

GPS III[®]

Platelet Concentration System

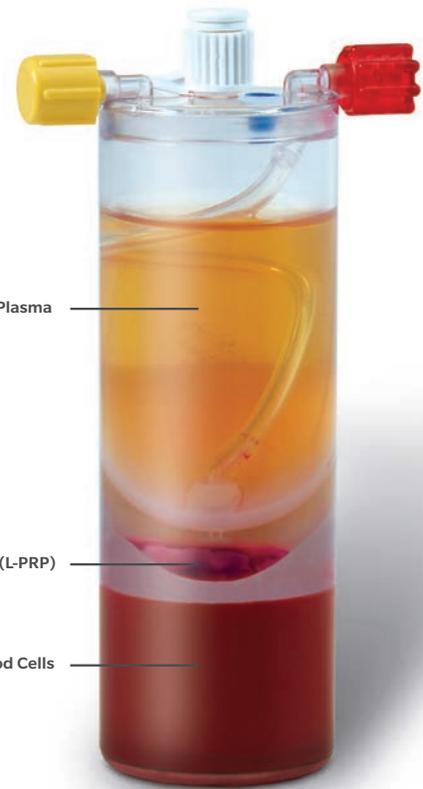


GPS III® Platelet Concentration System

Whole blood contains several components that can be concentrated during centrifugation to form a buffy coat layer or leukocyte-rich platelet-rich plasma (L-PRP).^{*} By utilizing the GPS III® Platelet Concentration System, the patient's own platelets can be separated into a highly concentrated formula.

PRP Output* Concentrations

- 90% recovery of available platelets²
- 9.3x platelet increase over baseline²
- 5x white blood cell increase over baseline²
- 6 ml of autologous PRP output^{*,2}
- 15 minutes centrifuge process²



Platelet-Poor Plasma

Buffy Coat (L-PRP)

Red Blood Cells



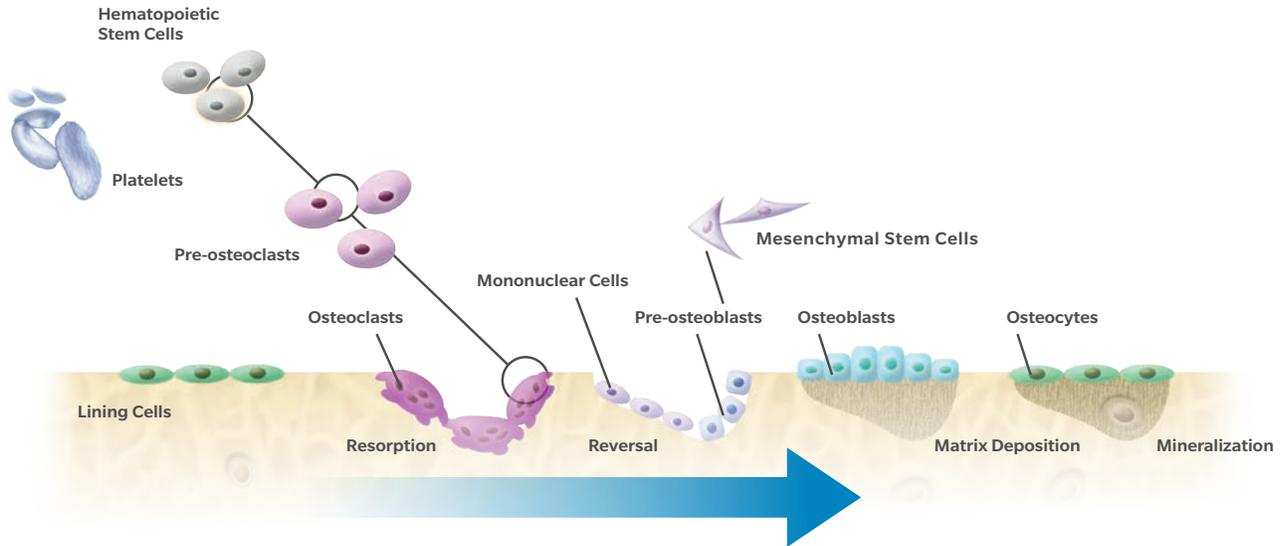
The proprietary, finely tuned buoy mechanism captures up to 90% of the available platelets.

