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Plasmax®

Plasma Concentration System

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The Plasmax® Plasma Concentration System is comprised of two distinct parts, the GPS III® Separator and the Plasmax Concentrator. The GPS III® Separator produces leukocyte-rich platelet-rich plasma (L-PRP) from a small sample of the patient's own blood. The Plasmax Concentrator produces autologous fibrinogen-rich platelet-poor plasma concentrate (PPPc)* utilizing polyacrylamide beads to remove excess water.

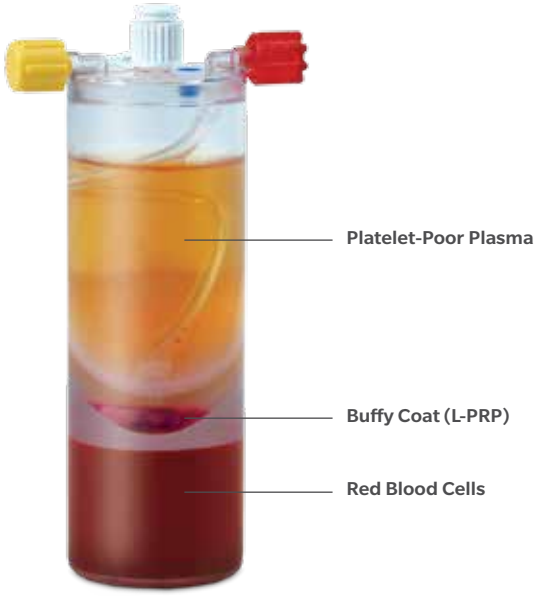
Plasmax Concentrator

Features:

- 3x increase in plasma proteins including fibrinogen[1]
- Outputs up to 10 cc of rapidly polymerizing autologous plasma concentrate
- Outputs up to 6 cc of platelet-rich plasma (from GPS III Separator)
- Total centrifugation time is less than 20 minutes
- Point-of-care preparation
- No refrigeration required

