/clinically unimportant association

* No downgrades were made for publication bias, as publication bias could not be assessed due to lack of power for assessing funnel plot asymmetry and small study effects (<10 trials included in the meta-analysis).

¹ We used prespecified MIDs to interpret the magnitude of the effect of the pooled estimate with effect size language defined by GRADE. MIDs for RCT outcomes were: 0.1 mmol/L for LDL-C, non-HDL-C, HDL-C, and TG [50-52]; 0.04 g/L for ApoB; 0.3% for HbA1c; 0.5 mmol/L for fasting blood glucose[53]; 5 pmol/L for fasting insulin; 0.5 kg for body weight[54, 55]; 0.2 kg/m² for BMI; 2 cm for WC; 2 mmHg for SBP and DBP[56]; and 0.5 mg/L for CRP[57, 58]), and publication bias (significant detection of small-study effects).
Since all included trials were randomized controlled trials, the certainty of the evidence was graded as high for all outcomes by default and then downgraded or upgraded based on pre-specified criteria. Criteria for downgrades included risk of bias (downgraded if the majority of trials were considered to be at high risk of bias by the Cochrane ROB tool); inconsistency (downgraded if there was substantial unexplained heterogeneity $I^2 \geq 50\%$, $pQ < 0.10$); indirectness (downgraded if there were factors absent or present relating to the participants, interventions, or outcomes that limited the generalizability of the results); imprecision (downgraded if the 95% confidence interval crossed the minimally important difference [MID] as in b); and publication bias (downgraded if there is evidence of publication bias based on funnel plot asymmetry and/or significant Egger’s or Begg’s tests ($p=0.10$) with confirmation by adjustment by Duval and Tweedie trim-and-fill analysis).

1 Downgrade for serious inconsistency for the effect of Nordic diets on LDL-C, as there was evidence of substantial heterogeneity ($I^2 = 89\%$, $p=0.001$).
2 Downgrade for serious inconsistency for the effect of Nordic diets on LDL-C as the 95% CIs (-0.52, -0.00 mmol/L) overlap with the minimally important difference for clinical benefit (0.1 mmol/L).
3 Downgrade for serious inconsistency for the effect of Nordic diets on Non-HDL-C, as there was evidence of substantial heterogeneity ($I^2 = 91\%$ and $p=0.001$), and although removal of Adamsson et al. explained the heterogeneity ($I^2=0\%$, $p=0.42$), the magnitude of the pooled effect estimate decreased and significance was lost ($MD=-0.14$ mmol/L, 95% CI: -0.48, 0.20, $p=0.42$).
4 No downgrade for serious inconsistency for the effect of Nordic diets on HDL-C, as although there was evidence of substantial heterogeneity ($I^2 = 80\%$ and $p=0.0005$), removal of Adamsson et al. explained the heterogeneity ($I^2=32\%, p=0.22$), without altering the direction, magnitude, or significance of the pooled effect estimate ($MD=-0.00$ mmol/L, 95% CI: -0.04, 0.04, $p=0.92$).
5 Downgrade for serious inconsistency for the effect of Nordic diets on triglycerides, as the 95% CIs (-0.14, 0.05 mmol/L) overlap with the minimally important difference for clinical benefit (0.1 mmol/L).
6 No downgrade for indirectness for the effect of Nordic dietary patterns on apoB as there was evidence of substantial heterogeneity ($I^2 = 96\%$ and $p=0.001$).
7 No downgrade for indirectness for the effect of Nordic dietary patterns on apoB as there were only 2 small trials which may not have been representative, the direction, magnitude of the effect was similar to that of other related apolipoprotein-containing particles, non-HDL-C and LDL-C, both of which demonstrated significant reductions, in 4 and 5 trials, respectively.
8 Inconsistency could not be assessed as only one trial comparison was available.
9 Downgrade for serious inconsistency for the effect of Nordic dietary patterns on HbA1c, as only 1 trial comparison was available so replication of the results across different trial conditions and Nordic dietary patterns cannot be confirmed.
10 Downgrade for serious inconsistency for the effect of Nordic diets on fasting insulin as the 95% CIs (-12.26, -3.39 pmol/L) overlap with the minimally important difference for clinical benefit (5 pmol/L).
11 Downgrade for serious inconsistency for the effect of Nordic diets on body weight as there was evidence of substantial heterogeneity ($I^2 = 88\%$ and $p=0.001$).
12 No downgrade for serious inconsistency for the effect of Nordic diets on waist circumference, as although there was evidence of substantial heterogeneity ($I^2=71\%$ and $pQ=0.02$), removal of Gottfredsen et al. 2020 explained the heterogeneity ($I^2=0\%$, $p=0.60$) without altering the direction, magnitude, or significance of the pooled effect estimate ($MD=-2.49$ cm, 95% CI: -3.66, -1.33, $p=0.001$).
13 Downgrade for serious inconsistency for the effect of Nordic diets on waist circumference as the 95% CIs (-3.36, -1.09 cm) overlap with the minimally important difference for clinical benefit (2 cm).
14 Downgrade for serious inconsistency for the effect of Nordic diets on systolic blood pressure as the 95% CIs (-5.12, -1.59 mmHg) overlap with the minimally important difference for clinical benefit (2 mmHg).
15 Downgrade for serious inconsistency for the effect of Nordic diets on diastolic blood pressure as the 95% CIs (-2.62, -0.37 mmHg) overlap with the minimally important difference for clinical benefit (2 mmHg).
16 No downgrade for serious inconsistency for the effect of Nordic dietary patterns on CRP, as although there was evidence of substantial heterogeneity ($I^2 = 69\%$ and $p=0.01$), removal of Poulsen et al. explained the heterogeneity ($I^2=0\%$, $p=0.51$), without altering the direction, magnitude, or significance of the pooled effect estimate ($MD=-0.24$ mmol/L, 95% CI: -0.43, 0.39 mmol/L, $p=0.92$).
17 Downgrade for serious inconsistency for the effect of Nordic diets on CRP as the 95% CIs (-6.37, 2.55 mmol/L) overlap with the minimally important difference for clinical benefit (4.8 mmol/L).
## ESM Table 15. NutriGRADE assessment for the effect of Nordic dietary patterns and cardiometabolic risk factors in RCTs

