

Week of October 11, 2010 – Breast Cancer Facts

October has been designated as "National Breast Cancer Awareness Month." Communities around the country have been organizing fund raising events so that research may continue and hopefully, we may find a cure for this disease.

In recent years, there have been remarkable life-saving treatment advances against breast cancer, bringing new hope to all that have been affected by this illness. Instead of only one or two options, today there's an overwhelming menu of treatment choices that fight the complex mix of cells in each individual cancer. Today's treatments include surgery, radiation, hormonal (anti-estrogen), and chemotherapy. In recent years there have been great advances in chemotherapy, such that many of the severe side effects have been dramatically reduced. A relatively new treatment, known as "targeted cancer therapies" are designed to negate specific characteristics of cancer cells, such as "competing" with specific proteins known to promote cancer cells to grow in a rapid or abnormal way or by blocking the ability of cancer cells to receive chemical signals that tell the cells to grow. Three targeted therapies used today are: trastuzumab, lapatinib, and bevacizumab.

Below are a few facts that everyone should be aware:

Definition of breast cancer: Cancer that forms in tissues of the breast, usually the ducts (tubes that carry milk to the nipple) and lobules (glands that make milk). It occurs in both men and women, although male breast cancer is rare.

Estimated new cases and deaths from breast cancer in the United States in 2010:

New Cases: 207,090 (female); 1,970 (male)

Deaths: 39,840 (female); 390 (male)

The breast is made up of lobes and ducts. Each breast has 15 to 20 sections called lobes, which have many smaller sections called lobules. Lobules end in dozens of tiny bulbs that can produce milk. The lobes, lobules, and bulbs are linked by thin tubes called ducts.

Each breast also has blood vessels and lymph vessels. The lymph vessels carry an almost colorless fluid called lymph. Lymph vessels lead to organs called lymph nodes. Lymph nodes are small bean-shaped structures that are found throughout the body. They filter substances in the lymph and help fight infection and disease. Clusters of lymph nodes are found near the breast in the axilla (under the arm), above the collarbone, and in the chest.

The most common type of breast cancer is ductal carcinoma, which begins in the cells of the ducts. Cancer that begins in the lobes or lobules is called lobular carcinoma and is more often found in both breasts than are other types of breast cancer. Inflammatory breast cancer is an uncommon type of breast cancer in which the breast is warm, red, and swollen.

One in eight women or 12.6% of all women will get breast cancer in her lifetime. Breast cancer risk increases with age and **every** woman is at risk. Every **13** minutes a woman dies of breast cancer.

Seventy-seven percent of women with breast cancer are over 50.

More than 1.7 million women who have had breast cancer are still alive in the United States.

Breast cancer is the leading cause of cancer death in women between the **ages of 15 and 54**, and the second cause of cancer death in women 55 to 74.

Seventy-one percent of black women diagnosed with breast cancer experience a five-year survival rate, while eighty-six percent of white women experience five-year survival.

The first sign of breast cancer usually shows up on a woman's mammogram before it can be felt or any other symptoms are present.

Risks for breast cancer include a family history, atypical hyperplasia, delaying pregnancy until after age 30 or never becoming pregnant, early menstruation (before age 12), late **menopause** (after age 55), current use or use in the last ten years of oral contraceptives, and daily consumption of alcohol.

Early detection of breast cancer, through monthly breast self-exam and particularly yearly mammography after age 40, offers the best chance for survival.

Ninety-six percent of women who find and **treat breast cancer early will be cancer-free** after five years.

Over eighty percent of breast lumps are **not** cancerous, but benign such as fibrocystic breast disease.

Oral contraceptives may cause a slight increase in breast cancer risk; however 10 years after discontinuing use of oral contraceptives the risk is the same as for women who never used the pill.

Estrogen replacement therapy for over 5 years slightly increases breast cancer risk; however the increased risk appears to disappear 5-10 years after discontinuing the use of estrogen replacement therapy.

You are **never too young** to develop breast cancer! Breast Self-Exam should begin by the age of twenty.

Answer to last week's Safety Challenge: What defines a trench as opposed to an excavation? A Trench is an excavation that is narrow in relation to its length. In general the depth is greater than its width, but the width (measured at the bottom!) is not greater than 15 feet.

"Rudeness is the weak man's imitation of strength."
Eric Hoffer (American social writer and philosopher)

Courtesy of Robert Brounstein, Corporate Director Safety and Health with TerranearPMC