



## RESEARCH UPDATES OCTOBER 2012

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### FOR THE LATEST IN WORLDWIDE INTEGRATIVE CANCER CARE

**IN THIS ISSUE:** Epstein et al. concluded that total fat intake may worsen prostate cancer survival, but high intake of omega-3 fatty acids from fish may improve survival. Gilbert and associates reported that lower levels of vitamin D were associated with more aggressive prostate cancer, but that there was no evidence of an association with overall prostate cancer risk. Weinstein and colleagues reported that higher  $\alpha$ -tocopherol status may help prevent prostate cancer in smokers. Romieu et al. concluded that a diet with a high glycemic load is associated with an increased risk of breast cancer among postmenopausal women. Zu and colleagues found that a high soy intake reduced the risk of breast cancer. Harrington and associates found that an integrative cancer support program (similar to InspireHealth) was valuable for breast cancer survivors in addressing their concerns and improving their wellbeing. Hansen and Larsen reported that women who worked the night shift had an increased risk of breast cancer. Ryan et al. found that ginger supplementation significantly reduced the severity of chemotherapy-induced nausea in cancer patients. Oh and associates concluded that medical Qigong improved cancer patients' cognitive function, quality of life, and inflammatory biomarkers. Kawakita et al. found that high yoghurt intake may lower the risk of developing upper aerodigestive tract cancer. Prieto-Alhambra and associates concluded that vitamin D supplementation helped to prevent aromatase inhibitor-associated bone loss in breast cancer patients. In our study of the month, Baade and colleagues concluded that 25% of cancers can be prevented by improvements in diet and exercise.

## PROSTATE CANCER

Epstein, MM, J. L. Kasperzyk, L. A. Mucci, et al.

### Dietary Fatty Acid Intake and Prostate Cancer Survival in Orebro County, Sweden.

*Am J Epidemiol.* 2012 August 2012; 1763: 240-252.

**BACKGROUND:** Although dietary fat has been associated with prostate cancer risk, the association between specific fatty acids and prostate cancer survival remains unclear. **METHODS:** Dietary intake of 14 fatty acids was analyzed in a population-based cohort of 525 Swedish men with prostate cancer in Örebro County (1989-1994). Multivariable hazard ratios and 95% confidence intervals for time to prostate cancer death by quartile and per standard deviation increase in intake were estimated by Cox proportional hazards regression. Additional models examined the association by stage at diagnosis (localized: T0-T2/M0; advanced: T0-T4/M1, T3-T4/M0). **RESULTS:** Among all men, those with the highest omega-3 docosahexaenoic acid and total marine fatty acid intakes were 40% less likely to die from prostate cancer (P(trend) = 0.05 and 0.04, respectively). Among men with localized prostate cancer, hazard ratios of 2.07 (95% confidence interval: 0.93, 4.59; P(trend) = 0.03) for elevated total fat, 2.39 (95% confidence interval: 1.06, 5.38) for saturated myristic acid, and 2.88 (95% confidence interval: 1.24, 6.67) for shorter chain (C4-C10) fatty acid intakes demonstrated increased risk for disease-specific mortality for the highest quartile compared with the lowest quartile. **CONCLUSIONS:** This study suggests that high intake of total fat and certain saturated fatty acids may worsen prostate cancer survival, particularly among men with localized disease. In contrast, high marine omega-3 fatty acid intake may improve disease-specific survival for all men.

**INSPIREHEALTH'S INTERPRETATION:** Eating fish high in omega-3 fatty acid can help with prostate cancer survival.

Gilbert, R, C. Metcalfe, W. D. Fraser, et al.

### Associations of Circulating 25-Hydroxyvitamin D with Prostate Cancer Diagnosis, Stage and Grade.

*International Journal of Cancer.* 2012 01 Sep 2012; 1315: 1187-1196.