| Outcome              | Trial comparisons, n | Trial size | Risk of bias, study quality and study limitations | Based upon ROB from suppl. Figure 6 | Precision | Heterogeneity | Directness | Publication Bias | Funding Bias | Study design | Pooled Effect Estimate RR (95% CI) | Meta-evidence (Final point) |
|----------------------|----------------------|------------|---------------------------------------------------|-------------------------------------|-----------|---------------|-------------|------------------|-------------|--------------|-----------------------------------|---------------------------|
| **LDL-C**            | 5                    | 606        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 0           | 2            | -0.26 [-0.52, -0.00]               | Low                      |
|                      |                      |            | 400-2000 participants but 95% CI includes null value | 2-5 studies x multiply by 0         | Surrogate markers            | Publication bias not assessed | At least one author has conflict interest or industry funding |
| **Non-HDL-C**        | 4                    | 374        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 0           | 2            | -0.69 [-0.9, -0.48]                | Low                      |
|                      |                      |            | <400 participants                                | 2-5 studies x multiply by 0         | Surrogate markers            | <5 studies                           | At least one author has conflict interest or industry funding |
| **HDL-C**            | 5                    | 606        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 0           | 2            | -0.03 [-0.10, 0.03]                | Low                      |
|                      |                      |            | 400-2000 participants but 95% CI includes null value | 2-5 studies x multiply by 0         | Surrogate markers            | Publication bias not assessed | At least one author has conflict interest or industry funding |
| **Triglycerides**    | 5                    | 606        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 0           | 2            | -0.05 [-0.14, 0.05]                | Low                      |
|                      |                      |            | 400-2000 participants but 95% CI includes null value | 2-5 studies x multiply by 0         | Surrogate markers            | Publication bias not assessed | At least one author has conflict interest or industry funding |
| **ApoB**             | 3                    | 262        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 0           | 2            | -0.15 [-0.19, -0.11]               | Low                      |
|                      |                      |            | <400 participants                                | 2-5 studies x multiply by 0         | Surrogate markers            | <5 studies                           | At least one author has conflict interest or industry funding |
| **HbA1c**            | 1                    | 145        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 1           | 2            | 0.01 [-0.06, 0.08]                 | Low                      |
|                      |                      |            | <400 participants                                | Only 1 study, No ch2 performed     | Surrogate markers            | <5 studies                           |                                                   |
| **Fasting glucose**  | 5                    | 706        | 2                                                 | 0                                  | 0         | 0             | 0           | 0                | 0           | 2            | -0.04 [-0.10, 0.02]                | Low                      |
|                      |                      |            | 400-2000 participants but 95% CI includes null value | 2-5 studies x multiply by 0         | Surrogate markers            | Publication bias not assessed | At least one author has conflict interest or industry funding |
| Outcome | Studies | Participants | Follow-up | Studies | Markers | Method | Bias | Conflict Interest | Funding | Quality | Odds Ratio | 95% CI | Publication Bias | Conflict Interest | Funding |
|---------|---------|--------------|-----------|---------|---------|--------|------|-------------------|---------|---------|-------------|--------|----------------|-------------------|---------|
| Fasting insulin | 4 | 393 | 2 | 0 | 0 | 0 | 0 | 2 | -7.83 [-12.26, -3.39] | Low | 4 |
| Body weight | 6 | 706 | 2 | 1 | 0.2 | 0 | 0 | 0 | -2.00 [-3.24, -0.75] | Low | 5.5 |
| BMI | 4 | 393 | 2 | 0 | 0 | 0 | 0 | 2 | -0.98 [-1.19, -0.77] | Low | 4 |
| Waist circumference | 4 | 454 | 2 | 1 | 0 | 0 | 0 | 0 | -1.32 [-2.20, -0.43] | Low | 5 |
| Systolic blood pressure | 4 | 533 | 2 | 1 | 0 | 0 | 0 | 2 | -3.35 [-5.12, -1.59] | Low | 5 |
| Diastolic blood pressure | 4 | 533 | 2 | 1 | 0 | 0 | 0 | 2 | -1.50 [-2.62, -0.37] | Low | 5 |
| CRP | 5 | 606 | 2 | 0 | 0 | 0 | 0 | 0 | -1.91 [-6.37, 2.55] | Low | 4 |

