

Hodgkin's Disease

Hodgkin's disease is a relatively common form of cancer in children and teens. The first symptom is usually painless swelling of the lymph nodes in the neck that does not clear up with time. With modern treatments, Hodgkin's disease is curable in most young patients.

What is Hodgkin's disease?

Hodgkin's disease is a kind of cancer called a lymphoma, which means a cancer of the lymph tissue (lymph nodes). The lymph nodes, which are spread throughout the body, play an important role in the immune system. Hodgkin's disease can spread rapidly to neighboring lymph nodes. The outlook for patients with Hodgkin's disease is best when it is diagnosed early.

It's devastating to hear that a child has any form of cancer, and treatment of your child for Hodgkin's disease will be a difficult time for your family. A specialist in cancer treatment (oncologist) will perform further tests and recommend the best treatment for your child. Fortunately, with modern chemotherapy and other treatments, there is an excellent chance of curing your child's cancer.

What does it look like?

- The first symptom is usually swollen lymph nodes in the neck and shoulder area (less often, in the groin or underarm area). Chest x-rays often show involvement inside the chest.
- Swollen lymph nodes are a very common sign of minor illnesses, such as colds or other infections. The doctor may be concerned if your child has swollen lymph nodes without any other symptoms of illness.
- The swollen nodes may feel firm and are usually not painful.
- Many other symptoms are less common but possible, depending on where the lymphoma spreads. These may include difficulty breathing (from chest involvement) or problems related to the liver, kidneys, or bone marrow, where different types of blood cells are made.
- Other symptoms may include fever, weight loss, and night-time sweating.
- Because Hodgkin's disease interferes with the functioning of the immune system, your child may have frequent or unusual infections.

What are the causes and risk factors for Hodgkin's disease?

- The exact cause of Hodgkin's disease is unknown. Infection with a common virus called Epstein-Barr virus may play a role. (This is the same virus that causes infectious mononucleosis, or "mono.")
- The risk of Hodgkin's disease is increased for patients with any type of immunodeficiency: conditions that reduce the body's ability to fight infections.
- If anyone in your family has had Hodgkin's disease, your child may be at higher risk. Under age 10, boys are affected more often than girls.

What are some possible complications of Hodgkin's disease?

- Depending on where the disease appears, it may cause problems in many different organs and organ systems, including the heart and lungs, liver, blood and bone marrow, or kidneys.
- It may cause frequent infections, including unusual infections such as tuberculosis or infections caused by fungus.
- Like any cancer, Hodgkin's disease can spread to other parts of the body. Although treatment is effective for most children and teens, there is a risk of death. Even if the initial treatment is successful, there is a risk that the cancer may come back (relapse).

How is Hodgkin's disease diagnosed and treated?

Hodgkin's disease is diagnosed by a relatively minor surgical procedure called a *biopsy*. A sample of a lymph node is taken to the laboratory to check for cancer cells.

- Once the diagnosis of Hodgkin's disease is made, your child's care will probably be managed by an oncologist (cancer specialist). Your child may be treated by a team that includes other health care professionals, such as nurses and a psychologist.
- The first step in treatment is *staging*. Various tests are done to find out how far your child's cancer has spread, including examination, blood tests, x-rays, or other imaging studies. Stage I is the earliest stage, meaning the disease is less advanced. Stage IV is the most advanced, meaning that the cancer has spread widely throughout the body.

Treatment decisions depend on the stage of your child's cancer, his or her age, and the symptoms.

- The usual treatment for Hodgkin's disease is *chemotherapy*. Chemotherapy drugs kill cancer cells by interfering with their metabolism.
- Chemotherapy drugs are very effective at killing cancer cells. However, they also cause side effects, for example, reduced immune function, nausea and vomiting, liver and gastrointestinal problems, skin irritation, and hair loss. Your child will be monitored carefully during treatment to minimize these toxic effects. Side effects usually go away after treatment.
- Your child may need several courses of chemotherapy to eliminate as much of the cancer as possible. Cancer specialists have worked to design new treatment programs to reduce the dose and shorten the time of chemotherapy as much as possible without sacrificing the effectiveness of the medication.
- Treatment may also include *radiation therapy*, depending on the extent of the disease. This involves special x-ray beams aimed at the cancer cells to destroy them.
- The dose of radiation is kept as low as possible to prevent side effects, such as skin rashes. Other side effects

depend on what area is treated; for example, lung function, heart function, or bone growth may be affected if these areas receive radiation.

With modern treatment, the chances of eliminating Hodgkin's disease are excellent. Only your cancer specialist can provide precise estimates, which depend upon a number of things, including the stage of disease (how far it has spread). The chances in general of disease-free survival are over 90% for children with early Hodgkin's disease and over 70% for those with more advanced disease.

Even if the cancer is eliminated, however, there is a chance it could come back (relapse). Your child will need early and continuous long-term follow-up and testing to detect relapsed Hodgkin's disease as early as possible. If a relapse does occur, most patients respond to further treatment.

Having a child diagnosed with any form of cancer is a devastating event for your family. The health care team will provide both medical and psychological support for your child and family.

When should I call your office?

Call our office or your cancer specialist if you have any questions about Hodgkin's disease or about your child's treatment.