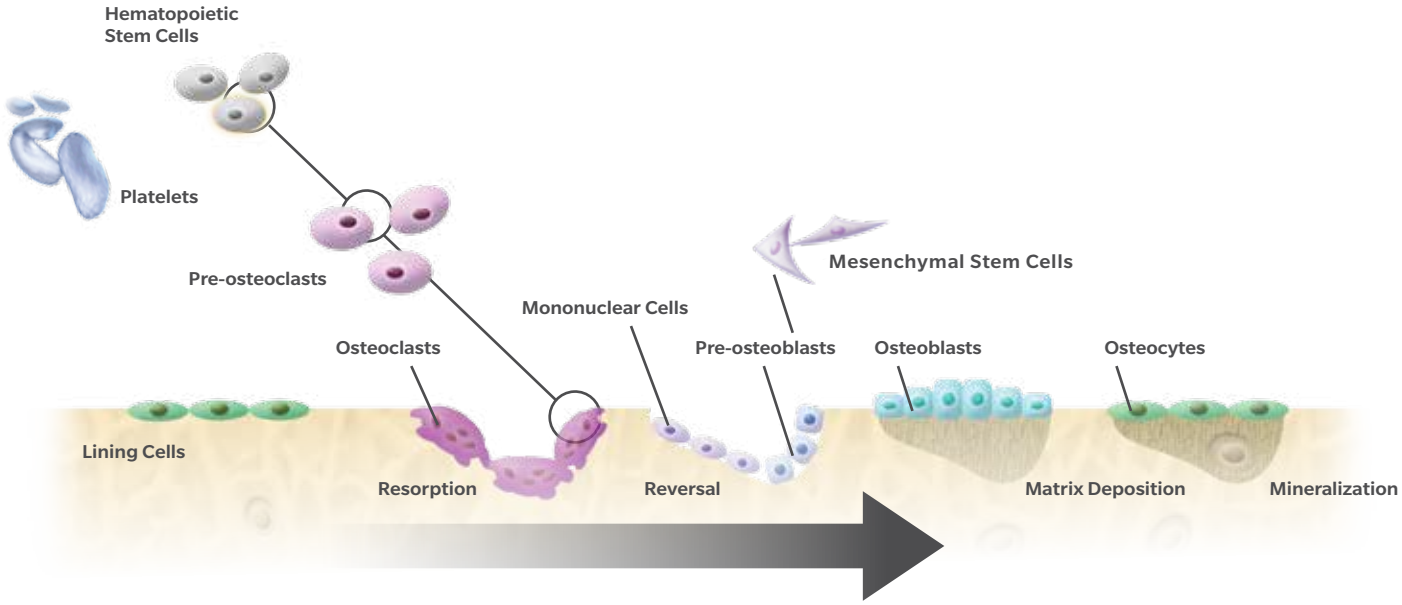
GPS III® Separator

Autologous output from the Plasmax® Plasma Concentration System eliminates concern regarding pooled blood sources. Pooled plasma sources found in donor-based fibrin sealants carry the risk of transmitting infectious diseases and viruses.



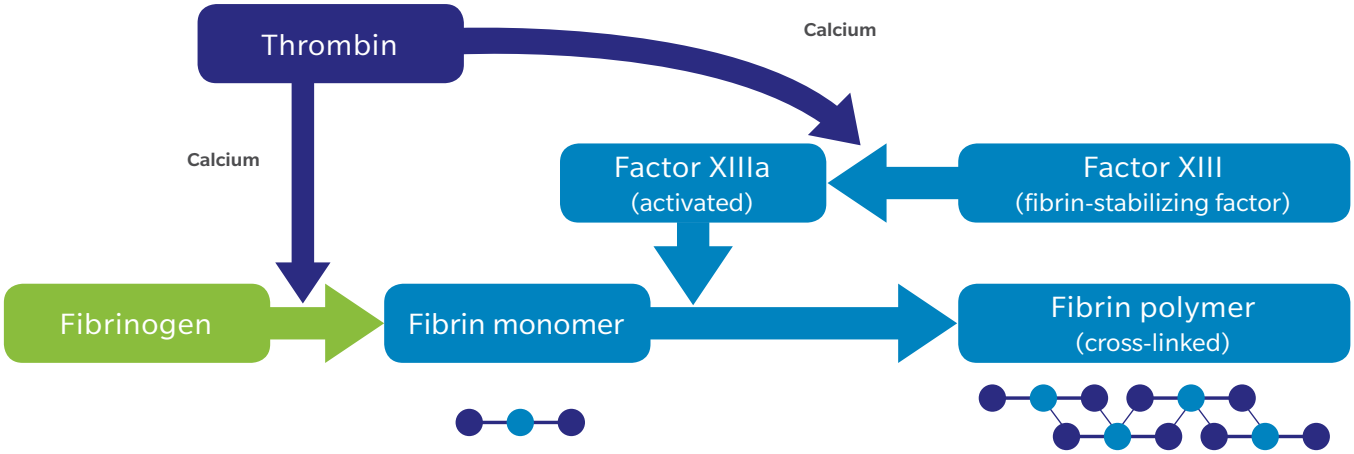
The role of fibrin in bone graft handling

Soluble fibrinogen is a component of whole blood. As part of the coagulation cascade, thrombin begins to cleave fibrinogen to form cross-linked fibrin molecules. This cross-linking forms the structural basis for the platelet-poor plasma gel or clot. Then, the activation of protein Factor XIII begins to stabilize the cross-linking between fibrin molecules.[2]



Images adapted from reference 2.