**BACKGROUND:** Epidemiological studies suggest that vitamin D protects against prostate cancer, although evidence is limited and inconsistent. **METHODS:** We investigated associations of circulating total 25-hydroxyvitamin D (25(OH)D) with prostate specific antigen-detected prostate cancer in a case-control study nested within the prostate testing for cancer

and treatment ( ProtecT) trial. Conditional logistic regression was used to estimate odds ratios (ORs) and 95% confidence intervals (CIs) quantifying the association between circulating total 25(OH)D and prostate cancer. In case-only analyses, we used unconditional logistic regression to quantify associations of total 25(OH)D with stage (advanced vs. localized) and Gleason grade (high-grade ( $\geq 7$ ) vs. low-grade ( $< 7$ )). Predetermined categories of total 25(OH)D were defined as: high:  $\geq 30$  ng/mL; adequate: 20- $< 30$  ng/mL; insufficient: 12- $< 20$  ng/mL; deficient:  $< 12$  ng/mL. Fractional polynomials were used to investigate the existence of any U-shaped relationship. We included 1,447 prostate cancer cases (153 advanced, 469 high-grade) and 1,449 healthy controls. **RESULTS:** There was evidence that men deficient in vitamin D had a 2-fold increased risk of advanced versus localized cancer (OR for deficient vs. adequate total 25(OH)D=2.33, 95% CI: 1.26, 4.28) and high-grade versus low-grade cancer (OR for deficient vs. adequate total 25(OH)D=1.78, 95% CI: 1.15, 2.77). There was no evidence of a linear association between total 25(OH)D and prostate cancer ( $p=0.44$ ) or of an increased risk of prostate cancer with high and low vitamin D levels. **CONCLUSION:** Our study provides evidence that lower 25(OH)D concentrations were associated with more aggressive cancers (advanced versus localized cancers and high- versus low-Gleason grade), but there was no evidence of an association with overall prostate cancer risk.

**INSPIREHEALTH'S INTERPRETATION:** Higher levels of vitamin D can help protect against aggressive prostate cancer.

Weinstein, SJ, U. Peters, J. Ahn, et al.

### Serum Alpha-Tocopherol and -Tocopherol Concentrations and Prostate Cancer Risk in the PLCO Screening Trial: A Nested Case-Control Study.

*PLoS ONE*. 0204 Article Number: e4; 7 (7), 2012ate of Pubaton: 05 Ju 2012.

**BACKGROUND:** Vitamin E compounds exhibit prostate cancer preventive properties experimentally, but serologic investigations of tocopherols, and randomized controlled trials of supplementation in particular, have been inconsistent. Many studies suggest protective effects among smokers and for aggressive prostate cancer, however. **METHODS:** We conducted a nested case-control study of serum  $\alpha$ -tocopherol and  $\gamma$ -tocopherol and prostate cancer risk in the Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial, with 680 prostate cancer cases and 824 frequency-matched controls. Multivariate-adjusted, conditional logistic regression models were used to estimate odds ratios (OR) and 95% confidence intervals (CIs) for tocopherol quintiles. **RESULTS:** Serum  $\alpha$ -tocopherol and  $\gamma$ -tocopherol were inversely correlated ( $r=-0.24$ ,  $p<0.0001$ ). Higher serum  $\alpha$ -tocopherol was associated with significantly lower prostate cancer risk (OR for the highest vs. lowest quintile=0.63, 95% CI 0.44-0.92,  $p$ -trend 0.05). By contrast, risk was non-significantly elevated among men with higher  $\gamma$ -tocopherol concentrations (OR for the highest vs. lowest quintile=1.35, 95% CI 0.92-1.97,  $p$ -trend 0.41). The inverse association between prostate cancer and  $\alpha$ -tocopherol was restricted to current and recently former smokers, but was only slightly stronger for aggressive disease. By contrast, the increased risk for higher  $\gamma$ -tocopherol was more pronounced for less aggressive cancers. **CONCLUSIONS:** Our findings indicate higher  $\alpha$ -tocopherol status is associated with decreased risk of developing prostate cancer, particularly among smokers. Although two recent controlled trials did not substantiate an earlier finding of lower prostate cancer incidence and mortality in response to supplementation with a relatively low dose of  $\alpha$ -tocopherol, higher  $\alpha$ -tocopherol status may be beneficial with respect to prostate cancer risk among smokers. Determining what stage of prostate cancer development is impacted by vitamin E, the underlying mechanisms, and how smoking modifies the association, is needed for a more complete understanding of the vitamin E-prostate cancer relation.

**INSPIREHEALTH'S INTERPRETATION:** Higher  $\alpha$ -tocopherol levels may be helpful in preventing prostate cancer in smokers.

## BREAST CANCER

Romieu, I, P. Ferrari, S. Rinaldi, et al.

### Dietary Glycemic Index and Glycemic Load and Breast Cancer Risk in the European Prospective Investigation into Cancer and Nutrition (EPIC).

*Am J Clin Nutr*. 2012 01 Aug 2012; 96(2): 345-355.

