Gastric Cancer Treatment (PDQ®)

Patient Version
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General Information About Gastric Cancer

Key Points for This Section

- Gastric cancer is a disease in which malignant (cancer) cells form in the lining of the stomach.
- Age, diet, and stomach disease can affect the risk of developing gastric cancer.
- Symptoms of gastric cancer include indigestion and stomach discomfort or pain.
- Tests that examine the stomach and esophagus are used to detect (find) and diagnose gastric cancer.
- Certain factors affect prognosis (chance of recovery) and treatment options.

Gastric cancer is a disease in which malignant (cancer) cells form in the lining of the stomach.

The stomach is a J-shaped organ in the upper abdomen. It is part of the digestive system, which processes nutrients (vitamins, minerals, carbohydrates, fats, proteins, and water) in foods that are eaten and helps pass waste material out of the body. Food moves from the throat to the stomach through a hollow, muscular tube called the esophagus. After leaving the stomach, partly-digested food passes into the small intestine and then into the large intestine.
The stomach and esophagus are part of the upper digestive system.

The wall of the stomach is made up of 3 layers of tissue: the mucosal (innermost) layer, the muscularis (middle) layer, and the serosal (outermost) layer. Gastric cancer begins in the cells lining the mucosal layer and spreads through the outer layers as it grows.

Stromal tumors of the stomach begin in supporting connective tissue and are treated differently from gastric cancer. See the PDQ summary on Gastrointestinal Stromal Tumors Treatment for more
information.

For more information about cancers of the stomach, see the following PDQ summaries:

- Unusual Cancers of Childhood
- Stomach (Gastric) Cancer Prevention
- Stomach (Gastric) Cancer Screening

**Age, diet, and stomach disease can affect the risk of developing gastric cancer.**

Anything that increases your risk of getting a disease is called a risk factor. Having a risk factor does not mean that you will get cancer; not having risk factors doesn't mean that you will not get cancer. Talk with your doctor if you think you may be at risk. Risk factors for gastric cancer include the following:

- Having any of the following medical conditions:
  - Helicobacter pylori (H. pylori) infection of the stomach.
  - Chronic gastritis (inflammation of the stomach).
  - Pernicious anemia.
  - Intestinal metaplasia (a condition in which the normal stomach lining is replaced with the cells that line the intestines).
  - Familial adenomatous polyposis (FAP) or gastric polyps.
- Eating a diet high in salted, smoked foods and low in fruits and vegetables.
- Eating foods that have not been prepared or stored properly.
- Being older or male.
- Smoking cigarettes.
- Having a mother, father, sister, or brother who has had stomach cancer.

**Symptoms of gastric cancer include indigestion and stomach discomfort or pain.**

These and other signs and symptoms may be caused by gastric cancer or by other conditions.

In the early stages of gastric cancer, the following symptoms may occur:

- Indigestion and stomach discomfort.
- A bloated feeling after eating.
- Mild nausea.
- Loss of appetite.
- Heartburn.

In more advanced stages of gastric cancer, the following signs and symptoms may occur:

- Blood in the stool.
- Vomiting.
- Weight loss for no known reason.
- Stomach pain.
- Jaundice (yellowing of eyes and skin).
- Ascites (build-up of fluid in the abdomen).
- Trouble swallowing.

Check with your doctor if you have any of these problems.

**Tests that examine the stomach and esophagus are used to detect (find) and diagnose gastric cancer.**

The following tests and procedures may be used:

- **Physical exam and history** : An exam of the body to check general signs of health, including checking for signs of disease, such as lumps or anything else that seems unusual. A history of the patient’s health habits and past illnesses and treatments will also be taken.

- **Blood chemistry studies** : A procedure in which a blood sample is checked to measure the amounts of certain substances released into the blood by organs and tissues in the body. An unusual (higher or lower than normal) amount of a substance can be a sign of disease in the organ or tissue that produces it.

