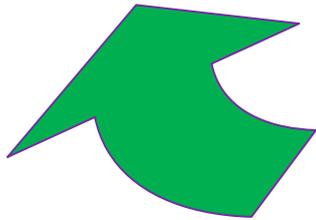


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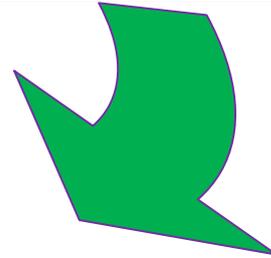


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## Articles

The following abstracts are taken from a selection of recently published papers (July – December 2017)

Contents:	Page
Stroke.....	3
Cancer.....	10
Metabolism and Diabetes .....	22
Rehabilitation.....	28
Cardiovascular disease.....	33
Other.....	39

### STROKE:

#### **A Pilot Trial of a Lifestyle Intervention for Stroke Survivors: Design of Healthy Eating and Lifestyle after Stroke (HEALS).**

**Author(s):** Hill, Valerie A.; Vickrey, Barbara G.; Cheng, Eric M.; Valle, Natalie P.; Ayala-Rivera, Monica; Moreno, Lilian; Munoz, Cynthia; Dombish, Heidi; Espinosa, Annaliese; Wang, Debbie; Ochoa, Dina; Chu, Allison; Heymann, Rebecca; Towfighi, Amytis

**Source:** Journal of Stroke & Cerebrovascular Diseases; Dec 2017; vol. 26 (no. 12); p. 2806-2813

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28823491

**Abstract:**Background: Stroke survivors have high rates of subsequent cardiovascular and recurrent cerebrovascular events, and mortality. While healthy lifestyle practices - including a diet rich in fruits and vegetables, limited alcohol intake, and regular physical activity - can mitigate these outcomes, few stroke survivors adhere to them. Minorities from socioeconomically disadvantaged communities who obtain care in safety-net health systems experience the most barriers to implementing healthy lifestyle changes after stroke.Purpose: To report the design of Healthy Eating and Lifestyle After Stroke (HEALS), a randomized controlled trial (RCT) was designed to test the feasibility of using a manualized, lifestyle management intervention in a safety-net setting to improve lifestyle practices among ethnically diverse individuals with stroke or transient ischemic attack (TIA).Methods: Design: Pilot RCT.Participants: Inclusion criteria: 1) Adults ( $\geq 40$  years) with ischemic stroke or TIA ( $\geq 90$  days prior); 2) English- or Spanish-speaking.Setting: Outpatient clinic, safety-net setting.Intervention: Weekly two-hour small group sessions led by an occupational therapist for six weeks. The sessions focused on implementing nutrition, physical activity, and self-management strategies tailored to each participant's goals.Main Outcome Measures: Body mass index, diet, and physical activity.Conclusions: Recruitment for this study is complete. If the HEALS intervention study is feasible and effective, it will serve as a platform for a large-scale RCT that will investigate the efficacy and cost-effectiveness of life management interventions for racially and ethnically diverse, low-income individuals with a history of stroke or TIA who seek healthcare in the safety-net system.

**Database:** CINAHL

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**Influence of Dietary Salt Knowledge, Perceptions, and Beliefs on Consumption Choices after Stroke in Uganda.**

**Author(s):** Kaddumukasa, Martin N.; Katabira, Elly; Sajatovic, Martha; Pundik, Svetlana; Kaddumukasa, Mark; Goldstein, Larry B.

**Source:** Journal of Stroke & Cerebrovascular Diseases; Dec 2017; vol. 26 (no. 12); p. 2935-2942

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28807485

**Abstract:**Background: Previous research on Uganda's poststroke population revealed that their level of dietary salt knowledge did not lead to healthier consumption choices.Purpose: Identify barriers and motivators for healthy dietary behaviors and evaluate the understanding of widely accepted salt regulation mechanisms among poststroke patients in Uganda.Methods: Convergent parallel mixed methods triangulation design comprised a cross-sectional survey (n = 81) and 8 focus group discussions with 7-10 poststroke participants in each group. We assessed participant characteristics and obtained insights into their salt consumption attitudes, perceptions, and knowledge. Qualitative responses were analyzed using an inductive approach with thematic analytic procedures. Relationships between healthy dietary salt compliance, dietary salt knowledge, and participant characteristics were assessed using logistic regression analyses.Results: Healthy dietary salt consumption behaviors were associated with basic salt knowledge (P < .0001), but no association was found between compliance and salt disease-related knowledge (P = .314). Only 20% and 7% obtained health-related salt knowledge from their health facility and educational sources, respectively, whereas 44% obtained this information from media personalities; 92% of participants had no understanding of nutrition labels, and only 25% of the study population consumed potash-an inexpensive salt substitute that is both rich in potassium and low in sodium.Conclusion: One barrier to healthy dietary consumption choices among Uganda's stroke survivors is a lack of credible disease-related information. Improving health-care provider stroke-related dietary knowledge in Uganda and encouraging the use of potash as a salt substitute would help reduce hypertension and thereby lower the risk of stroke.

**Database:** CINAHL

**Substitution of Linoleic Acid for Other Macronutrients and the Risk of Ischemic Stroke.**

**Author(s):** Venø, Stine K.; Schmidt, Erik B.; Jakobsen, Marianne U.; Lundbye-Christensen, Søren; Bach, Flemming W.; Overvad, Kim

**Source:** Stroke (00392499); Dec 2017; vol. 48 (no. 12); p. 3190-3195

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 29070717

Available at [Stroke; a journal of cerebral circulation](#) - from Ovid (Journals @ Ovid)

**Abstract:**Background and Purpose: Ischemic stroke is a major health problem worldwide, but the influence of dietary factors on stroke risk is not well known. This study aimed to investigate the risk of ischemic stroke and its subtypes with a higher intake from linoleic acid and a concomitant lower intake from saturated fatty acids, monounsaturated fatty acids, or glycemic carbohydrates.Methods: In the Danish prospective Diet, Cancer, and Health Study of 57 053 participants aged 50 to 64 years at baseline, information on diet was collected using a validated semiquantitative food frequency questionnaire. Information on ischemic stroke was obtained from the Danish National Patient Register, and cases were all validated and subclassified according to the TOAST (Trial of ORG 10172 in Acute Stroke Treatment) classification. Substitution of linoleic acid for saturated fatty acid, monounsaturated fatty acid, or glycemic carbohydrates was investigated in relation to the risk of ischemic stroke and subtypes. Cox proportional hazards regression was used to estimate the associations with ischemic stroke adjusting for appropriate confounders.Results: During 13.5 years of follow-up 1879 participants developed ischemic stroke. A slightly lower risk of ischemic stroke was found with a 5% higher intake of linoleic acid and a concomitant lower intake of saturated fatty acid (hazard ratio, 0.98; 95% confidence interval, 0.83-1.16), monounsaturated fatty acid (hazard ratio, 0.80; 95% confidence interval, 0.63-1.02), and glycemic carbohydrates (hazard ratio, 0.92; 95% confidence interval, 0.78-1.09), although not statistically significant. Similar patterns of association were found for large-artery atherosclerosis and small-vessel occlusions.Conclusions: This study suggests that replacing saturated fatty acid, glycemic carbohydrate, or monounsaturated fatty acid with linoleic acid may be associated with a lower risk of ischemic stroke.

**Database:** CINAHL

**Intake of potassium- and magnesium-enriched salt improves functional outcome after stroke: a randomized, multicenter, double-blind controlled trial.**

**Author(s):** Wen-Harn Pan; Ying-Ho Lai; Wen-Ting Yeh; Jiunn-Rong Chen; Jiann-Shing Jeng; Chyi-Huey Bai; Ruey-Tay Lin; Tsong-Hai Lee; Ku-Chou Chang; Huey-Juan Lin; Chin-Fu Hsiao; Chang-Ming Chern; Li-Ming Lien; Chung-Hsiang Liu; Wei-Hung Chen; Chang, Anna

**Source:** American Journal of Clinical Nutrition; Nov 2017; vol. 106 (no. 5); p. 1267-1273

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

Available at [The American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Stroke is one of the leading causes of mortality and neurologic deficits. Management measures to improve neurologic outcomes are in great need. Our previous intervention trial in elderly subjects successfully used salt as a carrier for potassium, demonstrating a 41% reduction in cardiovascular mortality by switching to potassium-enriched salt. Dietary magnesium has been associated with lowered diabetes and/or stroke risk in humans and with neuroprotection in animals. Objective: Because a large proportion of Taiwanese individuals are in marginal deficiency states for potassium and for magnesium and salt is a good carrier for minerals, it is justifiable to study whether further enriching salt with magnesium at an amount near the Dietary Reference Intake (DRI) amount may provide additional benefit for stroke recovery. Design: This was a double-blind, randomized controlled trial comprising 291 discharged stroke patients with modified Rankin scale (mRS)  $\leq 4$ . There were 3 arms: 1) regular salt (Na salt) (n = 99), 2) potassium-

enriched salt (K salt) (n = 97), and 3) potassium- and magnesium-enriched salt (K/Mg salt) (n = 95). The NIH Stroke Scale (NIHSS), Barthel Index (BI), and mRS were evaluated at discharge, at 3 mo, and at 6 mo. A good neurologic performance was defined by NIHSS = 0, BI = 100, and mRS ≤1. Results: After the 6-mo intervention, the proportion of patients with good neurologic performance increased in a greater magnitude in the K/Mg salt group than in the K salt group and the Na salt group, in that order. The K/Mg salt group had a significantly increased OR (2.25; 95% CI: 1.09, 4.67) of achieving good neurologic performance compared with the Na salt group. But the effect of K salt alone (OR: 1.58; 95% CI: 0.77, 3.22) was not significant. Conclusions: This study suggests that providing the DRI amount of magnesium and potassium together long term is beneficial for stroke patient recovery from neurologic deficits. This trial was registered at clinicaltrials.gov as NCT02910427.

**Database:** CINAHL

**Age and Gender Differences in the Association between Serum 25-Hydroxyvitamin D and Stroke in the General US Population: The National Health and Nutrition Examination Survey, 2001-2006.**

**Author(s):** Li, Ji; Lai, Hong; Yang, Lifang; Zhu, Hong; Chen, Shaoguang; Lai, Shenghan

**Source:** Journal of Stroke & Cerebrovascular Diseases; Nov 2017; vol. 26 (no. 11); p. 2510-2518

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28709742

**Abstract:**Background: Previous findings on the association between serum 25(OH)D level and stroke have been controversial. We aimed to examine whether these controversial findings could be possibly due to difference in study participant characteristics, especially age and gender differences in these studies, by analyzing the data from a representative sample of the general US population.Methods: Data of 13,642 adults 20 years or older who participated in the 2001-2006 National Health and Nutrition Examination Survey were analyzed in this study. Serum 25(OH)D was used to reflect vitamin D status. Stroke history was self-reported using questionnaires. Unadjusted and adjusted logistic regression models were fitted using SAS survey procedures to investigate the associations between 25(OH)D level and stroke for the pooled sample and age-gender subgroups (men versus women, <50 years old versus ≥50 years old), respectively.Results: After adjusting for demographic and lifestyle covariates, vitamin D deficiency (defined as serum 25(OH)D < 12 ng/mL) was significantly associated with increased risk of stroke (adjusted odds ratio [OR] = 1.62, 95% confidence interval [CI] = 1.11, 2.36), and higher vitamin D levels were significantly associated with reduced risk of stroke (adjusted OR = .70, 95% CI = .51, .96). The association between high levels of serum 25(OH)D and stroke was particularly evident among young females (age ≤20 years to <50 years) (adjusted OR = .26, 95% CI = .14, .49).Conclusions: The findings add to the evidence suggesting maintaining ideal 25(OH)D levels may reduce the risk of stroke among US adults, particularly in adult women younger than 50 years.

**Database:** CINAHL

**Associations of Calcium and Dairy Products with All-Cause and Cause-Specific Mortality in the REasons for Geographic and Racial Differences in Stroke (REGARDS) Prospective Cohort Study.**

**Author(s):** Um, Caroline Y.; Judd, Suzanne E.; Flanders, W. Dana; Fedirko, Veronika; Bostick, Robert M.

**Source:** Nutrition & Cancer; Nov 2017; vol. 69 (no. 8); p. 1185-1195

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**Abstract:**Associations of calcium and dairy product intakes with cardiovascular disease risk and cancer mortality are controversial. We investigated associations of calcium and dairy product intakes with mortality in the prospective REasons for Geographic and Racial Differences in Stroke study (n= 30,239). Of 2,966 total deaths, 32.3% were from CVD and 28.8% from cancer. For those in the upper relative to the lowest quintile of intakes, from Cox proportional hazards regression models, the multivariable-adjusted hazard ratios (HRs) for all-cause mortality were 1.13 (95% confidence intervals [CI] 0.95–1.35;P-trend 0.004) for whole milk, and 0.75 (CI 0.61–0.93;P-trend 0.001) for nonfat milk; for CVD mortality the corresponding HRs were 0.80 (CI 0.55–1.16;P-trend 0.80) and 0.72 (CI 0.49–1.05;P-trend 0.06); and for cancer mortality they were 1.56 (CI 1.17–2.08;P-trend 0.006) and 0.89 (CI 0.62–1.28;P-trend 0.86). Calcium (total, dietary, supplemental) and total dairy product intakes were not associated with all-cause, cardiovascular, or cancer mortality. These results suggest that whole milk consumption may be directly associated with cancer mortality; non-fat milk consumption may be inversely associated with all-cause and cardiovascular- and cancer-specific mortality; and calcium intake independent of milk product intakes may not be associated with mortality.

**Database:** CINAHL

**Dietary Sodium to Potassium Ratio and Risk of Stroke in a Multiethnic Urban Population: The Northern Manhattan Study.**

**Author(s):** Willey, Joshua; Gardener, Hannah; Cespedes, Sandino; Cheung, Ying K.; Sacco, Ralph L.; Elkind, Mitchell S. V.

**Source:** Stroke (00392499); Nov 2017; vol. 48 (no. 11); p. 2979-2983

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 29018136

Available at [Stroke; a journal of cerebral circulation](#) - from Ovid (Journals @ Ovid)

**Abstract:**Background and Purpose: There is growing evidence that increased dietary sodium (Na) intake increases the risk of vascular diseases, including stroke, at least in part via an increase in blood pressure. Higher dietary potassium (K), seen with increased intake of fruits and vegetables, is associated with lower blood pressure. The goal of this study was to determine the association of a dietary Na:K with risk of stroke in a multiethnic urban population. Methods: Stroke-free participants from the Northern Manhattan Study, a population-based cohort study of stroke incidence, were followed-up for incident stroke. Baseline food frequency questionnaires were analyzed for Na and K intake. We estimated the hazard ratios and 95% confidence intervals for the association of Na:K with incident

total stroke using multivariable Cox proportional hazards models. Results: Among 2570 participants with dietary data (mean age, 69±10 years; 64% women; 21% white; 55% Hispanic; 24% black), the mean Na:K ratio was 1.22±0.43. Over a mean follow-up of 12 years, there were 274 strokes. In adjusted models, a higher Na:K ratio was associated with increased risk for stroke (hazard ratio, 1.6; 95% confidence interval, 1.2-2.1) and specifically ischemic stroke (hazard ratio, 1.6; 95% confidence interval, 1.2-2.1). Conclusions: Na:K intake is an independent predictor of stroke risk. Further studies are required to understand the joint effect of Na and K intake on risk of cardiovascular disease.

**Database:** CINAHL

### **Eosinophil Cationic Protein, Carotid Plaque, and Incidence of Stroke.**

**Author(s):** Sundström, Johannes; Söderholm, Martin; Yan Borné; Nilsson, Jan; Persson, Margaretha; Östling, Gerd; Melander, Olle; Orho-Melander, Marju; Engström, Gunnar; Borné, Yan

**Source:** Stroke (00392499); Oct 2017; vol. 48 (no. 10); p. 2686-2692

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28904229

Available at [Stroke; a journal of cerebral circulation](#) - from Ovid (Journals @ Ovid)

**Abstract:** Background and Purpose: ECP (eosinophil cationic protein) is a marker of eosinophil activity and degranulation, which has been linked to atherosclerosis and cardiovascular disease. We examined the relationship between ECP, carotid plaque, and incidence of stroke in a prospective population-based cohort. Methods: The subjects participated in the Malmö Diet and Cancer Study between 1991 and 1994. A total of 4706 subjects with no history of stroke were included (40% men; mean age, 57.5 years). Carotid plaque was determined by B-mode ultrasound of the right carotid artery. Incidence of stroke was followed up during a mean period of 16.5 years in relation to plasma ECP levels. Results: Subjects in the third tertile (versus first tertile) of ECP tended to have higher prevalence of carotid plaque (odds ratio: 1.18; 95% confidence interval: 1.003-1.39; P=0.044 after multivariate adjustments). A total of 258 subjects were diagnosed with ischemic stroke (IS) during follow-up. ECP was associated with increased incidence of IS after risk factor adjustment (hazard ratio, 1.57; 95% confidence interval: 1.13-2.18; for third versus first tertile; P=0.007). High ECP was associated with increased risk of IS in subjects with carotid plaque. The risk factor-adjusted hazard ratio for IS was 1.86 (95% confidence interval: 1.32-2.63) in subjects with carotid plaque and ECP in the top tertile, compared with those without plaque and ECP in the first or second tertiles. Conclusions: High ECP is associated with increased incidence of IS. The association between ECP and IS was also present in the subgroup with carotid plaque.

**Database:** CINAHL

### **Promoting Physical Activity and Nutrition in People With Stroke.**

**Author(s):** Bailey, Ryan R.

**Source:** American Journal of Occupational Therapy; Sep 2017; vol. 71 (no. 5); p. 1-5

**Publication Date:** Sep 2017

**Publication Type(s):** Academic Journal

Available at [The American Journal of Occupational Therapy](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:**The prevalence of cardiovascular disease, diabetes, and obesity is high in people with stroke. Risk factors for these conditions include hypertension, high cholesterol, and physical inactivity. These risk factors are common in people with stroke and often go unmanaged. Engagement in healthy behaviors is important for managing and preventing these risk factors and comorbid conditions. More specifically, physical activity and nutrition are key health behaviors for the management and maintenance of health in people with stroke. These health behaviors, by their very nature, are also occupations; thus, they are influenced by client factors, performance skills and patterns, and environments and contexts. This article discusses physical activity and nutrition within the context of the Occupational Therapy Practice Framework: Domain and Process and proposes potential roles for occupational therapy practitioners and researchers in developing, testing, and providing physical activity and nutrition interventions for people with stroke.

