



## Abdominal obesity and fatty liver.

<https://arctichealth.org/en/permalink/ahliterature163785>

Author: M U Jakobsen  
T. Berentzen  
T I A Sørensen  
K. Overvad

Author Affiliation: Institute of Preventive Medicine, Centre for Health And Society, Copenhagen University Hospital, Copenhagen, Denmark. [muj@dce.au.dk](mailto:muj@dce.au.dk)

Source: Epidemiol Rev. 2007;29:77-87

Date: 2007

Language: English

Publication Type: Article

Keywords: Abdominal Fat - metabolism  
Denmark  
Fatty Liver - metabolism  
Humans  
Obesity - metabolism

Abstract: It has been hypothesized that visceral fat releases free fatty acids and adipokines and thereby exposes the liver to fat accumulation. The authors aimed to evaluate current epidemiologic evidence for an association between abdominal fat and liver fat content. Clinical and epidemiologic studies with data on abdominal fat and liver fat content were reviewed. Studies using waist circumference to estimate abdominal fat mass suggested a direct association between abdominal fat and liver fat content. Studies using imaging methods suggested a direct association between intraabdominal fat and liver fat content, but not between subcutaneous abdominal fat and liver fat content. In conclusion, clinical and epidemiologic studies of abdominal fat and liver fat content suggest a direct association between abdominal fat and liver fat content which is probably accounted for by visceral fat. However, results from the included studies do not allow strong conclusions regarding the temporal sequence of events. Future longitudinal studies are recommended to obtain additional information on associations and mechanisms. Both abdominal fat depots and other body compartments of interest should be included to further investigate the association between specific fat depots and liver fat content. Biomarkers may provide insight into underlying mechanisms.

PubMed ID: 17478441 [View in PubMed](#)

## Adipose tissue fatty acids as biomarkers of dietary exposure in Danish men and women.

<https://arctichealth.org/en/permalink/ahliterature24046>

Author: A. Tjønneland  
K. Overvad  
E. Thorling  
M. Ewertz

Author Affiliation: Danish Cancer Registry, Institute of Cancer Epidemiology, Danish Cancer Society, Copenhagen.

Source: Am J Clin Nutr. 1993 May;57(5):629-33

Date: May-1993

Language: English

Publication Type: Article

Keywords: Adipose Tissue - metabolism  
Adult  
Biological Markers - analysis  
Denmark - epidemiology  
Diet - statistics & numerical data  
Dietary Fats - administration & dosage  
Fatty Acids - analysis  
Female  
Humans  
Male  
Middle Aged  
Nutrition Surveys  
Research Support, Non-U.S. Gov't

Abstract: Adipose tissue fatty acids, it has been proposed, reflect dietary intake. Using data from a validation study preceding a prospective study on diet, cancer, and health in Denmark, we were able to compare fatty acid profiles in adipose tissue biopsies from 86 individuals (23 men and 63 women) aged 40-64 y and dietary intake of fatty acids (as percentage of total fat) assessed by two 7-d weighed-diet records or by a semi-quantitative food frequency questionnaire. Correlation coefficients (Pearson  $r$ ) between fatty acid concentrations in adipose tissue biopsies (as percentage of total peak area) and dietary intake of fatty acid (percentage of total fat), determined from the diet records for men and women, respectively, were as follows: polyunsaturated fatty acids  $r = 0.74$  and  $r = 0.46$ ;  $n - 3$  fatty acids of marine origin: eicosapentaenoic acid  $r = 0.15$  and  $r = 0.61$ , and docosahexaenoic acid  $r = 0.47$  and  $r = 0.57$ . Correlation coefficients obtained by using the food frequency questionnaire were slightly lower for most fatty acids.

PubMed ID: 8480677 [View in PubMed](#) 

## Alcohol drinking and risk of subsequent hospitalisation with pneumonia.

<https://arctichealth.org/en/permalink/ahliterature100920>

Author: J B Kornum  
K M Due  
M. Nørgaard  
A. Tjønneland  
K. Overvad  
H T Sørensen  
R W Thomsen

Author Affiliation: Clinical Institute, Aarhus University Hospital Aarhus Denmark.

