



Strang Cancer Prevention Institute

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

Prevention

National Cancer Prevention Month February 2023

CANCER PREVENTION AWARENESS MONTH

Note to readers: Innovation is as essential to cancer prevention as to cancer treatment. Genomic data support **precision prevention** as well as precision medicine. Novel outreach strategies can extend the reach of prevention. Strang will highlight novel approaches in cancer prevention as we have the obstacles Covid created.

Preventing Cancers: Other newsletters focus on specific cancers, but in National Cancer Prevention Month, we discuss efforts to reduce multiple cancers.

INNOVATION IN CANCER PREVENTION

More efficient screening: Applying **existing prevention strategies** could **reduce cancer by 30-40%**.¹ **Screening for cancers individually** increases education, time and costs that **may reduce compliance**. **“One-stop-shop” screening for multiple cancers** may reduce barriers and increase compliance.² At Tel Aviv Medical Center, risk assessment, lab testing, examination and screening tests were performed. All screening tests but colonoscopy were completed in one day. The most common cancer diagnoses were skin, breast, prostate, thyroid, and colorectal, and 75% were early stage.³

Surveillance for high risk patients for pancreatic cancer: Screening for pancreatic cancer in the general population is unproven, but its **value in high-risk patients is unknown**. The Cancer of Pancreas Screening-5 (**CAPS5**) study enrolled 1461 **high-risk individuals** (HRIs) with at least **5% risk of pancreatic cancer** based on **germline mutations, cancer syndromes or close family history**. They underwent **surveillance** with endoscopic ultrasound (EUS) or MRI. Surveillance found 9 cancers and 8 precancers (dysplasia) that were resected. After 2.4 years, **7 of 9 surveillance cancer patients were alive**. Six of seven non-surveillance cancers were stage 4. For all CPAS patients since 1998, median overall survival for surveillance cancers is 9.8 years versus 1.5 years for non-surveillance cancers.⁴

Screening: Using **patient and family history to find cancer genes: Personal factors (age, sex, cancer history) and family history for 18 cancers** were used to patients at high risk of a **cancer gene** (pathogenic germline variant, or PGV) found in a DNA mutation panel (multigene panel testing, or MGPT). The **clinical prediction model (PRE-MMplus)** identified patients with **at least 5% risk of a PGV** with high sensitivity and negative predictive value.⁵ Careful histories may help find patients at high risk of a cancer gene.

Prevention: Weight-loss surgery appears to reduce cancer risk: The SPLENDID (Surgical Procedures and Long-term Effectiveness in Neoplastic Disease Incidence and Death) matched cohort study found that obese (BMI ≥ 30) US adult patients who underwent bariatric surgery between 2004 and 2017 reduced obesity-related cancers by 1/3 (2.9% vs 4.9%) and mortality by 1/2 (0.8% vs. 1.4%) after 10 years.⁶

Authors: James A. Talcott MD, SM, Senior Scientist, **Strang** Cancer Prevention Institute

Michael P. Osborne MD, MSurg, FRCS, FACS President **Strang** Cancer Prevention Institute

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The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

Sautéed Spinach with Garlic

This cooking method can be applied to other leafy greens such as Swiss chard, escarole, broccoli rabe, and beet or turnip greens

- 1 1/4 pounds fresh spinach
- 1 tablespoon extra -virgin olive oil
- 4 garlic cloves, peeled, lightly crushed, and quartered lengthwise
- Pinch of hot red pepper flakes (optional)
- Salt and freshly ground black pepper



Remove the stems from the spinach and tear any large leaves into bite –size pieces.

Rinse thoroughly and drain.

Heat the olive oil in a large skillet. Add the garlic and red pepper flakes if using, and cook over medium heat until the garlic is light gold; don't let the garlic get too brown or it will be bitter.

Remove the garlic and set aside.

Reserve the oil in the skillet and increase the heat to medium high.

Add the spinach and season with salt and pepper to taste. Sauté, turning the spinach with tongs to cook evenly. When the spinach is just wilted and tender, 2 to 3 minutes, remove the skillet from the heat. Using a slotted spoon or tongs, lift the spinach from the skillet leaving behind excess liquid. Transfer to individual plates or a platter. Top with garlic and serve

Spinach is exceptionally high in beta –carotene (110 percent of the DV for Vitamin A per serving of this recipe) as well as other carotenoids, folate (more than 80% of the DV), vitamin C (more than 80% of the DV) and minerals such as calcium, iron, magnesium, and potassium. It is also high in protein when compared to other vegetables. A good source of fiber.

Calories 82, protein 5 g, carbs 7 g, fat 4g, cholesterol 0 mg, dietary fiber 4 g, saturated fat 1 g

MAJOR SOURCES OF POTENTIAL CANCER FIGHTERS.

Phytochemicals: allium compounds, terpenes (carotenoids).

Laura Pensiero, R.D., **Strang** Consultant
Chef, Dietitian, Restaurateur, Author
Owner Gigi Hudson Valley Trattoria & Catering Rhinebeck, New York



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 **Strang** Cancer Prevention Institute

575 Madison Avenue 10th Floor
New York, NY 10022
Tel: (212) 501-2111 www.strang.org

Editor | Research Associate
Merle K. Barash MA AEd, MA Psya

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