How is Chimeric Antigen Receptor (CAR) T cell therapy different from other types of treatments?

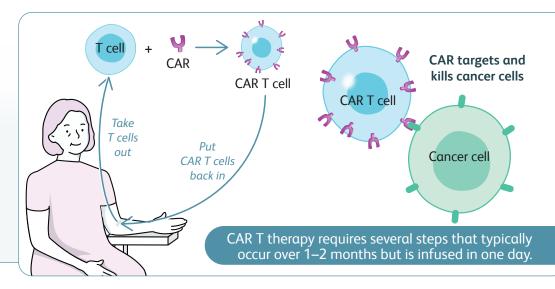


Cancer therapies work in different ways to fight cancer. In this quick reference guide, we'll review how various cancer therapies work.

IMMUNOTHERAPIES are a type of treatment that harnesses the power of a patient's immune system to help target cancer cells. Examples of immunotherapies include but are not limited to CAR T cell therapy, bispecific antibodies, and antibody-drug conjugates.

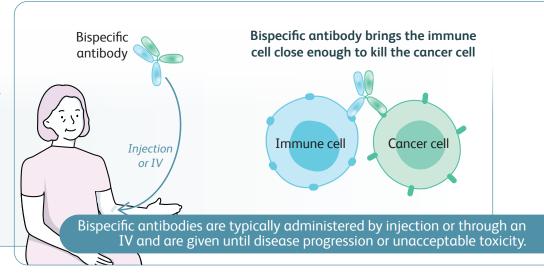
CAR T Cell Therapy

is a type of immunotherapy where a patient's own immune cells (T cells) are modified by adding a special receptor (CAR) to their surface. This gives T cells the ability to better target and help kill cancer cells since the CAR recognizes a marker found on certain cancer cells, as well as on some healthy cells.



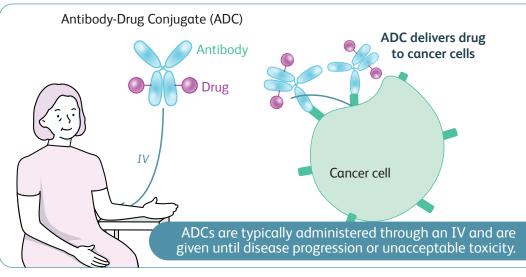
Bispecific Antibodies

are a therapy that brings together two different cells – one being the cancer cell and the other being an immune cell. This allows the immune cell to come in close contact with the cancer cell and become activated to fight it.



Antibody-Drug Conjugates (ADCs)

combine an antibody, a protein that helps the immune system identify harmful substances, that can attach to specific cells with a cytotoxic drug (similar to chemotherapy) In this way, the ADC can target and kill certain unhealthy cells like cancer.

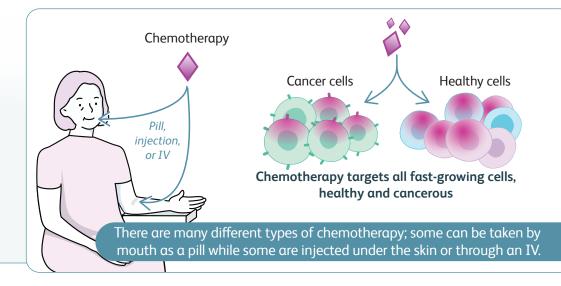


How is CAR T cell therapy different from other types of treatments? (continued)

OTHER TYPES OF CANCER THERAPIES do not necessarily engage the immune system directly to fight cancer. Examples of these types of therapies include but are not limited to chemotherapy, radiation therapy, and stem cell transplant.

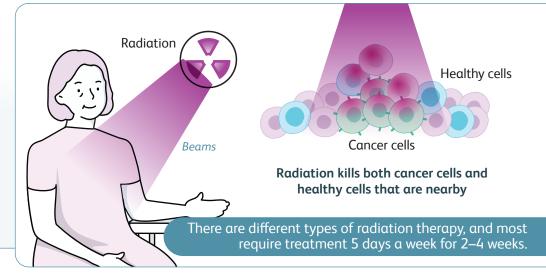
Chemotherapy

is a type of cancer therapy that uses drugs to attack rapidly-growing cells like cancer. Unfortunately, healthy fast-growing cells, like skin cells and organs of the gastrointestinal system, such as your stomach, can also be attacked and the marrow may be caused to make fewer blood cells.



Radiation Therapy

uses high-energy particles or rays that can be focused on specific area(s) of the body to kill cancer cells and shrink tumors. The most common type of radiation therapy uses direct beams that are pointed at the main sites of the cancer, but some healthy cells in the path of the beam may also be injured.



Stem Cell Transplant

is where a patient's bone marrow, the factory for both healthy and unhealthy red blood cells, infection fighting white blood cells, and platelets, is depleted with either chemotherapy or radiation therapy. Then, new healthy stem cells, from the bone marrow of either the patient themselves or a donor, are given to the patient.