Reference: Schwingshackl L, Knüppel S, Schwedhelm C, Hoffmann G, Missbach B, Stelmach-Mardas M, Dietrich S, Eichelmeyer F, Kontopantelis E, Iqbal K, Aleksandrova K, Lorkowski S, Leitzmann MF, Kroke A, Boeing H. Perspective: NutriGrade: A Scoring System to Assess and Judge the Meta-Evidence of Randomized Controlled Trials and Cohort Studies in Nutrition Research. Adv Nutr 2016;7:994-
SUPPLEMENTARY FIGURES

ESM Fig. 1. Forest plot of the association between the Nordic dietary patterns and CVD incidence.
RR, risk ratio. Pooled risk estimate is represented by the diamond. Values of $I^2 \geq 50\%$ indicate substantial heterogeneity. Values greater than 1.0 indicate a harmful association.

| Cohort                                                                 | Participants | Cases | Weight | RR, Random, 95% CIs | RR, Random, 95% CIs on CVD incidence |
|------------------------------------------------------------------------|--------------|-------|--------|---------------------|--------------------------------------|
| Malmö Diet and Cancer cohort - Males [Hlebowicz et al., 2013]          | 6,940        | 1,093 | 8.20%  | 0.68 [0.56, 0.83]   |                                      |
| Malmö Diet and Cancer cohort - Females [Hlebowicz et al., 2013]        | 10,186       | 703   | 6.80%  | 0.73 [0.59, 0.91]   |                                      |
| Swedish Women’s Lifestyle and Health Cohort [Roswall et al., 2015(93)] | 43,310       | 8,383 | 85.00% | 0.98 [0.92, 1.04]   |                                      |
| Total (95% CI)                                                         | 60,436       | 10,179| 100.00%| 0.93 [0.88, 0.99]   |                                      |

