

Cancer Genetics Clinic

More than 12,000 children and adolescents are diagnosed with cancer each year in the United States. Recent studies have suggested that more than one in four children or adolescents with a history of cancer may have a cancer predisposition syndrome. This predisposition can be evaluated for based on the type of tumor, age at presentation, and if there is a family history of cancer and/or other clinical findings. This allows us to easily identify families who could potentially benefit from further evaluation and management.

The Division of Genetics and Metabolism and the Division of Oncology established the Cancer Genetics Clinic to help family members understand their personal risk of having a cancer predisposition syndrome and to learn more about the risk of their loved ones. Our mission is to identify individuals with a greater likelihood for certain types of cancer and to provide early detection and treatment. Ultimately, our goal is to prevent the development of cancer or additional cancers altogether.

Screening

Our team of specialists will work with families to provide a cancer screening regimen and make recommendations for interventions for those at greatest risk. We will help to coordinate patient care with other specialists and offer continued cancer screening when appropriate.

Contact Information

For more information about the Cancer Genetics Clinic or to refer a patient, call 202-476-4685 or 202-476-5173.

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Cancer Predisposition

Most cancers are non-hereditary which means that an individual is not born with an abnormal gene (mutation) that could predispose them to developing cancer. However, when an individual is born with a mutation in a gene predisposing to cancer, the mutation is known as a germline mutation. Germline mutations are usually present in all of the cells of the body.

Individuals with a germline mutation may inherit this gene change from one or both parents. Alternatively, some individuals have no family history of cancer and may be the first person in his or her family with a cancer predisposition syndrome. Oftentimes this is due to a new mutation in that individual.

Cancer predisposition syndromes usually become apparent when an individual develops cancer at a young age, has a specific type of cancer or bilateral cancer such as both kidneys or both eyes, or when multiple family members have the same type of cancer or related cancers. When an individual has an altered gene predisposing to cancer, it does not mean that an individual will definitely develop cancer. Rather, the risk of developing cancer is much greater than that seen in the general population.

Experts in Pediatric Genetics and Oncology

Our team is a leader in the recognition and care of patients with cancer predisposition syndromes. We are one of only a handful of sites in the United States dedicated to pediatric cancer genetics. Our staff is comprised of healthcare professionals from pediatric oncology and medical genetics. It is headed by directors Joyce Turner MS, CGC, genetic counselor, and Leslie Doros, MD, pediatric oncologist.

The Cancer Genetics Clinic sees many types of patients, including:

- Children with cancer
- Children with a past history of cancer
- Children with early onset cancer and rare forms of cancer
- Children with a family history of cancer
- Parents of a child with cancer
- Couples who want to learn more about the risks to their other children or future children
- Adults with early onset cancers
- Adults at risk for cancer
- Children and/or family members with a known cancer predisposition syndrome

Genetic Counseling

Individuals referred to the Cancer Genetics Clinic have the opportunity to meet with a cancer genetic counselor. The genetic counseling process involves reviewing a family's medical history to better understand the types of cancer, ages of onset, and pattern of inheritance in a family in order to determine whether an individual and family may be at risk for a cancer predisposition syndrome. All patients undergo pre- and post-genetic testing counseling which is a critical component in educating our families.

During the genetic counseling session, our specialists educate patients and their family members about the specific cancer syndrome in question, how it is inherited, and who in the family may be at risk. The discussion includes available testing options, exploring the pros and cons of genetic testing, potential outcomes of testing, explaining the screening and interventions available to those who test positive, and determining whether testing is the most appropriate course of action for the family. Depending on a patient's medical findings, a consultation may also involve an evaluation by a geneticist.

Genetic Testing

Genetic tests are different from other blood tests. Insurance preauthorization (approval) is usually necessary before testing. Once obtained, the testing process may take a few weeks to a few months, depending on the specific test being performed. When test results become available, a follow-up consultation is scheduled to review the meaning of the results and to develop an appropriate plan of care.

