Dairy Foods, Weight Change, and Risk of Obesity During the Menopausal Transition

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Background: Weight gain during the menopausal transition is common. Dairy consumption may impact weight change during this critical period, and different dairy foods may have different effects.

Objectives: This study aimed to investigate the associations of different types of dairy foods with weight gain and risk of obesity in perimenopausal women from the Nurses’ Health Study II cohort.

Methods: The examination at menopause was selected as the exam closest to the reported age at menopause. Weight change during 12 y surrounding menopause was derived from self-reported weight data for 3 exams before and 3 after menopause. The mean age of the first weight measure was 45.8 y and the average BMI was 25.0 kg/m2. Dairy food intakes were estimated as mean intakes over the same 12 y. Generalized linear models were used to assess the association between dairy foods and annualized weight change. Cox proportional hazard models were used to estimate the adjusted relative risks for becoming obese over 12 y surrounding menopause.

Results: In longitudinal analyses, those with the highest yogurt intakes had the lowest weight gain at every exam. This was not the case for other forms of dairy. After adjusting for potential covariates, those consuming ≥2.0 servings/wk of yogurt (compared with <1.0 serving/month) had a 31% (RR: 0.69; 95% CI: 0.64, 0.74) lower risk of obesity. The highest total dairy intake (≥2.0 servings/d compared with <1.0) was associated with only a 12% (RR: 0.88; 95% CI: 0.82, 0.95) reduction in obesity risk. Higher activity levels and alternative healthy eating index scores were independently associated with statistically significant reductions in risk of obesity, but higher intakes of yogurt strengthened these beneficial associations.

Conclusion: Yogurt intake was associated with less weight gain and lower obesity risk in women during the menopausal transition.

Breastfeeding and Mammographic Breast Density: A Cross-sectional Study

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Breastfeeding is inversely associated with breast cancer risk but the associations of breastfeeding with mammographic breast density (MBD) are not clear. We investigated the association between breastfeeding and volumetric measures of MBD (volumetric percent density (VPD), dense volume (DV) and non-dense volume (NDV)) and evaluated whether it differs by race, menopausal status, and body mass index (BMI). The study population was comprised of 964 women (67% non-Hispanic white, 29% non-Hispanic black) who had screening mammography at Washington University School of Medicine, St. Louis, MO. VPD, DV and NDV were log10 transformed. We performed multivariable linear regression models adjusted for age, BMI, family history of breast cancer, race, and age at menarche among all participants and exclusively in parous women. Mean age was 50.7 years. VPD was 12% lower among women who breastfed 0-6 months, (10^β=0.88, 95%CI (0.79,0.98)) compared to nulliparous women. Breastfeeding was inversely associated with DV (parous never breastfed: 10^β=0.93, 95%CI (0.83,1.04), breastfed 0-6 months: 10^β=0.91, 95%CI (0.79,1.05), breastfed 7-12 months: 10^β=0.94, 95%CI (0.81,1.10), breastfed ≥12 months: 10^β=0.87, 95%CI (0.78,0.98), p-trend=0.03). BMI modified the association between breastfeeding and VPD. Women who breastfed for 0-6 months and had a BMI < 25kg/m2 had lower VPD compared to nulliparous women, but among women with a BMI ≥ 25kg/m2 there was no association (p-interaction=0.04). In this diverse study population, the association of breastfeeding with VPD appears to be modified by BMI, but not by race or menopausal status. Future research exploring the associations of breastfeeding with other mammographic features are needed.
Background: Dietary patterns worldwide are increasingly displaced by many cheap, highly palatable, and ready-to-eat ultra-processed foods (UPFs). Higher UPF consumption has been linked to increased risk for obesity and cardiometabolic diseases, but prospective evidence is limited on cancer outcomes. This study aimed to examine the association between UPF consumption and risk for overall and site-specific cancer incidence and cancer mortality using the UK Biobank cohort. Methods: 197 426 participants of the UK Biobank from England, Scotland, and Wales with 24-h dietary recall completed between 2009 and 2012 were included. Incident cancer cases were identified through data linkage to national cancer and mortality registries. Food items consumed were categorised according to their degree of food processing using the NOVA classification system. Individual UPF consumption were derived as a percentage of daily food intake. Prospective association was assessed using multivariable Cox proportional hazards models adjusted for baseline sociodemographic and lifestyle characteristics. For female-specific cancers, menopausal status, use of oral contraceptives, hormone replacement therapy, and parity were additionally adjusted. Findings: Mean age was 58·0 years (SD 8·0); 54·6% of participants were women. During a median follow-up time of 9·8 years (IQR 9·4-10·6), 15 921 (8·1%) of 197 426 individuals developed cancer and 4009 (2·0%) cancer deaths were encountered. Consumption of UPFs was associated with a higher incidence of overall cancer (hazard ratio per 10% increment in UPF consumption was 1·02 [95% CI 1·01-1·04]; p=0·005) and ovarian cancer in females (1·19 [1·08-1·30]; p<0·001). Positive associations were identified for mortality of overall, breast, and ovarian cancers. Interpretation: This large UK cohort study presents evidence of positive associations between UPF consumption and risks for incidence and mortality of overall and certain site-specific cancers. Limitations include non-representativeness having based on a cohort of middle-aged volunteers, insufficient details for some food items although a conservative approach was undertaken classifying foods to lower processing categories, and potential residual confounding due to the observational nature of the data. Further investigation into the mechanistic pathways is warranted to better identify targets for intervention.


