American Cancer Society®
Every cancer. Every life.®

CAR T-Cell Therapy for Cancer

CAR T-cell therapy (chimeric antigen receptor T-cell therapy) is a type of immunotherapy. It alters the genes in a person's T cells (a type of white blood cell) to help them attack cancer cells. CAR T-cell therapy can be helpful in treating some types of cancer, even when other treatments are no longer effective.

How does CAR T-cell therapy work?

For CAR T-cell therapy, T cells are taken from your blood. They are genetically changed in a lab to have a chimeric antigen receptor (CAR) on their outer surface. This helps the T cells attach to a specific cancer cell antigen. The CAR T cells are then returned to your blood.

Getting ready for CAR T-cell therapy

Getting CAR T-cell therapy is quite different from other types of treatment. It involves:

- Having the T cells collected from your blood (leukapheresis), usually in 1 or more outpatient procedures
- Waiting several weeks for them to be modified and multiplied in the lab
- Getting a short course of chemotherapy to help lower the number of other immune cells in your body a few days before the CAR T-cell infusion

Talk with your cancer care team about what to expect after infusion. This will help you and your caregiver plan for changes in your work or family schedule if needed.

How is CAR T-cell therapy given?

The CAR T-cell infusion is given once. It usually takes between 30 and 60 minutes, but it can last longer. Once the infusion is complete, your doctor will tell you when you can return home.

For several weeks after the infusion, you'll get regular checks at the hospital. This will help your doctor identify any problems or reactions to the therapy as soon as possible.

Where do people go to get CAR T-cell therapy?

The CAR T-cell infusion is given in a hospital or medical center specially trained in its use. You will need to be watched closely for several weeks after getting the CAR T cells and return often for follow-up.

Side effects of CAR T-cell therapy

CAR T-cell therapy can sometimes cause serious or even life-threatening side effects, including cytokine release syndrome (CRS). As CAR T cells multiply in the body, they can release large amounts of chemicals called **cytokines**, which activate the immune system. Serious side effects from this release can include:

- High fever and chills
- Trouble breathing
- Severe nausea, vomiting, and/or diarrhea
- Feeling dizzy or lightheaded
- Headaches
- Fast heartbeat
- Feeling very tired

CAR T-cell therapy may also cause:

- Nervous system problems, such as confusion, seizures, and loss of balance
- Allergic reactions during the infusion
- Low levels of potassium, sodium, or phosphorous in the blood
- A weakened immune system that can lead to an increased risk of serious infections
- Low blood cell counts

Some side effects might happen during or right after getting treatment, while others might happen after a few days, weeks, or months after treatment.

Questions to ask

Following are some questions you can ask your doctor and cancer care team:

- Where will I go for treatment? Can I drive myself?
- Will I need someone to take care of me after treatment? For how long?
- When do I need to return for follow-up after treatment?
- What side effects could I have? What should I do about them?
- Can I continue taking my other medicines or supplements?
- Will my insurance pay for my treatment? How much will I have to pay?
- Will I be able to work and do my regular activities?
- What can I do to take care of myself during treatment?
- When should I call the doctor or nurse?

To learn more about CAR T-cell therapy, visit the American Cancer Society website at **cancer.org/car-t-cell** or call us at **1-800-227-2345**. We're here when you need us.