Strang Cancer Prevention Institute
Dedicated to Promote Cure by Early Detection and Research to Prevent Cancer since 1933

Prevention

Breast Cancer Awareness Month October 2019

Reducing Breast Cancer Mortality

SUMMARY

Primary prevention: Weight control and activity reduce the risk of breast cancer, especially post-menopausal cancers. The US Preventive Services Task Force (USPSTF) now **recommends risk-reducing medications to women at increased risk** of breast cancer (but not standard risk women) and at low risk of side effects.

Screening: USPSTF **mammography recommendations haven't changed** for women **without major risk factors** (family history, genes) (see below). Screen women 50-74 (USPSTF B rating), **individual (shared) decision making** (SDM) for women 40-49 (USPSTF C rating) and insufficient data for women 75 and over. If genetic risk factors (family history, known cancer mutations such as BRCA) earlier screening more attractive but unproven

PRIMARY PREVENTON

Excess weight, particularly if premenopausal (below age 45), increases the risk of postmenopausal breast cancer. Each **5 kg of excess weight increases risk by 4-8%**. Conversely, losing weight is associated with lower risk. "Weight cycling" (regaining weight lost in dieting) did not increase risk in most studies.[1]

Physical activity reduces breast cancer risk independent of obesity. US Government guidelines recommend both 150-300 minutes of moderate activity (brisk walking, fast dancing) and strength training (lifting weight, pushups) on 2 days weekly. (See: https://health.gov/paguidelines/second-edition/10things/)

Recently, the **USPSTF recommended giving risk reducing medications**, such as tamoxifen, raloxifene or aromatase inhibitors, to women at increased risk of breast cancer. Higher risk may be through **a risk assessment tool** (greater than 3% in 5 years) or by specific risk factors. **Women at high risk** include 1) age ≥65 years and a first-degree relative with breast cancer; 2) ≥45 years and more than 1 first-degree relative with breast cancer or a first-degree relative with breast cancer before age 50; 3) ≥40 years with a first-degree relative with bilateral breast cancer; or 4) adverse pathology on a prior biopsy. (See: https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/breast-cancer-medications-for-risk-reduction1)

SCREENING GUIDELINES

USPSTF mammography Screening Recommendations (for women without major risk factors, such as a family history of breast cancer or a germline BRCA mutation):

50-74 years: Screening likely beneficial. High certainty of moderate net benefit or moderate certainty of moderate to substantial net benefit (USPSTF B rating). The most recent meta-analysis found a 20% survival benefit for the entire age group, although it varies by age group (see age 40-49 below).

40-49 years: Individual (shared) decision making because benefits and harms more balanced. (USPSTF C rating) The recent meta-analysis found a similar **15% survival benefit** for women 40-49 and women 50-59, but **low breast cancer incidence in younger women means less favorable trade-offs**: fewer early cancers to detect, more false-positive tests and overtreatment: the number needed to screen to prolong one life is about 1900 for women in their 40's vs. 1340 for women in their 50's.

75 years or older: Insufficient evidence to determine net benefits. (USPSTF I rating) The benefit of screening is reduced in older women by competing mortality, slower-growing breast cancers than in younger women and serious illnesses that make aggressive cancer treatment more difficult or less attractive (e.g., dementia or advanced heart or lung disease). Screening trials have not been done in older women.

FREQUENCY OF SCREENING: Biannual (vs. annual). Benefits are about the same, with less than half the false-positive and overdiagnosis produced by annual screening. Longer mammography intervals (studied up to 33 months) reduce the benefit.

REFERENCES 1.Ligibel JA, Basen-Engquist K, Bea JW. Weight management and physical activity for breast cancer prevention and control. American Society of Clinical Oncology educational book / ASCO American Society of Clinical Oncology Meeting 2019;39:e22-e33.

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The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

Root Vegetable Mashed Potatoes

10 Servings

The blend of autumn root vegetables is nutrient rich and contains only half the fat and calories of traditional mashed potatoes

I medium rutabaga (about 1 ½ pounds) peeled and cut into 1-inch cubes
3 medium turnips (about 1 pound), peeled and cut into 1 ½ -inch chunks
¼ teaspoon salt
4 large white potatoes (about 2 ½ pounds) peeled and cut into 1 ½ inch chunks
1 ½ cups warm 2% milk
2 tablespoons unsalted butter
Salt and freshly ground black pepper

Place the rutabaga and turnips in a large saucepan, cover with cold water and add the salt. Bring to a boil, then reduce the heat and simmer for 30 minutes. Add the potatoes and cook until the vegetables are tender when pierced with a knife, 10 to 15 minutes. Drain the boiled vegetables and transfer them to a large bowl.

Heat the milk in a small saucepan on the stove or microwave Using an electric mixer, begin creaming the rutabaga, turnips and potatoes white slowly pouring the warm milk into the bowl (use only as much milk is needed to make the puree creamy and light). Beat in the butter and season with salt and pepper to taste. Serve hot.

Calories 174 Protein 5g Carbohydrates 30g Fat 4g Cholesterol 10mg Dietary fiber 3g Saturated fat 1g
Major sources of Potential cancer fighters: Phytochemicals: glucosinolates, plant polyphenols (flavonoids phenolic acids), alliumn compounds,

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