**BACKGROUND:** The glycemic potential of a diet is associated with chronically elevated insulin concentrations, which may augment breast cancer (BC) risk by stimulating insulin receptor or by affecting insulin-like growth factor I (IGF-I)-mediated mitogenesis. It is unclear whether this effect differs by BC phenotype. **OBJECTIVE:** The objective was to investigate the relation between glycemic index (GI), glycemic load (GL), and total carbohydrate intake with BC by using data from the European Prospective Investigation into Cancer and Nutrition (EPIC). **DESIGN:** We identified 11,576 women with invasive BC among 334,849 EPIC women aged 34-66 y (5th to 95th percentiles) at baseline over a median follow-up of 11.5 y. Dietary GI and GL were calculated from country-specific dietary questionnaires. We used multivariable Cox proportional hazards models to quantify the association between GI, GL, and carbohydrate intake and BC risk.

BC tumors were classified by receptor status. **RESULTS:** Overall GI, GL, and carbohydrates were not related to BC. Among postmenopausal women, GL and carbohydrate intake were significantly associated with an increased risk of estrogen receptor-negative (ER(-)) BC when extreme quintiles (Q) were compared [multivariable HR(Q5-Q1) (95% CI) = 1.36 (1.02, 1.82; P-trend = 0.010) and HR(Q5-Q1) = 1.41 (1.05, 1.89; P-trend = 0.009), respectively]. Further stratification by progesterone receptor (PR) status showed slightly stronger associations with ER(-)/PR(-) BC [HR(Q5-Q1) (95% CI) = 1.48 (1.07, 2.05; P-trend = 0.010) for GL and HR(Q5-Q1) = 1.62 (1.15, 2.30; P-trend = 0.005) for carbohydrates]. No significant association with ER-positive BC was observed. **CONCLUSION:** Our results indicate that a diet with a high GL and carbohydrate intake is positively associated with an increased risk of developing ER(-) and ER(-)/PR(-) BC among postmenopausal women.

**INSPIREHEALTH'S INTERPRETATION:** Eating a diet with a lower glycemic load and fewer carbohydrates may decrease the risk of breast cancer in postmenopausal women.

Zu, YY, L. Zhou, S. C. Jiao and L. Z. Xu.

### Relationship between Soy Food Intake and Breast Cancer in China.

*Asian Pacific Journal of Cancer Prevention: Apjcp. 2011 1211: 2837-2840.*

**AIMS:** Soy food intake may be associated with reduced risk of breast cancer, by far the most frequent cancer among women, but the results are inconsistent. We aimed to investigate the relationship further in Chinese population and to assess the importance of hormone receptor status. **METHODS:** A case-control study was conducted with totals of 183 cases and 192 controls recruited from January 2008 to January 2011 among patients admitted to the General Hospital of PLA and the Second Affiliated Hospital of Guangzhou Medical University, China. Trained interviewers conducted face-to-face interviews using a structured questionnaire to collect information on dietary habits and potential confounding factors.

**RESULTS:** The highest relative to lowest soy isoflavone intake was associated with a 58% decrease risk of breast cancer (OR=0.42, 95% CI=0.22-0.80). Higher consumption of soy protein also decreased breast cancer risk, and the highest consumption reduced 54% cancer risk compared with the lowest (OR=0.46, 95%CI=0.24-0.88). The inverse association between highest intake of soy isoflavone and soy protein with the risk of breast cancer was statistically in postmenopausal women (OR=0.57, 95%CI=0.29-0.83; OR=0.50, 95%CI=0.38-0.95). In the ER/PR status stratified analysis, a significantly reduced risk was observed for ER+/PR+ breast cancer among highest intake of soy isoflavone and soy protein, with ORs of 0.47 and 0.63, respectively. **CONCLUSION:** Our study suggested that a high intake of soy food is inversely associated with breast cancer risk, the effect depending to some extent on the hormone receptor status.

**INSPIREHEALTH'S INTERPRETATION:** Consumption of soy may protect against breast cancer, depending on the hormone receptor status.

Harrington, JE, B. S. Baker and C. J. Hoffman.

### Effect of an Integrated Support Programme on the Concerns and Wellbeing of Women with Breast Cancer: A National Service Evaluation.