- **Complete blood count (CBC)**: A procedure in which a sample of blood is drawn and checked for the following:
  - The number of red blood cells, white blood cells, and platelets.
  - The amount of hemoglobin (the protein that carries oxygen) in the red blood cells.
  - The portion of the sample made up of red blood cells.

- **Upper endoscopy** : A procedure to look inside the esophagus, stomach, and duodenum (first part of the small intestine) to check for abnormal areas. An endoscope (a thin, lighted tube) is passed through the mouth and down the throat into the esophagus.
Upper endoscopy. A thin, lighted tube is inserted through the mouth to look for abnormal areas in the esophagus, stomach, and first part of the small intestine.

- **Barium swallow**: A series of x-rays of the esophagus and stomach. The patient drinks a liquid that contains barium (a silver-white metallic compound). The liquid coats the esophagus and stomach, and x-rays are taken. This procedure is also called an upper GI series.
Barium swallow for stomach cancer. The patient swallows barium liquid and it flows through the esophagus and into the stomach. X-rays are taken to look for abnormal areas.

- **CT scan (CAT scan):** A procedure that makes a series of detailed pictures of areas inside the body, taken from different angles. The pictures are made by a computer linked to an x-ray machine. A dye may be injected into a vein or swallowed to help the organs or tissues show up more clearly. This procedure is also called computed tomography, computerized tomography, or computerized axial tomography.

- **Biopsy:** The removal of cells or tissues so they can be viewed under a microscope to check for signs of cancer. A biopsy of the stomach is usually done during the endoscopy.

One or more of the following tests may be done on the samples of tissue that are removed:

- **Immunohistochemistry:** A test that uses antibodies to check for certain antigens in a sample of tissue. The antibody is usually linked to a radioactive substance or a dye that causes the tissue to light up under a microscope. This type of test may be used to tell the
difference between different types of cancer.

- **FISH (fluorescence in situ hybridization):** A laboratory technique used to look at genes or chromosomes in cells and tissues. Pieces of DNA that contain a fluorescent dye are made in the laboratory and added to cells or tissues on a glass slide. When these pieces of DNA bind to specific genes or areas of chromosomes on the slide, they light up when viewed under a microscope with a special light. The sample of blood or bone marrow is checked for HER2/neu to help decide the best treatment.

**Certain factors affect prognosis (chance of recovery) and treatment options.**

The prognosis (chance of recovery) and treatment options depend on the following:

- The stage of the cancer (whether it is in the stomach only or has spread to lymph nodes or other places in the body).
- 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. Taking part in one of the clinical trials being done to improve treatment should be considered. Information about ongoing clinical trials is available from the NCI Web site.

**Stages of Gastric Cancer**

**Key Points for This Section**

- After gastric cancer has been diagnosed, tests are done to find out if cancer cells have spread within the stomach or to other parts of the body.
- There are three ways that cancer spreads in the body.
- Cancer may spread from where it began to other parts of the body.
- The following stages are used for gastric cancer:
  - Stage 0 (Carcinoma in Situ)
  - Stage I
  - Stage II
  - Stage III
  - Stage IV

**After gastric cancer has been diagnosed, tests are done to find out if cancer cells have spread within the stomach or to other parts of the body.**

The process used to find out if cancer has spread within the stomach or to other parts of the body is called staging. The information gathered from the staging process determines the stage of the disease. It is
important to know the stage in order to plan treatment.

The following tests and procedures may be used in the staging process:

- **CEA (carcinoembryonic antigen) assay**: Tests that measure the level of CEA in the blood. This substance is released into the bloodstream from both cancer cells and normal cells. When found in higher than normal amounts, it can be a sign of gastric cancer or other conditions.

