

Metastatic breast cancer (MBC) is the most advanced stage of breast cancer (Stage 4) and occurs when cancer has spread beyond the breast to other parts of the body.¹ Compared to early stage breast cancer, the prognosis for Stage 4 breast cancer is generally poor,² with the majority of breast cancer-related deaths resulting from complications of metastatic disease.² MBC remains essentially incurable and current goals of therapy are generally focused on relieving symptoms, delaying tumor progression, improving quality of life, and prolonging survival.²

Facts and Figures

- Breast cancer is the most frequently diagnosed non-skin cancer in women.³
- An estimated 192,000 new cases of breast cancer are expected to occur among women in the United States in 2009,³ and approximately 1.3 million women were expected to be diagnosed worldwide in 2007.⁴
- Thirty percent of women initially diagnosed with earlier stages of breast cancer will eventually develop metastatic disease.²
 - Approximately 6 percent of breast cancer patients present with Stage 4 disease in the United States at diagnosis.⁵
- Breast cancer is the second leading cause of cancer-related death among women in the United States³, and the leading cause of cancer death among women worldwide.⁴
 - While the average five-year survival rate of early, localized breast cancer is high (98 percent), the average five-year survival rate of MBC is only 27 percent.³

Risk Factors

- **Age:** The risk of developing breast cancer increases with age, with most cases occurring in women over 60.⁶
- **Personal History of Breast Cancer:** A woman with breast cancer in one breast has an increased risk of developing cancer in the other breast.⁶
- **Abnormal Breast Biopsies:** Women who have been diagnosed with abnormal, precancerous breast cells, such as lobular carcinoma in situ, are at risk of developing breast cancer.⁶
- **Family History:** Having one or more first-degree relatives (mother, sister, daughter) who have been diagnosed with breast cancer increases a woman's chances of developing the disease.⁶
- **Genetics:** About 5-10 percent of breast cancers are thought to result from inherited gene mutations, most commonly found on the BRCA1 and BRCA2 genes.⁷
- **Reproductive and Menstrual History:** Starting menstruation before the age of 12 or reaching menopause after the age of 55; having no full-term pregnancy, or having a first full-term pregnancy after age 30, increases a woman's risk of having breast cancer.⁶
- **Race:** Breast cancer is diagnosed more often in white women than Latina, Asian or African American women.⁶

Diagnosis and Treatment

- Women usually develop MBC in the months or years following the diagnosis of breast cancer, however, MBC may occur from a recurrence of breast cancer after initial treatment.⁸
- While breast cancer can spread to almost any region of the body, it most commonly spreads to the bone, followed by the lung and liver.¹
- Symptoms of MBC may include bone pain (possible indication of bone metastases), shortness of breath (possible indication of lung metastases), nausea (possible indication of liver metastases) or neurological pain, such as headaches (possible indication of neurological metastases).⁹
- There is no single standard of care for MBC and treatments are often individualized based on factors including specific tumor biology, tumor growth rate, prior therapy and response, and patient preference.²
- Treatment options for MBC include chemotherapy, hormone therapy or anti-angiogenesis interventions, and HER2-directed therapy.²
 - While there have been significant advancements in the treatment of MBC, there is an ongoing need for new therapeutic approaches.⁸

¹ American Cancer Society. "How is Breast Cancer Staged?" Available at: http://www.cancer.org/docroot/CRI/content/CRI_2_4_3X_How_is_breast_cancer_staged_5.asp?sitearea=. Accessed: April 25, 2009.

² O'Shaughnessy J. "Extending Survival with Chemotherapy in Metastatic Breast Cancer." *The Oncologist*, 10(2005): 20-29.

³ American Cancer Society. "Cancer Facts & Figures 2009." Available at: <http://www.cancer.org/downloads/STT/500809web.pdf>. Accessed: May 4, 2009.

⁴ American Cancer Society. "Global Cancer Facts & Figures, 2007." Available at : http://www.cancer.org/downloads/STT/Global_Cancer_Facts_and_Figures_2007_rev.pdf. Accessed: April 25, 2009.

⁵ Surveillance Epidemiology End Results and End Results. Cancer of the Breast. Available at: <http://www.seer.cancer.gov/statfacts/html/breast.html>. Accessed: April 24, 2009.

⁶ National Cancer Institute. "What You Need to Know About Breast Cancer: Risk Factors." Available at: <http://www.cancer.gov/cancertopics/wyntk/breast/page4>. Accessed: April 24, 2009.

⁷ American Cancer Society. "What Are the Risk Factors for Breast Cancer?" Available at: http://www.cancer.org/docroot/CRI/content/CRI_2_4_2X_What_are_the_risk_factors_for_breast_cancer_5.asp. Accessed: April 20, 2009.

⁸ UCSF Medical Center. Breast Cancer – Signs and Symptoms. 2009. Available at: http://www.ucsfhealth.org/adult/medical_services/cancer/breast/conditions/breastcancer/signs.html . Accessed April 25, 2009.

⁹ WebMD Medical Reference from Healthwise. "Breast Cancer: Metastatic or Recurrent – Symptoms." Available at: <http://www.webmd.com/breast-cancer/tc/breast-cancer-metastatic-or-recurrent-symptoms>. Accessed: April 24, 2009