

Fresh Frozen Plasma (FFP) and Cryoprecipitate

Patient information



What is Fresh Frozen Plasma (FFP) and cryoprecipitate?

FFP and Cryoprecipitate (often just called 'cryo') are both blood components made from plasma. Plasma is the yellow liquid that carries red cells, white cells and platelets within the blood vessels around the body. It contains vital proteins known as clotting factors. These clotting factors help to control bleeding and work together with platelets to ensure that blood clots effectively when needed, for example when you cut yourself.

FFP is made from plasma which is separated from donor blood and frozen to minus 35°Centigrade to preserve it.

Cryo is made from FFP which is frozen and repeatedly thawed in a laboratory to produce a source of concentrated clotting factors including Factor VIII, von Willebrand factor and fibrinogen.

FFP and cryo are stored as frozen packs until needed. They are then thawed in the laboratory before being sent to the ward. Both these blood components are yellow in colour, not red.

What are FFP and cryo used for?

FFP and cryo can be used to treat a number of different conditions and diseases where clotting is a problem. For example, they can be given alongside blood and platelets when patients have lost a large amount of blood or have problems with the way their blood is clotting.



FFP can also be used as a treatment for patients who lack specific clotting factors, these are known by the Roman Numerals II, V, VII, IX, X, and XI. Some people are born without one or more of these clotting factors or develop diseases that destroy them in the body. If this is the case, they need to have them replaced by transfusions of FFP or with an alternative medicine where it is available.

You may wish to discuss which is the best treatment for you with your doctor, nurse or midwife.

Is a transfusion of FFP or cryo safe?

Yes, compared to other everyday risks the chance that a frozen component transfusion will make you ill is very small.

One of the most important ways of ensuring a safe transfusion is to make sure that you receive the right component. To ensure this the staff will carry out careful identification checks when they take blood samples and before the component is given. This is why it is important that you wear an identification band. You will be asked to confirm your full name and date of birth, even if you have had a number of transfusions this should be done each and every time to make sure you are receiving the correct component. Please remind the staff to ask you this if they do not do so.

All blood donors are unpaid volunteers and the risk of viral infections has almost been eliminated as a result of careful donor selection and testing.

Are there any side effects?

Frozen components, like all other blood components, can cause reactions and infections, but these are rare.



How will a transfusion of FFP or cryo be given?

These frozen components are thawed in the laboratory before being sent to the ward and are given to patients through a narrow tube directly into the vein. Most people do not feel anything unusual whilst receiving a transfusion, but it is very important to tell a member of staff if you feel unwell in any way. As with all transfusions a member of staff will monitor you closely before, during and after the transfusion.


Each pack of FFP contains 200-300mL and takes around 30 minutes to transfuse.

Each pack of cryo contains approximately 200mL and also takes around 30 minutes to transfuse.

It may be necessary for you to receive more than one pack during the transfusion.

What if I have concerns about receiving a transfusion of FFP or cryo?

If you have any concerns you should discuss these with your doctor, nurse or midwife. Like all medical treatments, these transfusions should only be given if essential. Staff will balance the risk of you having the transfusion with the risk of not having one. They may also discuss with you the use of other alternatives to replace clotting factors if they are suitable for you.



Patient Blood Management (PBM)

PBM is a new standard of care that focuses on measures to reduce or avoid the need for a blood transfusion if possible. However, if a transfusion is needed, it makes sure that patients are given only what they really need and that the transfusion is given safely. There is a NHSBT PBM Patient Information Leaflet available that explains things in more detail so please ask your nurse or doctor for a copy.

Recent studies suggest that if PBM is followed and transfusion is reduced or avoided, patients have fewer complications, faster recoveries and shorter stays in hospital.

During your treatment, a transfusion of red cells or other blood component such as platelets may be required. If so, there are other patient information leaflets available from NHSBT such as "Will I need a blood transfusion?" that may help explain things for you. Please ask your doctor or nurse for a copy of the other leaflets that are suitable for your proposed treatment pathway.

**Further information from NHSBT on Blood Transfusion
Information for Patients is available from the following website:**
[http://www.blood.co.uk/information-for-patients/
blood-transfusion](http://www.blood.co.uk/information-for-patients/blood-transfusion)



NHS Blood and Transplant

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For more information

Visit nhsbt.nhs.uk

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