- **Endoscopic ultrasound (EUS)**: A procedure in which an endoscope is inserted into the body, usually through the mouth or rectum. An endoscope is a thin, tube-like instrument with a light and a lens for viewing. A probe at the end of the endoscope is used to bounce high-energy sound waves (ultrasound) off internal tissues or organs and make echoes. The echoes form a picture of body tissues called a sonogram. This procedure is also called endosonography.

- **CT scan (CAT scan)**: A procedure that makes a series of detailed pictures of areas inside the body, taken from different angles. The pictures are made by a computer linked to an x-ray machine. A dye may be injected into a vein or swallowed to help the organs or tissues show up more clearly. This procedure is also called computed tomography, computerized tomography, or computerized axial tomography.

- **PET scan (positron emission tomography scan)**: A procedure to find malignant tumor cells in the body. A small amount of radioactive glucose (sugar) is injected into a vein. The PET scanner rotates around the body and makes a picture of where glucose is being used in the body. Malignant tumor cells show up brighter in the picture because they are more active and take up more glucose than normal cells do. A PET scan and CT scan may be done at the same time. This is called a PET-CT.

**There are three ways that cancer spreads in the body.**

Cancer can spread through tissue, the lymph system, and the blood:

- Tissue. The cancer spreads from where it began by growing into nearby areas.
- Lymph system. The cancer spreads from where it began by getting into the lymph system. The cancer travels through the lymph vessels to other parts of the body.
- Blood. The cancer spreads from where it began by getting into the blood. The cancer travels through the blood vessels to other parts of the body.

**Cancer may spread from where it began to other parts of the body.**

When cancer spreads to another part of the body, it is called metastasis. Cancer cells break away from where they began (the primary tumor) and travel through the lymph system or blood.

- Lymph system. The cancer gets into the lymph system, travels through the lymph vessels, and forms a tumor (metastatic tumor) in another part of the body.
- Blood. The cancer gets into the blood, travels through the blood vessels, and forms a tumor (metastatic tumor) in another part of the body.
The metastatic tumor is the same type of cancer as the primary tumor. For example, if gastric cancer spreads to the liver, the cancer cells in the liver are actually gastric cancer cells. The disease is metastatic gastric cancer, not liver cancer.

**The following stages are used for gastric cancer:**

**Stage 0 (Carcinoma in Situ)**

In stage 0, abnormal cells are found in the inside lining of the mucosa (innermost layer) of the stomach wall. These abnormal cells may become cancer and spread into nearby normal tissue. Stage 0 is also called carcinoma in situ.

**Stage I**

In stage I, cancer has formed in the inside lining of the mucosa (innermost layer) of the stomach wall. Stage I is divided into stage IA and stage IB, depending on where the cancer has spread.

- **Stage IA:** Cancer may have spread into the submucosa (layer of tissue next to the mucosa) of the stomach wall.
- **Stage IB:** Cancer:
  - may have spread into the submucosa (layer of tissue next to the mucosa) of the stomach wall and is found in 1 or 2 lymph nodes near the tumor; or
  - has spread to the muscle layer of the stomach wall.

**Stage II**

Stage II gastric cancer is divided into stage IIA and stage IIB, depending on where the cancer has spread.

- **Stage IIA:** Cancer:
  - has spread to the subserosa (layer of tissue next to the serosa) of the stomach wall; or
  - has spread to the muscle layer of the stomach wall and is found in 1 or 2 lymph nodes near the tumor; or
  - may have spread to the submucosa (layer of tissue next to the mucosa) of the stomach wall and is found in 3 to 6 lymph nodes near the tumor.
- **Stage IIB:** Cancer:
  - has spread to the serosa (outermost layer) of the stomach wall; or
  - has spread to the subserosa (layer of tissue next to the serosa) of the stomach wall and is found in 1 or 2 lymph nodes near the tumor; or
  - has spread to the muscle layer of the stomach wall and is found in 3 to 6 lymph nodes near the tumor; or
  - may have spread to the submucosa (layer of tissue next to the mucosa) of the stomach wall and is found in 7 or more lymph nodes near the tumor.