Heterogeneity: Tau² = 0.05; Chi² = 17.32, df = 2 (P = 0.0002); $I^2 = 88\%$
Test for overall effect: Z = 2.44 (P = 0.01)
ESM Fig. 2. Forest plot of the association between the Nordic dietary patterns and CVD mortality.
RR, risk ratio. Pooled risk estimate is represented by the diamond. Values of $I^2 \geq 50\%$ indicate substantial heterogeneity. Values greater than 1.0 indicate a harmful association.

| Cohort                                      | Participants | Cases | Weight | RR, Random, 95% CIs |
|---------------------------------------------|--------------|-------|--------|---------------------|
| EPIC [95]                                   | 451,256      | 3,761 | 31.6%  | 0.82 [0.74, 0.90]   |
| Kuopio Ischaemic Heart Disease Risk Factor Study [Tertsunen et al, 2020] | 1,547        | 250   | 7.5%   | 0.71 [0.51, 1.01]   |
| Malmo Diet and Cancer cohort - Men [Drake et al., 2013] | 6,940        | 444   | 9.4%   | 0.59 [0.43, 0.80]   |
| Malmo Diet and Cancer cohort - Women [Drake et al., 2013] | 10,186       | 265   | 7.3%   | 1.07 [0.75, 1.53]   |
| Swedish Mammography Cohort [Lemming et al., 2018] | 33,341       | 3,003 | 24.3%  | 0.91 [0.79, 1.05]   |
| Swedish Women’s Lifestyle and Health Cohort [Roswall et al., 2015(92)] | 44,961       | 270   | 7.4%   | 0.88 [0.62, 1.25]   |
| The Copenhagen General Population Study [Ewers et al., 2016] | 88,818       | 2,982 | 7.5%   | 0.71 [0.51, 1.01]   |
| Western Norway B-vitamin Intervention Trial (WENBIT) [Pauschitz et al., 2019] | 2,019        | 171   | 4.9%   | 0.71 [0.45, 1.12]   |

Total (95% CI) 639,068 11,146 100.00% 0.81 [0.73, 0.90]

Heterogeneity: $\tau^2 = 0.01$; $\chi^2 = 10.48$, df = 7 ($P = 0.16$); $I^2 = 33\%$
Test for overall effect: $Z = 3.85$ ($P = 0.0001$)

ESM Fig. 3. Forest plot of the association between the Nordic dietary patterns and CHD incidence.
RR, risk ratio. Pooled risk estimate is represented by the diamond. Values of $I^2 \geq 50\%$ indicate substantial heterogeneity. Values greater than 1.0 indicate a harmful association.

| Cohort                                      | Participants | Cases | Weight | RR, Random, 95% CIs |
|---------------------------------------------|--------------|-------|--------|---------------------|
| Danish Diet, Cancer and Health cohort - Male [Gunge et al., 2017] | 25,759       | 1,669 | 23.9%  | 0.86 [0.69, 1.08]   |
| Danish Diet, Cancer and Health cohort - Females [Gunge et al., 2017] | 28,809       | 653   | 13.7%  | 0.56 [0.37, 0.84]   |
| EPIC-Potsdam [Galbete et al, 2018]         | 23,485       | 312   | 18.1%  | 0.88 [0.64, 1.20]   |
| Swedish Women’s Lifestyle and Health Cohort [Roswall et al, 2015] | 43,310       | 1,019 | 27.0%  | 1.09 [0.91, 1.31]   |
| Western Norway B-vitamin Intervention Trial (WENBIT) [Pauschitz et al., 2019] | 2,019        | 307   | 17.4%  | 0.90 [0.65, 1.25]   |

Total (95% CI) 123,382 3,960 100.00% 0.88 [0.72, 1.06]

Heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 9.57$, df = 4 ($P = 0.05$); $I^2 = 58\%$
Test for overall effect: $Z = 1.38$ ($P = 0.17$)
ESM Fig. 4. Forest plot of the association between the Nordic dietary patterns and stroke incidence.
RR, risk ratio. Pooled risk estimate is represented by the diamond. Values of $I^2 \geq 50\%$ indicate substantial heterogeneity. Values greater than 1.0 indicate a harmful association.