*Complementary Therapies in Clinical Practice. 2012 Feb; 181: 10-15.*

**PURPOSE:** To carry out a national service evaluation of the integrated cancer support programme offered by The Haven using the Measure Yourself Concerns and Wellbeing (MYCaW) outcome questionnaire. **METHODS:** Breast cancer survivors who visited one of three Haven centres in the UK completed the MYCaW questionnaire before and after 6 one-hour complementary therapy sessions. **RESULTS:** Statistically significant decreases in mean baseline scores (indicating improvement) for concerns and wellbeing were observed after treatment: concern 1 (5.09 ± 1.04 vs 3.17 ± 1.60, p < 0.0001, n = 402), concern 2 (4.69 ± 1.08 vs 3.08 ± 1.56, p < 0.0001, n = 372), and wellbeing (3.30 ± 1.41 vs 2.63 ± 1.28, p < 0.0001, n = 402). The therapies most commonly used were acupuncture, nutrition, massage and aromatherapy, shiatsu, counselling and reflexology. After therapy, 91% of reported scores (n = 328) rated the concern as being a little better, much better or gone. **CONCLUSIONS:** These findings suggest that women with breast cancer find the Haven integrated support programme valuable for addressing their main concerns and improving their feeling of wellbeing.

**INSPIREHEALTH'S INTERPRETATION:** Integrative cancer support programs (similar to InspireHealth) can help address the concerns and improve the wellbeing of breast cancer survivors.

Hansen, J and C. F. Lassen.

### **Nested Case-Control Study of Night Shift Work and Breast Cancer Risk among Women in the Danish Military.**

*Occup Environ Med.* 2012 August 2012; 698: 551-556.

**OBJECTIVES:** Growing but limited evidence suggests that night shift work is associated with breast cancer. The authors conducted a nationwide case-control study nested within a cohort of 18 551 female military employees born in 1929-1968 to investigate the risk for breast cancer after night shift work and to explore the role of leisure time sun exposure and diurnal preference. **METHODS:** The authors documented 218 cases of breast cancer (1990-2003) and selected 899 age-matched controls from the cohort by incidence density sampling. Information on shift work, sun exposure habits, diurnal preference and other potential confounders was obtained from a structured questionnaire. ORs were estimated by multivariate conditional logistic regression. **RESULTS:** Overall, the authors observed an adjusted OR of 1.4 (95% CI 0.9 to 2.1) among women with ever compared with never night shifts. The RR for breast cancer tended to increase with increasing number of years of night shift work ( $p=0.03$ ) and with cumulative number of shifts ( $p=0.02$ ), with a neutral risk for fewer than three night shifts per week. The OR for the group with the highest tertile of cumulative exposure was 2.3 (95% CI 1.2 to 4.6). The most pronounced effect of night shift work on breast cancer risk was observed in women with morning chronotype preference and intense night shifts (OR=3.9, 95% CI 1.6 to 9.5). Night shift workers tended to sunbathe more frequently than day workers. **CONCLUSIONS:** The results indicate that frequent night shift work increases the risk for breast cancer and suggest a higher risk with longer duration of intense night shifts. Women with morning preference who worked on night shifts tended to have a higher risk than those with evening preference.

**INSPIREHEALTH'S INTERPRETATION:** Women who work frequent or intense night shifts or who have a morning preference and who work night shifts may have a higher risk of developing breast cancer than those with an evening preference.

## **GINGER**

Ryan, JL, C. E. Heckler, J. A. Roscoe, et al.

### **Ginger (*Zingiber Officinale*) Reduces Acute Chemotherapy-Induced Nausea: A URCC CCOP Study of 576 Patients.**

*Supportive Care in Cancer.* 2012 July 2012; 207: 1479-1489.

**PURPOSE:** Despite the widespread use of antiemetics, nausea continues to be reported by over 70% of patients receiving chemotherapy. **METHODS:** In this double blind, multicenter trial, we randomly assigned 744 cancer patients to four arms: 1) placebo, 2) 0.5 g ginger, 3) 1.0 g ginger, or 4) 1.5 g ginger. Nausea occurrence and severity were assessed at a baseline cycle and the two following cycles during which patients were taking their assigned study medication. All patients received a 5-HT(3) receptor antagonist antiemetic on Day 1 of all cycles. Patients took three capsules of ginger (250 mg) or placebo twice daily for 6 days starting 3 days before the first day of chemotherapy. Patients reported the severity of nausea on a 7-point rating scale ("1" = "Not at all Nauseated" and "7" = "Extremely Nauseated") for Days 1-4 of each cycle. The primary outcomes were to determine the dose and efficacy of ginger at reducing the severity of chemotherapy-induced nausea on Day 1 of chemotherapy. **RESULTS:** A total of 576 patients were included in final analysis (91% female, mean age = 53). Mixed model analyses demonstrated that all doses of ginger significantly reduced acute nausea severity compared to placebo on Day 1 of chemotherapy ( $p = 0.003$ ). The largest reduction in nausea intensity occurred with 0.5 g and 1.0 g of ginger ( $p = 0.017$  and  $p = 0.036$ , respectively). Anticipatory nausea was a key factor in acute chemotherapy-induced nausea ( $p < 0.0001$ ). **CONCLUSIONS:** Ginger supplementation at a daily dose of 0.5 g-1.0 g significantly aids in reduction of the severity of acute chemotherapy-induced nausea in adult cancer patients.