**Stage III**

Stage III gastric cancer is divided into stage IIIA, stage IIIB, and stage IIIC, depending on where the
cancer has spread.

- **Stage IIIA:** Cancer has spread to:
  - the serosa (outermost layer) of the stomach wall and is found in 1 or 2 lymph nodes near the tumor; or
  - the subserosa (layer of tissue next to the serosa) of the stomach wall and is found in 3 to 6 lymph nodes near the tumor; or
  - the muscle layer of the stomach wall and is found in 7 or more lymph nodes near the tumor.

- **Stage IIIB:** Cancer has spread to:
  - nearby organs such as the spleen, transverse colon, liver, diaphragm, pancreas, kidney, adrenal gland, or small intestine, and may be found in 1 or 2 lymph nodes near the tumor; or
  - the serosa (outermost layer) of the stomach wall and is found in 3 to 6 lymph nodes near the tumor; or
  - the subserosa (layer of tissue next to the serosa) of the stomach wall and is found in 7 or more lymph nodes near the tumor.

- **Stage IIIC:** Cancer has spread to:
  - nearby organs such as the spleen, transverse colon, liver, diaphragm, pancreas, kidney, adrenal gland, or small intestine, and may be found in 3 or more lymph nodes near the tumor; or
  - the serosa (outermost layer) of the stomach wall and is found in 7 or more lymph nodes near the tumor.

**Stage IV**

In stage IV, cancer has spread to distant parts of the body.

**Recurrent Gastric Cancer**

Recurrent gastric cancer is cancer that has recurred (come back) after it has been treated. The cancer may come back in the stomach or in other parts of the body such as the liver or lymph nodes.

**Treatment Option Overview**

**Key Points for This Section**

- There are different types of treatment for patients with gastric cancer.
- Five types of standard treatment are used:
  - Surgery
  - Chemotherapy
  - Radiation therapy
  - Chemoradiation
  - Targeted therapy
- New types of treatment are being tested in clinical trials.
Patients may want to think about taking part in a clinical trial.

Patients can enter clinical trials before, during, or after starting their cancer treatment.

Follow-up tests may be needed.

There are different types of treatment for patients with gastric cancer.

Different types of treatments are available for patients with gastric cancer. Some treatments are standard (the currently used treatment), and some are being tested in clinical trials. A treatment clinical trial is a research study meant to help improve current treatments or obtain information on new treatments for patients with cancer. When clinical trials show that a new treatment is better than the standard treatment, the new treatment may become the standard treatment. Patients may want to think about taking part in a clinical trial. Some clinical trials are open only to patients who have not started treatment.

Five types of standard treatment are used:

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 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 passage into or out of the stomach, surgery may be done to place a stent from the esophagus to the stomach or from the stomach to the small intestine to allow the patient to eat normally.
- Endoluminal laser therapy: 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.
- Gastrojejunostomy: Surgery to remove the part of the stomach with cancer that is blocking the opening into the small intestine. The stomach is connected to the jejunum (a part of the small intestine) to allow food and medicine to pass from the stomach into the small intestine.

Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them 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 into the cerebrospinal fluid, an organ, or a body cavity such as the abdomen, the drugs mainly affect cancer cells in those areas (regional chemotherapy). The way the chemotherapy is given depends on the type and stage of the cancer being treated.

See Drugs Approved for Stomach (Gastric) Cancer for more information.

**Radiation therapy**

Radiation therapy is a cancer treatment that uses high-energy x-rays or other types of radiation to kill cancer cells or keep them from growing. There are two types of radiation therapy. External radiation therapy uses a machine outside the body to send radiation toward the cancer. Internal radiation therapy uses a radioactive substance sealed in needles, seeds, wires, or catheters that are placed directly into or near the cancer. The way the radiation therapy is given depends on the type and stage of the cancer being treated.

