

## WHY IS KNOWING YOUR TYPE SO IMPORTANT?

Knowing as much as you can about your ABC helps you best work with your healthcare professional to optimise treatment. It's the genetic makeup of your tumour that helps your doctor define your cancer and guide decisions about which treatments are best. This status of the hormone receptor (HR) and human epidermal growth factor receptor-2 (HER2) in a breast cancer tumour defines some of the four most common types of breast cancer. HR and HER2 can either be present, positive (HR+, HER2+), absent, or negative (HR-, HER2-) in the tumour. The status of each can be treated differently.

### HR+/HER2+ ABC

HER2+ breast cancer means your breast cancer has tested positive for the HER2 protein which promotes the growth of cancer cells. This happens in about one of every five breast cancers, when the cancer cells make an excess of HER2 due to a gene mutation.<sup>1</sup> When breast cancer is HR+, this means the cancer can be treated with hormone therapies that block the hormones from the cancer cells. HER2+ cancer tends to be less responsive to hormonal treatment. This could be because HER2+ breast cancer tends to be more aggressive than other types of breast cancer. However, treatments that specifically target HER2 can be effective.<sup>1</sup>

### HR+/HER2- ABC

HR+/HER2- breast cancer is the most common form of breast cancer. This type accounts for more than 70% of all breast cancers.<sup>2</sup> HR+ cancer is usually treated with hormone therapies first that help stop tumour growth. These therapies help prevent the cancer cells from getting the oestrogen they need to grow.<sup>3</sup> HR+ tumours have a slightly lower chance of breast cancer recurrence than HR- tumors in the first five years after diagnosis.<sup>4</sup> However, sometimes the cancer outsmarts the treatment and becomes resistant to hormonal therapy.<sup>5</sup>

### HR-/HER2+ ABC

HR-/HER2+ advanced breast cancer are commonly the characteristics of inflammatory breast cancer (IBC).<sup>6</sup> Most IBC cases are invasive ductal carcinomas, meaning that the cancer develops from cells that line the milk ducts of the breast and then spread beyond the ducts, and tend to be initially diagnosed as advanced.<sup>6</sup> Studies have shown that IBC accounts for one to five per cent of breast cancers.<sup>6</sup> IBC is commonly diagnosed at younger ages (median age of 57 years, compared with a median age of 62 years for other types of breast cancer).<sup>6</sup> HR-breast cancers do not respond to hormonal therapies, and HER2+ tumours tend to be more aggressive.<sup>6</sup> Therefore, IBC is usually treated with multiple types of treatment, including chemotherapy and targeted HER2+ treatments, but not hormonal therapies.<sup>6</sup>

### HR-/HER2- ABC

HR-/HER2- breast cancer is referred to as Triple Negative Breast Cancer (TNBC), as the tumour is negative for both the hormones oestrogen and progesterone receptors, and does not overexpress the gene HER2.<sup>7</sup> About 15-20 percent of all breast cancers are TNBC. Anyone can get this type of breast cancer, but research shows that it occurs more often in younger women, African American women and women who have BRCA1 mutation Triple negative tumours can be aggressive and may have a poorer prognosis (at least within the first five years after diagnosis) compared to HR+ forms of the disease.<sup>7</sup> TNBC is usually treated with some combination of surgery, radiation therapy, and chemotherapy. These tumours cannot be treated with hormone therapies or HER2 targeted therapies because they are HR- and HER2-. Research is currently underway to learn how to target other pathways in triple negative tumours.<sup>7</sup>

## OTHER THINGS TO KNOW AND DISCUSS WITH YOUR DOCTOR:

Whenever breast cancer recurs or spreads, the cancer cells should be retested for HER2 and HR status, as these can change from the original cancer in up to 20 to 30 percent of cases.<sup>1</sup>

For more information please visit [wearehereandnow.com](http://wearehereandnow.com)

#### REFERENCES:

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