Source: Eur Respir J. 2011 Jun 9;

Date: Jun-9-2011

Language: English

Publication Type: Article

Abstract: The dose-response relationship between alcohol consumption and pneumonia risk in healthy individuals is poorly understood. We examined 22,485 males and 24,682 females from Denmark who were aged 50-64 yrs. Subjects were without major chronic diseases at baseline and had median 12&emsp14;yrs follow-up for first-time hospitalisation with pneumonia. 1,091 (males) and 944 (females) had a pneumonia-related hospitalisation. Among males, the risk of pneumonia was increased for alcohol abstainers and those who drank large weekly amounts: Adjusted hazard ratios (HRs) for 0, 7-20, 21-34, 35-50, and >50 drinks per week were 1.49 (95% CI 1.00-2.21), 0.88 (0.76-1.03), 0.87 (0.72-1.05), 1.15 (0.93-1.44), and 1.81 (1.40-2.33), respectively, compared with 1-6 drinks per week. The association between high alcohol intake and pneumonia persisted after controlling for subsequent chronic diseases. Among females, HRs for 0, 7-20, 21-35, and >35 drinks weekly were 1.26 (0.89-1.79), 1.01 (0.88-1.17), 1.10 (0.88-1.37), and 0.54 (0.29-1.01), respectively. For the same moderate to high weekly alcohol amount, infrequent intake yielded higher pneumonia HRs than more regular intake in both sexes. Regular moderate alcohol intake is not associated with increased risk of hospitalisation for pneumonia. High weekly alcohol consumption in males and infrequent heavy drinking in both sexes may increase pneumonia risk.

PubMed ID: 21659417 [View in PubMed](#) 

## [A quantitative assessment of the impact of diet on the mortality of heart disease in Denmark. Estimation of etiologic fraction]

<https://arctichealth.org/en/permalink/ahliterature10365>

Author: M. Osler  
J. Godtfredsen  
M N Grønbaek  
P. Marckmann  
O K Overvad

Author Affiliation: Københavns Universitet, Panum Institutet, afdeling for social medicin og psykosocial sundhed (Institut for Folkesundhedsvidenskab).

Source: Ugeskr Læger. 2000 Sep 11;162(37):4921-5

Date: Sep-11-2000

Language: Danish

Publication Type: Article

Keywords: Alcohol Drinking  
Coronary Disease - etiology - mortality  
Denmark - epidemiology  
Dietary Fats - administration & dosage  
English Abstract  
Food Habits  
Fruit  
Guidelines  
Humans  
Myocardial Ischemia - etiology - mortality  
Risk assessment  
Risk factors  
Vegetables

Abstract: INTRODUCTION: The aim of the present study was to quantify the impact of different dietary factors on the mortality from ischaemic heart disease in Denmark. METHODS: Relative risks and knowledge on the distribution of different dietary factors were used to estimate etiological fractions. RESULTS: It is estimated that an intake of fruit and vegetables and saturated fat as recommended would prevent 12 and 22%, respectively, of deaths from ischaemic heart disease in Denmark. An intake of fish among those at high risk for ischaemic heart disease, would lead to a 26% lower mortality, while alcohol intake among abstainers would have no significant quantitative effect. DISCUSSION: These results suggest that changes in dietary habits according to current recommendations would have an impact on public health in Denmark.

PubMed ID: 11002740 [View in PubMed](#) 

## [Attitude of general practitioners to the importance of gender and diet in disease prevention]

<https://arctichealth.org/en/permalink/ahliterature10741>

Author: U. Hølund  
G. Boysen  
P. Charles  
E F Eriksen  
O K Overvad  
B H Petersson  
B. Sandström  
A R Thomassen  
M A Vittrup

Author Affiliation: Mejeriernes Ernaeringscenter, Aarhus.

Source: Ugeskr Laeger. 1999 Jan 4;161(1):40-3

Date: Jan-4-1999

Language: Danish

Publication Type: Article

Keywords: Attitude of Health Personnel  
Denmark  
Dietary Services  
English Abstract  
Female  
Food Habits  
Health Behavior  
Humans  
Life Style  
Male  
Physicians, Family - psychology  
Preventive Health Services - economics - organization & administration - standards  
Primary Prevention  
Questionnaires  
Sex Factors

Abstract: Three hundred and seventy-four general practitioners (GPs) in Denmark filled in a questionnaire on attitudes to include information on gender and diet in the strategy for prevention of coronary heart disease, cancer, osteoporosis, and overweight/underweight. Risk factors for disease in general were ranked as follows: smoking, alcohol, stress, diet, physical exercise, heredity and hygiene. The patients' lack of motivation, insufficient time for each patient, and inadequate knowledge about nutrition were stated as barriers to dietary counselling. The GPs stated that the gender of the patient was important only to the counselling on osteoporosis. Lack of time and insufficient knowledge were perceived as barriers for including gender specific issues in prevention. It is concluded that GPs consider dietary counselling important but lack time and knowledge. The results point at a need for better pre- and postgraduate training in nutrition, and for a better reimbursement system for time spent on prevention.