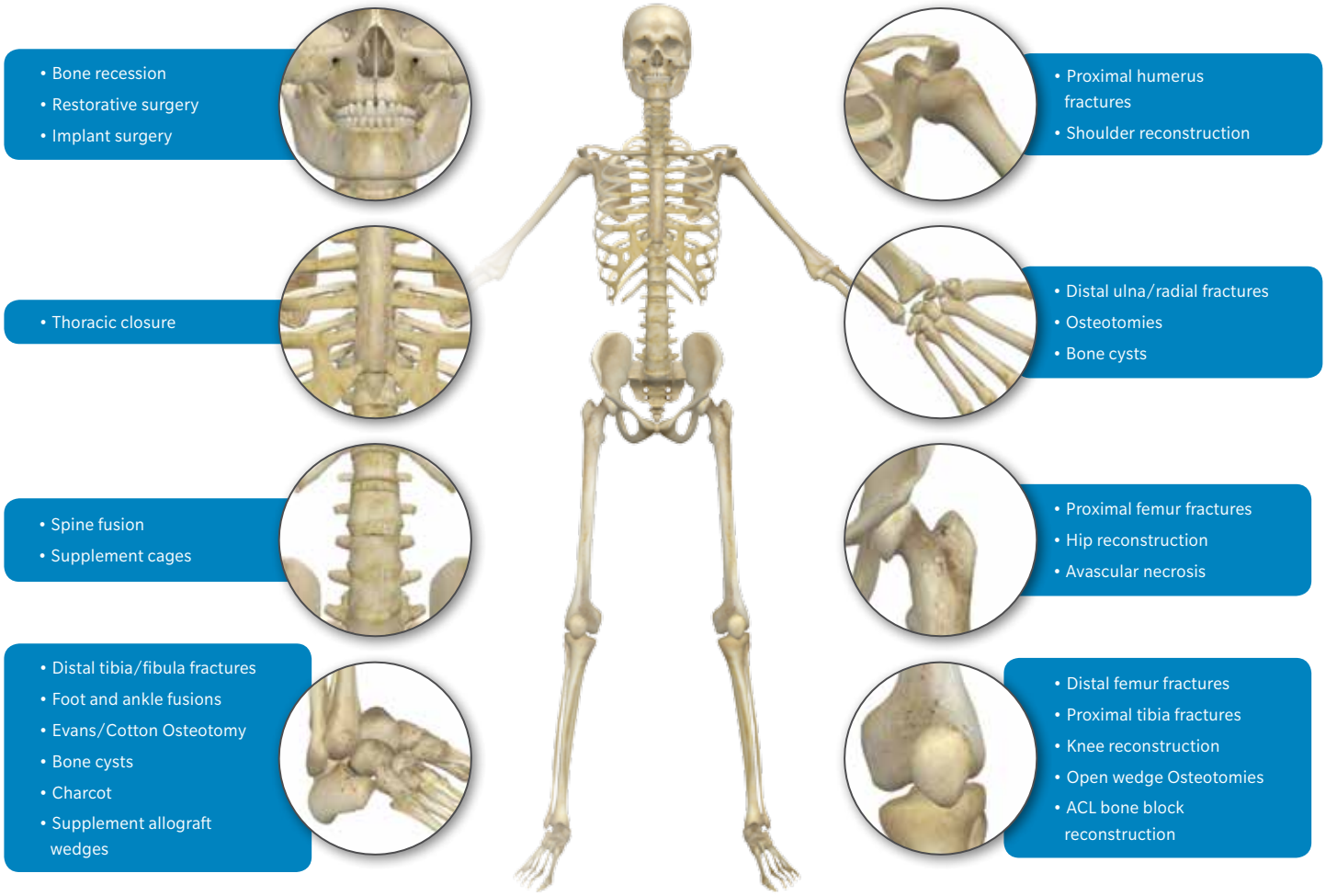
Natural Coagulation Cascade



Images adapted from reference 5.

Examples of Autograft/Allograft Bone Grafting Applications

The output* from the Plasmax® Plasma Concentration System can be mixed with autograft and/or allograft bone prior to application to an orthopedic site.



* The safety and effectiveness for bone healing and hemostasis has not been established.

References

1. Bench data on file in Verification and Validation Report OT000139. 2006.
2. Robbins, Stanley L., Ramzi S. Cotran, and Vinay Kumar. Pathologic Basis Of Disease. 7th ed. Philadelphia: Saunders, 1984.

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