**Database:** CINAHL

**Malnutrition risk predicts recovery of full oral intake among older adult stroke patients undergoing enteral nutrition: Secondary analysis of a multicentre survey (the APPLE study).**

**Author(s):** Nishioka, Shinta; Okamoto, Takatsugu; Takayama, Masako; Urushihara, Maki; Watanabe, Misuzu; Kiriya, Yumiko; Shintani, Keiko; Nakagomi, Hiromi; Kageyama, Noriko

**Source:** Clinical Nutrition; Aug 2017; vol. 36 (no. 4); p. 1089-1096

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background & aims Whether malnutrition risk correlates with recovery of swallowing function of convalescent stroke patients is unknown. This study was conducted to clarify whether malnutrition risks predict achievement of full oral intake in convalescent stroke patients undergoing enteral nutrition. Methods We conducted a secondary analysis of 466 convalescent stroke patients, aged 65 years or over, who were undergoing enteral nutrition. Patients were extracted from the "Algorithm for Post-stroke Patients to improve oral intake Level; APPLE" study database compiled at the Kaifukuki (convalescent) rehabilitation wards. Malnutrition risk was determined by the Geriatric Nutritional Risk Index as follows: severe (<82), moderate (82 to <92), mild (92 to <98), and no malnutrition risks ( $\geq 98$ ). Swallowing function was assessed by Fujishima's swallowing grade (FSG) on admission and discharge. The primary outcome was achievement of full oral intake, indicated by  $FSG \geq 7$ . Binary logistic regression analysis was performed to identify predictive factors, including malnutrition risk, for achieving full oral intake. Estimated hazard risk was computed by Cox's hazard model. Results Of the 466 individuals, 264 were ultimately included in this study. Participants with severe malnutrition risk showed a significantly lower proportion of achievement of full oral intake than lower severity groups ( $P = 0.001$ ). After adjusting for potential confounders, binary logistic regression analysis showed that patients with severe malnutrition risk were less likely to achieve full oral intake (adjusted odds ratio: 0.232, 95% confidence interval [95% CI]: 0.047–1.141). Cox's proportional hazard model revealed that severe malnutrition risk was an independent

predictor of full oral intake (adjusted hazard ratio: 0.374, 95% CI: 0.166–0.842). Compared to patients who did not achieve full oral intake, patients who achieved full oral intake had significantly higher energy intake, but there was no difference in protein intake and weight change. Conclusion Severe malnutrition risk independently predicts the achievement of full oral intake in convalescent stroke patients undergoing enteral nutrition.

**Database:** CINAHL

#### CANCER:

##### **The Impact of Dietary Polyphenols on COX-2 Expression in Colorectal Cancer.**

**Author(s):** Owczarek, Katarzyna; Lewandowska, Urszula

**Source:** Nutrition & Cancer; Dec 2017; vol. 69 (no. 8); p. 1105-1118

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Polyphenols are natural compounds with high structural diversity whose common occurrence in plants renders them intrinsic dietary components. They are known to be secondary metabolites characterized by a wide spectrum of biological activities, and a growing body of evidence indicates they have anti-inflammatory potential. It is well known that inflammation plays a key role in many chronic diseases such as circulatory diseases, pulmonary diseases, autoimmune diseases, diabetes, cancer, and neurodegenerative diseases. Polyphenols influence the inflammatory process by controlling and inhibiting pro-inflammatory cytokines such as IL-1 $\beta$ , IL-6, IL-8, and TNF- $\alpha$ , and cyclooxygenase-2 (COX-2) enzyme involved in the metabolism of arachidonic acid. Furthermore, polyphenols exhibit anti-inflammatory activity on many levels via NF- $\kappa$ B inhibition, and MAPK, iNOS, and growth factors regulation. This paper reviews the current state of knowledge concerning the potential of various dietary polyphenols to inhibit the effects of COX-2 in colon cancer, by examining the available evidence regarding the efficacy and safety of these compounds obtained from in vitro and animal studies.

**Database:** CINAHL

##### **Intake of Individual Flavonoids and Risk of Carcinogenesis: Overview of Epidemiological Evidence.**

**Author(s):** Sak, Katrin

**Source:** Nutrition & Cancer; Dec 2017; vol. 69 (no. 8); p. 1119-1150

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Several epidemiological findings have demonstrated that specific flavonoids can be responsible for reduction of the risk of certain cancer types. However, these results are still rather limited, inconclusive and controversial. Therefore, in this comprehensive review article the findings reported to date about the associations between dietary intake of individual flavonoid compounds and cancer incidence are compiled and analyzed. Also, the possible reasons for inconsistencies are brought forth and discussed. As diet is a potentially modifiable factor in our behavioral choices, further large-scale prospective studies with longer follow-up times, different populations, various doses and exposure timing as well as

diverse well-controlled confounders are highly needed to confirm or disprove the current epidemiological knowledge about the role of flavonoids on cancer risk. Regarding the promising data to date, more research on bioavailability, metabolism and biological action mechanisms of these plant secondary metabolites is also encouraged.

**Database:** CINAHL

### **Clinical Value of Nutritional Status in Cancer: What is its Impact and how it Affects Disease Progression and Prognosis?**

**Author(s):** Mantzourou, Maria; Koutelidakis, Antonios; Theocharis, Stamatios; Giaginis, Constantinos

**Source:** Nutrition & Cancer; Dec 2017; vol. 69 (no. 8); p. 1151-1176

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Malnutrition is a common finding in cancer patients, which can affect disease progression and survival. This review aims to critically summarize the prognostic role of nutritional status, from Body Mass Index (BMI) and weight loss to nutrition screening tools and biochemical indices, in cancer patients. According to the currently available data, Prognostic Nutritional Index (PNI) was a significant prognostic factor of patients' survival, both in univariate and multivariate analyses. Preoperative albumin was also correlated with worse outcomes, being an independent prognostic factor of survival in several studies. BMI was also well-studied, with contradictory results. Although, lower BMI was found to be an independent prognostic factor of shorter survival in some studies, in others it did not have an impact on survival. In this aspect, this review highlights the significant prognostic role of nutritional status in the disease progression and survival of cancer patients. Further, good-quality prospective studies are needed in order to draw precise conclusions on the prognostic role of specific nutritional assessment tools, and biochemical indices associated with the nutritional status in more cancer types, such as liver, breast and prostate cancer, and hematological malignancies.

**Database:** CINAHL

### **Prospective Evaluation of Nutritional Factors to Predict the Risk of Complications for Patients Undergoing Radical Cystectomy: A Cohort Study.**

**Author(s):** Allaire, Janie; Léger, Caroline; Ben-Zvi, Tal; Nguilé-Makao, Molière; Fradet, Yves; Lacombe, Louis; Fradet, Vincent

**Source:** Nutrition & Cancer; Dec 2017; vol. 69 (no. 8); p. 1196-1204

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** The objective of this study was to identify nutritional preoperative factors associated with complications after radical cystectomy (RC). We prospectively evaluated the Mini-Nutritional Assessment Score, body mass index (BMI), appetite, stool frequency, hydration, food intake, weight loss, albuminemia, and prealbuminemia of 144 patients who underwent RC between January 2011 and April 2014. Postoperative complications were defined as any adverse event reported in the patient's file up to 90 days after surgery. Each complication was classified according to the Clavien-Dindo and Memorial Sloan-Kettering

Cancer Center systems. The adjusted relative risk (RR) computed through a Poisson regression model was used to identify nutritional risk factors associated with post-RC complications. A high BMI >27 kg/m<sup>2</sup> was associated with higher risk of low-grade complications (RR:1.47 [95% CI,1.09-2.00]) at 7 days and a four-fold increased risk of cardiac complications at 7 and 90 days (RR:3.77 [1.15-12.32] and RR:3.28 [1.35-7.98]). Decreased appetite was associated with low-grade (RR:1.43 [1.03-1.99] complications within 90 days. Preoperative weight loss >3 kg was associated with high-grade (RR:2.49 [1.23-5.05]) and wound (RR:2.51 [1.23-5.10]) complications within 90 days. This study showed that preoperative nutritional status of patients may predict the occurrence of complications up to 90 days post-RC. Development of preoperative nutritional interventions may reduce the deleterious impact of RC on patients' health.

**Database:** CINAHL

### **Predictors of Nutritional Risk According to NRS-2002 and Calf Circumference in Hospitalized Older Adults with Neoplasms.**

**Author(s):** Leandro-Merhi, Vania Aparecida; de Aquino, José Luis Braga; Reis, Leonardo Oliveira

**Source:** Nutrition & Cancer; Dec 2017; vol. 69 (no. 8); p. 1219-1226

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Objectives: To investigate nutritional markers that better predict nutritional risk according to the Nutritional Risk Screening (NRS-2002), to verify agreement between indicators, and to identify the calf circumference cut-off point for diagnosing nutritional risk. Methods: Cross-sectional study with older patients hospitalized for neoplasms. The nutritional risk was assessed by NRS-2002 and the nutritional status by Subjective Global Assessment (SGA), Mini-Nutritional Assessment (MNA long form), calf circumference (CC), and body mass index (BMI). Statistical analyses included the chi-square and Mann-Whitney tests, Kappa coefficient, univariate and multiple logistic regression analyses to analyze the risk factors, and the receiver operator characteristic (ROC) curve to determine the cut-off point. Results: The NRS-2002 and MNA had good agreement ( $k = 0.5281$ ), but the NRS-2002 did not agree with the other nutritional indicators. According to regression analysis, the predictors of nutritional risk were the MNA ( $p = 0.0010$ , OR = 28.270); BMI ( $p = 0.0419$ , OR = 4.681), and age ( $p = 0.0021$ , OR = 1.309). The best CC cut-off point for predicting nutritional risk according to the NRS-2002 was  $\leq 32.25$  cm. Conclusion: Both the NRS-2002 and MNA are useful for the nutritional diagnosis of older adults hospitalized for neoplasms. When the MNA, BMI, and age are used together, they can better predict nutritional risk according to the NRS-2002.

**Database:** CINAHL

### **Self-management strategies used by head and neck cancer survivors following completion of primary treatment: A directed content analysis.**

**Author(s):** Dunne, Simon; Mooney, Orla; Coffey, Laura; Sharp, Linda; Timmons, Aileen; Desmond, Deirdre; Gooberman-Hill, Rachael; O'Sullivan, Eleanor; Keogh, Ivan; Timon, Conrad; Gallagher, Pamela

**Source:** Psycho-Oncology; Dec 2017; vol. 26 (no. 12); p. 2194-2200

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28453887

Available at [Psycho-oncology](#) - from Wiley Online Library All Journals

Available at [Psycho-oncology](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:**Objective: Head and neck cancer (HNC) survivors encounter unique challenges following treatment. This study aimed to identify self-management strategies that HNC survivors use to overcome these posttreatment challenges.Methods: Twenty-seven individuals from 4 designated cancer centres in Ireland were interviewed about self-management strategies that helped them overcome challenges following HNC treatment. Interviews were audio-recorded, transcribed, and analysed using directed content analysis.Results: Twenty self-management strategy types (encompassing 77 specific strategies) were identified. The most frequently used self-management strategy types were self-sustaining (used by 26 survivors), self-motivating (n = 25), and proactive problem solving (n = 25). The most frequently used specific strategies were adaptive approaches to ongoing physical consequences of HNC and its treatment (n = 24), customising dietary practices (n = 24), and maintaining a positive outlook (n = 22).Conclusions: The study identified strategies that helped HNC survivors to self-manage posttreatment challenges. This information could inform the design/development of self-management interventions tailored towards HNC survivors.

**Database:** CINAHL

### **Antioxidants in the Treatment of Cancer.**

**Author(s):** Athreya, Kanthi; Xavier, Marin F.

**Source:** Nutrition & Cancer; Dec 2017; vol. 69 (no. 8); p. 1099-1104

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:**Several clinical trials have produced conflicting results regarding the benefit of antioxidants in cancer therapy thus questioning the incorporation of these substances in standard treatment regimens. Vitamins E and C, selenium, carotenoids, lycopene, soy products, and green tea extract are a few substances with antioxidant properties that have been studied in detail. This article reviews the results generated over the last 20 years through in vitro and in vivo studies in various types of cancers and stages of cancer treatment. Despite the commercial popularity and the multitude of studies examining antioxidant therapy, the true role of antioxidants is yet to be determined, requiring further investigation into its propagative, causal, or protective nature.

**Database:** CINAHL

**Oral fish oil positively influences nutritional-inflammatory risk in patients with haematological malignancies during chemotherapy with an impact on long-term survival: a randomised clinical trial.**

**Author(s):** Chagas, T. R.; Borges, D. S.; Oliveira, P. F.; Mocellin, M. C.; Barbosa, A. M.; Camargo, C. Q.; Del Moral, J. Â. G.; Poli, A.; Calder, P. C.; Trindade, E. B. S. M.; Nunes, E. A.  
**Source:** Journal of Human Nutrition & Dietetics; Dec 2017; vol. 30 (no. 6); p. 681-692

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [Journal of human nutrition and dietetics : the official journal of the British Dietetic Association](#) - from Wiley Online Library All Journals

Available at [Journal of human nutrition and dietetics : the official journal of the British Dietetic Association](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:**Background Studies suggest that the ingestion of fish oil ( FO), a source of the omega-3 polyunsaturated fatty acids docosahexaenoic acid ( DHA) and eicosapentaenoic acid ( EPA), can reduce the deleterious side-effects of chemotherapy. The aim of this randomised clinical trial was to evaluate the effect of supplementation with oral FO for 9 weeks on nutritional parameters and inflammatory nutritional risk in patients with haematological malignancies during the beginning of chemotherapy. Methods Twenty-two patients with leukaemia or lymphoma were randomised to the unsupplemented group ( UG) ( n = 13) or supplemented group ( SG) ( n = 9). SG received 2 g/day of fish oil for 9 weeks. Nutritional status, serum acute-phase proteins and plasma fatty acids were evaluated before (T0) and after (T1) the intervention period. Data were analysed using two models; model 1, comprising data from all patients included in the study, and model 2, comprising data from UG patients with no increase in the proportions of EPA and DHA in plasma and data from SG patients showing an at least 100% increase in plasma EPA and DHA. Results SG showed an increased plasma proportion of EPA and DHA in both models. In model 2, C-reactive protein ( CRP) and CRP/albumin ratio showed larger reductions in the SG. Overall long-term survival in both models (465 days after the start of the chemotherapy) was higher in the group ingesting fish oil ( P < 0.05). Conclusions These findings indicate an improved nutritional-inflammatory risk and potential effects on long-term survival in patients with haematological malignancies supplemented with FO during the beginning of chemotherapy.

**Database:** CINAHL

### **What are colorectal cancer survivors' preferences for dietary advice? A best-worst discrete choice experiment.**

**Author(s):** Wright, Stuart; Gibson, Debbie; Eden, Martin; Lal, Simon; Todd, Chris; Ness, Andy; Burden, Sorrel; Wright, Stuart J

**Source:** Journal of Cancer Survivorship; Dec 2017; vol. 11 (no. 6); p. 782-790

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28429186

**Abstract:**Purpose: Studies on healthy lifestyle interventions in survivors of colorectal cancer have been disappointing, demonstrating only modest changes. This study aims to quantify people's preferences for different aspects of dietary intervention.Method: A best-worst discrete choice experiment was designed and incorporated into a questionnaire including

participants' characteristics and a self-assessment of lifestyle. Results: The response rate was 68% and 179 questionnaires were analysed. When analysing aggregate preferences, the modes of information provision selected as the most preferred were "face-to-face" (willingness to pay (WTP) £63.97,  $p \leq 0.001$ ) and "telephone" (WTP £62.36,  $p < 0.001$ ) discussions whereas group discussions were preferred least (WTP -£118.96,  $p \leq 0.001$ ). Scenarios that included hospitals were most preferred (WTP £17.94,  $p = 0.031$ ), and the favoured provider was bowel cancer nurses (WTP £75.11,  $p \leq 0.001$ ). When investigating preference heterogeneity, three sub-groups were identified: Firstly, "technophiles" preferring email (WTP £239.60,  $p \leq 0.001$ ) were male, were younger and had fewer risk factors. Secondly, a "one-to-one" group had strong preference for interventions over the telephone or at their local doctors and were older (WTP £642.13,  $p \leq 0.001$ ). Finally, a "person-centred" group preferred face-to-face individual or group sessions (WTP £358.79,  $p < 0.001$ ) and had a high risk lifestyle. Conclusion: For survivors of colorectal cancer, there is not one approach that suits all when it comes to providing dietary advice. Implications For Cancer Survivors: This is important information to consider when planning healthy lifestyle interventions which include dietary advice for survivors of colorectal cancer. Aligning services to individuals' preferences has the potential to improve patient experience and outcomes by increasing uptake of healthy lifestyle advice services and promoting a more tailored approach to dietary modifications, acknowledging sub-groups of people within the total population of colorectal cancer survivors.

**Database:** CINAHL

### **Digital health behaviour change interventions targeting physical activity and diet in cancer survivors: a systematic review and meta-analysis.**

**Author(s):** Roberts, Anna; Fisher, Abigail; Smith, Lee; Heinrich, Malgorzata; Potts, Henry; Roberts, Anna L; Potts, Henry W W

**Source:** Journal of Cancer Survivorship; Dec 2017; vol. 11 (no. 6); p. 704-719

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28779220

**Abstract:** Purpose: The number of cancer survivors has risen substantially due to improvements in early diagnosis and treatment. Health behaviours such as physical activity (PA) and diet can reduce recurrence and mortality, and alleviate negative consequences of cancer and treatments. Digital behaviour change interventions (DBCI) have the potential to reach large numbers of cancer survivors. Methods: We conducted a systematic review and meta-analyses of relevant studies identified by a search of Medline, EMBASE, PubMed and CINAHL. Studies which assessed a DBCI with measures of PA, diet and/or sedentary behaviour were included. Results: Fifteen studies were identified. Random effects meta-analyses showed significant improvements in moderate-vigorous PA (seven studies; mean difference (MD) = 41 min per week; 95% CI 12, 71) and body mass index (BMI)/weight (standardised mean difference (SMD) = -0.23; 95% CI -0.41, -0.05). There was a trend towards significance for reduced fatigue and no significant change in cancer-specific measures of quality of life (QoL). Narrative synthesis revealed mixed evidence for effects on diet, generic QoL measures and self-efficacy and no evidence of an effect on mental health. Two studies suggested improved sleep quality. Conclusions: DBCIs may improve PA and BMI

among cancer survivors, and there is mixed evidence for diet. The number of included studies is small, and risk of bias and heterogeneity was high. Future research should address these limitations with large, high-quality RCTs, with objective measures of PA and sedentary time. Implications For Cancer Survivors: Digital technologies offer a promising approach to encourage health behaviour change among cancer survivors.

**Database:** CINAHL

**Pre-therapeutic nutritional assessment for predicting severe adverse events in patients with head and neck cancer treated by radiotherapy.**

**Author(s):** Kono, Takeyuki; Sakamoto, Koji; Shinden, Seiichi; Ogawa, Kaoru

**Source:** Clinical Nutrition; Dec 2017; vol. 36 (no. 6); p. 1681-1685

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Summary Background & aims Malnutrition is common in patients with head and neck cancer (HNSCC). It may be related to severe adverse toxicity as a result of radiotherapy. The aim was to investigate nutritional screening factors for severe adverse events. Methods A retrospective chart review of 101 patients who underwent radiotherapy from 2009 to 2013 was performed. The relationships among severe adverse events and pretreatment nutritional parameters, including static variables (serum albumin, total protein, total lymphocyte counts, body mass index), dynamic variables (retinol-binding protein, transferrin, pre-albumin), and nutritional screening tools (Onodera's Prognostic Nutrition Index [O-PNI]; Nutrition Risk Index; Controlling Nutritional Status [CONUT] score; Nutritional Risk Screening 2002) were evaluated in addition to patient and treatment factors. Results According to the static parameters, approximately 30% of patients were malnourished before treatment. Twenty-four patients exhibited severe adverse events. On univariate analysis, combined chemotherapy, advanced staging, O-PNI <40, and CONUT score  $\geq 5$  were significant predictors of severe adverse events. Multivariate analysis revealed that O-PNI <40 and combined chemotherapy independently predict severe adverse events. Conclusions O-PNI is considered a useful nutritional factor for predicting severe adverse events in HNSCC patients undergoing chemoradiotherapy and facilitates the planning of aggressive nutritional interventions prior to treatment.

**Database:** CINAHL

**Changes in taste and smell function, dietary intake, food preference, and body composition in testicular cancer patients treated with cisplatin-based chemotherapy.**

**Author(s):** IJpma, Irene; Renken, Remco J.; Gietema, Jourik A.; Slart, Riemer H.J.A.; Mensink, Manon G.J.; Lefrandt, Joop D.; Ter Horst, Gert J.; Reyners, Anna K.L.