PubMed ID: 9922687 [View in PubMed](#) 

## Avoidable cancers in the Nordic countries. Diet, obesity and low physical activity.

<https://arctichealth.org/en/permalink/ahliterature22272>

Author: J F Winther  
L. Dreyer  
K. Overvad  
A. Tjønneland  
M. Gerhardsson de Verdier

Author Affiliation: Institute of Cancer Epidemiology, Danish Cancer Society.

Source: APMIS Suppl. 1997;76:100-19

Date: 1997

Language: English

Publication Type: Article

Keywords: Diet - adverse effects  
Exercise  
Female  
Finland - epidemiology  
Humans  
Iceland - epidemiology  
Incidence  
Male  
Neoplasms - epidemiology - etiology - prevention & control  
Obesity - complications  
Risk factors  
Scandinavia - epidemiology

Abstract: In the early 1980s, Doll and Peto estimated that about 35% of all deaths from cancer in the United States were attributable to dietary factors, with a margin of uncertainty ranging from 10 to 70%. Since then, several dietary factors, e.g. fat and meat, have been suggested to increase the risk for cancer, while other factors, e.g. fibre, fruit and vegetables, have been suggested to decrease the risk. The case-control and cohort studies have, however, given ambiguous results, and the overall evidence is far from conclusive. The major findings on dietary factors that increase risk have been reported from case-control studies, but have not been confirmed in large population-based cohort studies. Although the research in this area indicates that diet is important in cancer prevention, current knowledge does not allow reliable estimates of the numbers and proportions of cancers that could be avoided through well-described modifications of dietary habits. During the last 10 years, low physical activity has been pinpointed as a risk factor for cancers at various sites, especially the colon; however, the causal mechanism is still unknown. Obesity, defined as a body mass index of 30 or more, is consistently associated with endometrial and gall-bladder cancers in women and renal-cell cancer in both men and women. As the prevalence of obesity was between 5 and almost 20% in the Nordic populations in 1995, 625 cancer cases (310 endometrial cancers, 270 renal-cell cancers in men and women and 45 gall-bladder and bile-duct cancers among women) can be predicted in the Nordic countries around the year 2000 to be caused by obesity. This implies that about 1% of all cancers in Nordic women and less than 1% of those in Nordic men could be avoided around the year 2000 if a healthy body weight could be maintained by all inhabitants.

PubMed ID: 9462823 [View in PubMed](#) 

[Baseline patterns of adipose tissue fatty acids and long-term risk of breast cancer: a case-cohort study in the Danish cohort Diet, Cancer and Health.](#)

Author: J A Schmidt  
A. Gorst-Rasmussen  
P W Nyström  
J H Christensen  
E B Schmidt  
C. Dethlefsen  
A. Tjønneland  
K. Overvad  
C C Dahm

Source: Eur J Clin Nutr. 2014 Oct;68(10):1088-94

Date: Oct-2014

Language: English

Publication Type: Article

Keywords: Adult  
Aged  
Breast Neoplasms - epidemiology - pathology  
Cohort Studies  
Denmark - epidemiology  
Fatty Acids - analysis  
Female  
Humans  
Incidence  
Male  
Middle Aged  
Prospective Studies  
Risk  
Risk factors  
Subcutaneous Fat - chemistry

Abstract: The evidence regarding fatty acids and breast cancer risk is inconclusive. Adipose tissue fatty acids can be used as biomarkers of fatty acid intake and of endogenous fatty acid exposure. Fatty acids in adipose tissue are correlated owing to common dietary sources and shared metabolic pathways, which group fatty acids into naturally occurring patterns. We aimed to prospectively investigate associations between adipose tissue fatty acid patterns and long-term risk of total breast cancer and breast cancer subtypes characterised by oestrogen and progesterone receptor status (ER and PR).

This case-cohort study was based on data from the Danish cohort Diet, Cancer and Health. At baseline, a fat biopsy and information on lifestyle and reproductive factors were collected. From the 31 original fatty acids measured, patterns of fatty acids were identified using the treelet transform. During a median follow-up of 5.3 years, 474 breast cancer cases were identified. Hazard ratios and 95% confidence intervals of risk of total breast cancer and of subtypes according to quintiles of factor score were determined by weighted Cox proportional hazards regression.

