

Patient information factsheet

Stem cell collection from the umbilical cord

This factsheet is designed to offer information to families who are considering private (commercial) umbilical cord blood collection following delivery of their baby at University Hospital Southampton NHS Foundation Trust (UHS).

What are stem cells?

Stem cells are cells from which other types of cells can develop. These can potentially be used to replenish supplies of red blood cells, white blood cells, platelets and possibly many other different types of cells in the body. The blood flowing from the placenta (a temporary organ that develops in the womb during pregnancy) through a baby's umbilical cord contains a large amount of stem cells.

What are the benefits of collecting stem cells at birth?

For a number of families, there is a medical reason why collecting stem cells from the umbilical cord when a baby is born could be helpful. For example, there may be a family history of a genetic disorder, or a sibling may have a blood or immune disorder that could improve with stem cell transplantation.

Is this service available at UHS?

UHS is able to offer collection of stem cells from the umbilical cord to families on a case-by-case basis. However, it is important to establish that the potential benefits outweigh the risks before going ahead with this procedure.

Private stem cell collection

Some private (commercial) companies have been promoting stem cell collection (also known as 'harvesting') in families with no history of genetic disease. The stem cells are collected and stored, with the potential to be used in the future if the child or a sibling develops a treatable illness. A Royal College of Obstetricians and Gynaecologists expert panel has recently concluded that there is currently insufficient evidence to support this practice. Despite this lack of evidence, the promotional material produced by some private stem cell collection companies has led to more families enquiring about this service.

What are the potential risks of stem cell collection?

Collection of stem cells needs to occur within minutes of the baby being born. This is a time when the health of both mother and baby need the full attention of the healthcare professionals looking after them, and it's important that the process of labour and delivery of the placenta proceed in the usual manner. At this time, some umbilical cord blood may be needed for clinically proven blood tests, such as oxygen levels in the baby or to detect blood type incompatibility (rhesus disease).

For successful stem cell collection, a considerable volume of blood is needed, and care must be taken to ensure that it is not contaminated. It is therefore a complex procedure which must be performed by an individual who is specifically licensed to carry out stem cell collection; this individual will not be involved in any other aspect of care of the mother or baby.

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UHS' position on the collection of stem cells without medical justification

Unless there is a medical reason for stem cell collection, our staff will not have any involvement in, or responsibility for, stem cell collection by private stem cell collection companies. This is because of the reasons explained in the potential risks section on page 1, and also because this procedure is not considered to be necessary for the vast majority of families.

It's important to understand that stem cell collection will only be allowed to go ahead if it is safe to do so.

If you wish to arrange private stem cell collection

If you wish to arrange for private stem cell collection at your own cost, UHS will not prevent this from happening. You will need to engage the services of an independent company who will provide a fully trained and licensed person to take the cord blood sample. The company must be registered with the Human Tissue Authority and hold a valid licence for stem cell collection.

You are also responsible for notifying the maternity service of your intention to collect the stem cells. You should inform your midwife at the earliest opportunity and contact the personal assistant (PA) to the director of midwifery on the telephone number below, who will provide you with the necessary information and consent forms. We will ask you to sign the consent forms to say that you have understood UHS' position. You must complete and return these forms as soon as possible during your pregnancy. If you do not return the forms before your labour, we may be unable to accommodate your request for stem cell collection.

UHS have strict criteria that your independent company must follow when carrying out this procedure, including the fact that the procedure may have to be abandoned if an urgent medical need takes priority. Your independent company will be wholly responsible for the collection, storage and all future management of the blood sample.

Contact us

If you have any further questions or concerns, please speak to your midwife.

You can contact the PA to the director of midwifery on telephone: **023 8120 6026** (Monday to Friday, 9am to 5pm).

Useful links

NHS Blood and Transplant

www.blood.co.uk

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **patientsupporthub@uhs.nhs.uk**

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**