**Source:** Clinical Nutrition; Dec 2017; vol. 36 (no. 6); p. 1642-1648

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Summary Background & aims Taste and smell changes due to chemotherapy may contribute to the high prevalence of overweight in testicular cancer patients (TCPs). This study investigates the taste and smell function, dietary intake, food preference, and body

composition in TCPs before, during, and up to 1 year after cisplatin-based chemotherapy. Methods Twenty-one consecutive TCPs participated. At baseline TCPs were compared to healthy controls (N = 48). Taste strips and 'Sniffin' Sticks' were used to determine psychophysical taste and smell function. Subjective taste, smell, appetite, and hunger were assessed using a questionnaire. Dietary intake was analyzed using a food frequency questionnaire. Food preference was assessed using food pictures varying in taste (sweet/savoury) and fat or protein content. A Dual-Energy X-ray Absorptiometry (DEXA) scan was performed to measure whole body composition. Results Compared to controls, TCPs had a lower smell threshold (P = 0.045) and lower preference for high fat sweet foods at baseline (P = 0.024). Over time, intra-individual psychophysical taste and smell function was highly variable. The salty taste threshold increased at completion of chemotherapy compared to baseline (P = 0.006). A transient decrease of subjective taste, appetite, and hunger feelings was observed per chemotherapy cycle. The percentage of fat mass increased during chemotherapy compared to baseline, while the lean mass and bone density decreased (P < 0.05). Conclusions Coping strategies regarding subjective taste impairment should especially be provided during the first week of each chemotherapy cycle. Since the body composition of TCPs already had changed at completion of chemotherapy, intervention strategies to limit the impact of cardiovascular risk factors should probably start during treatment.

**Database:** CINAHL

### **Surfacing role of probiotics in cancer prophylaxis and therapy: A systematic review.**

**Author(s):** Dasari, Subramanyam; Kathera, Chandrasekhar; Janardhan, Avilala; Praveen Kumar, Arthala; Viswanath, Buddolla

**Source:** Clinical Nutrition; Dec 2017; vol. 36 (no. 6); p. 1465-1472

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Cancers figure among the most important causes of morbidity and mortality worldwide. Cancer and its associated infections are always complicated even when specific cancer regimens are available. It is well proved that Lactobacillus and other probiotic bacteria can modulate-ameliorate specific mechanisms against various infections including cancers. The present systematic review is intended to focus on the 'cellular and molecular mechanisms' of probiotic bacteria in the prevention and treatment of various cancers. The clinical and experimental findings of various studies explain the mechanisms such as apoptosis, antioxidant activity, immune response and epigenetics and illustrate the role of probiotics in cancer management and prophylaxis. In addition, the present review also discusses the safety aspects of probiotics when they are used in therapeutic and nutritional diet management. However, further investigations are required to reveal the effectiveness of probiotics in cancer treatment in clinical settings.

**Database:** CINAHL

### **Vitamin C Protects Against Leukemia.**

**Author(s):** Tweed, Vera

**Source:** Better Nutrition; Nov 2017; vol. 79 (no. 11); p. 16-16

**Publication Date:** Nov 2017

**Publication Type(s):** Periodical

Available at [Better Nutrition](#) - from EBSCO (CINAHL with Full Text)

Available at [Better Nutrition](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:**The article discusses protection against Leukemia by consuming vitamin C which include repair and maintenance of skin, tendons, ligaments, and blood vessels followed by protection from blood cancer stated by Perlmutter Cancer Center researchers in the New York University (NYU).

**Database:** CINAHL

**Long-term follow-up of the potential benefits of early nutritional intervention in adults with upper gastrointestinal cancer: a pilot randomised trial.**

**Author(s):** Furness, Kate; Silvers, Mary; Savva, June; Huggins, Catherine; Truby, Helen; Haines, Terry; Silvers, Mary Anne; Huggins, Catherine E

**Source:** Supportive Care in Cancer; Nov 2017; vol. 25 (no. 11); p. 3587-3593

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28612158

**Abstract:**Purpose: This study aimed to evaluate the long-term survival of all patients who participated in a pilot randomised trial of an early nutritional intervention for adults with upper gastrointestinal cancer. It also sought to identify factors that predicted patient mortality.Methods: All participants (n = 21) who were randomised into the original study were followed for a maximum of 5 years and 2 months (final follow-up April 2016). The primary outcome measure was time from date of recruitment until date of death, ascertained by the Victorian Cancer Registry and/or Monash Health Scanned Medical Records. Secondary analyses were conducted to identify factors that adversely affected survival.Results: At the end of the follow-up period, three patients were alive in the nutrition intervention group whilst only two patients were living from the standard care group. Visual evaluation of the Kaplan-Meier survival curves demonstrated a possible survival benefit from being exposed to the intervention between 6 months and 1.4 years post-recruitment, though this benefit dissipated soon after. The intervention was not associated with increased survival in univariate analyses, but was after adjustment for other factors found to adversely impact on survival (adjusted hazard ratio 0.12 (95% CI 0.02-0.72) p = 0.02). These factors were being a smoker (14.2 (1.43 to 140.67), p = 0.02); low baseline physical functioning (1.11 (1.01 to 1.21), p = 0.03); high baseline fatigue (1.09 (1.02-1.16), p = 0.007); and high baseline dyspnoea (1.08 (1.02-1.13), p = 0.003).Conclusion: Early and intensive nutrition intervention may increase the survival of people with upper gastrointestinal cancer.

**Database:** CINAHL

**Dietary patterns and risk of pancreatic cancer: a systematic review.**

**Author(s):** Jiali Zheng; Guintier, Mark A.; Merchant, Anwar T.; Wirth, Michael D.; Jiajia Zhang; Stolzenberg-Solomon, Rachael Z.; Steck, Susan E.

**Source:** Nutrition Reviews; Nov 2017; vol. 75 (no. 11); p. 883-908

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**Abstract:**Context: Pancreatic cancer has the highest case fatality rate of all major cancers. Objective: A systematic review using PRISMA guidelines was conducted to summarize the associations between dietary patterns and risk of pancreatic cancer. Data Sources: PubMed and Web of Science databases were searched for case-control and cohort studies published up to June 15, 2016. Study Selection: Eligible studies included a dietary pattern as exposure and pancreatic cancer incidence or mortality as outcome and reported odds ratios, hazard ratios, or relative risks, along with corresponding 95% CIs. Data Extraction: Important characteristics of each study, along with the dietary assessment instrument, the component foods or nutrients included in each dietary pattern or the scoring algorithm of a priori dietary patterns, were presented. For each dietary pattern identified, the estimate of association and the 95% CI comparing the highest versus the lowest category from the model with the most covariate adjustment were reported. Results: A total of 16 studies were identified. Among the 8 studies that examined data-driven dietary patterns, significant positive associations were found between pancreatic cancer risk and the Animal Products, Starch Rich, and Western dietary patterns, with effect estimates ranging from 1.69 to 2.40. Significant inverse relationships were found between risk of pancreatic cancer and dietary patterns designated as Fruits and Vegetables, Vitamins and Fiber, and Prudent, with effect estimates ranging from 0.51 to 0.55. Eight studies of a priori dietary patterns consistently suggested that improved dietary quality was associated with reduced risk of pancreatic cancer. Conclusions: Better diet quality is associated with reduced risk of pancreatic cancer. The associations between dietary patterns and pancreatic cancer were stronger in case-control studies than in cohort studies and were stronger among men than among women.

**Database:** CINAHL

### **Attitudes, challenges and needs about diet and physical activity in endometrial cancer survivors: a qualitative study.**

**Author(s):** Koutoukidis, D.A.; Beeken, R.J.; Lopes, S.; Knobf, M.T.; Lanceley, A.

**Source:** European Journal of Cancer Care; Nov 2017; vol. 26 (no. 6)

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

Available at [European journal of cancer care](#) - from Wiley Online Library All Journals

Available at [European journal of cancer care](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:**With rates of endometrial cancer survival increasing, there is growing interest about lifestyle behaviours that could improve quality of life and reduce the risk for chronic diseases. This study aimed to explore the attitudes, challenges and needs of endometrial cancer survivors regarding diet and physical activity. Sixteen UK-based endometrial cancer survivors participated in two focus groups (n = 5, n = 3) or individual telephone interviews (n = 8), using a semi-structured interview guide. Data were collectively analysed by two

researchers until consensus was reached on a coding structure. Data analysis proceeded until themes were identified. Participants were within 5 years post-cancer treatment with median age and BMI of 57 years and 25.8 kg m<sup>-2</sup> respectively. Three themes were identified: (1) defining a healthy lifestyle, (2) factors influencing diet and physical activity and (3) needing to search for information. Results suggest interventions should incorporate recommendations on managing late-treatment effects, and behaviour change techniques for cognitive, practical and social barriers to healthy lifestyle changes. Healthcare professionals are in a vital position to provide or introduce endometrial cancer survivors to in-person behaviour change interventions at the early post-treatment period.

**Database:** CINAHL

### **Emerging importance of dietary phytochemicals in fight against cancer: Role in targeting cancer stem cells.**

**Author(s):** Singh, Amit Kumar; Sharma, Neelesh; Ghosh, Mrinmoy; Park, Yang Ho; Jeong, Dong Kee

**Source:** Critical Reviews in Food Science & Nutrition; Nov 2017; vol. 57 (no. 16); p. 3449-3463

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 26853447

**Abstract:**Recent years have seen an unpretending increase in research using dietary phytochemicals for targeting cancer and cancer stem cells (CSCs) due to the limited efficacy of conventional chemotherapy and radiotherapy and numerous associated side effects. A large number of dietary phytochemicals using traditional recommendation and experimental approaches have been demonstrated to have anti-proliferative, anti-metastatic, reactive oxygen species (ROS) inducing, anti-angiogenic, pro-apoptotic effects and efficacy in targeting cellular molecules and pathways implicated in malignancy. Researchers have shown the knack of phytochemicals in interfering with the CSCs self-renewal process. Thus, dietary phytochemicals can play a significant role in the cancer therapy owing to the plethora of targets without toxicity. In this review, we have discussed about the basic knowledge of CSCs, their identification, characterization, mechanism of self-renewal pathways (Wnt/ $\beta$ -catenin, Hedgehog, and Notch), features that help in the survival of CSCs and use of phytochemicals to replace chemotherapy. Applications of phytochemicals including curcumin, epigallocatechin-3-gallate (EGCG), resveratrol, lycopene, and sulforaphane for their effect on targeting cancer and in particular CSCs along with their molecular mechanisms responsible for pharmacological action are also discussed.

**Database:** CINAHL

### **Inflammatory potential of the diet and colorectal tumor risk in persons with Lynch syndrome.**

**Author(s):** Brouwer, Jesca G. M.; Makama, Maureen; van Woudenberg, Geertruida J.; Vasen, Hans F. A.; Nagengast, Fokko M.; Kleibeuker, Jan H.; Kampman, Ellen; van Duijnhoven, Fränzel J. B.

**Source:** American Journal of Clinical Nutrition; Nov 2017; vol. 106 (no. 5); p. 1287-1294

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

Available at [American journal of clinical nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Persons with Lynch syndrome (LS) have high lifetime risk of developing colorectal tumors (CRTs) because of a germline mutation in one of their mismatch repair (MMR) genes. An important process in the development of CRTs is inflammation, which has been shown to be modulated by diet. Objective: We aimed to investigate the association between the inflammatory potential of the diet and the risk of CRTs in persons with LS. Design: We used the dietary intake of 457 persons with LS from a prospective cohort study to calculate the adapted dietary inflammatory index (ADII). The ADII was split into tertiles in which the highest tertile reflects the most proinflammatory potential of the diet. Cox proportional hazard models, with robust sandwich variance estimates to adjust for dependency within families, were used to calculate HRs and 95% CIs of CRTs by ADII tertile. HRs were adjusted for age, smoking status, and education level, and number of colonoscopies as a time-dependent variable. A potential effect measure modification was explored by stratifying the results by mutated MMR gene, sex, and a history of CRTs. We performed sensitivity analyses by repeating the analyses in non-steroidal anti-inflammatory drug (NSAID) users (n = 315). Results: During a median follow-up time of 59 mo, 200 participants (43.8%) developed CRTs. No significant association was shown between highest compared with lowest ADII tertiles (HR for highest compared with lowest tertiles: 1.37; 95% CI: 0.80, 2.34). Stratification by mutated MMR gene, sex, and CRT history did not show significantly differential associations (P-interactions  $\geq 0.64$ ). In non-NSAID users, an HR of 1.60 (95% CI: 0.88, 2.93) for highest compared with lowest tertiles was shown. No significant effect modification was shown in this group either (P-interactions  $\geq 0.24$ ). Conclusion: A proinflammatory potential of the diet does not seem to be significantly associated with CRT risk in persons with LS.

**Database:** CINAHL

### **n-3 fatty acid-based parenteral nutrition improves postoperative recovery for cirrhotic patients with liver cancer: A randomized controlled clinical trial.**

**Author(s):** Zhang, Binhao; Wei, Gang; Li, Rui; Wang, Yanjun; Yu, Jie; Wang, Rui; Xiao, Hua; Wu, Chao; Leng, Chao; Zhang, Bixiang; Chen, Xiao-ping

**Source:** Clinical Nutrition; Oct 2017; vol. 36 (no. 5); p. 1239-1244

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background & aims A new lipid emulsion enriched in n-3 fatty acid has been reported to prevent hepatic inflammation in patients following major surgery. However, the role of n-3 fatty acid-based parenteral nutrition for postoperative patients with cirrhosis-related liver cancer is unclear. We investigated the safety and efficacy of n-3 fatty acid-based parenteral nutrition for cirrhotic patients with liver cancer followed hepatectomy. Methods A prospective randomized controlled clinical trial (Registered under ClinicalTrials.gov Identifier no. NCT02321202 ) was conducted for cirrhotic patients with liver cancer that underwent hepatectomy between March 2010 and September 2013 in our institution. We compared isonitrogenous total parenteral nutrition with 20% Structolipid

and 10% n-3 fatty acid (Omegaven, Fresenius-Kabi, Germany) (treatment group) to Structolipid alone (control group) for five days postoperatively, in the absence of enteral nutrition. Results We enrolled 320 patients, and 312 (97.5%) were included in analysis (155 in the control group and 157 in the treatment group). There was a significant reduction of morbidity and mortality in the treatment group, when compared with the control group (total complications 78 [50.32%] vs. 46 [29.30%];  $P < 0.001$ , total infective complications, 30 [19.35%] vs. 15 [9.55%];  $P = 0.014$ ), overall mortality (5 [3.23%] vs. 1 [0.64%];  $P = 0.210$ ), and hospital stay ( $12.56 \pm 3.21$  d vs.  $10.17 \pm 3.15$  d;  $P = 0.018$ ). Conclusions We found that addition of n-3 fatty acid-based parenteral nutrition significantly improved postoperative recovery for cirrhotic patients with liver cancer following hepatectomy, with a significant reduction in overall mortality and length of hospital stay.

**Database:** CINAHL

### **ESPEN expert group recommendations for action against cancer-related malnutrition.**

**Author(s):** Arends, J.; Baracos, V.; Bertz, H.; Bozzetti, F.; Calder, P.C.; Deutz, N.E.P.; Erickson, N.; Laviano, A.; Lisanti, M.P.; Lobo, D.N.; McMillan, D.C.; Muscaritoli, M.; Ockenga, J.; Pirlich, M.; Strasser, F.; de van der Schueren, M.; Van Gossum, A.; Vaupel, P.; Weimann, A.

**Source:** Clinical Nutrition; Oct 2017; vol. 36 (no. 5); p. 1187-1196

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:** Summary Patients with cancer are at particularly high risk for malnutrition because both the disease and its treatments threaten their nutritional status. Yet cancer-related nutritional risk is sometimes overlooked or under-treated by clinicians, patients, and their families. The European Society for Clinical Nutrition and Metabolism (ESPEN) recently published evidence-based guidelines for nutritional care in patients with cancer. In further support of these guidelines, an ESPEN oncology expert group met for a Cancer and Nutrition Workshop in Berlin on October 24 and 25, 2016. The group examined the causes and consequences of cancer-related malnutrition, reviewed treatment approaches currently available, and built the rationale and impetus for clinicians involved with care of patients with cancer to take actions that facilitate nutrition support in practice. The content of this position paper is based on presentations and discussions at the Berlin meeting. The expert group emphasized 3 key steps to update nutritional care for people with cancer: (1) screen all patients with cancer for nutritional risk early in the course of their care, regardless of body mass index and weight history; (2) expand nutrition-related assessment practices to include measures of anorexia, body composition, inflammatory biomarkers, resting energy expenditure, and physical function; (3) use multimodal nutritional interventions with individualized plans, including care focused on increasing nutritional intake, lessening inflammation and hypermetabolic stress, and increasing physical activity.

**Database:** CINAHL

### **Pro-inflammatory fatty acid profile and colorectal cancer risk: A Mendelian randomisation analysis.**

**Author(s):** May-Wilson, Sebastian; Sud, Amit; Law, Philip J.; Palin, Kimmo; Tuupanen, Sari; Gylfe, Alexandra; Hänninen, Ulrika A.; Cajuso, Tatiana; Tanskanen, Tomas; Kondelin, Johanna; Kaasinen, Eevi; Sarin, Antti-Pekka; Eriksson, Johan G.; Rissanen, Harri; Knekt, Paul; Pukkala, Eero; Jousilahti, Pekka; Salomaa, Veikko; Ripatti, Samuli; Palotie, Aarno

**Source:** European Journal of Cancer; Oct 2017; vol. 84 ; p. 228-238

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**Background While dietary fat has been established as a risk factor for colorectal cancer (CRC), associations between fatty acids (FAs) and CRC have been inconsistent. Using Mendelian randomisation (MR), we sought to evaluate associations between polyunsaturated (PUFA), monounsaturated (MUFA) and saturated FAs (SFAs) and CRC risk. Methods We analysed genotype data on 9254 CRC cases and 18,386 controls of European ancestry. Externally weighted polygenic risk scores were generated and used to evaluate associations with CRC per one standard deviation increase in genetically defined plasma FA levels. Results Risk reduction was observed for oleic and palmitoleic MUFAs (OR OA = 0.77, 95% CI: 0.65–0.92,  $P = 3.9 \times 10^{-3}$ ; OR POA = 0.36, 95% CI: 0.15–0.84,  $P = 0.018$ ). PUFAs linoleic and arachidonic acid had negative and positive associations with CRC respectively (OR LA = 0.95, 95% CI: 0.93–0.98,  $P = 3.7 \times 10^{-4}$ ; OR AA = 1.05, 95% CI: 1.02–1.07,  $P = 1.7 \times 10^{-4}$ ). The SFA stearic acid was associated with increased CRC risk (OR SA = 1.17, 95% CI: 1.01–1.35,  $P = 0.041$ ). Conclusion Results from our analysis are broadly consistent with a pro-inflammatory FA profile having a detrimental effect in terms of CRC risk.

**Database:** CINAHL

### **Low adherence to dietary recommendations in adult childhood cancer survivors.**

**Author(s):** Belle, Fabiën; Wengenroth, Laura; Weiss, Annette; Sommer, Grit; Beck Popovic, Maja; Ansari, Marc; Bochud, Murielle; Kuehni, Claudia

**Source:** Clinical Nutrition; Oct 2017; vol. 36 (no. 5); p. 1266-1274

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background & aims Poor diet may increase the risk that childhood cancer survivors (CCS) will suffer from chronic disease. We compared adherence to national dietary recommendations between CCS, their siblings and the Swiss population, identified determinants of adherence, and assessed the association of adherence with cardiovascular disease (CVD) risk profiles. Methods As part of the Swiss Childhood Cancer Survivor Study (SCCSS), a questionnaire was sent to all Swiss resident CCS aged <21 years at diagnosis, who survived  $\geq 5$  years and were 16–45 years old at the time of the survey. We compared dietary adherence between CCS, their siblings and participants in the Swiss Health Survey (SHS), a representative survey of the general population. A multivariable logistic regression was used to assess characteristics associated with dietary adherence. We sorted CCS into four kinds of CVD risk groups based on type of treatment (anthracyclines, chest irradiation, a combination, or neither). Results We included 1864 CCS, 698 siblings and 8258 participants of the general population. Only 43% of the CCS met the recommended dietary intakes for meat, 34% for fruit, 30% for fish, 18% for dairy products, 11% for vegetables, and 7% for combined fruit and vegetables. Results were similar for both control groups. In all groups,

dietary adherence was associated with gender, parental education, migration background, language region in Switzerland, smoking, alcohol consumption and sport participation. CCS with a higher CVD risk profile because of cardiotoxic treatment had no better adherence. Conclusions CCS have similar food patterns as their siblings and the general population, and poorly adhere to current recommendations. Awareness of the importance of a healthy diet should be raised among CCS, to prevent chronic diseases like CVD.