Adherence to Mediterranean dietary quality index and risk of breast cancer in adult women: a case-control study
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Background: Breast cancer (BC) is the fifth most prevalent cause of cancer-related deaths in Iran. Given that the role of whole-diet on cancer risk is important, this study aimed to assess the association of MedDQI and breast cancer risk. Methods: This hospital-based case-control study was performed on 150 women with pathologically confirmed breast cancer within the period of less than 3 months. Controls were 150 apparently healthy that were matched by age. Dietary data was collected using a validated questionnaire. To examine participants' adherence to MedDQI, the MedDQI was created according to foods and nutrients highlighted or minimized in the MedDQI construction. Results: After adjusting for possible confounders, participants in the highest quartile of the MedDQI score had 55% lower odds of breast cancer than women in the bottom quartile (OR: 0.45, 95% CI: 0.21, 0.94, P trend: 0.02). Stratified analysis by menopausal status showed such association in postmenopausal women (OR: 0.24, 95% CI: 0.07, 0.8, P trend: 0.055) after controlling for age and energy intake. Conclusion: The results showed an inverse association between adherence to the MedDQI and risk of breast cancer among Iranian women. More prospective studies are needed to confirm our results.


Excess body fatness and cancer risk: a summary of the epidemiologic evidence
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Excess body fatness has been associated with various health outcomes including premature mortality, cardiovascular disease, type 2 diabetes, and various types of cancer. Recent expert panels have reviewed the scientific evidence relating excess body fatness with risk of specific cancers types. This evidence includes intervention trials, cohort and case-control studies, experimental animal studies, and mechanistic studies. To date, these consensus panels have concluded that 13 cancers have sufficient evidence and biologic plausibility linking excess body fatness as a cause of cancer of the esophagus (adenocarcinoma), gastric cardia, colon and rectum, liver, gallbladder, pancreas, meningioma, postmenopausal breast, endometrium, ovary, kidney, thyroid, and multiple myeloma. This article reviews the findings of these consensus reports along with additional considerations in better understanding the relationship between excess body fatness and cancer risk. Given that cancers linked to excess body fatness account for approximately 40% of all cancers, and approximately 70% of U.S. adults have overweight or obesity, it is critical to promote the maintenance of a healthy body weight throughout life for cancer prevention.

Menopausal hormone therapy and the risk of type 2 diabetes mellitus: Health Insurance Database in South Korea-based retrospective cohort study

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Objective: Menopausal hormone therapy (MHT) is known to reduce the incidence of type 2 diabetes mellitus (T2DM); however, since the Women's Health Initiative study, the types and doses of female hormones used for MHT have changed considerably. Therefore, this study was conducted to determine whether MHT, which is currently widely prescribed, increases the risk of T2DM. Method: We performed a retrospective cohort study based on national health insurance data and cancer screening data from 2002 to 2019. We included the MHT group as postmenopausal women older than 40 years who used at least one MHT for at least 6 months between 2003 and 2011. We subclassified the MHT group into five categories; tibolone, combined estrogen plus progestin by the manufacturer (CEPM), oral estrogen, combined estrogen plus progestin by the physician (CEPP), and transdermal estrogen. We selected the non-MHT group as postmenopausal women who had never been prescribed MHT from 2002 to 2019. We compared the incidence of T2DM between the MHT group and the non-MHT group. Results: We enrolled 330,771 women in the MHT group and 798,550 women in the control group. T2DM was diagnosed in 15.2% of the non-MHT group, 16.6% of the tibolone group, 12.1% of the CEPM group, 16.6% of the oral estrogen group, 15.4% of the CEPP group, and 17% of the transdermal estrogen group. In Cox proportional hazard analysis adjusted for variable factors, tibolone, oral estrogen, CEPP, and transdermal estrogen increased the incidence of T2DM. In contrast, there was no change in the risk of T2DM in the CEPM group. Conclusions: MHT, including tibolone, which is currently the most prescribed agent, increased the risk of T2DM; however, CEPM did not increase the risk of T2DM. Only tibolone increased the risk of T2DM in participants older than 70 years.


High levels of physical activity are associated with a reduced likelihood of depressive symptoms in postmenopausal women

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Depressive symptoms in postmenopausal women are a significant concern, but studies evaluated their relationship with menopausal symptoms and physical activity are limited. This cross-sectional study used the scale of the 9-item Patient Health Questionnaire (PHQ-9) and the modified Kupperman Index (KMI) to investigate the relationship between depressive symptoms, menopausal symptoms, and physical activity in postmenopausal women in Hunan Province, using cluster random sampling, and face-to-face interviews with women aged 50-64 years. The moderate (aOR = 2.242, 95 percent CI [1.646-3.052], P < .001) and severe menopausal symptoms (aOR = 3.654, 95 percent CI [1.754-7.611], P = .001), and low-level physical activity (aOR = 1.380, 95 percent CI [1.023-1.826], P = .035) may increase the risk of depressive symptoms. High levels of physical activity were associated with a decreased likelihood of depressive symptoms, but only when participants had no complaints of menopausal symptoms (aOR = 0.375, 95 percent CI [0.161-0.877], P = .024). This study provides a new result for the mental health of postmenopausal women and provides a reference for further related research.


Counseling on hormone replacement therapy: the real risks and benefits

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Purpose of review: The menopause transition can be a time of great upheaval and suffering for some patients. Hormone replacement therapy (HRT) can relieve symptoms and improve quality of life but the perceived risks of HRT have decreased use over the past two decades. Understanding the real risks and benefits will ease physician and other healthcare professionals discomfort with counseling and prescribing this potentially life changing therapy in appropriate patients. Recent findings: Menopausal symptoms may persist several years beyond the final menstrual period. Previously stated risks of HRT overestimated the concern with menopausal therapy. New data indicates there are medical benefits to HRT beyond quality of life measures. Summary: In appropriate patients, the benefits of hormone replacement therapy outweigh the risks. Extended use of hormone replacement therapy is reasonable in patients with persistent symptoms.