After adjustment for potential confounders, factor scores for the seven patterns identified by the treelet transform were not associated with risk of total breast cancer, nor with risk of ER+, ER-, PR+ or PR- tumours.

No clear associations between the patterns of fatty acids at baseline and long-term risk of total breast cancer or ER+, ER-, PR+ or PR- tumours were observed.

PubMed ID: 24642780 [View in PubMed](#) 

## Body composition and body fat distribution in relation to later risk of acute myocardial infarction: a Danish follow-up study.

<https://arctichealth.org/en/permalink/ahliterature137399>

Author: J G Stegger  
E B Schmidt  
T. Obel  
T L Berentzen  
A. Tjønneland  
T I A Sørensen  
K. Overvad

Author Affiliation: Department of Cardiology, Center for Cardiovascular Research, Aalborg Hospital, Aarhus University Hospital, Aalborg, Denmark. Jakob.Stegger@rn.dk

Source: Int J Obes (Lond). 2011 Nov;35(11):1433-41

Date: Nov-2011

Language: English

Publication Type: Article

Keywords: Body Composition  
Body Fat Distribution  
Body mass index  
Denmark - epidemiology  
Female  
Follow-Up Studies  
Humans  
Male  
Middle Aged  
Myocardial Infarction - epidemiology - etiology - physiopathology  
Obesity - complications - epidemiology - physiopathology  
Predictive value of tests  
Proportional Hazards Models  
Prospective Studies  
Questionnaires  
Risk factors

Abstract: Obesity is a modifiable risk factor for acute myocardial infarction (MI), but lean body mass (LBM) may also be an important factor. Low LBM may increase the risk of MI and LBM may modify the effect of obesity on MI. Thus, the inability of the classical anthropometric measures to evaluate LBM may lead to misclassification of MI risk in both lean and obese persons. We investigated the associations between incident MI and bioelectrical impedance analyses (BIA) derived measures of body composition in combination with body mass index (BMI) and anthropometric measures of body fat distribution.

From 1993 to 1997, 27,148 men and 29,863 women, aged 50 to 64 year, were recruited into the Danish prospective study Diet, Cancer and Health. During 11.9 years of follow-up we identified 2028 cases of incident MI (1487 men and 541 women). BMI, waist circumference (WC), hip circumference and BIA of body composition including body fat mass (BFM), body fat percentage and LBM were measured at baseline. We used Cox proportional hazard models with age as time axis and performed extensive control for confounding. Weight, BMI, classical estimates of abdominal obesity and BIA estimates of obesity showed significant positive associations with incident MI. However, BFM adjusted for WC showed no association. Low LBM was associated with a higher risk of incident MI in both genders, and high LBM was associated with a higher risk in men.

Obesity was positively associated with MI. Estimates of obesity achieved by BIA seemed not to add additional information to classical anthropometric measures regarding MI risk. Both high and low LBM may be positively associated with MI.

PubMed ID: 21285940 [View in PubMed](#) 

## [Cigar and pipe smoking and cancer risk in the european prospective investigation into cancer and nutrition.](#)

<https://arctichealth.org/en/permalink/ahliterature98017>

Author: Va McCormack  
A. Agudo  
Cc Dahm  
K. Overvad  
A. Olsen  
A. Tjonneland  
R. Kaaks  
H. Boeing  
J. Manjer  
M. Almquist  
G. Hallmans  
I. Johansson  
Md Chirlaque  
A. Barricarte  
M. Dorronsoro  
L. Rodriguez  
Ml Redondo  
Kt Khaw  
N. Wareham  
N. Allen  
T. Key  
E. Riboli  
P. Boffetta

Author Affiliation: International Agency for Research on Cancer, Lyon, France.