**Database:** CINAHL

### METABOLISM AND DIABETES:

#### **Polyphenol intake and cardiovascular risk factors in a population with type 2 diabetes: The TOSCA.IT study.**

**Author(s):** Vitale, Marilena; Vaccaro, Olga; Masulli, Maria; Bonora, Enzo; Del Prato, Stefano; Giorda, Carlo B.; Nicolucci, Antonio; Squatrito, Sebastiano; Auciello, Stefania; Babini, Anna C.; Bani, Laura; Buzzetti, Raffaella; Cannarsa, Emanuela; Cignarelli, Mauro; Cigolini, Massimo; Clemente, Gennaro; Cocozza, Sara; Corsi, Laura; D'Angelo, Federica; Dall'Aglio, Elisabetta

**Source:** Clinical Nutrition; Dec 2017; vol. 36 (no. 6); p. 1686-1692

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background The role of polyphenol intake on cardiovascular risk factors is little explored, particularly in people with diabetes. Aim: To evaluate the association between the intake of total polyphenols and polyphenol classes with the major cardiovascular risk factors in a population with type 2 diabetes. Methods Dietary habits were investigated in 2573 males and females participants of the TOSCA.IT study. The European Prospective Investigation on Cancer and Nutrition (EPIC) questionnaire was used to assess dietary habits. In all participants, among others, we assessed anthropometry, plasma lipids, blood pressure, C-reactive protein and HbA1c following a standard protocol. The USDA and Phenol-Explorer databases were used to estimate the polyphenol content of the habitual diet. Results Average intake of polyphenols was  $683.3 \pm 5.8$  mg/day. Flavonoids and phenolic acids were the predominant classes (47.5% and 47.4%, respectively). After adjusting for potential confounders, people with the highest intake of energy-adjusted polyphenols (upper tertile) had a more favorable cardiovascular risk factors profile as compared to people with the lowest intake (lower tertile) (BMI was 30.7 vs 29.9 kg/m<sup>2</sup>, HDL-cholesterol was 45.1 vs 46.9 mg/dl, LDL-cholesterol was 103.2 vs 102.1 mg/dl, triglycerides were 153.4 vs 148.0 mg/dl, systolic and diastolic blood pressure were respectively 135.3 vs 134.3 and 80.5 vs 79.6 mm/Hg, HbA1c was 7.70 vs 7.67%, and C-reactive Protein was 1.29 vs 1.25 mg/dl,  $p < .001$  for all). The findings were very similar when the analysis was conducted separately for flavonoids or phenolic acids, the two main classes of polyphenols consumed in this population. Conclusions Polyphenol intake is associated with a more favorable cardiovascular risk factors profile, independent of major confounders. These findings support the consumption of foods and beverages rich in different classes of polyphenols particularly in people with diabetes. Clinical trial <http://www.clinicaltrials.gov> ; Study ID number: NCT00700856 .

**Database:** CINAHL

### **Time Trends of Dietary and Lifestyle Factors and Their Potential Impact on Diabetes Burden in China.**

**Author(s):** Yanping Li; Wang, Dong D.; Ley, Sylvia H.; Vasanti, Malik; Howard, Annie Green; Yuna He; Hu, Frank B.; Li, Yanping; He, Yuna

**Source:** Diabetes Care; Dec 2017; vol. 40 (no. 12); p. 1685-1694

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 29046327

Available at [Diabetes Care](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Objective: To examine the secular trends in risk factors, estimate their impact on type 2 diabetes burden from 1991 to 2011, and project trends in the next 20 years. Research Design and Methods: Risk factor distributions were based on data from the China Health and Nutrition Survey 1991-2011. Diabetes cases attributable to all nonoptimal levels of each risk factor were estimated by applying the comparative risk assessment method. Results: In 2011, high BMI was the leading individual attributable factor for diabetes cases in China responsible for 43.8 million diabetes cases with a population-attributable fraction of 46.8%. Low whole-grain intake and high refined grain intake were the leading dietary risk factors in China responsible for 37.8 million and 21.8 million diabetes-attributable cases, respectively. The number of attributable diabetes cases associated with low physical activity, high blood pressure, and current smoking was 29.5, 21.6, and 9.8 million, respectively. Although intakes of low-fat dairy products, nuts, fruit, vegetables, and fish and seafood increased moderately over time, the average intake was below optimal levels in 2011 and were responsible for 15.8, 11.3, 9.9, 6.0, 3.6, and 2.6 million diabetes cases, respectively. Meanwhile, intakes of processed meat, red meat, and sugar-sweetened beverage showed increasing trends over time and were responsible for 2.8, 1.8, and 0.5 million diabetes cases, respectively, in 2011. Conclusions: A high BMI and low intake of whole grains but high intake of refined grains are the most important individual risk factors related to Chinese diabetes burden; low physical activity and high blood pressure also significantly contributed.

**Database:** CINAHL

### **Magnesium Intake, Quality of Carbohydrates, and Risk of Type 2 Diabetes: Results From Three U.S. Cohorts.**

**Author(s):** Hruby, Adela; Guasch-Ferré, Marta; Bhupathiraju, Shilpa N.; Manson, JoAnn E.; Willett, Walter C.; McKeown, Nicola M.; Hu, Frank B.

**Source:** Diabetes Care; Dec 2017; vol. 40 (no. 12); p. 1695-1702

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28978672

Available at [Diabetes Care](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Objective: Magnesium intake is inversely associated with risk of type 2 diabetes in many observational studies, but few have assessed this association in the context of the

carbohydrate quality of the diet. We hypothesized that higher magnesium intake is associated with lower risk of type 2 diabetes, especially in the context of a poor carbohydrate-quality diet characterized by low cereal fiber or high glycemic index (GI) or glycemic load (GL). Research Design and Methods: In the Nurses' Health Study (NHS; 1984-2012, n = 69,176), NHS2 (1991-2013, n = 91,471), and the Health Professionals' Follow-Up Study (1986-2012, n = 42,096), dietary intake was assessed from food frequency questionnaires every 4 years. Type 2 diabetes was ascertained by biennial and supplementary questionnaires. We calculated multivariate hazard ratios (HRs) of magnesium intake and incident diabetes, adjusted for age, BMI, family history of diabetes, physical activity, smoking, hypertension, hypercholesterolemia, GL, energy intake, alcohol, cereal fiber, polyunsaturated fats, trans fatty acids, and processed meat, and we considered the joint associations of magnesium and carbohydrate quality on diabetes risk. Results: We documented 17,130 incident cases of type 2 diabetes over 28 years of follow-up. In pooled analyses across the three cohorts, those with the highest magnesium intake had 15% lower risk of type 2 diabetes compared with those with the lowest intake (pooled multivariate HR in quintile 5 vs. 1: 0.85 [95% CI 0.80-0.91], P < 0.0001). Higher magnesium intake was more strongly associated with lower risk of type 2 diabetes among participants with high GI or low cereal fiber than among those with low GI or high cereal fiber (both P interaction <0.001). Conclusions: Higher magnesium intake is associated with lower risk of type 2 diabetes, especially in the context of lower carbohydrate-quality diets.

**Database:** CINAHL

### **These Simple Steps Can Prevent Diabetes.**

**Author(s):**

**Source:** Consumer Reports on Health; Dec 2017; vol. 29 (no. 12); p. 10-10

**Publication Date:** Dec 2017

**Publication Type(s):** Periodical

Available at [Consumer reports on health](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:** The article suggests several measures that can help in preventing diabetes. Topics discussed include the benefits of following a healthy lifestyle in reducing type 2 diabetes risk that includes following a low-fat and low-calorie diet and exercising; the benefits of losing some weight for people who are overweight and have prediabetes; and the benefits of regular exercise.

**Database:** CINAHL

### **The Best Diet for Managing Your Diabetes.**

**Author(s):** Weisenberger, Jill

**Source:** Environmental Nutrition; Dec 2017; vol. 40 (no. 12); p. 6-6

**Publication Date:** Dec 2017

**Publication Type(s):** Periodical

**Abstract:** The article presents tips on how to prepare the best diet for managing type 2 diabetes or prediabetes. Topics covered include how to balance the diet for a person with

diabetes, how to cut calories, and tips on avoiding excess sodium. It also discusses how to reduce saturated fats and eliminate trans fat, tips on choosing foods with Omega-3 Fatty Acids, and the health benefits of eating lots of non-starchy vegetables.

**Database:** CINAHL

**Frequency of Diet and Physical Activity Goal Attainment and Barriers Encountered Among Adults With Type 2 Diabetes During a Telephone Coaching Intervention.**

**Author(s):** Swoboda, Christine M.; Miller, Carla K.; Wills, Celia E.

**Source:** Clinical Diabetes; Dec 2017; vol. 35 (no. 5); p. 286-293

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [Clinical diabetes : a publication of the American Diabetes Association](#) - from HighWire - Free Full Text

Available at [Clinical diabetes : a publication of the American Diabetes Association](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:**Participants with type 2 diabetes established personalized dietary and physical activity goals as behavioral strategies to reduce cardiovascular risk during a 16-week telephone coaching intervention. People were most likely to attain dietary goals that involved altering the intake of specific foods rather than certain nutrients and were more successful at physical activity goals to increase activity levels rather than to add new types of activity. Barriers to goal success included time management, physical limitations/illness, and social/ cultural activities.

**Database:** CINAHL

**A systematic review and meta-analysis of nutrition therapy compared with dietary advice in patients with type 2 diabetes.**

**Author(s):** Møller, Grith; Andersen, Henning Keinke; Snorgaard, Ole

**Source:** American Journal of Clinical Nutrition; Dec 2017; vol. 106 (no. 6); p. 1394-1400

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Despite recommendations, many patients with type 2 diabetes receive dietary advice from nurses or doctors instead of individualized nutrition therapy (INT) that is provided by a dietitian. Objective: We performed a meta-analysis to compare the effect of INT that is provided by a registered dietitian with the effect of dietary advice that is provided by other healthcare professionals. Design: A systematic review was conducted of Cochrane library databases, EMBASE, CINAHL, and MEDLINE in the period 2004-2017 for guidelines, reviews, and randomized controlled trials (RCTs) that assessed the outcomes glycated hemoglobin (HbA1c), weight, body mass index (BMI; in kg/m<sup>2</sup>), and LDL cholesterol. Risk of bias and the quality of evidence were assessed according to the Grading of Recommendations Assessment, Development and Evaluation guidelines. Results: We identified 5 RCTs comprising 912 participants in total. In the first year of intervention (at 6 or 12 mo), nutrition therapy compared with dietary advice was followed by a 0.45% (95%

CI: 0.36%, 0.53%) lower mean difference in HbA1c, a 0.55 (95% CI: 0.02, 1.1) lower BMI, a 2.1-kg (95% CI: 1.2-, 2.9-kg) lower weight, and a 0.17-mmol/L (95% CI: 0.11-, 0.23-mmol/L) lower LDL cholesterol. No longer-term data were available. Some of the included studies had a potential bias, and therefore, the quality of the evidence was low or moderate. In addition, it was necessary to pool primary and secondary outcomes. Conclusions: INT that is provided by a dietitian compared with dietary advice that is provided by other health professionals leads to a greater effect on HbA1c, weight, and LDL cholesterol. Because of the potential bias, we recommend considering nutrition therapy that is provided by a dietitian as part of lifestyle intervention in type 2 diabetes, but further randomized studies are warranted.

**Database:** CINAHL

**Substitutions between dairy product subgroups and risk of type 2 diabetes: the Danish Diet, Cancer and Health cohort.**

**Author(s):** Ibsen, Daniel B.; Laursen, Anne Sofie D.; Lauritzen, Lotte; Tjønneland, Anne; Overvad, Kim; Jakobsen, Marianne U.

**Source:** British Journal of Nutrition; Dec 2017; vol. 118 (no. 11); p. 989-997

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:**The aim of this study was to investigate the associations for specified substitutions between different subgroups of dairy products and the risk of type 2 diabetes. We used data from the Danish Diet, Cancer and Health cohort including 54 277 men and women aged 50–64 years at baseline. Information regarding intake of dairy products was obtained from a validated FFQ, and cases of type 2 diabetes were identified through the Danish National Diabetes Register. Cox proportional hazards regressions were used to estimate associations. During a median follow-up of 15.3 years, 7137 cases were identified. Low-fat yogurt products in place of whole-fat yogurt products were associated with a higher rate of type 2 diabetes (hazard ratio (HR) 1.17; 95 % CI 1.06, 1.29) per serving/d substituted. Whole-fat yogurt products in place of low-fat milk, whole-fat milk or buttermilk were associated with a lower rate of type 2 diabetes (HR 0.89; 95 % CI 0.83, 0.96; HR 0.89; 95 % CI 0.82, 0.96; HR 0.89; 95 % CI 0.81, 0.97; per serving/d substituted, respectively). The pattern of associations was similar when intake was expressed as kJ/d (kcal/d). These findings suggest that intake of whole-fat yogurt products in place of low-fat yogurt products, low-fat milk, whole-fat milk and buttermilk are associated with a lower rate of type 2 diabetes.

**Database:** CINAHL

**Plasma glucose and insulin responses after consumption of breakfasts with different sources of soluble fiber in type 2 diabetes patients: a randomized crossover clinical trial.**

**Author(s):** de Carvalho, Cláudia M.; de Paula, Tatiana P.; Viana, Luciana V.; Machado, Vitória MT; de Almeida, Jussara C.; Azevedo, Mirela J.

**Source:** American Journal of Clinical Nutrition; Nov 2017; vol. 106 (no. 5); p. 1238-1245

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

Available at [American journal of clinical nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: The amount and quality of carbohydrates are important determinants of plasma glucose after meals. Regarding fiber content, it is unclear whether the intake of soluble fibers from foods or supplements has an equally beneficial effect on lowering postprandial glucose. Objective: The aim of our study was to compare the acute effect of soluble fiber intake from foods or supplements after a common meal on postprandial plasma glucose and plasma insulin in patients with type 2 diabetes (T2D). Design: A randomized crossover clinical trial was conducted in patients with T2D. Patients consumed isocaloric breakfasts (mean  $\pm$  SD: 369.8  $\pm$  9.4 kcal) with high amounts of fiber from diet food sources (total fiber: 9.7 g; soluble fiber: 5.4 g), high amounts of soluble fiber from guar gum supplement (total fiber: 9.1 g; soluble fiber: 5.4 g), and normal amounts of fiber (total fiber: 2.4 g; soluble fiber: 0.8 g). Primary outcomes were postprandial plasma glucose and insulin (0-180 min). Data were analyzed by repeated measures ANOVA and post hoc Bonferroni test. Results: A total of 19 patients [aged 65.8  $\pm$  7.3 y; median (IQR), 10 (5-9) y of T2D duration; glycosylated hemoglobin 7.0%  $\pm$  0.8%; body mass index (in kg/m<sup>2</sup>) 28.2  $\pm$  2.9] completed 57 meal tests. After breakfast, the incremental area under the curve (iAUC) for plasma glucose [mg/dL  $\cdot$  min; mean (95% CI)] did not differ between high fiber from diet (HFD) [7861 (6257, 9465)] and high fiber from supplement (HFS) [7847 (5605, 10,090)] (P = 1.00) and both were lower than usual fiber (UF) [9527 (7549, 11,504)] (P = 0.014 and P = 0.037, respectively). iAUCs [ $\mu$ IU/mL  $\cdot$  min; mean (95% CI)] did not differ (P = 0.877): HFD [3781 (2513, 5050)], HFS [4006 (2711, 5302)], and UF [4315 (3027, 5603)]. Conclusions: Higher fiber intake was associated with lower postprandial glucose at breakfast, and the intake of soluble fiber from food and supplement had a similar effect in patients with T2D. This trial was registered at [clinicaltrials.gov](#) as NCT02204384.

**Database:** CINAHL

### **Providing self-management education to patients with type 2 diabetes mellitus: Addressing basic nutrition and hypoglycemia.**

**Author(s):** Palmer, Carrie

**Source:** Nurse Practitioner; Nov 2017; vol. 42 (no. 11); p. 36-42

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**Abstract:**NPs and other primary care providers will continue to encounter a growing population of patients with type 2 diabetes mellitus. Helping patients engage in self-care behaviors is essential to achieve blood glucose control and prevent diabetes-related complications. This article explores opportunities to provide education to patients with diabetes mellitus on the important self-care topics of nutrition and hypoglycemia during a primary care visit.

**Database:** CINAHL

### **Treatment of Obesity in Patients With Diabetes.**

**Author(s):** Bramante, Carolyn T.; Lee, Clare J.; Gudzone, Kimberly A.

**Source:** Diabetes Spectrum; Oct 2017; vol. 30 (no. 4); p. 237-243

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**The article discusses the guidelines for diagnosing, managing and treating obesity in patients with diabetes in the U.S. Topics mentioned include the American Academy of Clinical Endocrinologists' guidelines on the evaluation of metabolic health and the measurement of body mass index (BMI) in diagnosing obesity, the American Diabetes Association's recommendations on weight loss goals, and obesity treatment in type 1 diabetes.

**Database:** CINAHL

**Multidisciplinary Team--Based Obesity Treatment in Patients With Diabetes: Current Practices and the State of the Science.**

**Author(s):** Foster, Daniel; Sanchez-Collins, Shakira; Cheskin, Lawrence J.

**Source:** Diabetes Spectrum; Oct 2017; vol. 30 (no. 4); p. 244-249

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**The article focuses on current practices in obesity treatment in patients with diabetes. Topics mentioned include the key elements of weight loss (WL) programs for people with diabetes and obesity including diet and psychotherapy, the core principles of the Chronic Care Model of healthcare delivery including patient-centered care and multidisciplinary team, and the WL problems facing people with diabetes including the effects of diabetes medications and complications.

