



Infectious Diseases and Cancer Patients

People being treated for cancer often have weakened immunity and some cannot receive certain vaccines. For these reasons, it's important to understand why cancer patients must rely on those around them in order to be protected from infectious diseases.

Are cancer patients more susceptible to infectious diseases than others?

Yes. Cancer patients can be immune compromised in two ways. For some, the type of cancer they have affects their immune system. Second, therapies used to treat cancer, such as chemotherapy and radiation, cause the immune system to be weakened. The result is that cancer patients are less able to fight off viruses and bacteria.

Are cancer patients more likely to suffer complications from infectious diseases?

Yes. Because of their impaired ability to fight infections, cancer patients may be more likely to suffer complications leading to increased risks of hospitalization and death. For example, children with cancer are twice as likely as healthy children to suffer complications and be hospitalized during influenza infections. In addition, two of every 10 immune-compromised children will experience respiratory complications, such as pneumonia, and one in 10 of those hospitalized will be placed in intensive care due to the severity of illness.

Can cancer patients receive vaccines?

Whether cancer patients can get a particular vaccine depends on several factors, such as stage of treatment and type of vaccine:

- Stage of treatment – Because chemotherapy weakens a cancer patient's immune system, immune responses to vaccines received during chemotherapy may not be protective. For this reason, patients may be able to get needed vaccines prior to the start of treatment; however, patients in the midst of treatment may or may not, depending upon individual circumstances. If a cancer patient receives a vaccine during chemotherapy, a booster dose may be necessary at least three months after treatment has been completed.
- Type of vaccine – Typically, patients can receive inactivated vaccines, but not live attenuated viral vaccines. However, vaccines received during treatment may not induce a protective antibody response, so additional doses may be necessary after the completion of chemotherapy.

Patients should talk with their doctor about vaccines before and after completion of treatment. Some vaccines may be recommended before treatment begins, alleviating the need for them during treatment.

Typically people can get vaccines according to the schedule six months after treatment has been completed, but in some cases they will need to wait 12 months; the healthcare team can help discern what is appropriate.

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Can people who live with or take care of cancer patients receive vaccines?

Yes. People who live with or care for cancer patients can safely receive inactivated and live viral vaccines.

How can others protect cancer patients from infectious diseases?

The best way to protect cancer patients from infectious diseases is to decrease the chance that they are exposed. They should avoid direct contact with anyone who has a fever or other symptoms of infection, as well as make sure those around them have been vaccinated. Cancer patients can also be protected from infectious diseases in the same ways as everyone else by promoting hand washing; properly washing and cooking foods; avoiding sharing razors, toothbrushes and drinking glasses; keeping animals up to date on their vaccinations; and avoiding contact with animals and their droppings.

