

Collecting and manufacturing T cells

Fact sheet for children

What are T cells?

T cells are a type of white blood cell in the immune system that helps protect the body by recognising and destroying abnormal cells.

How are the T cells collected?

T cells are collected from your child's blood using an apheresis machine. Your child will be connected to the machine using an existing central line or a temporary plastic apheresis catheter.

The apheresis machine will remove blood from your child's body and spin it at a speed which separates all its components, allowing the T cells to be collected. The apheresis machine will then return the blood back to the body.

The time it will take to collect the T cells will be different for each person. For some, one session is enough but for others they may need a second session.

It usually takes about 4-6 hours a session. During this time, your child will need to stay in a bed or a chair. Bring a book, music or toys to keep them busy and to pass the time. Play therapy and music therapy will be available.

Your child may be admitted to the hospital for the day and might need to stay overnight.

The treating medical team will discuss with you what is required for your child's collection.

What to look out for during collection?

Although it is not common, there may be side effects during T cell collection.

Let the nurse carrying out the collection know if your child is not feeling well and they will take appropriate action.

Tell your nurse if your child is:

- feeling sick
- feeling light-headed
- cramping
- shivering or feeling very hot
- experiencing tingling and numbness around their lips, in the fingertips, arms or legs.

Some side effects can be caused by a low calcium level in the body. Try to encourage a high dietary intake of calcium (dairy products such as milkshakes and yoghurts) and plenty of fluids on the days before the procedure.

What happens to the cells after collection?

The T cells are sent to a special laboratory overseas where they are programmed to target specific abnormal cells. Once programmed, millions of these cells are grown before they are transported back to the treating hospital. This process can take several weeks.

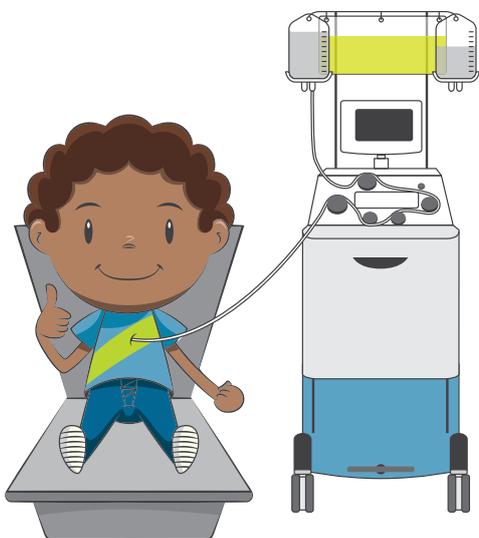
Unfortunately, sometimes the manufacturing process will not succeed. In this case, recollection of T cells may be considered.

Where can I get more information?

Ask the treating medical team for further information about T cell collection and manufacture.

Treating doctor

Apheresis nurse



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