**Database:** CINAHL

**Medical Nutrition Therapy and Weight Loss Questions for the Evidence Analysis Library Prevention of Type 2 Diabetes Project: Systematic Reviews.**

**Author(s):** Raynor, Hollie A.; Davidson, Patricia G.; Burns, Heather; Nadelson, Micki D. Hall; Mesznik, Shelley; Uhley, Virginia; Moloney, Lisa

**Source:** Journal of the Academy of Nutrition & Dietetics; Oct 2017; vol. 117 (no. 10); p. 1578-1611

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**Background Eleven recommendations, based on systematic reviews, were developed for the Evidence Analysis Library's prevention of type 2 diabetes project. Two recommendations, medical nutrition therapy (MNT) and weight loss, were rated strong. Objective Present the basis of systematic reviews for MNT and weight loss recommendations. Methods Literature searches using Medline were conducted to identify studies that met eligibility criteria. The MNT literature search covered a time span of 1995 to 2012, the weight loss literature search covered 2008 to 2012 due to inclusion of a Cochrane Review meta-analysis of randomized controlled trials (RCTs) published in 2008. Eligibility criteria for inclusion of articles included original research using higher-quality study designs (ie, RCTs, case control, cohort, crossover, and nonrandomized trials) with participants aged >18 years and meeting prediabetes or metabolic syndrome diagnostic criteria. MNT was defined as individualized and delivered by a registered dietitian nutritionist or international equivalent and length of weight loss interventions was ≥3

months. Main outcome measures Two-hour postprandial blood glucose level, glycated hemoglobin level, albumin-to-creatinine ratio (metabolic syndrome samples only), fasting blood glucose level, high-density lipoprotein cholesterol level, systolic and diastolic blood pressure, triglyceride levels, urinary albumin excretion rate (metabolic syndrome samples only), waist circumference (WC), and waist-to-hip ratio were evaluated. Results For MNT, 11 publications were included, with all 11 using an RCT study design and 10 including participants with prediabetes. A majority of publications reported significant improvements in glycemic outcomes, WC, and blood pressure. For weight loss, 28 publications were identified, with one meta-analysis (only included RCTs) and 20 publications using an RCT study design, with the meta-analysis and 10 RCTs including participants with prediabetes. A majority of publications reported significant improvements in glycemic outcomes, triglyceride level, WC, and blood pressure. Conclusions Systematic reviews provided strong evidence that MNT and weight loss alter clinical parameters in ways that should reduce the risk of developing type 2 diabetes.

**Database:** CINAHL

### **Olive Oil for Prediabetes?**

**Author(s):**

**Source:** Nutrition Action Health Letter; Oct 2017; vol. 44 (no. 8); p. 7-7

**Publication Date:** Oct 2017

**Publication Type(s):** Periodical

Available at [Nutrition action health letter](#). - from EBSCO (CINAHL with Full Text)

Available at [Nutrition action health letter](#). - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:**The article reports on a study which suggested the use of a diet rich in olive oil to curb excess liver fat, a risk factor for type 2 diabetes.

**Database:** CINAHL

### **Chronic pistachio intake modulates circulating microRNAs related to glucose metabolism and insulin resistance in prediabetic subjects.**

**Author(s):** Hernández-Alonso, Pablo; Giardina, Simona; Salas-Salvadó, Jordi; Arcelin, Pierre; Bulló, Mònica

**Source:** European Journal of Nutrition; Sep 2017; vol. 56 (no. 6); p. 2181-2191

**Publication Date:** Sep 2017

**Publication Type(s):** Academic Journal

Available at [European journal of nutrition](#) - from EBSCO (Biomedical Reference Collection - Comprehensive)

Available at [European journal of nutrition](#) - from EBSCO (CINAHL with Full Text)

Available at [European journal of nutrition](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [European journal of nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Purpose: To assess the effects of a pistachio-enriched diet on the profile of circulating microRNAs (miRNAs) related to glucose metabolism and insulin resistance (IR). Methods: Randomized crossover clinical trial in 49 subjects with prediabetes was performed. Subjects consumed a pistachio-supplemented diet (PD, 50 % carbohydrates, 33 % fat, including 57 g/day of pistachios) and an isocaloric control diet (CD, 55 % carbohydrates and 30 % fat) for 4 months each, separated by a 2-week washout period. The plasma profile of a set of seven predefined miRNAs related to glucose and insulin metabolism was analyzed by quantitative RT-PCR. Results: After the PD period, subjects have shown significant lower circulating levels of miR-192 and miR-375 compared to CD period, whereas miR-21 nonsignificantly increased after PD compared with CD (47 vs. 2 %, P = 0.092). Interestingly, changes in circulating miR-192 and miR-375 were positively correlated with plasma glucose, insulin and HOMA-IR. Conclusion: Chronic pistachio consumption positively modulates the expression of some miRNA previously implicated on insulin sensitivity.

**Database:** CINAHL

### **Random blood glucose screening at a public health station encouraged high risk subjects to make lifestyle changes.**

**Author(s):** Elman, Karin; Wainstein, Julio; Boaz, Mona; Jakubowicz, Daniela; Bar-Dayana, Yosefa

**Source:** International Journal of Clinical Practice; Aug 2017; vol. 71 (no. 8)

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28758307

Available at [International journal of clinical practice](#) - from Wiley Online Library All Journals

Available at [International journal of clinical practice](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:** Background: Screening and early diagnosis of prediabetes and diabetes can prevent or delay disease onset and complications. To that end, a free public health station was established in a large, government medical centre. This study evaluated the long-term outcomes of abnormal random blood glucose results among patients with no history of diabetes or prediabetes. Methods: The Diabetes Unit supervised a public dysglycaemia and hypertension screening station. Participants with blood glucose >140 mg/dL and no history of diabetes or prediabetes were contacted by telephone for follow-up. Results: Among screened subjects, 868 (average age 57.5±12 years) had a random blood glucose level >140 mg/dL and 341 (39.3%) responded to the telephone survey. Of these, 313 (91.8%) subsequently had fasting blood glucose measured at their health maintenance organisation (HMO), of which 101 (32.3%) were abnormal. A total of 173 (51%) respondents initiated interventions: 59 (17.3%) antidiabetic treatment; 145 (42.5%) sugar-restricted diet; and 96 (28.2%) a physical activity programme. Of patients with abnormal fasting blood glucose, 17 (14.5%) reported having had this result previously compared with 9 (4.2%) with normal fasting glucose (P=.001). Among respondents, 216 (63.3%) stated the screening was effective and 273 (80.1%) would recommend it. Conclusion: The station was effective in promoting additional screening among high-risk age groups and encourages subjects to

make lifestyle changes. Operating the screening station is simple and effective; therefore it may serve as a complementary step in promoting community healthcare.

**Database:** CINAHL

**Pretreatment fasting plasma glucose and insulin modify dietary weight loss success: results from 3 randomized clinical trials.**

**Author(s):** Hjorth, Mads F.; Ritz, Christian; Blaak, Ellen E.; Saris, Wim H. M.; Langin, Dominique; Poulsen, Sanne Kellebjerg; Larsen, Thomas Meinert; Sørensen, Thorkild I. A.; Zohar, Yishai; Astrup, Arne

**Source:** American Journal of Clinical Nutrition; Aug 2017; vol. 106 (no. 2); p. 499-505

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

Available at [American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Which diet is optimal for weight loss and maintenance remains controversial and implies that no diet fits all patients. Objective: We studied concentrations of fasting plasma glucose (FPG) and fasting insulin (FI) as prognostic markers for successful weight loss and maintenance through diets with different glycemic loads or different fiber and whole-grain content, assessed in 3 randomized trials of overweight participants. Design: After an 8-wk weight loss, participants in the DiOGenes (Diet, Obesity, and Genes) trial consumed ad libitum for 26 wk a diet with either a high or a low glycemic load. Participants in the Optimal well-being, development and health for Danish children through a healthy New Nordic Diet (OPUS) Supermarket intervention (SHOPUS) trial consumed ad libitum for 26 wk the New Nordic Diet, which is high in fiber and whole grains, or a control diet. Participants in the NUGENOB (Nutrient-Gene Interactions in Human Obesity) trial consumed a hypocaloric low-fat and high-carbohydrate or a high-fat and low-carbohydrate diet for 10 wk. On the basis of FPG before treatment, participants were categorized as normoglycemic (FPG <5.6 mmol/L), prediabetic (FPG 5.6-6.9 mmol/L), or diabetic (FPG ≥7.0 mmol/L). Modifications of the dietary effects of FPG and FI before treatment were examined with linear mixed models. Results: In the DiOGenes trial, prediabetic individuals regained a mean of 5.83 kg (95% CI: 3.34, 8.32 kg; P < 0.001) more on the high- than on the low-glycemic load diet, whereas normoglycemic individuals regained a mean of 1.44 kg (95% CI: 0.48, 2.41 kg; P = 0.003) more [mean group difference: 4.39 kg (95% CI: 1.76, 7.02 kg); P = 0.001]. In SHOPUS, prediabetic individuals lost a mean of 6.04 kg (95% CI: 4.05, 8.02 kg; P < 0.001) more on the New Nordic Diet than on the control diet, whereas normoglycemic individuals lost a mean of 2.20 kg (95% CI: 1.21, 3.18 kg; P < 0.001) more [mean group difference: 3.84 kg (95% CI: 1.62, 6.06 kg); P = 0.001]. In NUGENOB, diabetic individuals lost a mean of 2.04 kg (95% CI: -0.20, 4.28 kg; P = 0.07) more on the high-fat and low-carbohydrate diet than on the low-fat and high-carbohydrate diet, whereas normoglycemic individuals lost a mean of 0.43 kg (95% CI: 0.03, 0.83 kg; P = 0.03) more on the low-fat and high-carbohydrate diet [mean group difference: 2.47 kg (95% CI: 0.20, 4.75 kg); P = 0.03]. The addition of FI strengthened these associations. Conclusion: Elevated FPG before treatment indicates success with dietary weight loss and maintenance among overweight patients consuming diets with a low glycemic load or with large amounts of fiber and whole grains.

**Database:** CINAHL

**Impact of Egg Consumption on Cardiovascular Risk Factors in Individuals with Type 2 Diabetes and at Risk for Developing Diabetes: A Systematic Review of Randomized Nutritional Intervention Studies.**

**Author(s):** Richard, Caroline; Cristall, Lisa; Fleming, Emily; Lewis, Erin D.; Ricupero, Maria; Jacobs, René L.; Field, Catherine J.

**Source:** Canadian Journal of Diabetes; Aug 2017; vol. 41 (no. 4); p. 453-463

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

**Abstract:** Observational studies have reported inconclusive results regarding the relationship between egg consumption (and dietary cholesterol) and the risk for cardiovascular diseases (CVDs) in individuals with type 2 diabetes, which has led to inconsistent recommendations to patients. We reviewed the evidence of egg consumption on major CVD risk factors in individuals with or at risk for type 2 diabetes (prediabetes, insulin resistance or metabolic syndrome). We performed a systematic search in the databases PubMed, MEDLINE, EMBASE and Web of Science in January 2016. Inclusion criteria included randomized controlled trials in which the amount of egg consumed was manipulated and compared to a control group that received no-egg or low-egg diets (<2 eggs/week). We found 10 articles (6 original trials) that met our inclusion criteria. The majority of studies found that egg consumption did not affect major CVD risk factors. Consumption of 6 to 12 eggs per week had no impact on plasma concentrations of total cholesterol, low-density lipoprotein-cholesterol, triglycerides, fasting glucose, insulin or C-reactive protein in all studies that reported these outcomes in comparison with control groups. An increase in high-density lipoprotein-cholesterol with egg consumption was observed in 4 of 6 studies. Results from randomized controlled trials suggest that consumption of 6 to 12 eggs per week, in the context of a diet that is consistent with guidelines on cardiovascular health promotion, has no adverse effect on major CVD risk factors in individuals at risk for developing diabetes or with type 2 diabetes. However, heterogeneities in study design, population included and interventions prevent firm conclusions from being drawn.

**Database:** CINAHL

**Low intakes of carotene, vitamin B2, pantothenate and calcium predict cognitive decline among elderly patients with diabetes mellitus: The Japanese Elderly Diabetes Intervention Trial.**

**Author(s):** Araki, Atsushi; Yoshimura, Yukio; Sakurai, Takashi; Umegaki, Hiroyuki; Kamada, Chiemi; Iimuro, Satoshi; Ohashi, Yasuo; Ito, Hideki

**Source:** Geriatrics & Gerontology International; Aug 2017; vol. 17 (no. 8); p. 1168-1175

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

Available at [Geriatrics & Gerontology International](#) - from Wiley Online Library All Journals

Available at [Geriatrics & Gerontology International](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:** Aim The present study aimed to examine whether nutrient intakes predicted cognitive decline among elderly patients with diabetes mellitus. Methods This study evaluated data from a 6-year prospective follow up of 237 elderly patients (aged  $\geq 65$  years) with diabetes mellitus, and the associations of baseline nutrient intakes with cognitive decline. Cognitive decline was defined as a  $\geq 2$ -point decrease in the Mini-Mental State Examination (MMSE) score. Intakes of food and nutrients were assessed using a validated food frequency questionnaire, and were compared between patients with cognitive decline and intact cognition. Analysis of covariance and logistic regression analysis were used to compare the changes in the MMSE score during the follow up among intake tertile groups for each nutrient. Results Compared with men with intact cognition, the men with cognitive decline had lower baseline intakes of calcium, vitamin A, vitamin B2, pantothenate, soluble fiber, green vegetables and milk. However, no significant associations between cognitive decline and nutrient intakes were observed among women. After adjusting for age, body mass index, glycated hemoglobin levels, history of severe hypoglycemia, previous stroke and baseline MMSE score, we found that cognitive decline was significantly associated with low intakes of carotene, vitamin B2, pantothenate, calcium and green vegetables. Multiple logistic regression analysis showed that intakes of nutrients and green vegetables predicted cognitive decline after adjusting for age, body mass index, glycated hemoglobin levels, baseline MMSE score, and incident stroke during the follow up. Conclusions These findings suggest that sufficient intakes of carotene, vitamin B2, pantothenate, calcium and vegetables could help prevent cognitive decline among elderly men with diabetes mellitus. *Geriatr Gerontol Int* 2017; 17: 1168-1175.

**Database:** CINAHL

#### REHABILITATION:

##### **Evidence-Based Interventions for Diabetic Heel Ulcers: Nutrition-Focused Management of a Rehabilitation Patient.**

**Author(s):** Tiderencel, Kelly A.; Brody, Rebecca A.

**Source:** *Topics in Clinical Nutrition*; Oct 2017; vol. 32 (no. 4); p. 305-315

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:** Diabetes can increase a patient's risk for the development of a pressure ulcer. Specifically, diabetic heel ulcers require an interprofessional approach that includes nutritional care provided by a dietitian. Assessment of malnutrition risk, along with a review of macro- and micronutrient deficiencies, assists the dietitian in determining the most appropriate intervention for a diabetic patient with a heel ulcer. Standardized nutrition recommendations exist for the management of pressure ulcers; however, a need exists for further evidence to support these guidelines. This case report presents a patient with a diabetic heel ulcer and explores evidence-based nutrition management.

**Database:** CINAHL

##### **Effect of Prosthetic Rehabilitation on Nutritional Status in Older Adults.**

**Author(s):** Tanasić, Ivan; Radaković, Tijana; Tihaček-Šojić, Ljiljana; Milić-Lemić, Aleksandra

**Source:** Topics in Clinical Nutrition; Oct 2017; vol. 32 (no. 4); p. 330-339

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:** This study aimed to assess the effectiveness of various combinations of the implant-supported overdentures and removable partial dentures on nutritional status in a randomized sample of 150 older adults. The body mass index (BMI) and the Mini Nutritional Assessment (MNA) were recorded before and after prosthetic rehabilitation. There was statistically significant improvement in the MNA and BMI, measured before prosthetic rehabilitation, and after 6 and 12 months ( $P < .001$ ). The prosthetic rehabilitation of patients 65 years and older, using implant-supported overdentures and removable partial dentures, improved BMI and MNA scores used in the assessment of nutritional status.

**Database:** CINAHL

### **Does eating environment have an impact on the protein and energy intake in the hospitalised elderly?**

**Author(s):** Markovski, Karon; Nenov, Aranka; Ottaway, Aurora; Skinner, Elizabeth

**Source:** Nutrition & Dietetics; Jul 2017; vol. 74 (no. 3); p. 224-228

**Publication Date:** Jul 2017

**Publication Type(s):** Academic Journal

Available at [Nutrition & dietetics: the journal of the Dietitians Association of Australia](#) - from Wiley Online Library All Journals

Available at [Nutrition & dietetics: the journal of the Dietitians Association of Australia](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:** Aim This pilot study aimed to examine the difference in energy and protein intake of the midday meal in two different eating environments—the communal dining room and patient bedside—and to obtain feedback on patient preference at each location. Methods Elderly patients in two rehabilitation wards were observed consuming the midday meal on two consecutive days: day 1 in the dining room and day 2 at the bedside. The patients' intake was recorded by a visual 5-point assessment scale and analysed for protein and energy content using the hospital food services nutrient analysis of the menu. Patients were also surveyed on preference of eating environment through a written survey. Results This study found that patients consumed 20% more energy and protein when dining in a communal environment ( $P = 0.006$  and  $0.01$ , respectively). Patients with a body mass index of less than 22 ( $P = 0.01$  and  $0.01$ , respectively) and those with significant cognitive impairment ( $P = 0.001$  and  $0.007$ , respectively) ate 30% more protein and energy in the dining room, and those identified at risk of malnutrition (Malnutrition Screening Tool (MST)  $\geq 2$ ) ate 42% more energy and 27% more protein in the dining room, although this was not statistically significant ( $P = 0.05$  and  $0.16$ ). A total of 86% of surveyed patients favoured eating their midday meal in the dining room. Conclusions This study supports the contention that a dining room environment can increase food intake, increase patients' opportunities to enjoy the social aspect of meal times, and potentially lead to weight gain and reduced malnutrition risk in the rehabilitation setting.

**Database:** CINAHL

## CARDIOVASCULAR:

### **Cheese consumption and risk of cardiovascular disease: a meta-analysis of prospective studies.**

**Author(s):** Chen, Guo-Chong; Wang, Yan; Tong, Xing; Szeto, Ignatius; Smit, Gerrit; Li, Zeng-Ning; Qin, Li-Qiang

**Source:** European Journal of Nutrition; Dec 2017; vol. 56 (no. 8); p. 2565-2575

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [European Journal of Nutrition](#) - from EBSCO (Biomedical Reference Collection - Comprehensive)

Available at [European Journal of Nutrition](#) - from EBSCO (CINAHL with Full Text)

Available at [European Journal of Nutrition](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [European Journal of Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Purpose: Cheese contains a high content of saturated fatty acids but also lists of potentially beneficial nutrients. How long-term cheese consumption affects the development of cardiovascular disease (CVD) is unclear. A meta-analysis of prospective observational studies was conducted to evaluate the risks of total CVD, coronary heart disease (CHD), and stroke associated with cheese consumption. Methods: Potentially eligible studies were identified by searching PubMed and EMBASE databases and by carefully reviewing the bibliographies of retrieved publications and related reviews. The summary relative risks (RRs) with 95 % confidence intervals (CIs) were calculated using the random-effects model. Results: The final analyses included 15 prospective studies. Most of the studies excluded prevalent CVD at baseline (14/15) and had a duration >10 years (13/15). The summary RR for high vs. low cheese consumption was 0.90 (95 % CI 0.82-0.99) for total CVD (7 studies, 8076 events), 0.86 (95 % CI 0.77-0.96) for CHD (8 studies, 7631 events), and 0.90 (95 % CI 0.84-0.97) for stroke (7 studies, 10,449 events), respectively. The restricted cubic model indicated evidence of nonlinear relationships between cheese consumption and risks of total CVD (  $P < 0.001$ ) and stroke (  $P = 0.015$ ), with the largest risk reductions observed at the consumption of approximately 40 g/d. Conclusions: This meta-analysis of prospective studies suggests a nonlinear inverse association between cheese consumption and risk of CVD.

