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

Prevention

National Colon Cancer Prevention Month March 2024

COLON CANCER AWARENESS MONTH

COLON CANCER AWARENESS

Note to readers: Innovation is essential to cancer prevention. Using genomic data and new analytic techniques to create precision medicine may also enable **precision prevention**. Strang will continue to highlight innovation in cancer prevention

INNOVATION IN CANCER PREVENTION To be most effective, at least **80% of eligible patients should undergo colorectal cancer screening**, but the number **remains at about 60%**. Many patients **do not get colonoscopy**, which is invasive, requires uncomfortable bowel preparation, and may have serious complications. One approach is to have a screening test, such as a **stool sample tested** for DNA or blood, with **colonoscopy for** those with **positive stool tests**. An **new approach** is to **test blood for DNA** evidence of cancer.

An improved **stool test** for **tumor-related DNA found more cancers and precancers** than. However, it also was **positive** more often **when no tumors were found**: **Compared to** a **stool test for blood**, it detected more **cancers (94% vs. 63%)** and **advanced precancers (43% vs. 24%) but** was also positive more often when no cancer (9% vs. 5%) or advanced non-cancer (7% vs. 4%). The DNA test would find more cancers and precancers for early treatment, **improving cancer outcomes**, but would also **increase colonoscopies**.[1]

A DNA-based blood test was **positive** for **83% of patients with colorectal cancer** and **13% with advanced precancers:** The test found **87% of potentially curable** (non-metastatic) colorectal cancers. Ten percent of patients with cancers tested negative. A **screening blood test** could make **colorectal cancer screening reach many more patients**.[2]

Artificial intelligence (AI) increases colonoscopy polyp detection by 24%: In a meta-analysis of **21 randomized trials with 18,000 patients**, use of AI computer assisted detection increased polyp detection by 24%, reducing the "miss rate" by over half. It **lengthened the the procedure** by **less than a minute**. However, it diagnosed more non-malignant polyps, possibly increasing overdiagnosis.[3]

SCREENING **Earlier colorectal cancer (CRC) screening in Canada saves life at acceptable cost:** Because of **rising CRC rates in younger adults**, the **US** recently **lowered the CRC screening starting age from 50 to 45** years. The **OncoSim**-CRC model, using **Canada-specific** population and clinical data, found that **lowering the starting age** from 50 years currently to 40 or 45 years would **prevent colorectal cancers and deaths**. Starting **screening at 45** would **prevent 12,188 CRC cases and 5261 deaths**, while starting at **40 years** would US. The estimated additional **cost per quality-adjusted life-year (QALY)** was **$762 and $2622 ($565 and $1945 in US$)**, respectively.[4]

SCREENING/PREVENTION **Does paid sick leave increase cancer screening rates?** Cities with required paid sick leaves had 1-2% higher mammography and colorectal cancer screening rates than those with it. Lack of sick leave may be another economic obstacle to screening.[5]

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Walnut-Raisin Bread

Reduce your Risk for Cancer by Eating a Healthy Diet!

2 Loaves

3 cups warm water
1 1/4-ounce envelope active dry yeast
4 cups whole wheat flour
1 tablespoon plus 1 teaspoon salt
1/4 cup honey
1/4 cup walnut oil
2 tablespoons olive oil
1 cup crushed walnuts
3/4 cup raisins
2 1/2 cups all-purpose flour

In a small bowl combine ½ cup of the water with the yeast. Stir lightly to combine and let sit for 5 minutes.

In a mixer or mixing bowl combine the whole wheat flour and salt. Make a small well in the center by pushing the flour to the sides. Pour the yeast, remaining water, honey and walnuts and olive oils into the center; mix. Add the walnuts, raisins and 1 cup of the all- purpose flour and mix. Add the remaining all-purpose flour 1/3 cup at a time, working the dough together; it should be moist and lightly sticky.

Place the dough on a work surface dusted lightly with flour and knead for 8 minutes until the dough is soft and elastic (add more flour only if the dough is very sticky).

Place the dough in a large, lightly greased bowl, cover tightly with plastic wrap, and let rise in a warm (but not hot) place until doubled in size, about 1 ½ hours.

Punch down the dough and shape into 2 oval loaves. Line a baking sheet with parchment paper sprayed lightly with cooking spray. Place the loaves on the baking sheet and let it rise until almost doubled in size, about 40 minutes.

Preheat the oven to 375 F. Bake the loaves on the middle oven rack for 40 to 45 minutes, rotating the pan midway through baking; the bread should be browned lightly. Lift off the baking sheet; the loaves should sound hollow when tapped on the bottom.

Calories 161, Protein 5g, Carbohydrates 25g, Fat 5g, Cholesterol 0 mg, Dietary fiber 3g, Saturated fat 1g

Phytochemicals: phytic acids, plant polyphenols (phelonic acids), plant sterols, protease inhibitors

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