**INSPIREHEALTH'S INTERPRETATION:** Ginger can help cancer patients with chemotherapy-induced nausea.

## **QIGONG**

Oh, B, P. N. Butow, B. A. Mullan, et al.

### **Effect of Medical Qigong on Cognitive Function, Quality of Life, and a Biomarker of Inflammation in Cancer Patients: A Randomized Controlled Trial.**

*Supportive Care in Cancer.* 2012 June 2012; 206: 1235-1242.

**PURPOSE:** Cancer patients often experience diminished cognitive function (CF) and quality of life (QOL) due to the side effects of treatment and the disease symptoms. This study evaluates the effects of medical Qigong (MQ; combination

of gentle exercise and meditation) on CF, QOL, and inflammation in cancer patients. **METHODS:** Eighty-one cancer patients recruited between October 2007 and May 2008 were randomly assigned to two groups: a control group (n = 44) who received the usual health care and an intervention group (n = 37) who participated in a 10-week MQ program. Self-reported CF was measured by the European Organization for Research and Treatment of Cancer (EORTC-CF) and the Functional Assessment of Cancer Therapy-Cognitive (FACT-Cog). The Functional Assessment of Cancer Therapy-General (FACT-G) was used to measure QOL. C-reactive protein (CRP) was assessed as a biomarker of inflammation. **RESULTS:** The MQ group self-reported significantly improved CF (mean difference (MD) = 7.78, t (51) = -2.532, p = 0.014) in the EORTC-CF and all the FACT-Cog subscales [perceived cognitive impairment (MD = 4.70, t (43) = -2.254, p = 0.029), impact of perceived cognitive impairment on QOL (MD = 1.64, t (45) = -2.377, p = 0.024), and perceived cognitive abilities (MD = 3.61, t (45) = -2.229, p = 0.031)] compared to controls. The MQ group also reported significantly improved QOL (MD = 12.66, t (45) = -5.715, p < 0.001) and had reduced CRP levels (MD = -0.72, t (45) = 2.092, p = 0.042) compared to controls. **CONCLUSIONS:** Results suggest that MQ benefits cancer patients' self-reported CF, QOL, and inflammation. A larger randomized controlled trial including an objective assessment of CF is planned.

**INSPIREHEALTH'S INTERPRETATION:** Medical Qigong can improve the cognitive function, quality of life, and inflammatory biomarkers of cancer patients.

## YOGHURT

Kawakita, D, F. Sato, S. Hosono, et al.

### Inverse Association between Yoghurt Intake and Upper Aerodigestive Tract Cancer Risk in a Japanese Population.

*European Journal of Cancer Prevention.* 2012 September 2012; 215: 453-459.

**BACKGROUND AND AIMS:** Although the combination of tobacco smoking and alcohol drinking account for approximately 80% of upper aerodigestive tract (UADT) cancer risk, the role of dietary factors, including dairy products, in the risk of these cancers remains controversial. We aimed to evaluate the association between dairy product intake and UADT cancer risk in a Japanese population. **METHODS:** We conducted a case-control study in 959 patients with UADT cancer and 2877 sex- and age-matched noncancer control subjects who visited the Aichi Cancer Center in Nagoya, Japan. Data on lifestyle factors, including diet, were obtained by self-administered questionnaire. Associations were assessed by multivariate logistic regression models that considered potential confounders. **RESULTS:** We found a significant inverse association between yoghurt intake and UADT cancer risk with multivariate-adjusted odds ratios and 95% confidence intervals for <1 time/week, ≥1 time/week and <1 time/day, and ≥1 time/day consumption of yoghurt of 0.70 (95% confidence interval: 0.54-0.91), 0.67 (0.54-0.84), and 0.73 (0.55-0.95) relative to nonconsumers (Ptrend=0.005). When stratified by primary tumor site, this association was significant among patients with hypopharyngeal, laryngeal, and esophageal cancer. However, we saw no significant association between milk or butter intake and UADT cancer risk. **CONCLUSION:** In this study, we found that a high intake of yoghurt may lower the risk of developing UADT cancer in a Japanese population. Further investigation of this association is warranted.