Source: Int J Cancer. 2010 Feb 16;

Date: Feb-16-2010

Language: English

Publication Type: Article

Abstract: The carcinogenicity of cigar and pipe smoking is established but the effect of detailed smoking characteristics is less well defined. We examined the effects on cancer incidence of exclusive cigar and pipe smoking, and in combination with cigarettes, among 102395 men from Denmark, Germany, Spain, Sweden and UK in the EPIC cohort. Hazard ratios (HR) and their 95% confidence intervals (CI) for cancer during a median 9 year follow-up from ages 35-70 years were estimated using proportional hazards models. Compared to never smokers, HR of cancers of lung, upper aero-digestive tract and bladder combined was 2.2 (95% CI: 1.3, 3.8) for exclusive cigar smokers (16 cases), 3.0 (2.1, 4.5) for exclusive pipe smokers (33 cases) and 5.3 (4.4, 6.4) for exclusive cigarette smokers (1069 cases). For each smoking type, effects were stronger in current than in ex-smokers, and in inhalers than in non-inhalers. Ever smokers of both cigarettes and cigars (HR 5.7 (4.4, 7.3), 120 cases) and cigarettes and pipes (5.1 (4.1, 6.4), 247 cases) had as high a raised risk as had exclusive cigarette smokers. In these smokers, the magnitude of the raised risk was smaller if they had switched to cigars or pipes only (i.e. quit cigarettes) and had not compensated with greater smoking intensity. Cigar and pipe smoking is not a safe alternative to cigarette smoking. The lower cancer risk of cigar and pipe smokers as compared to cigarette smokers is explained by lesser degree of inhalation and lower smoking intensity. (c) 2010 UICC.

PubMed ID: 20162568 [View in PubMed](#) 

[Consumption of added fats and oils in the European Prospective Investigation into Cancer and Nutrition \(EPIC\) centres across 10 European countries as assessed by 24-hour dietary recalls.](#)

<https://arctichealth.org/en/permalink/ahliterature18552>

Author: J. Linseisen  
E. Bergström  
L. Gafni  
C A González  
A. Thiébaud  
A. Trichopoulou  
R. Tumino  
C. Navarro Sánchez  
C. Martínez Garcia  
I. Mattisson  
S. Nilsson  
A. Welch  
E A Spencer  
K. Overvad  
A. Tjønneland  
F. Clavel-Chapelon  
E. Kesse  
A B Miller  
M. Schulz  
K. Botsi  
A. Naska  
S. Sieri  
C. Sacerdote  
M C Ocké  
P H M Peeters  
G. Skeie  
D. Engeset  
U R Charrondière  
N. Slimani

Author Affiliation: Unit of Human Nutrition and Cancer Prevention, Technical University of Munich, Alte Akademie 16, D-85350 Freising-Weihenstephan, Germany. j.linseisen@wzw.tum.de

Source: Public Health Nutr. 2002 Dec;5(6B):1227-42

Date: Dec-2002

Language: English

Publication Type: Article

Keywords: Adult  
Aged  
Diet Surveys  
Dietary Fats - administration & dosage - adverse effects  
Educational Status  
Energy intake  
Europe  
Female  
Humans  
Male  
Mental Recall  
Middle Aged  
Neoplasms - etiology  
Population Surveillance - methods  
Prospective Studies  
Research Support, Non-U.S. Gov't

Abstract: OBJECTIVE: To evaluate the consumption of added fats and oils across the European centres and countries participating in the European Prospective Investigation into Cancer and Nutrition (EPIC). DESIGN AND SETTING: 24-Hour dietary recalls were collected by means of standardised computer-guided interviews in 27 redefined EPIC centres across 10 European countries. SUBJECTS: From an initial number of 36 900 subjects, single dietary recalls from 22 924 women and 13 031 men in the age range of 35-74 years were included. RESULTS: Mean daily intake of added fats and oils varied between 16.2 g (Varese, Italy) and 41.1 g (Malmö, Sweden) in women and between 24.7 g (Ragusa, Italy) and 66.0 g (Potsdam, Germany) in men. Total mean lipid intake by consumption of added fats and oils, including those used for sauce preparation, ranged between 18.3 (Norway) and 37.2 g day<sup>-1</sup> (Greece) in women and 28.4 (Heidelberg, Germany) and 51.2 g day<sup>-1</sup> (Greece) in men. The Mediterranean EPIC centres with high olive oil consumption combined with low animal fat intake contrasted with the central and northern European centres where fewer vegetable oils, more animal fats and a high proportion of margarine were consumed. The consumption of added fats and oils of animal origin was highest in the German EPIC centres, followed by the French. The contribution of added fats and oils to total energy intake ranged from 8% in Norway to 22% in Greece. CONCLUSIONS: The results demonstrate a high variation in dietary intake of added fats and oils in EPIC, providing a good opportunity to elucidate the role of dietary fats in cancer aetiology.

PubMed ID: 12639229 [View in PubMed](#) 