**Chemoradiation**

Chemoradiation therapy combines chemotherapy and radiation therapy to increase the effects of both. Chemoradiation given after surgery, to lower the risk that the cancer will come back, is called adjuvant therapy. Chemoradiation given before surgery, to shrink the tumor (neoadjuvant therapy), is being studied.

**Targeted therapy**

Targeted therapy is a type of treatment that uses drugs or other substances to identify and attack specific cancer cells without harming normal cells. Monoclonal antibody therapy is a type of targeted therapy used in the treatment of gastric cancer.

Monoclonal antibody therapy uses antibodies made in the laboratory from a single type of immune system cell. These antibodies can identify substances on cancer cells or normal substances that may help cancer cells grow. The antibodies attach to the substances and kill the cancer cells, block their growth, or keep them from spreading. Monoclonal antibodies are given by infusion. They may be used alone or to carry drugs, toxins, or radioactive material directly to cancer cells.

See Drugs Approved for Stomach (Gastric) Cancer for more information.

**New types of treatment are being tested in clinical trials.**

Information about clinical trials is available from the NCI Web site.

**Patients may want to think about taking part in a clinical trial.**

For some patients, taking part in a clinical trial may be the best treatment choice. Clinical trials are part of the cancer research process. Clinical trials are done to find out if new cancer treatments are safe and effective or better than the standard treatment.

Many of today’s standard treatments for cancer are based on earlier clinical trials. Patients who take part
Patients who take part in clinical trials also help improve the way cancer will be treated in the future. Even when clinical trials do not lead to effective new treatments, they often answer important questions and help move research forward.

**Patients can enter clinical trials before, during, or after starting their cancer treatment.**

Some clinical trials only include patients who have not yet received treatment. Other trials test treatments for patients whose cancer has not gotten better. There are also clinical trials that test new ways to stop cancer from recurring (coming back) or reduce the side effects of cancer treatment.

Clinical trials are taking place in many parts of the country. See the Treatment Options section that follows for links to current treatment clinical trials. These have been retrieved from NCI's listing of clinical trials.

**Follow-up tests may be needed.**

Some of the tests that were done to diagnose the cancer or to find out the stage of the cancer may be repeated. Some tests will be repeated in order to see how well the treatment is working. Decisions about whether to continue, change, or stop treatment may be based on the results of these tests. This is sometimes called re-staging.

Some of the tests will continue to be done from time to time after treatment has ended. The results of these tests can show if your condition has changed or if the cancer has recurred (come back). These tests are sometimes called follow-up tests or check-ups.

**Treatment Options by Stage**

**Stage 0 (Carcinoma in Situ)**

Treatment of stage 0 is usually surgery (total or subtotal gastrectomy).

Check for U.S. clinical trials from NCI’s list of cancer clinical trials that are now accepting patients with stage 0 gastric cancer. For more specific results, refine the search by using other search features, such as the location of the trial, the type of treatment, or the name of the drug. Talk with your doctor about clinical trials that may be right for you. General information about clinical trials is available from the NCI Web site.

**Stage I Gastric Cancer**

Treatment of stage I gastric cancer may include the following:

- Surgery (total or subtotal gastrectomy).
- Surgery (total or subtotal gastrectomy) followed by chemoradiation therapy.
- A clinical trial of chemoradiation therapy given before surgery.

Check for U.S. clinical trials from NCI’s list of cancer clinical trials that are now accepting patients with stage I gastric cancer. For more specific results, refine the search by using other search features, such as the location of the trial, the type of treatment, or the name of the drug. Talk with your doctor about clinical trials that may be right for you. General information about clinical trials is available from the NCI Web site.

**Stage II Gastric Cancer**

Treatment of stage II gastric cancer may include the following:

- Surgery (total or subtotal gastrectomy).
- Surgery (total or subtotal gastrectomy) followed by chemoradiation therapy or chemotherapy.
- Chemotherapy given before and after surgery.
- A clinical trial of surgery followed by chemoradiation therapy testing new anticancer drugs.
- A clinical trial of chemoradiation therapy given before surgery.

