



Prevention

Breast Cancer Awareness Month October 2016

BREAST CANCER SCREENING

There is consensus that screening mammography is the best way to detect early breast cancer. There is no consensus as to the age to start screening and the frequency of carrying it out.

Most breast cancer specialists in the US recommend mammography once a year from age 40. It may be recommended to start earlier in women with an increased risk of breast cancer such as those with a strong family history of breast or ovarian cancer.

The US Preventive Services Task Force has recommended screening mammography every other year from age 50 up to age 74. When to stop screening should be judged according to the woman's health and life expectancy.

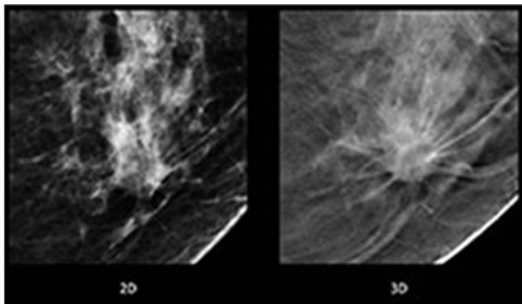
Digital mammography has become standard in the US. However, mammograms are about 90% accurate in postmenopausal women and 80% accurate in premenopausal women.

Having dense breast tissue on mammography further reduces the accuracy of mammography and usually breast ultrasound may be recommended in conjunction with a mammogram.

Breast ultrasound is not very effective for diagnosing breast cancer so new technologies are being used to improve the accuracy and used as an adjunct for mammography.

Breast Tomosynthesis and **Molecular Breast Imaging** are featured in this newsletter.

Breast Tomosynthesis is a special type of 3D mammogram that can better detect cancer, especially in the dense breast. This technique takes multiple images of the breast which are put together and is more accurate than the standard 2D digital mammogram.



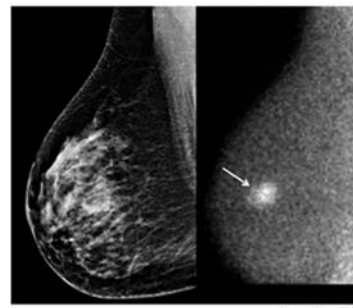
Tomosynthesis improves breast cancer detection rates and decreases the recall rates. Recall is when there is a questionable abnormality on a standard digital mammogram which requires the individual to come back for further studies.

Standard digital mammography produces an image of overlapping shadows in the breast. Breast tomosynthesis takes multiple images of the entire breast which allows the radiologist to see through the layers of breast tissue.

The advantages of tomosynthesis are the early detection of small breast cancers, fewer unnecessary biopsies or additional tests. In individuals with cancer, tomosynthesis can detect additional cancers in about 15%. The ability of digital mammograms to detect cancer in the dense breast is diminished; tomosynthesis gives clearer images.

Molecular Breast Imaging (MBI) is a technique that shows uptake of a radioactive agent in the mitochondria of breast cancer cells. Mitochondria are the protein "factories" present in all cells. A screening study showed the breast cancer detection rate of 3.2 per 1000 for mammography was raised to 12 per thousand by adding MBI.

This test uses an intravenous injection of a low dose of technetium-99m sestamibi. Gamma-cameras are placed on the breast and exert gentle compression between two detectors. Cancer can show increased uptake of the radioactivity. False positive findings can occur (as they do with all screening tests). New technology improving the sensitivity of the detectors and better imaging radiopharmaceuticals may further improve MBI.



Sources: American College of Radiology, Massachusetts General Hospital and Mayo Clinic

For further information on breast cancer screening visit www.strang.org

The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

No-Fuss Broccoli Soufflé

4 Servings

4 cups fresh broccoli florets or 1 1/4 pounds frozen broccoli, thawed and drained

1 medium potato peeled and cut into 1/2-inch cubes

2 large egg whites

1 large egg

1/3 cup freshly grated Parmesan cheese

1/8 to 1/4 teaspoon cayenne pepper, to taste

1/3 teaspoon salt

Freshly ground black pepper to taste

1 teaspoon olive oil or olive oil– based cooking spray



Cook the broccoli florets and potato in boiling salted water until very tender, 5-7 minutes. Drain.

Puree the broccoli and potato in a food processor until no large chunks remain.

Add the remaining ingredients except for the olive oil and puree until very smooth.

Evenly coat four 4-6 ounce ramekins or small ceramic bowls with olive oil and fill with the broccoli mixture. Pat down and smooth out the surface with a rubber spatula so that it is flat and firmly packed.

Microwave individually for 5-8 minutes on high (time depends on the power of the oven) until the center is set and firm. Run a paring knife around the sides of the ramekins to loosen the soufflé's for easy removal. Carefully invert each mold and serve hot or at room temperature.

Notes: For a lighter soufflé whip the egg whites separately until soft peaks form. Fold the egg whites into the seasoned, pureed broccoli mixture and continue as directed.

Calories 126 Protein 12g Carbohydrates 14g Fat 4g Cholesterol 59mg Dietary fiber 5g Saturated fat 2g

Major sources of Potential cancer fighters:

Phytochemicals: capsaicin, glucosinolates, plant polyphenols (flavonoids), plant sterols, terpenes (carotenoids, monoterpenes).

Recipe by Laura Pensiero, R.D. Owner Gigi Trattoria, Rhinebeck, New York



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