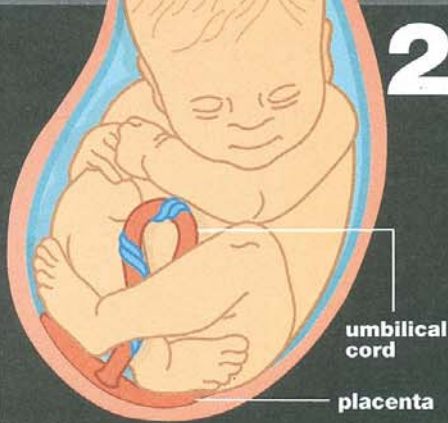


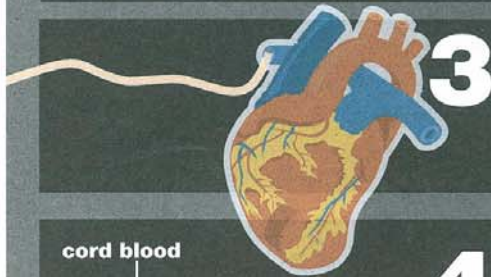
CORD BLOOD TRANSFUSION



1 Cord blood is found in the umbilical cord and placenta of a newborn infant. It is a rich source of immature cells that can develop into a wide range of different blood cells which can be used to replace diseased ones.



2 Blood from each cord is frozen (cryopreserved) as an individual cord blood unit. It is withdrawn only when it is needed for a transplant and is an almost perfect match to the recipient. According to Dr William Hwang, medical director of the Singapore Cord Blood Bank, retrieving the cord blood costs up to \$26,000 and testing each unit for a match costs \$2,000.



3 Before the transplant, the doctor will insert a small, flexible plastic tube called the central line into the large vein above the heart. The stem cells from the donor are infused into the patient through this line.



4 When transplanted into the patient, the cells are capable of regenerating bone marrow and immune systems that may have been destroyed by chemotherapy or radiation.

Cord blood and its uses

Can the cord blood be used more than once?

No. Some banks store in multiple vials and claim that this allows the cord blood unit to be used a few times. Processing and storing cord blood in vials actually increases the chances of both contamination and human error.

Transplant doctors around the world would use the whole sample, to maximise the patient's chance of survival. Sometimes the sample may not be enough for the patient, let alone being used more than once.

How long can you store cord blood?

As the industry is quite new, the oldest samples are about 15 to 20 years old. However, scientists believe that when properly processed and stored, cord blood can last indefinitely.

This belief is based on the long-term storage of similar biological material, such as bone marrow, which has been stored for half a century.

Does collecting cord blood harm the baby, depriving the child of the blood it needs?

Collecting cord blood is harmless to both mother and child. Cord blood has, to date, been collected several hundred thousand times around the world. There has been no report that mother or child was harmed in any way.

Cord blood collection is carried out by a trained obstetrician, and only after the usual time taken to clamp and cut the cord during delivery. Clamping the cord at any point does not deprive the baby.

Cord blood is used only to treat leukaemia.

Not true. Cord blood can today be used to treat more than 72 diseases. These include anaemia, thalassemia, various lymphomas and congenital metabolic disorders.

However, it is true that of the 8,000 cord blood transplants to date, about 60 per cent have been used for different forms of leukaemia.

Cord blood is used only for children.

Not true. About 30 per cent of all the cord blood transplants done worldwide are for patients above the age of 18. The oldest patient was 69.

Source: CordLife