| Cohort                                                                 | Participants | Cases | Weight | RR, Fixed, 95% CIs         |
|------------------------------------------------------------------------|--------------|-------|--------|-----------------------------|
| Danish Diet, Cancer and Health cohort [Hansen et al., 2017]            | 55,338       | 2,283 | 65.1%  | 0.83 [0.73, 0.95]           |
| EPIC-Potsdam [Galbete et al, 2018]                                     | 23,485       | 321   | 12.3%  | 0.97 [0.72, 1.31]           |
| Swedish Women’s Lifestyle and Health Cohort [Roswall et al, 2015]     | 43,310       | 698   | 22.6%  | 0.98 [0.78, 1.23]           |
| **Total (95% CI)**                                                     | **122,133**  | **3,302** | **100.0%** | **0.88 [0.79, 0.98]**     |

Heterogeneity: $\text{Tau}^2 = 0.00$; $\text{Chi}^2 = 2.04$, df = 2 ($P = 0.36$); $I^2 = 2\%$
Test for overall effect: $Z = 2.32$ ($P = 0.02$)

ESM Fig. 5. Forest plot of the association between the Nordic dietary patterns and type 2 diabetes mellitus incidence.
LogRR, logarithmic risk ratio. Pooled risk estimate is represented by the diamond. Values of $I^2 \geq 50\%$ indicate substantial heterogeneity. Values greater than 1.0 indicate a harmful association.

| Cohort                                                      | Participants | Cases | Weight | RR, Random, 95% CIs         |
|-------------------------------------------------------------|--------------|-------|--------|-----------------------------|
| Danish Diet, Cancer and Health cohort - Men [Lacoppidan et al., 2015] | 26,107       | 4,097 | 19.9%  | 0.80 [0.69, 0.93]           |
| Danish Diet, Cancer and Health cohort - Women [Lacoppidan et al., 2015] | 28,953       | 3,269 | 14.2%  | 0.89 [0.72, 1.10]           |
| EPIC-Potsdam [Galbete et al, 2018]                          | 23,485       | 1,376 | 20.1%  | 1.01 [0.87, 1.18]           |
| Helsinki Birth Cohort Study, Health 2000 Survey [Karneva et al., 2014] | 6,744       | 541   | 10.9%  | 0.93 [0.72, 1.21]           |
| Malmo Diet Study - Men [Mandalazi et al., 2016]             | 10,413       | 1,859 | 16.1%  | 1.02 [0.84, 1.23]           |
| Malmo Diet Study - Women [Mandalazi et al., 2016]           | 16,455       | 1,979 | 18.8%  | 1.10 [0.93, 1.30]           |
| **Total (95% CI)**                                         | **112,157**  | **13,121** | **100.00%** | **0.96 [0.86, 1.06]**     |

Heterogeneity: $\text{Tau}^2 = 0.01$; $\text{Chi}^2 = 9.35$, df = 6 ($P = 0.1$); $I^2 = 47\%$
Test for overall effect: $Z = 0.88$ ($P = 0.38$)
ESM Fig. 6. Risk of bias of included RCTs.
Colored bars represent the proportion of studies assessed and circles represent the individual RCT. The colors represent low (green), unclear (yellow) or high (red) risk of bias for the 5 domains of bias above according to criteria set by the Cochrane Risk of Bias tool.
ESM Fig. 7. Forest plot of randomized controlled trials assessing the effect of Nordic diets on LDL-C.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity.

ESM Fig. 8. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on BMI.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity.
ESM Fig. 9. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on body weight.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity.

| Study or Subgroup       | Participants | Weight | Mean Difference IV, Random, 95% CIs | Mean Difference IV, Random 95% CIs | Risk of Bias |
|-------------------------|--------------|--------|-------------------------------------|-------------------------------------|--------------|
| Adamsson et. al. 2010   | 44           | 42     | 19.7% -3.03 [-3.74, -2.32]          |                                     |              |
| Due et al. 2008         | 48           | 52     | 13.8% -1.60 [-3.58, 0.38]           |                                     |              |
| Gotfredsen et al. 2020  | 72           | 73     | 18.6% -0.71 [-1.69, 0.29]           |                                     |              |
| Huseinovic et al. 2016  | 47           | 53     | 11.1% -3.70 [-6.26, -1.14]          |                                     |              |
| Poulsen et al. 2014     | 91           | 56     | 16.6% -3.22 [-4.62, -1.82]          |                                     |              |
| Uusitupa et al 2013     | 96           | 70     | 20.2% -0.50 [-1.05, 0.05]           |                                     |              |