**Database:** CINAHL

### **A Cross-Study Analysis Evaluating the Effects of Food on the Pharmacokinetics of Rivaroxaban in Clinical Studies.**

**Author(s):** Liping Zhang; Peters, Gary; Haskell, Lloyd; Patel, Purve; Nandy, Partha; Moore, Kenneth Todd

**Source:** Journal of Clinical Pharmacology; Dec 2017; vol. 57 (no. 12); p. 1607-1615

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [The Journal of Clinical Pharmacology](#) - from Wiley Online Library All Journals

Available at [The Journal of Clinical Pharmacology](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:** US prescribing guidelines recommend that 15- and 20-mg doses of rivaroxaban be administered with food for the treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE) and for reduction in the risk of recurrence of DVT and PE. In addition, the US prescribing guidelines recommend these doses be administered with an evening meal to reduce the risk of stroke and systemic embolism in patients with nonvalvular atrial fibrillation (AF). The purpose of this model-based cross-study comparison was to examine the impact of food, with regard to both meal timing and content, on the pharmacokinetics (PK) of rivaroxaban, using data collected during its clinical development. Results of this analysis showed that a PK model built from pooled data in the AF population (for whom rivaroxaban was administered with an evening meal) and in the DVT population (for whom rivaroxaban was administered with a morning meal) can describe both data sets well. Furthermore, the PK model built from data in the AF population alone can adequately predict the PK profile of the DVT population and vice versa. This cross-study analysis also confirmed the findings from previous clinical pharmacology studies, which showed that meal content does not have a clinically relevant impact on the PK of rivaroxaban at 20 mg. Therefore, although the administration of rivaroxaban with food is necessary for maintaining high bioavailability, neither meal timing nor meal content appears to affect the PK of rivaroxaban.

**Database:** CINAHL

### **Small Vessel Disease and Dietary Salt Intake: Cross-Sectional Study and Systematic Review.**

**Author(s):** Makin, Stephen D.J.; Mubki, Ghaida F.; Doubal, Fergus N.; Shuler, Kirsten; Staals, Julie; Dennis, Martin S.; Wardlaw, Joanna M.

**Source:** Journal of Stroke & Cerebrovascular Diseases; Dec 2017; vol. 26 (no. 12); p. 3020-3028

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28889932

**Abstract:** Background: Higher dietary salt intake increases the risk of stroke and may increase white matter hyperintensity (WMH) volume. We hypothesized that a long-term higher salt intake may be associated with other features of small vessel disease (SVD). Methods: We recruited consecutive patients with mild stroke presenting to the Lothian regional stroke service. We performed brain magnetic resonance imaging, obtained a basic dietary salt history, and measured the urinary sodium/creatinine ratio. We also carried out a systematic review to put the study in the context of other studies in the field. Results: We recruited 250 patients, 112 with lacunar stroke and 138 with cortical stroke, with a median age of 67.5 years. After adjustment for risk factors, including age and hypertension, patients who had not reduced their salt intake in the long term were more likely to have lacunar stroke (odds ratio [OR], 1.90; 95% confidence interval [CI], 1.10-3.29), lacune(s) (OR, 2.06; 95% CI, 1.09-3.99), microbleed(s) (OR, 3.4; 95% CI, 1.54, 8.21), severe WMHs (OR, 2.45; 95% CI 1.34-4.57), and worse SVD scores (OR, 2.17; 95% CI, 1.22-3.9).

There was limited association between SVD and current salt intake or urinary sodium/creatinine ratio. Our systematic review found no previously published studies of dietary salt and SVD. Conclusion: The association between dietary salt and background SVD is a promising indication of a potential neglected contributory factor for SVD. These results should be replicated in larger, long-term studies using the recognized gold-standard measures of dietary sodium.

**Database:** CINAHL

**Fruit, vegetable, and legume intake, and cardiovascular disease and deaths in 18 countries (PURE): a prospective cohort study.**

**Author(s):** Miller, Victoria; Mente, Andrew; Dehghan, Mahshid; Rangarajan, Sumathy; Xiaohe Zhang; Swaminathan, Sumathi; Dagenais, Gilles; Gupta, Rajeev; Mohan, Viswanathan; Lear, Scott; Bangdiwala, Shrikant I.; Schutte, Aletta E.; Wentzel-Viljoen, Edelweiss; Avezum, Alvaro; Altuntas, Yuksel; Yusoff, Khalid; Ismail, Noorhassim; Peer, Nasheeta; Chifamba, Jephath; Diaz, Rafael

**Source:** Lancet; Nov 2017; vol. 390 (no. 10107); p. 2037-2049

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28864331

**Abstract:**Background: The association between intake of fruits, vegetables, and legumes with cardiovascular disease and deaths has been investigated extensively in Europe, the USA, Japan, and China, but little or no data are available from the Middle East, South America, Africa, or south Asia. Methods: We did a prospective cohort study (Prospective Urban Rural Epidemiology [PURE] in 135 335 individuals aged 35 to 70 years without cardiovascular disease from 613 communities in 18 low-income, middle-income, and high-income countries in seven geographical regions: North America and Europe, South America, the Middle East, south Asia, China, southeast Asia, and Africa. We documented their diet using country-specific food frequency questionnaires at baseline. Standardised questionnaires were used to collect information about demographic factors, socioeconomic status (education, income, and employment), lifestyle (smoking, physical activity, and alcohol intake), health history and medication use, and family history of cardiovascular disease. The follow-up period varied based on the date when recruitment began at each site or country. The main clinical outcomes were major cardiovascular disease (defined as death from cardiovascular causes and non-fatal myocardial infarction, stroke, and heart failure), fatal and non-fatal myocardial infarction, fatal and non-fatal strokes, cardiovascular mortality, non-cardiovascular mortality, and total mortality. Cox frailty models with random effects were used to assess associations between fruit, vegetable, and legume consumption with risk of cardiovascular disease events and mortality. Findings: Participants were enrolled into the study between Jan 1, 2003, and March 31, 2013. For the current analysis, we included all unrefuted outcome events in the PURE study database through March 31, 2017. Overall, combined mean fruit, vegetable and legume intake was 3·91 (SD 2·77) servings per day. During a median 7·4 years (5·5-9·3) of follow-up, 4784 major cardiovascular disease events, 1649 cardiovascular deaths, and 5796 total deaths were documented. Higher total fruit, vegetable, and legume intake was inversely associated with major cardiovascular disease, myocardial infarction, cardiovascular mortality, non-

cardiovascular mortality, and total mortality in the models adjusted for age, sex, and centre (random effect). The estimates were substantially attenuated in the multivariable adjusted models for major cardiovascular disease (hazard ratio [HR] 0.90, 95% CI 0.74-1.10, ptrend=0.1301), myocardial infarction (0.99, 0.74-1.31; ptrend=0.2033), stroke (0.92, 0.67-1.25; ptrend=0.7092), cardiovascular mortality (0.73, 0.53-1.02; ptrend=0.0568), non-cardiovascular mortality (0.84, 0.68-1.04; ptrend=0.0038), and total mortality (0.81, 0.68-0.96; ptrend<0.0001). The HR for total mortality was lowest for three to four servings per day (0.78, 95% CI 0.69-0.88) compared with the reference group, with no further apparent decrease in HR with higher consumption. When examined separately, fruit intake was associated with lower risk of cardiovascular, non-cardiovascular, and total mortality, while legume intake was inversely associated with non-cardiovascular death and total mortality (in fully adjusted models). For vegetables, raw vegetable intake was strongly associated with a lower risk of total mortality, whereas cooked vegetable intake showed a modest benefit against mortality. Interpretation: Higher fruit, vegetable, and legume consumption was associated with a lower risk of non-cardiovascular, and total mortality. Benefits appear to be maximum for both non-cardiovascular mortality and total mortality at three to four servings per day (equivalent to 375-500 g/day). Funding: Full funding sources listed at the end of the paper (see Acknowledgments).

**Database:** CINAHL

### **Associations of Biomarker-Calibrated Sodium and Potassium Intakes With Cardiovascular Disease Risk Among Postmenopausal Women.**

**Author(s):** Prentice, Ross L.; Ying Huang; Neuhouser, Marian L.; Manson, JoAnn E.; Mossavar-Rahmani, Yasmin; Thomas, Fridtjof; Tinker, Lesley F.; Allison, Matthew; Johnson, Karen C.; Wassertheil-Smoller, Sylvia; Seth, Arjun; Rossouw, Jacques E.; Shikany, James; Carbone, Laura D.; Martin, Lisa W.; Stefanick, Marcia L.; Haring, Bernhard; Van Horn, Linda

**Source:** American Journal of Epidemiology; Nov 2017; vol. 186 (no. 9); p. 1035-1043

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**Abstract:** Studies of the associations of sodium and potassium intakes with cardiovascular disease incidence often rely on self-reported dietary data. In the present study, self-reported intakes from postmenopausal women at 40 participating US clinical centers are calibrated using 24-hour urinary excretion measures in cohorts from the Women's Health Initiative, with follow-up from 1993 to 2010. The incidence of hypertension was positively related to (calibrated) sodium intake and to the ratio of sodium to potassium. The sodium-to-potassium ratio was associated with cardiovascular disease incidence during an average follow-up period of 12 years. The estimated hazard ratio for a 20% increase in the sodium-to-potassium ratio was 1.13 (95% confidence interval (CI): 1.04, 1.22) for coronary heart disease, 1.20 (95% CI: 1.01, 1.42) for heart failure, and 1.11 (95% CI: 1.04, 1.19) for a composite cardiovascular disease outcome. The association with total stroke was not significant, but it was positive for ischemic stroke and inverse for hemorrhagic stroke. Aside from hemorrhagic stroke, corresponding associations of cardiovascular disease with sodium and potassium jointly were positive for sodium and inverse for potassium, although some were not statistically significant. Specifically, for coronary heart disease, the hazard ratios for 20% increases were 1.11 (95% CI: 0.95, 1.30) for sodium and 0.85 (95% CI: 0.73, 0.99)

for potassium; and corresponding values for heart failure were 1.36 (95% CI: 1.02, 1.82) for sodium and 0.90 (95% CI: 0.69, 1.18) for potassium.

**Database:** CINAHL

### **Plasma lipidomic profiles and cardiovascular events in a randomized intervention trial with the Mediterranean diet.**

**Author(s):** Toledo, Estefanía; Dong D. Wang; Ruiz-Canela, Miguel; Clish, Clary B.; Razquin, Cristina; Yan Zheng; Guasch-Ferré, Marta; Hruby, Adela; Corella, Dolores; Gómez-Gracia, Enrique; Fiol, Miquel; Estruch, Ramón; Ros, Emilio; Lapetra, Jose; Fito, Montserrat; Aros, Fernando; Serra-Majem, Luis; Liming Liang; Salas-Salvadó, Jordi; Hu, Frank B.

**Source:** American Journal of Clinical Nutrition; Oct 2017; vol. 106 (no. 4); p. 973-983

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

Available at [The American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: Lipid metabolites may partially explain the inverse association between the Mediterranean diet (MedDiet) and cardiovascular disease (CVD). Objective: We evaluated the associations between 1) lipid species and the risk of CVD (myocardial infarction, stroke, or cardiovascular death); 2) a MedDiet intervention [supplemented with extra virgin olive oil (EVOO) or nuts] and 1-y changes in these molecules; and 3) 1-y changes in lipid species and subsequent CVD. Design: With the use of a case-cohort design, we profiled 202 lipid species at baseline and after 1 y of intervention in the PREDIMED (PREvencion con Dieta MEDiterranea) trial in 983 participants [230 cases and a random subcohort of 790 participants (37 overlapping cases)]. Results: Baseline concentrations of cholesterol esters (CEs) were inversely associated with CVD. A shorter chain length and higher saturation of some lipids were directly associated with CVD. After adjusting for multiple testing, direct associations remained significant for 20 lipids, and inverse associations remained significant for 6 lipids. When lipid species were weighted by the number of carbon atoms and double bonds, the strongest inverse association was found for CEs [HR: 0.39 (95% CI: 0.22, 0.68)] between extreme quintiles (P-trend = 0.002). Participants in the MedDiet + EVOO and MedDiet + nut groups experienced significant (P < 0.05) 1-y changes in 20 and 17 lipids, respectively, compared with the control group. Of these changes, only those in CE(20:3) in the MedDiet + nuts group remained significant after correcting for multiple testing. None of the 1-y changes was significantly associated with CVD risk after correcting for multiple comparisons. Conclusions: Although the MedDiet interventions induced some significant 1-y changes in the lipidome, they were not significantly associated with subsequent CVD risk. Lipid metabolites with a longer acyl chain and higher number of double bonds at baseline were significantly and inversely associated with the risk of CVD.

**Database:** CINAHL

### **A comprehensive meta-analysis on evidence of Mediterranean diet and cardiovascular disease: Are individual components equal?**

**Author(s):** Grosso, Giuseppe; Marventano, Stefano; Yang, Justin; Micek, Agnieszka; Pajak, Andrzej; Scalfi, Luca; Galvano, Fabio; Kales, Stefanos N.

**Source:** Critical Reviews in Food Science & Nutrition; Oct 2017; vol. 57 (no. 15); p. 3218-3232

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 26528631

**Abstract:** Many studies have reported that higher adherence to Mediterranean diet may decrease cardiovascular disease (CVD) incidence and mortality. We performed a meta-analysis to explore the association in prospective studies and randomized control trials (RCTs) between Mediterranean diet adherence and CVD incidence and mortality. The PubMed database was searched up to June 2014. A total of 17 studies were extracted and 11 qualified for the quantitative analysis. Individuals in the highest quantile of adherence to the diet had lower incidence [relative risk (RR): 0.76, 95% confidence intervals (CI): 0.68, 0.83] and mortality (RR: 0.76, 95% CI: 0.68, 0.83) from CVD compared to those least adherent. A significant reduction of risk was found also for coronary heart disease (CHD) (RR: 0.72, 95% CI: 0.60, 0.86), myocardial infarction (MI) (RR: 0.67; 95% CI: 0.54, 0.83), and stroke (RR: 0.76; 95% CI: 0.60, 0.96) incidence. Pooled analyses of individual components of the diet revealed that the protective effects of the diet appear to be most attributable to olive oil, fruits, vegetables, and legumes. An average reduced risk of 40% for the aforementioned outcomes has been retrieved when pooling results of RCTs. A Mediterranean dietary pattern is associated with lower risks of CVD incidence and mortality, including CHD and MI. The relative effects of specific food groups should be further investigated.

**Database:** CINAHL

### **The association between dairy product intake and cardiovascular disease mortality in Chinese adults.**

**Author(s):** Talaei, Mohammad; Koh, Woon-Puay; Yuan, Jian-Min; Pan, An

**Source:** European Journal of Nutrition; Oct 2017; vol. 56 (no. 7); p. 2343-2352

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

Available at [European Journal of Nutrition](#) - from EBSCO (Biomedical Reference Collection - Comprehensive)

Available at [European Journal of Nutrition](#) - from EBSCO (CINAHL with Full Text)

Available at [European Journal of Nutrition](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [European Journal of Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:** Purpose: To evaluate the relation of dairy intake with risk of CVD mortality in middle-aged and elderly Chinese in Singapore. Methods: The Singapore Chinese Health Study is a population-based cohort that recruited 63,257 Chinese adults aged 45-74 years from 1993 to 1998 in Singapore. A validated 165-item semiquantitative food-frequency questionnaire was used to assess usual diet at recruitment. Mortality information was obtained via registry linkage up to December 31, 2011. Cox proportional hazard models were used to calculate hazard ratios (HRs) and corresponding 95 % confidence intervals (95

% CIs) with adjustment for potential confounders, including socio-demographic, lifestyle, and other dietary factors. Results: Among those without prior history of CVD, the multivariate-adjusted HRs (95 % CIs) comparing the highest (median intake 252 g/d) with lowest (median intake 1.32 g/d) quartiles of total dairy intake were 0.95 (0.87-1.04; P-trend = 0.64) for CVD death, 0.99 (0.89-1.11; P-trend = 0.76) for coronary heart disease (CHD) death, and 0.82 (0.69-0.97; P-trend = 0.03) for stroke death. The significant inverse association with stroke mortality was stronger in men (comparing the highest with the lowest quartiles, HR = 0.71; 95 % CI 0.55-0.92; P-trend = 0.006) than in women (HR = 0.86; 0.65-1.12; P-trend = 0.23), and the interaction test was significant ( P = 0.03). No statistically significant associations between total dairy intake and CVD mortality were observed in participants with prior history of CVD (all P-trend >0.40). Conclusions: In a cohort of Chinese adults with generally low dairy consumption, higher intake of dairy products was associated with a decreased risk of stroke mortality, particularly in men.

**Database:** CINAHL

**Multiple Risk Factor Counseling to Promote Heart-healthy Lifestyles in the Chest Pain Observation Unit: Pilot Randomized Controlled Trial.**

**Author(s):** Katz, David A.; Graber, Mark; Lounsbury, Patricia; Vander Weg, Mark W.; Phillips, Emily K.; Clair, Christina; Horwitz, Phillip A.; Cai, Xueya; Christensen, Alan J.

**Source:** Academic Emergency Medicine; Aug 2017; vol. 24 (no. 8); p. 968-982

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

Available at [Academic emergency medicine : official journal of the Society for Academic Emergency Medicine](#) - from Wiley Online Library All Journals

**Abstract:** Objective Admission to the chest pain observation unit ( CPOU) may be an advantageous time for patients to consider heart-healthy lifestyle changes while undergoing diagnostic evaluation to rule out myocardial ischemia. The aim of this pragmatic trial was to assess the effectiveness of a multiple risk factor intervention in changing CPOU patients' health beliefs and readiness to change health behaviors. A secondary aim was to obtain preliminary estimates of the intervention's effect on diet, physical activity, and smoking. Methods We conducted a pilot randomized controlled trial of a moderate-intensity counseling intervention that aimed to build motivation to change and problem-solving skills in 140 adult patients with at least one modifiable cardiovascular risk factor ( CRF) who were admitted to the CPOU of an academic emergency department ( ED) with symptoms of possible acute coronary syndrome. Study patients were randomly assigned to full counseling (face-to-face cardiovascular risk assessment and personalized counseling on nutrition, physical activity, and smoking cessation in the ED, plus two telephone follow-up sessions) or minimal counseling (brief instruction [ $<5$  minutes] on benefits of modifying cardiovascular risk factors) by a cardiac rehabilitation specialist. We measured Health Belief Model constructs for ischemic heart disease, stage of change, and self-reported CRF-related behaviors (diet, exercise, and smoking) during 6-month follow-up using previously validated measures. We used linear mixed models and logistic regression (with generalized estimating equations) to compare continuous and dichotomous behavioral outcomes across treatment arms, respectively. Results Approximately 20% more patients in the full counseling arm reported having received counseling on diet and physical activity during

CPOU admission, compared to the minimal counseling arm; a similar proportion of patients in both counseling arms reported having received advice or assistance in quitting smoking. There were no significant differences between treatment arms for any cardiovascular health beliefs, readiness to change, or CRF-related behaviors during longitudinal follow-up. In secondary analyses in both treatment arms combined, however, patients showed significant differences between follow-up and baseline measurements: increases in the perceived benefits of improving CRF-related behaviors (27.7 vs. 26.6 on a scale from 7 to 35,  $p = 0.0001$ ) and increased readiness to change dietary behavior and physical activity during follow-up-intake of saturated fat (83% vs. 49%), readiness to change fruit and vegetable consumption (83% vs 56%), and readiness to perform regular exercise (34% vs. 14%) at 6 months and baseline, respectively ( $p < 0.0001$  for all comparisons in both treatment arms combined). Conclusions A multiple risk factor intervention that focused on increasing motivation to change and problem-solving skills did not significantly improve behavioral outcomes, compared to minimal counseling. Patients admitted to the CPOU demonstrated sustained changes in several cardiovascular health beliefs and risk-related behaviors during follow-up; this provides further evidence that the CPOU visit is a 'teachable moment' for cardiovascular risk reduction. Future studies should evaluate the effectiveness of ED-initiated counseling interventions to engage patients in changing cardiovascular risk behaviors, in coordination with primary care.

