

## Lifewire: A new ally in fight against breast cancer

by Amy Winter

One day dentists may be an important part in the fight against breast cancer.

According to the article "Salivary analysis on the diagnosis and treatment of breast cancer," dentists could one day use salivary tests to detect breast cancer. Dentists Sebastian Z. Paige and Charles F. Streckfus wrote about this development in the April/May 2007 issue of *General Dentistry*.

Paige and Streckfus found that saliva protein levels could help in the diagnosis, treatment and follow-up care of breast cancer. It would be easy for dentists to obtain saliva samples since they examine the mouth during checkups.

"Since a patient visits the dentist more frequently than their physician, it makes sense that this diagnostic tool could be very effective in the hands of a general dentist," said Paula Jones, the vice president of the Academy of General Dentistry.

Known as the second leading cause of death for women, breast cancer occurs in approximately 1 in 8 women. The chance of dying from this cancer is about 1 in 33, according to the American Cancer Society Web site. In 2006, the society estimated that 40,970 women out of 212,920 cases would die from breast cancer.

Breast cancer is a cancerous tumor that develops in the breast cells. It usually occurs in women, but it can also affect men. Breast cancer begins in the cells that line the ducts, in the lobules or in other tissues. Invasive ductal carcinoma is the most common type of breast cancer; it is responsible for 80 percent of invasive cancer cases, according to the American Cancer Society site. This type of cancer develops in the duct or milk passage, goes through the duct's wall and attacks the breast tissue. It may then spread to other parts of the body. Invasive lobular carcinoma accounts for 10 percent of invasive cancer incidents. It either starts in the milk glands or the lobules.

Breast cancer doesn't have one key cause, but there are some risk factors women should be aware of:

- Gender: Women are more susceptible to it than men.
- Age: As women get older, the chances of breast cancer increase.

- Genetics: Approximately 5 to 10 percent of cases are connected to changes in certain genes.

- Family history: The risk is higher if the cancer has occurred in family members.

- Menstrual Periods: Women who start their periods before age 12 or experience menopause after 55 are at risk.

Certain lifestyle decisions may increase the risk of breast cancer. Women need to pay close attention to these:

- Birth control pills.

- Postmenopausal hormone therapy.

- Obesity or fatty diets.

- Lack of exercise.

The authors of the study said that saliva testing has more advantages than blood testing. Saliva is a clear liquid that remains colorless, while blood undergoes color changes that may alter test results. Obtaining saliva is less painful for patients since it doesn't require drawing blood with a needle. And it requires little training and equipment.

The saliva test is still waiting for approval from the Food and Drug Administration. If passed, it would allow dentists and doctors to work together in detecting breast cancer at an early stage.

According to the American Breast Cancer Society, the other tests currently available for detecting breast cancer are:

- Mammogram: An X-ray of the breast that women over 40 years old need to do every year.

- Clinical breast exam: An exam done by a health expert for those younger than 40.

- Breast self-exam: Women should exam their breasts on a consistent basis, starting at age 20. By being aware of how their breasts look and feel, they may be able to detect a lump.

If saliva testing is used, it would not serve as the only way to spot breast cancer. "It would not eliminate the need for regular mammograms screening or blood analysis," said Jones. "It would just be a first line of defense for women. For example, if the saliva screening did show a positive result, a mammogram or other imaging test would be necessary to determine in which breast the cancer was located."

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