



# Prevention

Ovarian Cancer Awareness Month September 2018

## REDUCING MORTALITY FROM OVARIAN CANCER

**Ovarian cancers**, which include epithelial ovarian, fallopian tube and peritoneal cancers, are the **most lethal tumors of the female reproductive tract**, with about 15,000 deaths annually.

**Epidemiological risk factors:** Ovarian cancers, like most cancers, **increase with age**, starting around age 40. The median age at diagnosis is 63 years. **Pregnancy**, particularly early-age delivery by age 25, **reduces risk**, as does **hormonal contraception**, including oral contraceptives and depot medroxyprogesterone acetate (Depot Provera), and tubal ligation. **Prolonged postmenopausal estrogen** use, particularly without progesterone, may increase risk. The elevated lower-risk ovarian cancer incidence sometimes found after **fertility drugs** such as clomiphene **may simply reflect lack of early pregnancy** that provoke fertility treatments. **Obesity** (BMI>30) increases risk, but **smoking and alcohol** have little effect.

**Ovarian cancer screening is unproven.** In the US Prostate, Lung, Colorectal and Ovarian Cancer (PLCO) screening trial, patients randomized to the CA-125 blood test with transvaginal ultrasound, had no survival benefit. Further, a third of patients with false-positive tests had surgical interventions, about 15% had at least one serious complication. Therefore, US Preventive Services Task Force currently gives screening a **D recommendation against screening** for average risk women, because of the demonstrated substantial risk of harm without benefit. Other trials, including trials in high-risk women, have shown no benefit to screening

**High risk hereditary cancer syndrome:** About 15% of women with ovarian cancer have a germline mutation that dramatically increases risk of ovarian and breast cancer. Foremost is the **Hereditary Breast and Ovarian Cancer Syndrome (BRCA1 and BRCA2 mutations)**: The BRCA1 mutation has a 35% to 70% percent lifetime ovarian cancer risk, and the BRCA2 mutation a 10% to 30% risk, compared to less than 2% in the general population. These mutations are 10-fold elevated in Ashkenazi Jewish populations, a prevalence of 1-2%. Other hereditary cancer syndromes that increase the risk of ovarian cancer, among other tumors, include the PTEN Tumor Hamartoma Syndrome, or Cowden disease, Hereditary Nonpolyposis Colon Cancer, or Lynch syndrome, and the rare Peutz-Jeghers Syndrome. Therefore, **all patients with ovarian cancer, breast cancer before age 45 and triple-negative (ER, PR and her2/ neu) before age 60** are referred for genetic counseling and testing.

Because screening is ineffective, the only medical intervention to reduce ovarian cancer mortality for high-risk women is **risk-reducing salpingo-oophorectomy (RRSO)**, which has been shown to **reduce the risk of ovarian cancer by 75% to 96%** in BRCA1/2-positive woman. The recommended age for surgery is 35 years or when reproduction is complete. The incidence of ovarian cancer rises after age 40 in BRCA1 patients but after 50 years in BRCA2 patients.

### REFERENCES:

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2. Domchek SM, Friebel TM, Singer CF, Evans DG, Lynch HT, Isaacs C, et al. Association of risk-reducing surgery in BRCA1 or BRCA2 mutation carriers with cancer risk and mortality. JAMA 2010;304(9):967-75.
3. Hartmann LC, Lindor NM. The role of risk-reducing surgery in hereditary breast and ovarian cancer. N Engl J Med 2016;374(5):454-68.

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# The Strang Cancer Prevention Cookbook

## Peach and Blueberry Crisp

Reduce your Risk for Cancer by Eating a Healthy Diet!

Peach and Blueberry Crisp \* 6 Servings



6 medium peaches, peeled, pitted, and cut into large chunk's, 2 cups blueberries, 1/4 cup plus 1 tablespoon all- purpose flour, 1/3 cup granulated sugar, juice 1/2 lemon, 1/2 cup quick cooking cereal, 1/4 cup packed brown sugar, 1/2 teaspoon ground cinnamon, 2 table- spoons melted unsalted butter. Vanilla frozen yogurt, optional.

Preheat oven to 375 F. Spray a baking/casserole dish, at least 6 cup capacity, with canola oil/cooking spray or lightly rub w canola oil.

In a medium bowl, combine peaches, blueberries, 1 tablespoon of flour, sugar and lemon juice. Toss with your hands to combine thor- oughly. Spread the fruit out in the baking pan. In a separate bowl, prepare the topping. Mix together the oatmeal, remaining 1/4 cup of flour, brown sugar and cinnamon. Drizzle with the melted butter, and then rub the topping together with you hands until it resembles a coarse meal. Entirely spread the topping over the fruit and bake for 35 minutes or until the fruit is bubbling and the topping is browned lightly. Remove and let cool slightly. Serve warm or room temperature. Top with vanilla frozen yogurt.

Calories 261, Protein 3 g, Carbohydrates 49 g, Fat 6 g, Cholesterol 5 mg, Dietary fiber 4 g Saturated fat 3 g

Major sources of Potential Cancer fighters: Phytochemicals: plant polyphenols (flavonoids, phenolic acids), terpenes (carotenoids)

Source: cookbook page 307.

Recipe by Laura Pensiero, R.D., Strang Consultant  
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THIS NEWSLETTER IS DEDICATED TO DIANNE TASHMAN ZOLA

The Dianne Zola Ovarian Cancer Research Fund was established in 2014



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