Total (95% CI) 100.0% -2.00 [-3.24, -0.75]

Heterogeneity: Tau²=1.92, Chi² = 41.79, df = 5 (P < 0.0001); I² = 88%
Test for overall effect: Z = 3.14(P = 0.002)

ESM Fig. 10. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on waist circumference.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity.

| Study or Subgroup       | Participants | Weight | Mean Difference IV, Fixed, 95% CIs | Mean Difference IV, Fixed 95% CIs | Risk of Bias |
|-------------------------|--------------|--------|-----------------------------------|------------------------------------|--------------|
| Due et al. 2008         | 48           | 52     | 19.0% -1.40 [-3.89, 1.09]         |                                     |              |
| Gotfredsen et al. 2020  | 72           | 73     | 27.4% -0.28 [-1.07, 1.63]         |                                     |              |
| Huseinovic et al. 2016  | 47           | 53     | 20.3% -2.50 [-4.81, -0.19]        |                                     |              |
| Poulsen et al 2014      | 91           | 56     | 25.9% -2.94 [-4.54, -1.34]        |                                     |              |

Total (95% CI) 100.0% -1.32 [-2.20, -0.43]

Heterogeneity: Chi² = 10.30, df = 3 (P = 0.02); I² = 71%
Test for overall effect: Z = 2.92 (P = 0.003)
ESM Fig. 11. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on HDL-C.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the $I^2$ statistic, with significance set at $P<0.10$ and $I^2>50\%$ considered to be evidence of substantial heterogeneity.

### Study or Subgroup
| Participants | Weight | Mean Difference | Risk of Bias |
|--------------|--------|----------------|--------------|
| Nordic Diet  | Control| IV, Random, 95% CIs | A B C D E |
| Adamsson et. al. 2010 | 44 | 42 | 18.7% | -0.19 [-0.28, -0.10] |
| Due et al. 2008 | 48 | 52 | 11.9% | -0.04 [-0.19, 0.11] |
| Gotfredsen et al. 2020 | 72 | 73 | 23.1% | -0.01 [-0.08, 0.06] |
| Poulsen et al. 2014 | 91 | 56 | 23.7% | -0.03 [-0.08, 0.02] |
| Uusitupa et al. 2013 | 96 | 70 | 22.5% | -0.05 [-0.01, 0.11] |
| Total (95% CI) | 100.0% | -0.03 [-0.10, 0.03] |

Heterogeneity: $\tau^2=0.00$, $\chi^2 = 20.02$, df = 5 ($P = 0.001$); $I^2 = 75\%$

Test for overall effect: $Z = 0.93$ ($P = 0.35$)

ESM Fig. 12. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on Non-HDL-C.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the $I^2$ statistic, with significance set at $P<0.10$ and $I^2>50\%$ considered to be evidence of substantial heterogeneity.

### Study or Subgroup
| Participants | Weight | Mean Difference | Risk of Bias |
|--------------|--------|----------------|--------------|
| Nordic Diet  | Control| IV, Fixed, 95% CIs | A B C D E |
| Adamsson et. al. 2010 | 44 | 42 | 62.5% | -1.02 [-1.28, -0.76] |
| Due et al. 2008 | 48 | 52 | 32.4% | -0.14 [-0.50, 0.22] |
| Gotfredsen et al. 2020 | 72 | 73 | 4.2% | -0.13 [-1.14, 0.88] |
| Uusitupa et al. 2013 | 96 | 70 | 0.8% | -0.18 [-2.52, 2.16] |
| Total (95% CI) | 100.0% | -0.69 [-0.90, -0.48] |

Heterogeneity: $\chi^2 = 16.18$, df = 3 ($P = 0.001$); $I^2 = 81\%$

Test for overall effect: $Z = 6.51$ ($P < 0.001$)
ESM Fig. 13. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on triglycerides.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I^2 statistic, with significance set at P<0.10 and I^2>50% considered to be evidence of substantial heterogeneity.