Check for U.S. clinical trials from NCI’s list of cancer clinical trials that are now accepting patients with stage II gastric cancer. For more specific results, refine the search by using other search features, such as the location of the trial, the type of treatment, or the name of the drug. Talk with your doctor about clinical trials that may be right for you. General information about clinical trials is available from the NCI Web site.

**Stage III Gastric Cancer**

Treatment of stage III gastric cancer may include the following:

- Surgery (total gastrectomy).
- Surgery followed by chemoradiation therapy or chemotherapy.
- Chemotherapy given before and after surgery.
- A clinical trial of surgery followed by chemoradiation therapy testing new anticancer drugs.
- A clinical trial of chemoradiation therapy given before surgery.

Check for U.S. clinical trials from NCI’s list of cancer clinical trials that are now accepting patients with stage III gastric cancer. For more specific results, refine the search by using other search features, such as the location of the trial, the type of treatment, or the name of the drug. Talk with your doctor about clinical trials that may be right for you. General information about clinical trials is available from the NCI Web site.

**Stage IV and Recurrent Gastric Cancer**

Treatment of stage IV or recurrent gastric cancer may include the following:

- Chemotherapy as palliative therapy to relieve symptoms and improve the quality of life.
- Targeted therapy with a monoclonal antibody combined with chemotherapy.
- Endoluminal laser therapy or endoluminal stent placement to relieve a blockage in the stomach, or
gastrojejunostomy to bypass the blockage.

- Radiation therapy as palliative therapy to stop bleeding, relieve pain, or shrink a tumor that is blocking the stomach.
- Surgery as palliative therapy to stop bleeding or shrink a tumor that is blocking the stomach.
- A clinical trial of new combinations of chemotherapy as palliative therapy to relieve symptoms and improve the quality of life.

Check for U.S. clinical trials from NCI's list of cancer clinical trials that are now accepting patients with stage IV gastric cancer. For more specific results, refine the search by using other search features, such as the location of the trial, the type of treatment, or the name of the drug. Talk with your doctor about clinical trials that may be right for you. General information about clinical trials is available from the NCI Web site.

To Learn More About Gastric Cancer

For more information from the National Cancer Institute about gastric cancer, see the following:

- Stomach (Gastric) Cancer Home Page
- What You Need To Know About™ Stomach Cancer
- Stomach (Gastric) Cancer Prevention
- Stomach (Gastric) Cancer Screening
- Unusual Cancers of Childhood
- Lasers in Cancer Treatment
- Drugs Approved for Stomach (Gastric) Cancer
- Smoking Home Page (Includes help with quitting)
- Helicobacter pylori and Cancer

For general cancer information and other resources from the National Cancer Institute, see the following:

- Cancer Staging
- Chemotherapy and You: Support for People With Cancer
- Radiation Therapy and You: Support for People With Cancer
- Coping with Cancer: Supportive and Palliative Care
- Questions to Ask Your Doctor About Cancer
- Cancer Library
- Information For Survivors/Caregivers/Advocates

Changes to This Summary (04/17/2014)

The PDQ cancer information summaries are reviewed regularly and updated as new information becomes available. This section describes the latest changes made to this summary as of the date above.

Editorial changes were made to this summary.

About This PDQ Summary
About PDQ

Physician Data Query (PDQ) is the National Cancer Institute’s (NCI’s) comprehensive cancer information database. The PDQ database contains summaries of the latest published information on cancer prevention, detection, genetics, treatment, supportive care, and complementary and alternative medicine. Most summaries come in two versions. The health professional versions have detailed information written in technical language. The patient versions are written in easy-to-understand, nontechnical language. Both versions have cancer information that is accurate and up to date and most versions are also available in Spanish.

