Knowing what type of metastatic breast cancer (MBC) you have and what causes your cancer to grow is important. If you’re living with MBC, you may already know your MBC type, often defined by your tumor’s hormone receptor (HR+/-, also known as ER+/- or PR+/-) and HER2 protein (HER2+/-) status. But it’s also important to know your tumor’s mutation status, such as \textit{PIK3CA}.

Like your HR and HER2 status, your tumor’s \textit{PIK3CA} mutation status may affect your cancer care.

### Understanding \textit{PIK3CA}, and what it means for you

**What it is**

A \textit{PIK3CA} mutation is not inherited (cannot be passed down to children). The \textit{PIK3CA} gene is the most commonly mutated gene in HR+/HER2- breast cancer, affecting about 40% of people with that subtype. \textit{PIK3CA} mutations have been linked to cancer growth.

**Why it matters**

Just as your tumor’s HR and HER2 status inform your doctor whether certain proteins fuel your cancer, your tumor’s \textit{PIK3CA} mutation status tells your doctor whether a gene mutation may be contributing to the growth of your cancer.

— Your tumor’s \textit{PIK3CA} mutation status may affect how your doctor manages your cancer care.

**What you can do**

Talk to your doctor about how you can find out your tumor’s mutation status.

— Identifying the \textit{PIK3CA} mutation can help your doctor understand your disease better and plan your personalized care.

**Questions you might want to ask your doctor include:**

— How do I know if my tumor has a \textit{PIK3CA} mutation?
— How does having a \textit{PIK3CA} mutation impact my cancer care?
Let’s talk more about mutations in MBC

What is a mutation?

**MUTATIONS ARE LIKE TYPOS IN YOUR DNA**

In cancer, mutations may affect how the tumor grows.

What are the types of mutations?

**Sporadic Mutations:**
- occurs at random and is not passed down from parent to child.
- *PIK3CA* is a sporadic mutation.

**Inherited Mutations:**
- passed down from parent to child.
- *BRCA1/2* is an inherited mutation.

**Mutation in tumor only**

**Mutation in egg or sperm**

Child may inherit mutation

MBC Mutation Myth vs. Fact

**MYTH:** I already know my MBC type – I do not need to know anything else about my cancer.

**FACT:** There may be a mutation called *PIK3CA* in your tumor that could impact your cancer care. Talk to your doctor to learn more about your tumor’s *PIK3CA* mutation status.

**MYTH:** All MBC mutations are passed down from parent to child.

**FACT:** The *PIK3CA* mutation is not inherited, which means your tumor may have it regardless of your family history.

**MYTH:** Mutations in cancer do not affect course of disease (or disease prognosis).

**FACT:** *PIK3CA* mutations have been linked to cancer growth, and are associated with poorer prognosis.