| Study or Subgroup          | Participants | Weight | Mean Difference | Mean Difference | Risk of Bias |
|----------------------------|--------------|--------|-----------------|-----------------|--------------|
| Nordic Diet Control        |              |        | IV, Random, 95% CIs | IV, Random 95% CIs |              |
| Adamsson et. al. 2010      | 44           | 42     | 14.5%           | 0.14 [-0.07, 0.35] | A ? B ? C ! D ! E ! |
| Due et al. 2008            | 48           | 52     | 18.4%           | -0.04 [-0.21, 0.13] | A ! B ? C ! D ! E ! |
| Gottfredsen et al. 2020    | 72           | 73     | 17.1%           | -0.04 [-0.22, 0.14] | A ! B ! C ! D ! E ! |
| Poulsen et al 2014         | 91           | 56     | 27.1%           | -0.17 [-0.29, -0.05] | A ! B ! C ! D ! E ! |
| Uusitupa et al 2013        | 96           | 70     | 22.7%           | -0.03 [-0.17, 0.11] | A ! B ! C ! D ! E ! |
| Total (95% CI)             | 100.0%       | -0.05  | [-0.14, 0.05]   |                 |              |

Heterogeneity: Tau^2=0.01, Chi^2 = 6.98, df = 4 (P = 0.14); I^2 = 43%
Test for overall effect: Z = 0.96 (P = 0.34)

ESM Fig. 14. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on ApoB.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I^2 statistic, with significance set at P<0.10 and I^2>50% considered to be evidence of substantial heterogeneity.

| Study or Subgroup          | Participants | Weight | Mean Difference | Mean Difference | Risk of Bias |
|----------------------------|--------------|--------|-----------------|-----------------|--------------|
| Nordic Diet Control        |              |        | IV, Fixed, 95% CIs | IV, Fixed 95% CIs |              |
| Adamsson et. al. 2010      | 44           | 42     | 52.3%           | -0.25 [-0.31, -0.19] | A Z B ? C ! D ! E ! |
| Uusitupa et al 2013        | 96           | 70     | 47.7%           | -0.04 [-0.10, 0.02] | A Z B ? C ! D ! E ! |
| Total (95% CI)             | 100.0%       | -0.15  | [-0.19, -0.11]  |                 |              |

Heterogeneity: Chi^2 = 24.62, df = 1 (P < 0.0001); I^2 = 96%
Test for overall effect: Z = 7.09 (P < 0.0001)
ESM Fig. 15. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on systolic blood pressure.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the $I^2$ statistic, with significance set at $P<0.10$ and $I^2>50\%$ considered to be evidence of substantial heterogeneity.

| Study or Subgroup | Participants | Weight | Mean Difference IV, Fixed, 95% CIs | Risk of Bias |
|-------------------|--------------|--------|-----------------------------------|--------------|
| Adamsson et al. 2010 | 44 42 | 11.7% | 5.95 [0.78, 11.12] | **** |
| Gotfredsen et al. 2020 | 72 73 | 31.3% | -1.0 [-4.16, 2.16] | *** |
| Poulsen et al. 2014 | 91 56 | 34.0% | -5.13 [-8.16, -2.10] | ** |
| Uusitupa et al. 2013 | 96 70 | 23.1% | -2.00 [-5.68, 1.68] | * |
| Total (95% CI) | 100.0% | | -3.35 [-5.12, -1.59] | |

Heterogeneity: $\chi^2 = 6.04$, df = 3 ($P = 0.11$); $I^2 = 50\%$
Test for overall effect: $Z = 3.72$ ($P = 0.0002$)

ESM Fig. 16. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on diastolic blood pressure.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimates for each subgroup and overall effect are represented by the diamonds. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by random effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the $I^2$ statistic, with significance set at $P<0.10$ and $I^2>50\%$ considered to be evidence of substantial heterogeneity.

