Know your risk for hereditary cancer

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Most people have at least one extended family member who has had cancer. But does that put you at a higher risk for developing cancer? Baylor College of Medicine genetic counselor Tanya Eble explains the risk factors for hereditary cancer, how genetic counseling can help make sense of your family medical history and why family gatherings this

summer can be a good opportunity to learn more about your health.

According to Eble, there can be red flags for hereditary cancer in an individual's personal or family history:

- Cancer diagnosed at an early age—for example, breast cancer diagnosed before menopause
- Rare cancers like ovarian or pancreatic cancer and cancers in a less commonly affected gender—for example, breast cancer in men
- Multiple primary cancers in a single family member
- Multiple generations of family members impacted by the same type of cancer or specific constellations of cancer

If you have a concern about hereditary cancer, Eble advises seeing a genetic counselor or medical geneticist to better understand your risk and find out whether genetic testing might be right for you or your family. Eble asks her patients for a four-generation family history to draw a pedigree and illustrate cancer risk.

"It's helpful to come prepared to answer questions about the types of cancers and ages of diagnosis in your family," said Eble, associate professor of molecular and human genetics at Baylor. "Bring a family member's genetic test report if you have it. When a variant was identified, it's helpful to know the exact change in the gene and whether it is a known pathogenic variant or an unknown variant. We may want to test specifically for that variant."

Eble says some patients are surprised to learn that information about healthy individuals can be helpful too.

"If you come because your paternal grandmother had breast cancer and your father has six sisters, I might be reassured about a hereditary cancer

syndrome if all those sisters are now in their 80s with no cancer," Eble said. "If the sisters are young, I might still be concerned because they might still develop cancer."

Do your medical history homework with your family

She encourages patients to speak with family members ahead of an appointment with a genetic counselor to get a full understanding of the family medical history. Online tools like My Family Health Portrait, developed by the U.S. Surgeon General and the National Human Genome Research Institute, can help build a family tree of medical history that can be shared with your physician or a genetic counselor.

"Family gatherings can be a good time to start the conversation about family history," Eble said. "There's usually someone in the family who has that information and can share. But remember that different people have different levels of comfort when talking about their family history."

If family history indicates a need for genetic testing, patients can provide a genetic sample either through a blood draw or mouth swab. A genetics provider will review the results of the test with you and discuss what it means for your health. It's important to follow up with your physician about the results of your test to discuss what management and screening plan is right for you.

Before getting genetic testing, Eble recommends that patients review the Genetic Information Nondiscrimination Act, which protects people from discrimination in health insurance and employment due to their genetics, to learn how their information can and cannot be used by others.

Provided by Baylor College of Medicine