**INSPIREHEALTH'S INTERPRETATION:** Yoghurt consumption may reduce the risk of upper aerodigestive tract cancer.

## VITAMIN D

Prieto-Alhambra, D, S. Servitja, M. K. Javaid, et al.

### Vitamin D Threshold to Prevent Aromatase Inhibitor-Related Bone Loss: The B-ABLE Prospective Cohort Study.

*Breast Cancer Res Treat.* 2012 June 2012; 1333: 1159-1167.

**BACKGROUND:** Aromatase inhibitor (AI)-related bone loss is associated with increased fracture rates. Vitamin D might play a role in minimising this effect. We hypothesised that 25-hydroxy-vitamin D concentrations [25(OH)D] after 3 months supplementation might relate to bone loss after 1 year on AI therapy. **METHODS:** We conducted a prospective cohort study from January 2006 to December 2011 of a consecutive sample of women initiating AI for early breast cancer who were ineligible for bisphosphonate therapy and stayed on treatment for 1 year (N = 232). Serum 25(OH)D was measured at baseline and 3 months, and lumbar spine (LS) bone mineral density at baseline and 1 year. Subjects were supplemented with daily calcium (1 g) and vitamin D(3) (800 IU) and additional oral 16,000 IU every 2 weeks if baseline 25(OH)D was <30 ng/ml. Linear regression models were fitted to adjust for potential confounders. **RESULTS:** After 1 year on AI therapy, 232 participants experienced a significant 1.68 % [95 % CI 1.15-2.20 %] bone loss at LS (0.017 g/cm<sup>2</sup>) [0.012-0.024], P < 0.0001). Higher 25(OH)D at 3 months protected against LS bone loss (-0.5 % per 10 ng/ml [95 % CI -0.7 to -0.3 %], adjusted P = 0.0001), and those who reached levels ≥40 ng/ml had reduced bone loss by 1.70 % [95 % CI 0.4-3.0 %];

adjusted  $P = 0.005$ ] compared to those with low 25(OH)D levels ( $<30$  ng/ml). **CONCLUSION:** We conclude that improved vitamin D status using supplementation is associated with attenuation of AI-associated bone loss. For this population, the current Institute of Medicine target recommendation of 20 ng/ml might be too low to ensure good bone health.

**INSPIREHEALTH'S INTERPRETATION:** Vitamin D supplementation may help prevent AI-associated bone loss in women with breast cancer.

## STUDY OF THE MONTH

Baade, PD, X. Meng, C. Sinclair and P. Youl.

### Estimating the Future Burden of Cancers Preventable by Better Diet and Physical Activity in Australia.

*Med J Aust.* 2012 Mar 19; 196(5): 337-340.

**OBJECTIVE:** To estimate the number of cancers to be diagnosed in 2025 that could be prevented solely due to changes in diet and physical activity. **DESIGN AND SETTING:** We used an Australian population-based cancer database to estimate the total number of cancers to be diagnosed in 2025, by applying published age- and sex-specific population projections to current cancer incidence rates, and multiplying the projected numbers of cancers by estimates of population-attributable fractions. **MAIN OUTCOME MEASURES:** Projected number of preventable cancers that would be diagnosed in 2025. **RESULTS:** Our projections suggest that there will be about 170,000 Australians diagnosed with cancer in 2025. This represents an increase of about 60% on the 2007 incidence. Almost 43,000 of these cancers (low estimate, 42,295; middle, 42,657; high, 43,990) could be prevented through improvements to diet and physical activity levels, including through their impact on obesity. It is likely that this is an underestimate of the true figure. The most preventable cancer types in 2025 were estimated to be bowel cancer and female breast cancer (10,049 and 7273 preventable cases, respectively). **CONCLUSIONS:** About 25% of cancers, or about 43,000 cancers in 2025, can potentially be prevented through improvements in diet and physical activity. It is imperative that governments, clinicians and researchers act now if we are to reduce the significant future human and financial burden of cancer.

**INSPIREHEALTH'S INTERPRETATION:** Positive changes in diet and exercise can help prevent cancer.

We are grateful to the Prostate Cancer Foundation BC and the Canadian Breast Cancer Foundation (BC/Yukon) for their generous support of *Research Updates*.



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