

# COVID vaccines might not protect certain cancer patients

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People with cancers of the blood, bone marrow or lymph nodes are at an

increased risk of not making protective coronavirus antibodies after COVID-19 vaccination, a new study warns.

The risk is particularly high for those with chronic lymphocytic leukemia (CLL). The researchers urged these patients and those who interact with them to get vaccinated but to keep wearing masks and practicing social distancing.

"As we see more national guidance allowing for unmasked gatherings among vaccinated people, clinicians should counsel their [immunocompromised patients](#) about the possibility that COVID-19 vaccines may not fully protect them against SARS-CoV-2," said senior author Dr. Ghady Haidar, a University of Pittsburgh Medical Center (UPMC) transplant infectious diseases physician.

"Our results show that the odds of the vaccine producing an antibody response in people with [hematologic malignancies](#) are the equivalent of a coin flip," he said in a university news release.

Haidar added that a negative antibody test does not necessarily mean the patient isn't protected from COVID-19.

Patients with blood cancers have more than a 30% risk of dying if they get COVID-19 and so they should be prioritized for COVID-19 vaccination, the researchers added.

These patients were excluded from COVID-19 vaccine trials, so there's no data on the vaccines' effectiveness in this vulnerable population.

For the study, 67 patients with hematologic malignancies who had been vaccinated with either the Pfizer or Moderna COVID-19 vaccines had their blood tested three weeks after the second shot.

The researchers found that more than 46% of the patients had not made antibodies against the virus.

Moreover, only 3 of the 13 patients with [chronic lymphocytic leukemia](#) made measurable antibodies, even though 70% weren't having any cancer therapy.

"This lack of response was strikingly low," said researcher Dr. Mounzer Agha, a hematologist at UPMC's Hillman Cancer Center. "We're still working to determine why people with hematologic malignancies—particularly those with CLL—have a lower antibody response and if this low response also extends to patients with solid tumors."

No link between cancer therapy and antibody levels was found that could affect antibody response to the vaccine. But it's known that older patients are less likely to produce antibodies than younger patients, researchers said.

"It's critically important for these [patients](#) to be aware of their continued risk and to seek prompt medical attention if they have COVID-19 symptoms, even after vaccination," Agha added in the release. "They may benefit from outpatient treatments, such as monoclonal antibodies, before the illness becomes severe."

The findings, which haven't yet been peer-reviewed, were published online April 9 on the preprint server *medRxiv*.

**More information:** For more on COVID-19 vaccines, see the [U.S. Centers for Disease Control and Prevention](#).

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