

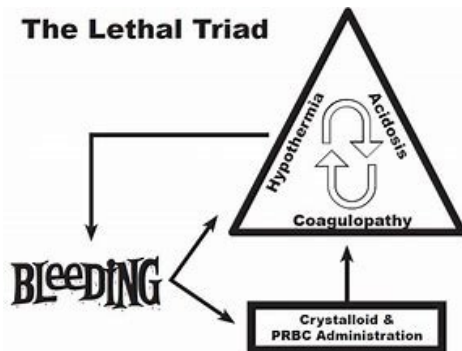
# Optimising the pre operative patient

Early Tranexamic acid (TXA), an Anti-fibrinolytic agent given within 3hrs of the incident reduces the need for blood transfusions pre operatively. This therefore reduces the need for post operative transfusions.

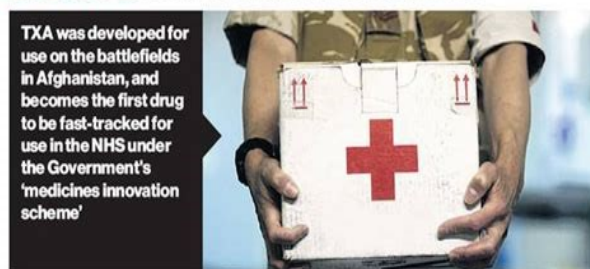


Replacing blood loss with whole blood is essential. The use of RBC and FFP on a ratio of 1:1 is suggested in many trials and plays an important part of coagulopathy and the lethal triad.

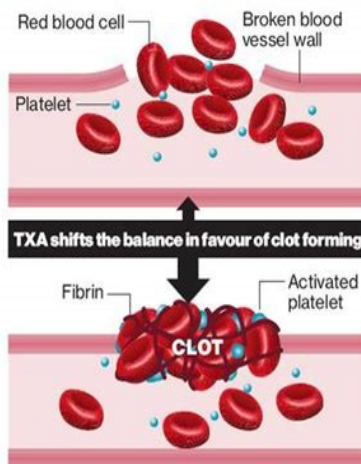
## The Lethal Triad



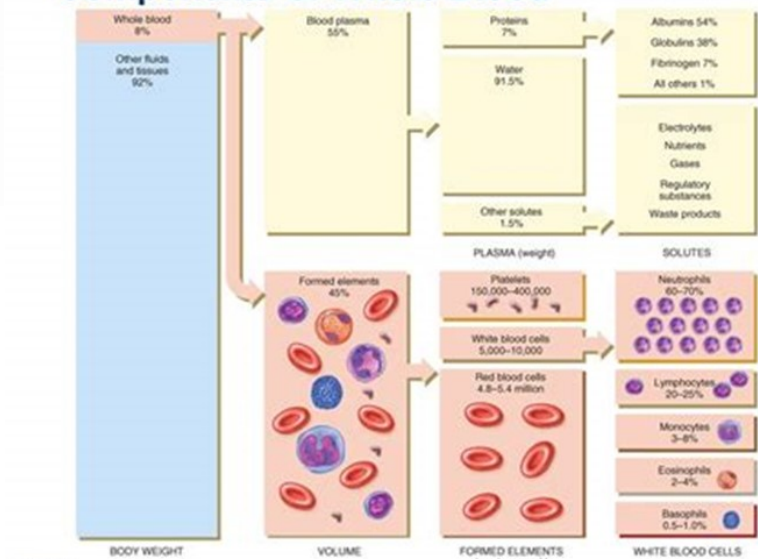
## LIFE-SAVER HOW THE NEW DRUG WORKS



**Blood clotting** involves a complicated interaction between red cells, platelets and a blood protein called fibrin which binds the clot together. Tranexamic acid (TXA), known by its tradename Cyklokapron, speeds up the process of blood clotting by preventing the breakdown of fibrin. Normally, blood clotting is limited by a substance called plasmin, which dissolves clots, but tranexamic acid blocks the formation of plasmin and so speeds up clotting.



## Components of Whole Blood



Optimising haemoglobin levels pre-operatively is essential. Crash 2 study shows that TXA plays an essential part in reducing bleeding and enhancing clot formation. It also plays a part in inflammation reduction.

**CRASH2**  
Clinical Randomisation of an Antifibrinolytic in Significant Haemorrhage