

THE CANCER Dictionary

REVISED EDITION

AN A-TO-Z GUIDE

TO MORE THAN 2,500 TERMS

THAT INCLUDE:

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ROBERTA ALTMAN | MICHAEL J. SARG, M.D.

- ☐ cancer symptoms
- ☐ surgical procedures
- ☐ anticancer drugs
- ☐ side effects
- ☐ risk factors
- ☐ diagnostic tests
- ☐ prevention
- ☐ and more

THE CANCER DICTIONARY

Revised Edition

Roberta Altman

Michael J. Sarg, M.D.

Associate Chief of Medical Oncology,

St. Vincent's Hospital, New York City

Member of the teaching faculty

of the St. Vincent's Hospital

Comprehensive Cancer Center

Associate Professor of Clinical Medicine,

New York Medical College



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The Cancer Dictionary, Revised Edition

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This book is dedicated to
all cancer patients, the courageous cancer survivors, their
friends and loved ones, and the dedicated researchers, nurses,
and physicians who work with them.

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anesthesia (an"es-the'ze-ah) a state of total or partial loss of consciousness and sensation, especially pain, induced in a patient in order to perform surgery or other painful procedures. Anesthesia may be achieved with one drug or a combination of drugs. Anesthesia can be administered in the following ways:

- topical—sprayed or painted directly onto the area involved
- local—confined to a specific part of the body; used for many minor surgical procedures
- regional—affecting a large part of the body; more extensive than a "local"
- total—affecting the entire body; done for any major surgical procedure; a total loss of consciousness and sensation

anesthetic (an"es-thet'ik) an agent that induces a state of ANESTHESIA.

aneuploid (an'u-ploid) of cancer cells that have abnormal amounts of DNA. Most cancer cells are aneuploid, and the more aneuploid they are, the more aggressive the cancer is. Tumor cells that have a normal amount of DNA are called diploid. See also PLOIDY.

angiogenesis the formation of new blood vessels that commonly accompanies malignant tissue growth.

angiogram (an'je-o-gram") see ANGIOGRAPHY.

angiography (an"je-og'rah-fe) [arteriography] a diagnostic procedure that examines the blood vessels leading to an organ or area of concern as well as the blood distribution within the organ. A contrast agent that will show up on an X ray is injected into the blood vessels, usually through a catheter or tube. These X rays, called an angiogram, can then show structural abnormalities or disorders. Angiography is used most frequently in the evaluation of liver, pancreatic, kidney, or brain cancer.

angiosarcoma (an"je-o-sar-ko' mah) a malignant (cancerous) tumor originating in a blood vessel. This is a very rare SOFT TISSUE SARCOMA.

angiostatin and endostatin two antiangiogenic proteins that stop the development of new blood vessels, thereby interfering with the blood supply needed by tumors to survive and grow. When used together experimentally in mice, the drugs have eliminated tumors. Once eradicated, the tumors have not returned. Angiostatin is a part of a very common protein called plasminogen that the body uses in blood clotting. Endostatin is a part of the protein collagen 18 that is in all blood vessels but by itself has no effect on cancer. The mice had no adverse side effects from angiostatin and endostatin whereas they suffer many side effects when given chemotherapy. And they did not become resistant to the drugs. These drugs are the only ones ever tested that seem able to eliminate all tumors in mice, regardless of the size of the tumor. There is much promise for their use in humans. They have generated tremendous excitement and optimism in the cancer community. As of late 1998, cancer researchers and patients were awaiting their availability, expected sometime in 1999, for use in clinical trials with humans.

ANLL (acute nonlymphocytic leukemia) a malignant (cancerous) disorder in which abnormal, immature white blood cells are produced in the bone marrow. The result is an excessive accumulation of those cells in the bloodstream and bone marrow.

Acute myelogenous leukemia (AML) is the most common kind of ANLL. AML is a major form of leukemia, accounting for about 35% of all diagnosed cases in the United States, most frequently affecting people aged 40 and over. In children, it is the second most common leukemia. AML is also referred to as acute myelocytic leukemia, acute myeloblastic leukemia, and acute granulocytic leukemia. Because it is the major type of ANLL, AML is frequently used instead of ANLL, which can be confusing. In 1999 there were approximately 10,100 new cases of AML diagnosed and 6,900 deaths attributed to the disease.

