

Radiation Medicine Department

Stomach Cancer: Treatment

Treatment

The treatment options and prognosis (chance of recovery) depend on the stage and extent of the cancer (whether it is in the stomach only or has spread to lymph nodes or other places in the body) and the patient's general health.

When gastric cancer is found very early, there is a better chance of recovery. Gastric cancer is often in an advanced stage when it is diagnosed. At later stages, gastric cancer can be treated but rarely can be cured.

Four types of standard treatment are used:

- **Surgery**
- **Chemotherapy**
- **Radiation Therapy**
- **Chemoradiation** (combination chemotherapy and radiation)

Surgery

Surgery is a common treatment of all stages of gastric cancer. The following types of surgery may be used:

- **Subtotal gastrectomy** - Removal of the part of the stomach that contains cancer, nearby lymph nodes, and parts of other tissues and organs near the tumor. The spleen may be removed. The spleen is an organ in the upper abdomen that filters the blood and removes old blood cells.
- **Total gastrectomy** - Removal of the entire stomach, nearby lymph nodes, and parts of the esophagus, small intestine, and other tissues near the tumor. The spleen may be removed. The esophagus is connected to the small intestine so the patient can continue to eat and swallow.

If the tumor is blocking the opening to the stomach but the cancer cannot be completely removed by standard surgery, the following procedures may be used:

- **Endoluminal stent placement** - A procedure to insert a stent (a thin, expandable tube) in order to keep a passage (such as arteries or the esophagus) open. For tumors blocking the opening to the stomach, surgery may be done to place a stent from the esophagus to the stomach to allow the patient to eat normally.
- **Endoscopic laser surgery** - A procedure in which an endoscope (a thin, lighted tube) with a laser attached is inserted into the body. A laser is an intense beam of light that can be used as a knife.

- **Electrocautery** - A procedure that uses an electrical current to create heat. This is sometimes used to remove lesions or control bleeding.

Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping the cells from dividing. When chemotherapy is taken by mouth or injected into a vein or muscle, the drugs enter the bloodstream and can reach cancer cells throughout the body (systemic chemotherapy). When chemotherapy is placed directly in the spinal column, a body cavity such as the abdomen, or an organ, the drugs mainly affect cancer cells in those areas. The way the chemotherapy is given depends on the type and stage of the cancer being treated.

Chemoradiation

Chemoradiation combines chemotherapy and radiation therapy to increase the effects of both. Chemoradiation treatment given after surgery to increase the chances of a cure is called adjuvant therapy. If it is given before surgery, it is called neoadjuvant therapy.

Other types of treatment are being tested in clinical trials such as *Biologic therapy*. This is a treatment that uses the your immune system to fight cancer. Substances made by the body or made in a laboratory are used to boost, direct, or restore the body's natural defenses against cancer. This type of cancer treatment is also called biotherapy or immunotherapy.

Radiation Therapy

There are two types of radiation therapy.

External Radiation Therapy

External radiation therapy uses a machine called a linear accelerator to deliver a uniform dose of high-energy x-ray to the region of the tumor. These x-rays can destroy the cancer cells, while sparing the surrounding normal tissue.

The linear accelerator uses microwave technology (similar to that used for radar) to accelerate electrons in a part of the accelerator called the wave guide and then allows these electrons to collide with a heavy metal target. As a result of these collisions, high energy x-rays are scattered from the target.

A portion of these x-rays is collected and then shaped to form a beam that matches the tumor. The beam comes out of a part of the accelerator called a gantry, which rotates around the patient. The patient lies on a movable treatment couch and lasers are used to make sure you are in the proper position.

Radiation can be delivered to the tumor from any angle by rotating the gantry and moving the treatment couch.

External beam therapy is painless. You do not see or feel the actual treatment. Most patients are treated on an outpatient basis, coming from and returning home after each treatment. Most people can even continue with their normal daily activities.

Internal Radiation Therapy (Brachytherapy)

Brachytherapy involves placing radiation sources as close as possible to the tumor site. Sometimes, they may be inserted directly into the tumor. The radioactive sources or isotopes are in the form of wires, seed, (or molds), or rods.

In some instances, brachytherapy may be used in conjunction with external beam therapy. When both forms are employed, the external beam radiation is intended to destroy cancerous cells in a large area surrounding the tumor, while the brachytherapy delivers a boost, or higher dose of radiation, to help destroy the main concentrated mass of tumor cells.

Side Effects of Radiation Therapy

Because treatment may damage healthy cells and tissues, unwanted side effects are common. These side effects depend on many factors, including the location of the tumor and the type and extent of the treatment.

Side effects may not be the same for each person, and they may even change from one treatment session to the next.

Before your treatment starts, your health care team will explain possible side effects and suggest ways to help you manage them.

These are some common side effects of radiation therapy:

- Fatigue
- Dry mouth
- Changes in taste and/or smell
- Nausea
- Abdominal pain – such as cramping or bloating
- Local swelling
- Changes in skin texture (over area being treated)
- Diarrhea

Questions to Ask Before Radiation Treatment Begins

These are some questions you may want ask the doctor before receiving radiation therapy:

- What is the goal of this treatment?
- How will the radiation be given?
- When will the treatment begin? When will it end?
- Will I have side effects? What can I do about them?

