

How Do Genetics Affect Your Cancer Risk?

In recent years, treatments for pancreatic, breast, ovarian, and other forms of cancer have grown more sophisticated with the advent of targeted therapies. As the name implies, these forms of therapy can specifically target the mutated cancer cells within the body without impacting your body's normal cells, according to the American Cancer Society.

The rise of targeted therapy has come hand in hand with the growing importance of genetic counselors in managing cancer and cancer risks. According to the National Society of Genetic Counselors, this health care professional can help you determine your risk of a genetic disorder through genetic testing, family history, and other methods. They can then guide you through the next steps based on your risk assessment.

How genetic counselors help with cancer treatment

Talia Donenberg, a genetic counselor with the University of Miami Health System, says that, for pancreatic cancer and others like breast and prostate cancer, patients will be advised to see a genetic counselor for testing after diagnosis. The reason for this is pretty straightforward: A genetic test can determine if the patient has an inherited gene mutation that led to the development of their cancer. If they do possess that mutation, they may be a candidate for targeted therapy. "These treatments are specifically targeted to the genetic weaknesses in the pancreatic

tumor cells,” says Donenberg.

Determining a potential cancer treatment is just one of many reasons why genetic testing is a good idea.

If a patient is predisposed to pancreatic cancer, for example, they may have a predisposition to other forms of cancer, as well, such as breast and ovarian cancer, among others. “The testing can help determine your risk of other malignancies,” says Donenberg.

In addition, you may determine your own risks with this testing as well as the risks of your family members. “If genetic testing determines that you have an inherited gene mutation for pancreatic cancer, for example, then there is a 50% chance that your siblings or children also have that gene mutation,” says Donenberg.

Genetic counselors can play a crucial role in assessing the nature of a patient’s cancer and helping the oncologist determine the proper treatment for it. This is the primary reason that genetic counseling is recommended not only for pancreatic cancer patients but also for breast, ovarian, and prostate cancer patients.

Family history can help determine your cancer risk

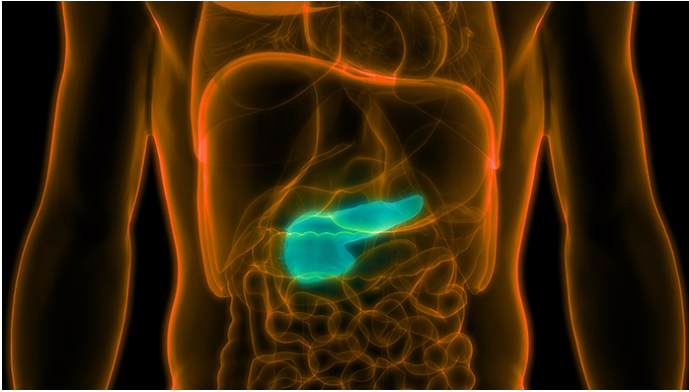


According to the American Cancer Society, genetic counselors determine cancer risk in patients who have not been diagnosed but have a family history of cancer. Donenberg says that genetic counseling can be helpful before a cancer diagnosis because it gives patients a proper understanding of their risks and what might lie ahead. The counselor can also inform the patient of their options for screening and educate them on possible ways to reduce their risks through diet, exercise, and other healthy lifestyle changes.

“When it comes to people with a history of pancreatic cancer, there can be a lot of anxiety and distress because of its high mortality rate,” says Donenberg. “They may actually have a preconceived idea of how high their risk is, so we can provide facts, education, and screening options to help people understand their true circumstances and make informed decisions about their health care.”

Wyatt Myers is a contributing writer for UMiami Health News.

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