ANLL has other subtypes that are very rare and account for less than 10% of the diagnosed cases. The other types are:

- acute monocytic leukemia—characterized by the overproduction of the white blood cells monocytes and monoblasts

- acute promyelocytic leukemia—characterized by the overproduction of promyelocytes (primitive granulocytes)
- acute erythroleukemia leukemia—characterized by the overproduction of immature red cells mixed with a variety of immature white cells
- acute myelomonocytic leukemia—characterized by the overproduction of monocytes and myelocytes (an intermediate stage monocyte)
- acute megakaryoblastic leukemia—characterized by the overproduction of a rare white blood cell in its earliest, most immature state

Symptoms of ANLL may include fatigue, infections, flu-like symptoms including high fever and chills, respiratory discomfort, weakness, irritability, loss of appetite, and unexplained weight loss. Excessive bleeding may occur after a minor injury, and the skin may bruise easily or develop purplish red blotches. The gums or nose may bleed with no apparent cause, and women may experience unusually heavy menstrual periods. Occasionally there is bone or joint pain. These symptoms may also be signs of many other disorders.

The only definitive diagnosis is by bone marrow biopsy, which is usually done after a suspicious blood test. After a positive diagnosis, a sample of cerebrospinal fluid may be examined for leukemia in the central nervous system.

There is no clear-cut staging system for adult or childhood ANLL. The National Cancer Institute (NCI) breaks it down in the following way for adult ANLL:

- untreated—there has been no treatment except to treat symptoms (blood products, antibiotics, etc.); there are too many white blood cells in the blood and bone marrow; there may be no other signs or symptoms of leukemia
- in remission—the number of white blood cells and other blood cells in the blood and marrow is normal following treatment; there are no signs or symptoms of leukemia
- relapsed/refractory—the leukemia has recurred (come back) after going into remission; refractory means it has failed to go into remission after treatment.

NCI breaks down childhood ANLL in the following way:

- untreated—there has been no treatment other than supportive care (blood products, antibiotics, allopurinol)
- in remission—blood counts are normal, bone marrow is normal, and there are no signs or symptoms of the disease following radiation remission induction treatment
- relapsed—leukemia has come back following remission

Treatment depends on the type and stage of the disease and other factors. ANLL may be treated with combination chemotherapy. Bone marrow transplantation is a treatment under evaluation, as are biological therapies. For specific information on the latest state-of-the-art treatment for ANLL, call the NCI's Cancer Information Service at 1-800-4-CANCER. See also LEUKEMIA.

anorexia (an"o-rek'se-ah) loss of appetite frequently experienced by cancer patients, which can be caused by the cancer itself or its treatment. A patient may experience a lack of appetite or a change in the way things taste; a condition in the mouth, such as sores, may develop and make eating painful; or experiencing pain generally can cause a patient to lose his or her appetite. Anorexia can result in cachexia (severe protein loss). Good nutrition is an essential ingredient in recovery, enabling the body to repair normal cells that have been damaged by cancer treatment and giving the patient a sense of well-being. Good nutrition is also important to keep the immune system operating at as optimal a level as possible. It is important, therefore, that the cancer patient gets the required nutrients.

Anorexia can cause intense family distress. It is natural to equate eating and appetite with health. Attempts to alleviate this condition are directed at its cause if at all possible. The agent megace is being widely used to increase the appetite and promote weight gain in anorexic patients. Marinol (marijuana) has been of some help to some patients.

Following are some tips for patients experiencing a lack of appetite:

- eat small frequent meals
- keep nutritious snacks available for eating throughout the day

- Stage II—skin tumors or ulcers, or clinically enlarged lymph nodes that on biopsy are benign (noncancerous)
- Stage III—a general redness of the entire skin; cancer cells are nearly always circulating in the blood; there may be enlarged lymph nodes that are benign
- Stage IV—cancer has spread to the lymph nodes or internal organs, most often the liver or lung; cancer cells are often circulating in the blood
- Recurrent—cancer has returned to the same site or to another location in the body after treatment.

Treatment depends on the stage of the disease and other factors. The most common form of treatment is RADIATION THERAPY. Other treatments may include PHOTODYNAMIC THERAPY, PHOTOPHERESIS, PUVA THERAPY, BIOLOGICAL THERAPY, and CHEMOTHERAPY. For specific information on the latest state-of-the-art treatment, by stage, call NCI's Cancer Information Service at 1-800-4-CANCER. See SEZARY SYNDROME.

myeloblastoma see CHLOROMA.

myelocyte see GRANULOCYTE.

myelodysplastic syndromes (MDS) (mi"ě-lo-dis-plas'tik) [preleukemia smoldering leukemia] a group of disorders characterized by a deficiency in the number of blood cells caused by BONE MARROW that is not functioning correctly. It can occur as a primary (original) cancer or after treatment with CHEMOTHERAPY (anticancer drugs) and/or RADIATION THERAPY for other diseases. The myelodysplastic syndromes eventually transform to acute myelocytic leukemia (ANLL) in about 30% of the patients affected. MDS occurs primarily in people over the age of 60, although it has been seen in children as young as two years of age. Symptoms include fatigue, ANEMIA, bleeding, and bruising easily.