**Database:** CINAHL

### **Oral Consumption of Vitamin K2 for 8 Weeks Associated With Increased Maximal Cardiac Output During Exercise.**

**Author(s):** McFarlin, Brian K.; Henning, Andrea L.; Venable, Adam S.

**Source:** *Alternative Therapies in Health & Medicine*; Jul 2017; vol. 23 (no. 4); p. 26-32

**Publication Date:** Jul 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28646812

Available at [Alternative therapies in health and medicine](#) - from EBSCO (CINAHL with Full Text)

Available at [Alternative therapies in health and medicine](#) - from EBSCO (MEDLINE Complete)

Available at [Alternative therapies in health and medicine](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:**Background • Vitamin K1 and K2 are not typically common in a Western diet because they are found in a variety of fermented foods. Vitamin K2 in particular has been demonstrated to restore mitochondrial function and has a key role in production of mitochondrial adenosine triphosphate. Thus, it is reasonable to speculate that dietary supplementation with vitamin K2 could increase the function of muscle with high mitochondrial content (ie, skeletal and cardiac muscle). Objective • The purpose of this study was to determine if 8 wk of dietary supplementation with Vitamin K2 could alter cardiovascular responses to a graded cycle ergometer test. Design • The study was a randomized controlled trial. Setting • The study took place in the Applied Physiology Laboratory of the Department of Biological Sciences at the University of North Texas (Denton, TX, USA). Participants • Participants were aerobically trained males and female

athletes (N = 26). **Intervention** • Participants were randomly assigned either to a control group that received a rice flour placebo or to an intervention group that received vitamin K2. For weeks 1 to 4, participants received 300 mg/d; for weeks 5 to 8, they received 150 mg/d. Subjects assigned to the control group received similar doses to mirror the intervention group. Subjects consumed the supplements during an 8-wk period while they maintained their typical exercise habits. **Outcome Measures** • At baseline and postintervention, participants completed a standard, graded exercise test on an electronically braked cycle ergometer. Before the test, participants were fitted with a mouth piece, and their oxygen consumption, carbon dioxide production, respiratory rate, and respiratory exchange ratio were measured. In addition, participants were fitted with skin-mounted electrodes that measured noninvasive cardiac output, stroke volume, and heart rate. To assess the cumulative exercise change, an area-under-the-curve (AUC) value was calculated separately for each outcome variable at each treatment time point. **Results** • Vitamin K2 supplementation was associated with a 12% increase in maximal cardiac output, with  $P = .031$ , with a trend toward an increase in heart-rate AUC, with  $P = .070$ . No significant changes occurred in stroke volume. **Conclusions** • Although vitamin K2 supplementation has previously been reported to improve cardiovascular function in diseased patients, to the research team's knowledge, the current study is the first to report its potential in active individuals. More research is needed to fully evaluate the potential effects of the observed effects.

**Database:** CINAHL

### **Low-fat dietary pattern and cardiovascular disease: results from the Women's Health Initiative randomized controlled trial.**

**Author(s):** Prentice, Ross L.; Aragaki, Aaron K.; Van Horn, Linda; Thomson, Cynthia A.; Beresford, Shirley A. A.; Robinson, Jennifer; Snetselaar, Linda; Anderson, Garnet L.; Manson, JoAnn E.; Allison, Matthew A.; Rossouw, Jacques E.; Howard, Barbara V.

**Source:** American Journal of Clinical Nutrition; Jul 2017; vol. 106 (no. 1); p. 35-43

**Publication Date:** Jul 2017

**Publication Type(s):** Academic Journal

Available at [American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: The influence of a low-fat dietary pattern on the cardiovascular health of postmenopausal women continues to be of public health interest. Objective: This report evaluates low-fat dietary pattern influences on cardiovascular disease (CVD) incidence and mortality during the intervention and postintervention phases of the Women's Health Initiative Dietary Modification Trial. Design: Participants comprised 48,835 postmenopausal women aged 50–79 y; 40% were randomly assigned to a low-fat dietary pattern intervention (target of 20% of energy from fat), and 60% were randomly assigned to a usual diet comparison group. The 8.3-y intervention period ended in March 2005, after which >80% of surviving participants consented to additional active follow-up through September 2010; all participants were followed for mortality through 2013. Breast and colorectal cancer were the primary trial outcomes, and coronary heart disease (CHD) and overall CVD were additional designated outcomes. Results: Incidence rates for CHD and total CVD did not differ between the intervention and comparison groups in either the intervention or postintervention period. However, CHD HRs comparing these groups varied

strongly with baseline CVD and hypertension status. Participants without prior CVD had an intervention period CHD HR of 0.70 (95% CI: 0.56, 0.87) or 1.04 (95% CI: 0.90, 1.19) if they were normotensive or hypertensive, respectively (P-interaction = 0.003). The CHD benefit among healthy normotensive women was partially offset by an increase in ischemic stroke risk. Corresponding HRs in the postintervention period were close to null. Participants with CVD at baseline (3.4%) had CHD HRs of 1.47 (95% CI: 1.12, 1.93) and 1.61 (95% CI: 1.02, 2.55) in the intervention and postintervention periods, respectively. However, various lines of evidence suggest that results in women with CVD or hypertension at baseline are confounded by postrandomization use of cholesterol-lowering medications. Conclusions: CVD risk in postmenopausal women appears to be sensitive to a change to a low-fat dietary pattern and, among healthy women, includes both CHD benefit and stroke risk. This trial was registered at [clinicaltrials.gov](https://clinicaltrials.gov) as NCT00000611.

**Database:** CINAHL

### **Comparing effectiveness of mass media campaigns with price reductions targeting fruit and vegetable intake on US cardiovascular disease mortality and race disparities.**

**Author(s):** Pearson-Stuttard, Jonathan; Bandosz, Piotr; Rehm, Colin D.; Afshin, Ashkan; Peñalvo, Jose L.; Whitsel, Laurie; Danaei, Goodarz; Micha, Renata; Gaziano, Tom; Lloyd-Williams, Ffion; Capewell, Simon; Mozaffarian, Dariush; O'Flaherty, Martin

**Source:** American Journal of Clinical Nutrition; Jul 2017; vol. 106 (no. 1); p. 199-206

**Publication Date:** Jul 2017

**Publication Type(s):** Academic Journal

Available at [American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: A low intake of fruits and vegetables (F&Vs) is a major risk factor for cardiovascular disease (CVD) in the United States. Both mass media campaigns (MMCs) and economic incentives may increase F&V consumption. Few data exist on their comparative effectiveness. Objective: We estimated CVD mortality reductions potentially achievable by price reductions and MMC interventions targeting F&V intake in the US population. Design: We developed a US IMPACT Food Policy Model to compare 3 policies targeting F&V intake across US adults from 2015 to 2030: national MMCs and national F&V price reductions of 10% and 30%. We accounted for differences in baseline diets, CVD rates, MMC coverage, MMC duration, and declining effects over time. Outcomes included cumulative CVD (coronary heart disease and stroke) deaths prevented or postponed and life-years gained (LYGs) over the study period, stratified by age, sex, and race. Results: A 1-y MMC in 2015 would increase the average national F&V consumption by 7% for 1 y and prevent ~18,600 CVD deaths (95% CI: 17,600, 19,500), gaining ~280,100 LYGs by 2030. With a 15-y MMC, increased F&V consumption would be sustained, yielding a 3-fold larger reduction (56,100; 95% CI: 52,400, 57,700) in CVD deaths. In comparison, a 10% decrease in F&V prices would increase F&V consumption by ~14%. This would prevent ~153,300 deaths (95% CI: 146,400, 159,200), gaining ~2.51 million LYGs. For a 30% price decrease, resulting in a 42% increase in F&V consumption, corresponding values would be 451,900 CVD deaths prevented or postponed (95% CI: 433,100, 467,500) and 7.3 million LYGs gained. Effects were similar by sex, with a smaller proportional effect and larger absolute effects at older ages. A 1-y MMC would be 35% less effective in preventing CVD deaths in non-Hispanic blacks than in whites. In comparison, price-reduction policies would have equitable proportional effects.

Conclusion: Both national MMCs and price-reduction policies could reduce US CVD mortality, with price reduction being more powerful and sustainable.

**Database:** CINAHL

#### OTHER:

#### **Effects of isolated soluble fiber supplementation on body weight, glycemia, and insulinemia in adults with overweight and obesity: a systematic review and meta-analysis of randomized controlled trials.**

**Author(s):** Thompson, Sharon V.; Hannon, Bridget A.; Ruopeng An; Holscher, Hannah D.

**Source:** American Journal of Clinical Nutrition; Dec 2017; vol. 106 (no. 6); p. 1514-1528

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: There is strong epidemiologic evidence that dietary fiber intake is protective against overweight and obesity; however, results of intervention studies have been mixed. Soluble fiber beneficially affects metabolism, and fiber supplementation may be a feasible approach to improve body composition and glycemia in adults with overweight and obesity. Objective: We evaluated randomized controlled trials (RCTs) of isolated soluble fiber supplementation in overweight and obese adults on outcomes related to weight management [body mass index (BMI; in kg/m<sup>2</sup>), body weight, percentage of body fat, and waist circumference] and glucose and insulin metabolism (homeostasis model assessment of insulin resistance and fasting insulin) through a systematic review and meta-analysis. Design: We searched PubMed, Web of Science, Cumulative Index to Nursing and Allied Health Literature and Cochrane Library databases. Eligible studies were RCTs that compared isolated soluble fiber with placebo treatments without energy-restriction protocols. Random effects models were used to estimate pooled effect sizes and 95% CIs. Meta-regressions were performed to assess outcomes in relation to the intervention duration, fiber dose, and fiber type. Publication bias was assessed via Begg's and Egger's tests and funnel plot inspection. Results: Findings from 12 RCTs (n = 609 participants) from 2 to 17 wk of duration are summarized in this review. Soluble fiber supplementation reduced BMI by 0.84 (95% CI: -1.35, -0.32; P = 0.001), body weight by 2.52 kg (95% CI: -4.25, -0.79 kg; P = 0.004), body fat by 0.41% (95% CI: -0.58%, -0.24%; P, 0.001), fasting glucose by 0.17 mmol/L (95% CI: -0.28, -0.06 mmol/L; P = 0.002), and fasting insulin by 15.88 pmol/L (95% CI: 229.05, -2.71 pmol/L; P = 0.02) compared with the effects of placebo treatments. No publication bias was identified. Considerable between-study heterogeneity was observed for most outcomes. Conclusions: Isolated soluble fiber supplementation improves anthropometric and metabolic outcomes in overweight and obese adults, thereby indicating that supplementation may improve fiber intake and health in these individuals. However, the interpretation of these findings warrants caution because of the considerable between-study heterogeneity.

**Database:** CINAHL

#### **Eating Away from Home: Influences on the Dietary Quality of Adolescents with Overweight or Obesity.**

**Author(s):** WATTS, ALLISON W.; VALENTE, MARIA; TU, ANDREW; MÂSSE, LOUISE C.

**Source:** Canadian Journal of Dietetic Practice & Research; Dec 2017; vol. 78 (no. 4); p. 166-171

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

Available at [Canadian Journal of Dietetic Practice and Research](#) - from EBSCO (MEDLINE Complete)

Available at [Canadian Journal of Dietetic Practice and Research](#) - from ProQuest (Hospital Premium Collection) - NHS Version

**Abstract:** Purpose: To examine the influence of peers and the source of meals and snacks on the dietary quality of adolescents seeking obesity treatment. Methods: Baseline surveys were completed by 173 adolescents with overweight or obesity (11-16 years old) enrolled in an e-health intervention in Vancouver, British Columbia. Dietary quality was assessed with three 24-h dietary recalls used to compute a Healthy Eating Index adapted to the Canadian context (HEI-C). Multiple linear regression examined associations between HEI-C scores and the frequency of: (i) meals prepared away from home, (ii) purchasing snacks from vending machines or stores, (iii) eating out with friends, and (iv) peers modeling healthy eating. Results: Adolescents reported eating approximately 3 lunch or dinner meals prepared away from home and half purchased snacks from vending machines or stores per week. After adjusting for socio-demographics, less frequent purchases of snacks from vending machines or stores ( $b = -3.00$ ,  $P = 0.03$ ) was associated with higher HEI-C scores. More frequent dinner meals prepared away from home and eating out with friends were only associated with lower HEI-C scores in unadjusted models. Conclusions: Snack purchasing was associated with lower dietary quality among obesity treatment-seeking adolescents. Improving the healthfulness of foods obtained away from home may contribute to healthier diets among these adolescents.

**Database:** CINAHL

### **Effects of acute dietary weight loss on postprandial plasma bile acid responses in obese insulin resistant subjects.**

**Author(s):** van Nierop, F. Samuel; Kulik, W.; Endert, Erik; Schaap, Frank G.; Olde Damink, Steven W.; Romijn, Johannes A.; Soeters, Maarten R.

**Source:** Clinical Nutrition; Dec 2017; vol. 36 (no. 6); p. 1615-1620

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Summary Background & aims Bile acids (BA) are pleiotropic hormones affecting glucose and lipid metabolism. The physiochemical properties of different BA species affect their enterohepatic dynamics and their affinity for bile acid receptors. The BA pool composition is altered in patients with type 2 diabetes and obesity. In this study we used a 2-week very-low-calorie diet (VLCD) to investigate the effects of weight loss on BA pool composition and postprandial dynamics. Methods We performed mixed meal tests in obese, insulin resistant subjects before and after the VLCD. We measured postprandial plasma levels of glucose, insulin, BA and the BA-induced enterokine fibroblast growth factor 19 (FGF19). Results The VLCD decreased weight by  $4.5 \pm 2.3$  kg ( $p < 0.0001$ ) within 14 days.

Weight loss increased peak postprandial deoxycholate (DCA) levels (median [IQR]: 0.90 [0.90] vs. 1.25 [1.35]  $\mu\text{mol/L}$ ;  $p = 0.045^*$ ). Other BA species, glucose, insulin and FGF19 levels and prandial excursions were not significantly affected. The VLCD decreased resting and postprandial energy expenditure by 7 and 11% respectively. Conclusions VLCD induced weight loss increased postprandial DCA peak levels and decreased resting energy expenditure in obese insulin resistant subjects.

**Database:** CINAHL

### **The nutritional property of endosperm starch and its contribution to the health benefits of whole grain foods.**

**Author(s):** Zhang, Genyi; Hamaker, Bruce R.

**Source:** Critical Reviews in Food Science & Nutrition; Dec 2017; vol. 57 (no. 18); p. 3807-3817

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 26852626

**Abstract:** Purported health benefits of whole grain foods in lowering risk of obesity, type 2 diabetes, cardiovascular disease, and cancer are supported by epidemiological studies and scientific researches. Bioactive components including dietary fibers, phytochemicals, and various micronutrients present in the bran and germ are commonly considered as the basis for such benefits. Endosperm starch, as the major constituent of whole grains providing glucose to the body, has been less investigated regarding its nutritional property and contribution to the value of whole grain foods. Nutritional quality of starch is associated with its rate of digestion and glucose absorption. In whole grain foods, starch digestion and glucose delivery may vary depending on the form in which the food is delivered, some with starch being rapidly and others slowly digested. Furthermore, there are other inherent factors in whole grain products, such as phenolic compounds and dietary fibers, that may moderate glycemic profiles. A good understanding of the nutritional properties of whole grain starch is important to the development of food processing technologies to maximize their health benefits.

**Database:** CINAHL

### **Spinal cord injury following a mild trauma in homocystinuria-related bone frailty: neurorehabilitation and education on bone health management.**

**Author(s):** Varghese, Ginny; Yazeedi, Wafa Al; Hamawi, Mohammed Al; Awad, Mohammed N.; Ferriero, Giorgio; Giovanazzi, Elena

**Source:** International Journal of Rehabilitation Research; Dec 2017; vol. 40 (no. 4); p. 374-376

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:** Homocystinuria (HCU) is a rare autosomal recessive disease characterized by the deficiency of cystathionine  $\beta$ -synthetase, presenting with variable clinical features including micronutrient deficiency-related osteoporosis. Early-onset osteoporosis results in increased

bone fragility, which is associated with low-impact fractures. To date, no traumatic myelopathy has ever been described in patients with HCU. This case report describes a 30-year-old male patient with HCU who was not aware that he was at high risk of sustaining debilitating bone fractures. After a mild trauma, he reported a T12 compression fracture with spinal cord injury. The patient underwent a tailored rehabilitation program, on the basis of multidisciplinary approach, and was educated about the increased risk of fractures, maintaining adherence to treatment and diet, having an active lifestyle, avoiding excessive weight loss, and preventing falls or other traumatic injury. To reduce the risk of fractures -- with possible catastrophic consequences -- patients with HCU, and their caregivers, should be educated about prevention of fractures.

**Database:** CINAHL

**A randomised trial of post-discharge enteral feeding following surgical resection of an upper gastrointestinal malignancy.**

**Author(s):** Froghi, Farid; Sanders, Grant; Berrisford, Richard; Wheatley, Tim; Peyser, Paul; Rahamim, Jo; Lewis, Stephen

**Source:** Clinical Nutrition; Dec 2017; vol. 36 (no. 6); p. 1516-1519

**Publication Date:** Dec 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background Patients undergoing upper gastrointestinal surgery often eat poorly post-operatively, despite dietetic input. A pilot study was conducted to examine the benefit of a 6 week nutritional supplementation via a feeding jejunostomy on fatigue, quality of life and independent living. Methods A feeding jejunostomy was placed routinely at oesophagectomy or total gastrectomy for cancer. At discharge, patients were randomised to nutritional supplementation (600 kcal/day) via their feeding jejunostomies or no jejunal supplement. Patients were assessed at discharge and 3, 6, 12 and 24 weeks following discharge for fatigue (MFI-20), quality of life (QLQ-OES18), health economic analysis (EQ5D) as well as completing a two-day dietary diary. Results 44 patients (M:F, 29:15) were randomised, 23 received jejunal supplements. There were no differences between the groups. Percentage of calculated energy requirement received was greater in the supplemented group at weeks 3 and 6 ( $p < 0.0001$ ). Oral energy intake was not different between the groups at any time period. After hospital discharge, there were no differences in MFI-20, EQ5D and QLQ-OES18 scores at any time point. From hospital discharge fatigue improved and plateaued at 6 weeks ( $p < 0.05$  for both groups), independence at 12 weeks ( $p < 0.05$  for both groups). No improvement was seen in quality of life until 24 weeks in the active group alone ( $p < 0.02$ ) and not at all in the control group. Conclusions Addition of jejunal feeding is effective in providing patients with an adequate energy intake. Increased energy intake however, produced no obvious improvement in measures of fatigue, quality of life or health economics.

**Database:** CINAHL

**Vegetarian, vegan diets and multiple health outcomes: A systematic review with meta-analysis of observational studies.**

**Author(s):** Dinu, Monica; Abbate, Rosanna; Gensini, Gian Franco; Casini, Alessandro; Sofi, Francesco

**Source:** Critical Reviews in Food Science & Nutrition; Nov 2017; vol. 57 (no. 17); p. 3640-3649

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 26853923

**Abstract:**Background: Beneficial effects of vegetarian and vegan diets on health outcomes have been supposed in previous studies.Objectives: Aim of this study was to clarify the association between vegetarian, vegan diets, risk factors for chronic diseases, risk of all-cause mortality, incidence, and mortality from cardio-cerebrovascular diseases, total cancer and specific type of cancer (colorectal, breast, prostate and lung), through meta-analysis.Methods: A comprehensive search of Medline, EMBASE, Scopus, The Cochrane Library, and Google Scholar was conducted.Results: Eighty-six cross-sectional and 10 cohort prospective studies were included. The overall analysis among cross-sectional studies reported significant reduced levels of body mass index, total cholesterol, LDL-cholesterol, and glucose levels in vegetarians and vegans versus omnivores. With regard to prospective cohort studies, the analysis showed a significant reduced risk of incidence and/or mortality from ischemic heart disease (RR 0.75; 95% CI, 0.68 to 0.82) and incidence of total cancer (RR 0.92; 95% CI 0.87 to 0.98) but not of total cardiovascular and cerebrovascular diseases, all-cause mortality and mortality from cancer. No significant association was evidenced when specific types of cancer were analyzed. The analysis conducted among vegans reported significant association with the risk of incidence from total cancer (RR 0.85; 95% CI, 0.75 to 0.95), despite obtained only in a limited number of studies.Conclusions: This comprehensive meta-analysis reports a significant protective effect of a vegetarian diet versus the incidence and/or mortality from ischemic heart disease (-25%) and incidence from total cancer (-8%). Vegan diet conferred a significant reduced risk (-15%) of incidence from total cancer.