PDQ is a service of the NCI. The NCI is part of the National Institutes of Health (NIH). NIH is the federal government’s center of biomedical research. The PDQ summaries are based on an independent review of the medical literature. They are not policy statements of the NCI or the NIH.

Purpose of This Summary

This PDQ cancer information summary has current information about the treatment of gastric cancer. It is meant to inform and help patients, families, and caregivers. It does not give formal guidelines or recommendations for making decisions about health care.

Reviewers and Updates

Editorial Boards write the PDQ cancer information summaries and keep them up to date. These Boards are made up of experts in cancer treatment and other specialties related to cancer. The summaries are reviewed regularly and changes are made when there is new information. The date on each summary ("Date Last Modified") is the date of the most recent change.

The information in this patient summary was taken from the health professional version, which is reviewed regularly and updated as needed, by the PDQ Adult Treatment Editorial Board.

Clinical Trial Information

A clinical trial is a study to answer a scientific question, such as whether one treatment is better than another. Trials are based on past studies and what has been learned in the laboratory. Each trial answers certain scientific questions in order to find new and better ways to help cancer patients. During treatment clinical trials, information is collected about the effects of a new treatment and how well it works. If a clinical trial shows that a new treatment is better than one currently being used, the new treatment may become "standard." Patients may want to think about taking part in a clinical trial. Some clinical trials are open only to patients who have not started treatment.

Clinical trials are listed in PDQ and can be found online at NCI's Web site. Many cancer doctors who take part in clinical trials are also listed in PDQ. For more information, call the Cancer Information Service 1-800-4-CANCER (1-800-422-6237).

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Disclaimer

The information in these summaries should not be used to make decisions about insurance reimbursement. More information on insurance coverage is available on Cancer.gov on the Coping with Cancer: Financial, Insurance, and Legal Information page.

Contact Us

More information about contacting us or receiving help with the Cancer.gov Web site can be found on our Contact Us for Help page. Questions can also be submitted to Cancer.gov through the Web site’s Contact Form.

Get More Information From NCI

Call 1-800-4-CANCER

For more information, U.S. residents may call the National Cancer Institute's (NCI's) Cancer Information Service toll-free at 1-800-4-CANCER (1-800-422-6237) Monday through Friday from 8:00 a.m. to 8:00 p.m., Eastern Time. A trained Cancer Information Specialist is available to answer your questions.

Chat online

The NCI's LiveHelp® online chat service provides Internet users with the ability to chat online with an Information Specialist. The service is available from 8:00 a.m. to 11:00 p.m. Eastern time, Monday through Friday. Information Specialists can help Internet users find information on NCI Web sites and answer questions about cancer.

Write to us

For more information from the NCI, please write to this address:
NCI Public Inquiries Office
9609 Medical Center Dr.
Room 2E532 MSC 9760
Bethesda, MD 20892-9760

**Search the NCI Web site**

The NCI Web site provides online access to information on cancer, clinical trials, and other Web sites and organizations that offer support and resources for cancer patients and their families. For a quick search, use the search box in the upper right corner of each Web page. The results for a wide range of search terms will include a list of "Best Bets," editorially chosen Web pages that are most closely related to the search term entered.

There are also many other places to get materials and information about cancer treatment and services. Hospitals in your area may have information about local and regional agencies that have information on finances, getting to and from treatment, receiving care at home, and dealing with problems related to cancer treatment.

**Find Publications**

The NCI has booklets and other materials for patients, health professionals, and the public. These publications discuss types of cancer, methods of cancer treatment, coping with cancer, and clinical trials. Some publications provide information on tests for cancer, cancer causes and prevention, cancer statistics, and NCI research activities. NCI materials on these and other topics may be ordered online or printed directly from the NCI Publications Locator. These materials can also be ordered by telephone from the Cancer Information Service toll-free at 1-800-4-CANCER (1-800-422-6237).