
• 25% average risk reduction among physically active compared to least physically active

• Regular, fairly strenuous, recreational, postmenopausal women

• avoids excessive weight gain
• 3-5 hours/week suggested as minimum
• heavy housework, brisk walking, dancing all okay
• activity should be sustained over time
Schmitz KH, Ahmad RL et al. Weight lifting for women at risk for breast cancer-related lymphedema: a randomized trial. JAMA 2011

• slowly progressive weight lifting vs. no exercise did not result in increased incidence of lymphedema.
• safe for women to exercise the mastectomy side upper extremity

- 20 studies examined association between activity and colon adenoma
- inverse association, RR .84, stronger in those with large polyps
- suggests that physical activity can play an important role in colon cancer prevention

• physically active individuals have lower rates of cancer
• has small to moderate effect on conc of blood biomarkers in breast, colon pathways
• insulin, leptin, estrogens, enhancement of immune function
• some evidence supporting role of exercise in modulating cancer pathways

- Exercising 3 hours/week has mortality and morbidity benefits for breast cancer survivors.
- Helps with fatigue, lymphedema prevention, UE functional impairments.
- Integrate exercise into breast cancer treatment.
- Referral to community-based programs for most women.
Leitzman MF. Physical activity and Genitourinary cancer prevention. Rec Results Cancer Res 2011

- risk reduction of about 10% for renal cell cancer, comparing very active with least active patients
- better for women better than men, non obese, and for older patients
- no relation found between bladder or testicular cancer and exercise
Wolin KY Tochman H. Physical activity in gastrointestinal cancer prevention Rec Results Cancer Res 2011

• most studies looked at colon cancer and lifestyle, exercise
• risk reduction of 25% overall, comparing again the very active with the least active
• physical activity not associated with rectal or gastric cancer

• Total recreational physical activity reduces lung cancer risk
  – 20-30% for women
  – 20-50% for men
  – increased immune function, decreased inflammation, enhanced DNA repair, and changes in growth factor levels
Don SY, Morrison H. Physical activity and hematologic cancer prevention. Rec Results Cancer Res 2011

- some preliminary data suggest a role for physical activity in preventing various types of hematologic cancers
- epidemiologic evidence insufficient to make conclusions regarding nature of association
- future research should seek insight into plausible biologic mechanisms underlying the association.
Cust AE Physical activity and gynecologic cancer prevention. Rec Results Cancer Res 2011

- activity protects against endometrial cancer with a 20-30% risk reduction for those with highest level of activity vs. those with lowest level
- some, but less, support for ovarian cancer risk reduction

• 638 ovarian cancer patients vs 638 controls
• self reported activity
• no consistent pattern of greater risk reduction at higher activity levels
• physical activity prior to diagnosis not related to ovarian cancer survival
• survival better in non obese patients who had increased activity
Courney KS, Friedenreich CM. Physical Activity and Cancer - An introduction. Rec Results Cancer Res 2011

• role of activity in cancer understudied and underappreciated
• research in activity and cancer has lagged behind other major chronic diseases
• physical activity now has received a prominent place in exercise science guidelines
• methodological challenges remain