

Life Expectancy

Cancer survivors are naturally concerned about what the future holds. Some survivors prefer to live life one day at a time while others feel more comfortable with more information. Doctors cannot be absolutely certain about the outcome for a particular patient but can discuss generally what might occur.

WHAT IS A PROGNOSIS?

A prognosis gives an idea of the likely course and outcome of a disease—that is, the chance that a patient will recover or have a recurrence (return of the cancer). The doctor who is most familiar with a patient's situation is in the best position to discuss the prognosis and to explain what the statistics may mean for that person. At the same time, it is important to understand that even the doctor cannot tell exactly what to expect. In fact, a person's prognosis may change if the cancer progresses or if treatment is successful.

WHAT FACTORS AFFECT A PATIENT'S PROGNOSIS?

Some of the most important factors are

- The type and location of the cancer,
- The stage of the disease (the extent to which the cancer has spread)
- Its grade (how abnormal the cancer cells look and how quickly the cancer is likely to grow and spread).
- For cancers of the blood or bone marrow such as leukemias and lymphomas, the presence of abnormal chromosomes and abnormal findings in the patient's complete blood count (CBC) can affect a person's prognosis.
- Other factors that may also affect the prognosis include the person's age, general health, and response to treatment.

HOW DO STATISTICS CONTRIBUTE TO PREDICTING A PATIENT'S PROGNOSIS?

When doctors discuss a person's prognosis, they carefully consider all factors that could affect that person's disease and treatment and then try to predict what might happen. The doctor bases the prognosis on information researchers have collected over many years about hundreds or even thousands of people with cancer. When possible, the doctor uses statistics based on groups of people whose situations are most similar to that of an individual patient. Several types of statistics might commonly be used to discuss prognosis:

- Survival rate is the percentage of people with a certain type and stage of cancer who survive for a certain period of time after their diagnosis. For

example, if your health care provider says that your type of cancer tends to have a “55 percent 5 year survival rate,” then 55 people out of 100 would be expected to be alive 5 years later and the other 45 people would not.

Survival statistics may also include the people who die from unrelated causes. For example, of the 45 people mentioned above, 35 may die from their cancer and 10 may die from other causes.

- The 5-year survival rate indicates the percentage of people who are alive 5 years after their cancer diagnosis, whether they have few or no symptoms of cancer, are free of disease, or are having treatment. Five-year survival rates are used as a standard way of discussing prognosis. It does not mean that a patient can expect to live for only 5 years after treatment or that there are no cures for cancer.
- Disease-free or recurrence-free survival rates represent how long one survives free of the disease, rather than until death. Because survival rates are based on large groups of people, they cannot be used to predict what will happen to a particular patient. No two patients are exactly alike, and treatment and responses to treatment vary greatly.

It is important to keep in mind that a prognosis is only a prediction. Again, doctors cannot be absolutely certain about the outcome for a particular patient.

For more help, contact:

NCI’s Cancer Information Service

Telephone (toll-free): 1-800-4-CANCER (1-800-422-6237)

TTY (toll-free): 1-800-332-8615

LiveHelp® online chat: <https://cissecure.nci.nih.gov/livehelp/welcome.asp>

Works cited

National Cancer Institute Fact Sheet 8.2, Understanding Prognosis and Cancer Statistics: Questions and Answers (www.cancer.gov)

Lance Armstrong Foundation, Livestrong Resource for Cancer Survivors, Life Expectancy (www.livestrong.org)