**Database:** CINAHL

### **Invited Commentary: Can Estimation of Sodium Intake Be Improved by Borrowing Information From Other Variables?**

**Author(s):** Appel, Lawrence J.; Jacobs Jr., David R.

**Source:** American Journal of Epidemiology; Nov 2017; vol. 186 (no. 9); p. 1044-1046

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**Abstract:**Estimation of dietary sodium intake is problematic. The most accurate measure is average sodium excretion from multiple 24-hour urine collections, but such an approach is impractical. Using data from the Women's Health Initiative, Prentice et al. (Am J Epidemiol. 2017;186(9):1035-1043) assessed the relationship of calibrated estimates of sodium and potassium excretion with cardiovascular outcomes. The calibrated estimates were a function of self-reported sodium-to-potassium ratio from a food frequency questionnaire, age, body mass index, race, supplement use, smoking status, educational level, income, and aspirin use. In general, associations with outcomes using the calibrated estimates were in

the expected direction: direct for the sodium-to-potassium ratio and sodium intake and indirect for potassium. The unexpected associations were an increased risk of hemorrhagic stroke with lower sodium-to-potassium ratio and sodium intake and increased risk with higher potassium intake, along with a null relationship of sodium intake with ischemic stroke. Overall, our assessment is that the authors have improved the estimation of mean dietary sodium and potassium intakes. However, more work is needed to show that calibrated estimates actually improve estimation of future clinical events. If this methodological issue can be successfully addressed, their approach has the potential to improve estimation of dietary sodium and potassium intakes in observational studies.

**Database:** CINAHL

**Disparities in State-Specific Adult Fruit and Vegetable Consumption - United States, 2015.**

**Author(s):** Lee-Kwan, Seung Hee; Moore, Latetia V.; Blanck, Heidi M.; Harris, Diane M.; Galuska, Deb

**Source:** MMWR: Morbidity & Mortality Weekly Report; Nov 2017; vol. 66 (no. 45); p. 1241-1247

**Publication Date:** Nov 2017

**Publication Type(s):** Periodical

**PubMedID:** 29145355

Available at [MMWR. Morbidity and Mortality Weekly Report](#) - from EBSCO (Health Business FullTEXT Elite)

Available at [MMWR. Morbidity and Mortality Weekly Report](#) - from EBSCO (Biomedical Reference Collection - Comprehensive)

Available at [MMWR. Morbidity and Mortality Weekly Report](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [MMWR. Morbidity and Mortality Weekly Report](#) - from EBSCO (CINAHL with Full Text)

Available at [MMWR. Morbidity and Mortality Weekly Report](#) - from EBSCO (MEDLINE Complete)

**Abstract:**The 2015-2020 Dietary Guidelines for Americans recommend that Americans consume more fruits and vegetables as part of an overall dietary pattern to reduce the risk for diet-related chronic diseases such as cardiovascular disease, type 2 diabetes, some cancers, and obesity (1). Adults should consume 1.5-2.0 cup equivalents of fruits and 2.0-3.0 cups of vegetables per day.\* Overall, few adults in each state met intake recommendations according to 2013 Behavioral Risk Factor Surveillance System (BRFSS) data; however, sociodemographic characteristics known to be associated with fruit and vegetable consumption were not examined (2). CDC used data from the 2015 BRFSS to update the 2013 report and to estimate the percentage of each state's population meeting intake recommendations by age, sex, race/ethnicity, and income-to-poverty ratio (IPR) for the 50 states and District of Columbia (DC). Overall, 12.2% of adults met fruit recommendations ranging from 7.3% in West Virginia to 15.5% in DC, and 9.3% met vegetable recommendations, ranging from 5.8% in West Virginia to 12.0% in Alaska. Intake was low across all socioeconomic groups. Overall, the prevalence of meeting the fruit intake recommendation was highest among women (15.1%), adults aged 31-50 years (13.8%), and

Hispanics (15.7%); the prevalence of meeting the vegetable intake recommendation was highest among women (10.9%), adults aged  $\geq 51$  years (10.9%), and persons in the highest income group (11.4%). Evidence-based strategies that address barriers to fruit and vegetable consumption such as cost or limited availability could improve consumption and help prevent diet-related chronic disease.

**Database:** CINAHL

**Malnutrition in postacute geriatric care: Basic ESPEN diagnosis and etiology based diagnoses analyzed by length of stay, in-hospital mortality, and functional rehabilitation indexes.**

**Author(s):** Sánchez-Rodríguez, Dolores; Marco, Ester; Annweiler, Cédric; Ronquillo-Moreno, Natalia; Tortosa, Andrea; Vázquez-Ibar, Olga; Escalada, Ferran; Duran, Xavier; Muniesa, Josep M.

**Source:** Archives of Gerontology & Geriatrics; Nov 2017; vol. 73 ; p. 169-176

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**Abstract:** Objective To determine the relationships between malnutrition and nutrition-related conditions according to the European Society of Clinical Nutrition and Metabolism (ESPEN) consensus and guidelines and clinical outcomes in postacute rehabilitation. Methods Of 102 eligible inpatients, 95 (84.5 years old, 63.2% women) fulfilled inclusion criteria: aged  $\geq 70$  years, body mass index 5% in the last year or 2–3 kg in the last 6 months. Nineteen fulfilled the ESPEN basic definition, of which 10 had disease-related malnutrition with inflammation and 9 without inflammation, and 20 had cachexia. Sarcopenia ( $n = 44$ ), frailty ( $n = 94$ ), overweight/obesity ( $n = 59$ ), and micronutrient abnormalities ( $n = 70$ ) were frequent. Unintentional weight loss impaired all functional outcomes and increased length of stay [OR = 6.04 (2.87–9.22);  $p < 0.001$ ]. In multivariate analysis, relationships between rehabilitation impact indices and the ESPEN basic and etiology-based definitions observed in univariate analysis persisted only (and marginally) for relative functional gain [OR = 13.24 (0.96–181.95);  $p = 0.005$ ]. Infrequent in-hospital mortality prevented meaningful analysis of this outcome. Conclusions ESPEN basic and etiology-based definitions and nutrition related disorders were determined in postacute care. Malnutrition was associated with poor rehabilitation outcomes, mainly due to unintentional weight loss.

**Database:** CINAHL

**Health benefits of walnut polyphenols: An exploration beyond their lipid profile.**

**Author(s):** Sánchez-González, Claudia; Ciudad, Carlos J.; Noé, Véronique; Izquierdo-Pulido, Maria

**Source:** Critical Reviews in Food Science & Nutrition; Nov 2017; vol. 57 (no. 16); p. 3373-3383

**Publication Date:** Nov 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 26713565

**Abstract:**Walnuts are commonly found in our diet and have been recognized for their nutritious properties for a long time. Traditionally, walnuts have been known for their lipid profile, which has been linked to a wide array of biological properties and health-promoting effects. In addition to essential fatty acids, walnuts contain a variety of other bioactive compounds, such as vitamin E and polyphenols. Among common foods and beverages, walnuts represent one of the most important sources of polyphenols, hence their effect over human health warrants attention. The main polyphenol in walnuts is pedunculagin, an ellagitannin. After consumption, ellagitannins are hydrolyzed to release ellagic acid, which is converted by gut microflora to urolithin A and other derivatives such as urolithins B, C, and D. Ellagitannins possess well known antioxidant and anti-inflammatory bioactivity, and several studies have assessed the potential role of ellagitannins against disease initiation and progression, including cancer, cardiovascular, and neurodegenerative diseases. The purpose of this review is to summarize current available information relating to the potential effect of walnut polyphenols in health maintenance and disease prevention.

**Database:** CINAHL

**Pre-fracture nutritional status is predictive of functional status at discharge during the acute phase with hip fracture patients: A multicenter prospective cohort study.**

**Author(s):** Inoue, Tatsuro; Misu, Syogo; Tanaka, Toshiaki; Sakamoto, Hiroki; Iwata, Kentaro; Chuman, Yuki; Ono, Rei

**Source:** Clinical Nutrition; Oct 2017; vol. 36 (no. 5); p. 1320-1325

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**Abstract:**Summary Background & aims Malnutrition is common in patients with hip fractures, and elderly patients with hip fractures lose functional independence and often fail to recover previous functional status. The aim of this study was to determine whether pre-fracture nutritional status predicts functional status of patients with hip fracture at discharge from acute hospitals. Methods In the present multicenter prospective cohort study, pre-fracture nutritional status was assessed using the Mini Nutritional Assessment Short-Form (MNA-SF). At discharge from acute hospitals, functional status was evaluated using a functional independent measurement instrument (FIM). Subsequently, multiple regression analyses were performed using FIM as the dependent variable and MNA-SF as the independent variable. Results Among the 204 patients analyzed in the present study, the mean length of hospital stay was  $26.2 \pm 12.6$  days, and according to MNA-SF assessments, 51 (25.0%) patients were malnourished, 98 (48.0%) were at risk of malnutrition, and 55 (27.0%) were well-nourished before fracture. At discharge, FIM scores were higher in patients who were well-nourished than in those who were malnourished or were at risk of malnutrition ( $p < 0.01$ ). After adjustment for confounding factors, multiple regression analyses showed that MNA-SF was a significant independent predictor for FIM at discharge (well-nourished vs. malnourished,  $\beta = -0.86$ ,  $p < 0.01$ ). Conclusions Pre-fracture nutritional status was a significant independent predictor for functional status at discharge during the acute phase, warranting early assessment of nutritional status and early intervention for successful postoperative rehabilitation.

**Database:** CINAHL

**The Long-term Health Effects of Fetal Malnutrition: Evidence from the 1959-1961 China Great Leap Forward Famine.**

**Author(s):** Kim, Seonghoon; Fleisher, Belton; Sun, Jessica Ya

**Source:** Health Economics; Oct 2017; vol. 26 (no. 10); p. 1264-1277

**Publication Date:** Oct 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 27539791

Available at [Health Economics](#) - from Wiley Online Library All Journals

Available at [Health Economics](#) - from Wiley Online Library Medicine and Nursing Collection 2018 - NHS

**Abstract:** We report evidence of long-term adverse health impacts of fetal malnutrition exposure of middle-aged survivors of the 1959-1961 China Famine using data from the China Health and Retirement Longitudinal Study. We find that fetal exposure to malnutrition has large and long-lasting impacts on both physical health and cognitive abilities, including the risks of suffering a stroke, physical disabilities in speech, walking and vision, and measures of mental acuity even half a century after the tragic event. Our findings imply that policies and programs that improve the nutritional status of pregnant women yield benefits on the health of a fetus that extend through the life cycle in the form of reduced physical and mental impairment.

**Database:** CINAHL

**Egg consumption and cardiovascular disease according to diabetic status: The PREDIMED study.**

**Author(s):** Díez-Espino, J.; Basterra-Gortari, F.J.; Salas-Salvadó, J.; Buil-Cosiales, P.; Corella, D.; Schröder, H.; Estruch, R.; Ros, E.; Gómez-Gracia, E.; Arós, F.; Fiol, M.; Lapetra, J.; Serra-Majem, L.; Pintó, X.; Babio, N.; Quiles, L.; Fito, M.; Martí, A.; Toledo, E.

**Source:** Clinical Nutrition; Aug 2017; vol. 36 (no. 4); p. 1015-1021

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

**Abstract:** Summary Background Eggs are a major source of dietary cholesterol and their consumption has been sometimes discouraged. A relationship between egg consumption and the incidence of cardiovascular disease (CVD) has been suggested to be present exclusively among patients with type2 diabetes. Aims To assess the association between egg consumption and CVD in a large Mediterranean cohort where approximately 50% of participants had type 2 diabetes. Methods We prospectively followed 7216 participants (55–80 years old) at high cardiovascular risk from the PREDIMED (PREvención con Dieta MEDiterránea) study for a mean of 5.8 years. All participants were initially free of CVD. Yearly repeated measurements of dietary information with a validated 137-item food-frequency questionnaire were used to assess egg consumption and other dietary exposures. The endpoint was the rate of major cardiovascular events (myocardial infarction, stroke or death from cardiovascular causes). Results A major cardiovascular event occurred in 342 participants. Baseline egg consumption was not significantly

associated with cardiovascular events in the total population. Non-diabetic participants who ate on average >4 eggs/week had a hazard ratio (HR) of 0.96 (95% confidence interval, 0.33–2.76) in the fully adjusted multivariable model when compared with non-diabetic participants who reported the lowest egg consumption (<2 eggs/week). Among diabetic participants, the HR was 1.33 (0.72–2.46). There was no evidence of interaction by diabetic status. HRs per 500 eggs of cumulative consumption during follow-up were 0.94 (0.66–1.33) in non-diabetics and 1.18 (0.90–1.55) in diabetics. Conclusions Low to moderated egg consumption was not associated with an increased CVD risk in diabetic or non-diabetic individuals at high cardiovascular risk. This trial was registered at controlled-trials.com as ISRCTN35739639.

**Database:** CINAHL

**Type 2 diabetes, glucose, insulin, BMI, and ischemic stroke subtypes: Mendelian randomization study.**

**Author(s):** Larsson, Susanna C.; Scott, Robert A.; Traylor, Matthew; Langenberg, Claudia C.; Hindy, George; Melander, Olle; Orho-Melander, Marju; Seshadri, Sudha; Wareham, Nicholas J.; Markus, Hugh S.

**Source:** *Neurology*; Aug 2017; vol. 89 (no. 5); p. 454-460

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 28667182

Available at [Neurology](#) - from Ovid (Journals @ Ovid)

**Abstract:**Objective: To implement a mendelian randomization (MR) approach to determine whether type 2 diabetes mellitus (T2D), fasting glucose, fasting insulin, and body mass index (BMI) are causally associated with specific ischemic stroke subtypes. Methods: MR estimates of the association between each possible risk factor and ischemic stroke subtypes were calculated with inverse-variance weighted (conventional) and weighted median approaches, and MR-Egger regression was used to explore pleiotropy. The number of single nucleotide polymorphisms (SNPs) used as instrumental variables was 49 for T2D, 36 for fasting glucose, 18 for fasting insulin, and 77 for BMI. Genome-wide association study data of SNP-stroke associations were derived from METASTROKE and the Stroke Genetics Network (n = 18,476 ischemic stroke cases and 37,296 controls). Results: Conventional MR analysis showed associations between genetically predicted T2D and large artery stroke (odds ratio [OR] 1.28, 95% confidence interval [CI] 1.16-1.40, p = 3.3 × 10<sup>-7</sup>) and small vessel stroke (OR 1.21, 95% CI 1.10-1.33, p = 8.9 × 10<sup>-5</sup>) but not cardioembolic stroke (OR 1.06, 95% CI 0.97-1.15, p = 0.17). The association of T2D with large artery stroke but not small vessel stroke was consistent in a sensitivity analysis using the weighted median method, and there was no evidence of pleiotropy. Genetically predicted fasting glucose and fasting insulin levels and BMI were not statistically significantly associated with any ischemic stroke subtype. Conclusions: This study provides support that T2D may be causally associated with large artery stroke.

**Database:** CINAHL

**Long-Term Fish Oil Lipid Emulsion Use in Children With Intestinal Failure-Associated Liver Disease [Formula: see text].**

**Author(s):** Nandivada, Prathima; Fell, Gillian L.; Mitchell, Paul D.; Potemkin, Alexis K.; O'Loughlin, Alison A.; Gura, Kathleen M.; Puder, Mark; O'Loughlin, Alison A

**Source:** JPEN Journal of Parenteral & Enteral Nutrition; Aug 2017; vol. 41 (no. 6); p. 930-937

**Publication Date:** Aug 2017

**Publication Type(s):** Academic Journal

**PubMedID:** 26962059

**Abstract:**Background: Fish oil lipid emulsion (FOLE) and multidisciplinary care for infants with intestinal failure (IF) have been associated with reduced morbidity and mortality due to IF-associated liver disease (IFALD). With increased survival, a greater proportion of infants with IF are now able to remain on parenteral nutrition (PN) in the long term. The purpose of this study was to examine outcomes in children with IFALD who have required long-term PN and FOLE therapy due to chronic IF. Materials and Methods: A review of prospectively collected data was performed for children with IFALD who required at least 3 years of PN and FOLE therapy due to chronic IF. Outcomes examined include the incidence of death, transplantation, and essential fatty acid deficiency (EFAD), as well as growth parameters and the biochemical markers of liver disease. Results: Of 215 patients with IFALD treated from 2004-2015, 30 required PN and FOLE therapy for at least 3 years (median, 4.6 years). To date, no patients have died, required transplantation, or developed EFAD. Biochemical markers of liver disease normalized within the first year of therapy with no recurrent elevations in the long term. Weight-for age and length-for-age z scores improved and PN dependence decreased in the first year of therapy, with a stable rate of growth in the long term. Conclusions: Children with IFALD who required long-term PN and FOLE for chronic IF had no mortality, need for transplantation, EFAD, or recurrence of liver disease in the long term, allowing for continued intestinal rehabilitation.

**Database:** CINAHL

### **Dietary calcium intake and risk of cardiovascular disease, stroke, and fracture in a population with low calcium intake.**

**Author(s):** Sung Hye Kong; Jung Hee Kim; Hong, A. Ram; Cho, Nam H.; Chan Soo Shin

**Source:** American Journal of Clinical Nutrition; Jul 2017; vol. 106 (no. 1); p. 27-34

**Publication Date:** Jul 2017

**Publication Type(s):** Academic Journal

Available at [American Journal of Clinical Nutrition](#) - from EBSCO (MEDLINE Complete)

**Abstract:**Background: The role of dietary calcium intake in cardiovascular disease (CVD), stroke, and fracture is controversial. Most previous reports have evaluated populations with high calcium intake. Objective: We aimed to evaluate whether high dietary calcium intake was associated with the risk of CVD, stroke, and fracture in a population with low calcium intake. Design: In a prospective cohort study beginning in 2001 in Ansong- Ansan, Korea, 2158 men and 2153 women aged >50 y were evaluated for all-cause mortality, CVD, stroke, and fractures over a median 9-y follow-up. Results: During follow-up, 242 and 100 deaths, 149 and 150 CVD events, 58 and 82 stroke events, and 211 and 292 incident fractures occurred in men and women, respectively. The first quartiles of energy-adjusted dietary calcium intake were 249 mg/d (IQR: 169 mg/d) in men and 209 mg/d (IQR: 161 mg/d) in women. Both men and women with higher dietary calcium intake tended to have

higher fat, protein, sodium, phosphorus, fruit, and vegetable intakes. In men, outcomes were not significantly associated with dietary calcium intake with or without adjustments, and CVD risk tended to increase with increasing energy-adjusted dietary calcium intake, but this was not statistically significant ( $P = 0.078$  and  $P = 0.093$  with and without adjustment, respectively). In women, CVD risk and dietary calcium intake showed a U-shaped association; the HRs (95% CIs) without adjustment relative to the first quartile were 0.71 (0.47, 1.07), 0.57 (0.36, 0.88), and 0.52 (0.33, 0.83) for quartiles 2, 3, and 4, respectively, and the values after adjustment were 0.70 (0.45, 1.07), 0.51 (0.31, 0.81), and 0.49 (0.29, 0.83) for quartiles 2, 3, and 4, respectively. Conclusion: In Korean women, increased dietary calcium intake was associated with a decreased CVD risk, but it did not influence the risk of stroke or fracture.

**Database:** CINAHL

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