| Study or Subgroup | Participants | Weight | Mean Difference IV, Fixed, 95% CIs | Risk of Bias |
|-------------------|--------------|--------|-----------------------------------|--------------|
| Adamsson et al. 2010 | 44 42 | 8.3% | -3.47 [-7.36, 0.42] | **** |
| Gotfredsen et al. | 72 73 | 44.1% | -0.45 [-2.14, 1.24] | *** |
| Poulsen et al. 2014 | 91 56 | 21.5% | -3.24 [-5.66, -0.82] | ** |
| Uusitupa et al. 2013 | 96 70 | 26.0% | -1.20 [-3.40, -1.00] | * |
| Total (95% CI) | 100.0% | | -1.50 [-2.62, -0.37] | |

Heterogeneity: $\chi^2 = 4.53$, df = 3 ($P = 0.21$); $I^2 = 34\%$
Test for overall effect: $Z = 2.61$ ($P = 0.009$)
ESM Fig. 17. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on fasting blood glucose.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimate is represented by the diamond. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by fixed effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity.

Study or Subgroup | Participants | Weight | Mean Difference IV, Random, 95% CIs | Mean Difference IV, Random 95% CIs | Risk of Bias A B C D E
--- | --- | --- | --- | --- | ---
Adamsson et. al. 2010 | 44 42 | 13.7% | -0.05 [-0.21, -0.11] | | ? ? 
Due et al. 2008 | 48 52 | 11.6% | -0.02 [-0.19, 0.15] | | ? ? 
Gottfredsen et al. 2020 | 72 73 | 24.0% | 0.04 [-0.08, 0.16] | | ? ? 
Poulsen et al. 2014 | 91 56 | 31.6% | -0.11 [-0.21, -0.01] | | ? ? 
Uusitupa et al. 2013 | 96 70 | 18.9% | -0.02 [-0.15, 0.11] | | ? ? 
Total (95% CI) | 100.0% | -0.04 [-0.10, 0.02] |
Heterogeneity: Tau²=0.00, Chi² = 3.59, df = 4 (P 0.46); I² = 0%
Test for overall effect: Z = 1.28 (P = 0.20)

ESM Fig. 18. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on fasting blood insulin.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D=incomplete outcome data; E=selective reporting. Pooled effect estimate is represented by the diamond. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by fixed effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity.

Study or Subgroup | Participants | Weight | Mean Difference IV, Fixed, 95% CIs | Mean Difference IV, Fixed 95% CIs | Risk of Bias A B C D E
--- | --- | --- | --- | --- | ---
Adamsson et. al. 2010 | 44 42 | 34.0% | -9.79 [-17.40, -2.18] | | ? ? 
Due et al. 2008 | 48 52 | 18.4% | -9.70 [-20.03, 0.63] | | ? ? 
Gottfredsen et al. 2020 | 72 73 | 21.0% | -1.67 [-11.34, 8.00] | | ? ? 
Poulsen et al. 2014 | 91 56 | 26.5% | -8.89 [-17.50, -0.28] | | ? ? 
Total (95% CI) | 100.0% | -7.83 [-12.26, -3.39] |
Heterogeneity: Chi² = 2.00, df = 3 (P 0.57); I² = 0%
Test for overall effect: Z = 3.46 (P = 0.0005)
ESM Fig. 19. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on HbA1c.

Risk of bias: A=random sequence generation; B=allocation concealment; C=blinding of participants and personnel; D= incomplete outcome data; E=selective reporting. Pooled effect estimate is represented by the diamond. Data are expressed as weighted mean differences with 95% CIs using the generic inverse-variance method modelled by fixed effects. Paired analyses were applied to all crossover trials. Inter-study heterogeneity was assessed using the Cochran Q statistic and quantified using the I² statistic, with significance set at P<0.10 and I²>50% considered to be evidence of substantial heterogeneity. The overall mean difference (MD) for HbA1c is 0.062 mmol/mol [-0.37, 0.50 mmol/mol] (MD 0.01 %[-0.06, 0.08]).

ESM Fig. 20. Forest plot of randomized controlled trials assessing the effect of Nordic dietary patterns on inflammation.
ESM Fig. 21. Influence analysis plots of ad libitum randomized controlled trials assessing the effect of Nordic dietary patterns on adiposity markers.