The condition is recognized by subtle changes detected in a bone marrow study. There is no clearcut staging for the myelodysplastic syndromes. There are five types of myelodysplastic syndromes: refractory anemia, refractory anemia with ringed sideroblasts, refractory anemia with excess blasts, refractory anemia with excess blasts in transforma-

tion, and chronic myelomonocytic leukemia. Treatment depends on a number of different factors, including the age of the patient and the extent of the disease. The mainstay of treatment is supportive care. Transfusions may be given. The role of the recently developed hematologic COLONY-STIMULATING FACTORS is under investigation. For specific information on the latest state-of-the-art treatment, call the National Cancer Institute's Cancer Information Service at 1-800-4-CANCER.

myelofibrosis (mi"ě-lo-fi-bro'sis) a disease in which the BONE MARROW is replaced by fibrous tissue. This may occur as a primary pathologic process or may be part of another underlying illness, such as chronic myelogenous leukemia. See CML.

myelogram see MYELOGRAPHY.

myelography (mi"ě-log'rah-fe) an examination of the spinal cord. An X RAY of the spinal cord is taken after injection of a CONTRAST MEDIUM into the fluid surrounding the cord. The dye makes the outline of the spinal cord and adjacent structures visible on the X-ray film (the myelogram).

myeloma (mi"ě-lo'mah) cancer arising in the plasma cells in the BONE MARROW. It is the primary cancer of the several conditions that fall under the general term of "plasma cell neoplasms" or "plasma cell dyscrasias." The two other plasma cell neoplasms are macroglobulinemia and PLASMACYTOMA (plasma cell tumor). (When there are multiple plasmacytomas, it is called multiple myeloma.) Heavy chain disease is a rare form of multiple myeloma.

In 1999 approximately 13,700 people in the United States were diagnosed with myeloma, and there were about 11,400 deaths from the disease. It occurs about equally in men and women. It can develop in any age range, starting at young adulthood, but occurs most commonly in people in their 50s.

Although the cause of myeloma is not known, there is some evidence to suggest that genetic factors may predispose some people to developing myeloma. The number of myeloma cases seems to be increased in first-degree relatives. Other factors

The CANCER Dictionary

PRAISE FOR THE PREVIOUS EDITION:

"*The Cancer Dictionary* fills a long-standing need for cancer patients, their families and those of us who advise them . . . It is truly a unique resource for all of us."

—Walter Lawrence, Jr., M.D.
Former President,
American Cancer Society

"A kind of '*Everything You Always Wanted to Know About Cancer, But Were Afraid to Ask*' . . . concise, comprehensive, and accessible."

—*The Village Voice*

Coauthored by a former cancer patient and the associate chief oncologist at St. Vincent's Hospital in New York, *The Cancer Dictionary, Revised Edition*, provides clear and concise information that cancer patients and their families need in order to allay their fears and concerns.

This A-to-Z resource contains more than 2,500 definitions that detail:

- Individual cancers, their causes, stages, and treatments
- Diagnostic tests, therapies, and risk factors
- Recent advances in radiation treatments, combination chemotherapy, and pain management
- The latest information on prevention, alternative therapies, and rehabilitation
- Plus extensive and updated appendixes on national organizations for cancer research and on clinical care centers by state

Roberta Altman worked for the National Cancer Institute's Cancer Information Service at the Memorial Sloan-Kettering Cancer Center in New York City. A cancer survivor, Ms. Altman received the American Cancer Society's Courage Award in 1988. She is also the author of *Facts On File's Complete Book of Home Environmental Hazards* and *Every Woman's Handbook for Preventing Cancer*. She lives in New York City.

Michael J. Sarg, M.D., is associate chief of medical oncology at St. Vincent's Hospital, New York City, and a member of the teaching faculty of the St. Vincent's Hospital Comprehensive Cancer Center as well as associate professor of clinical medicine, New York Medical College.

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