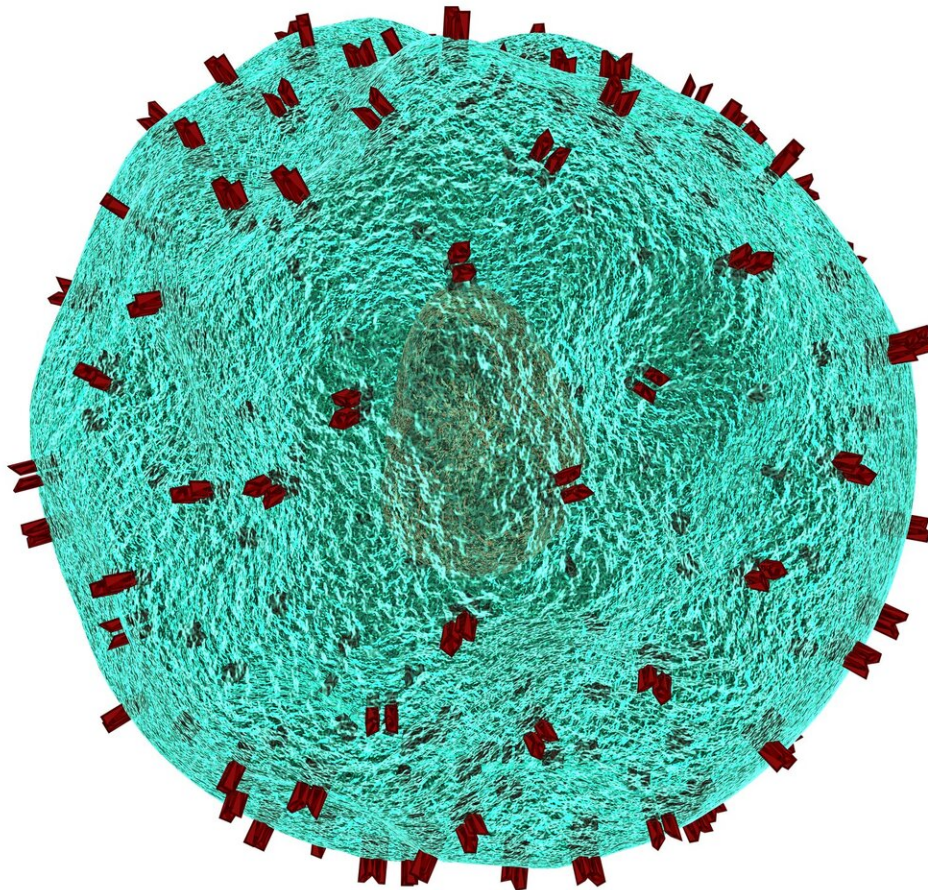


Mayo Clinic Minute: What is chimeric antigen receptor-T cell therapy?

April 5 2022, by Alex Osiadacz



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Roughly 620,000 new cases of lymphoma were diagnosed worldwide, according to the World Cancer Research Fund International's 2020 report. Survival rates have improved as advances develop in treatment, such as chimeric antigen receptor-T cell therapy (CAR-T cell therapy).

CAR-T cell therapy is a personalized treatment giving hope to [patients](#) diagnosed with various lymphomas.

"Lymphoma in plain terms is essentially a cancer of your immune system," says Dr. Madiha Iqbal, a Mayo Clinic hematologist and oncologist.

Patients who are newly diagnosed with lymphoma are offered a combination of chemotherapy and antibody-based treatments. But for those who do not respond to two or more lines of such treatments, CAR-T cell therapy may be an option.

"Prior to the advent of CAR-T cell therapy, patients who had failed two lines of chemotherapy had a very poor survival of around six months," says Dr. Iqbal.

Receiving CAR-T cell therapy can take a few weeks as a patient's T cells, which normally help fight off infections, are collected and genetically engineered to target lymphoma.

After low-dose chemotherapy, the modified cells are infused back into the patient. These cells can then attack and destroy the lymphoma.

"Patients who had a very [poor prognosis](#) can now potentially be cured of

their disease," says Dr. Iqbal.

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