The blood components are separated into compartments for easy retrieval through the designated ports.

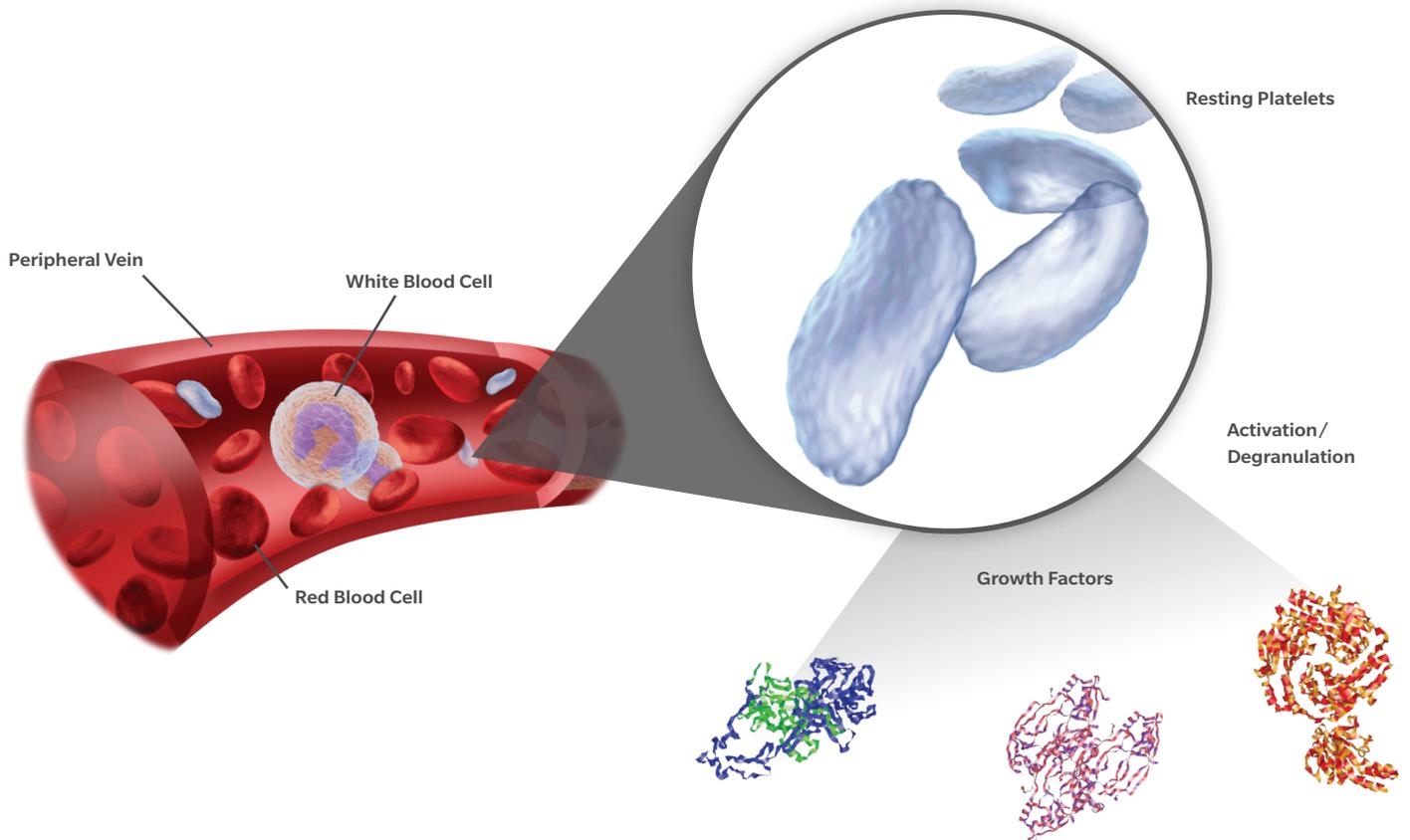
Note: It's important to properly citrate the blood draw: 6 ml of ACD-A for 54 ml blood draw, 3 ml of ACD-A for 27 ml blood draw.

The role of whole blood in bone remodeling

Whole blood contains components which play a key role in bone formation.³ Growth factors and signaling proteins from platelets stimulate the proliferation of osteoprogenitor cells as part of the bone remodeling process.⁴

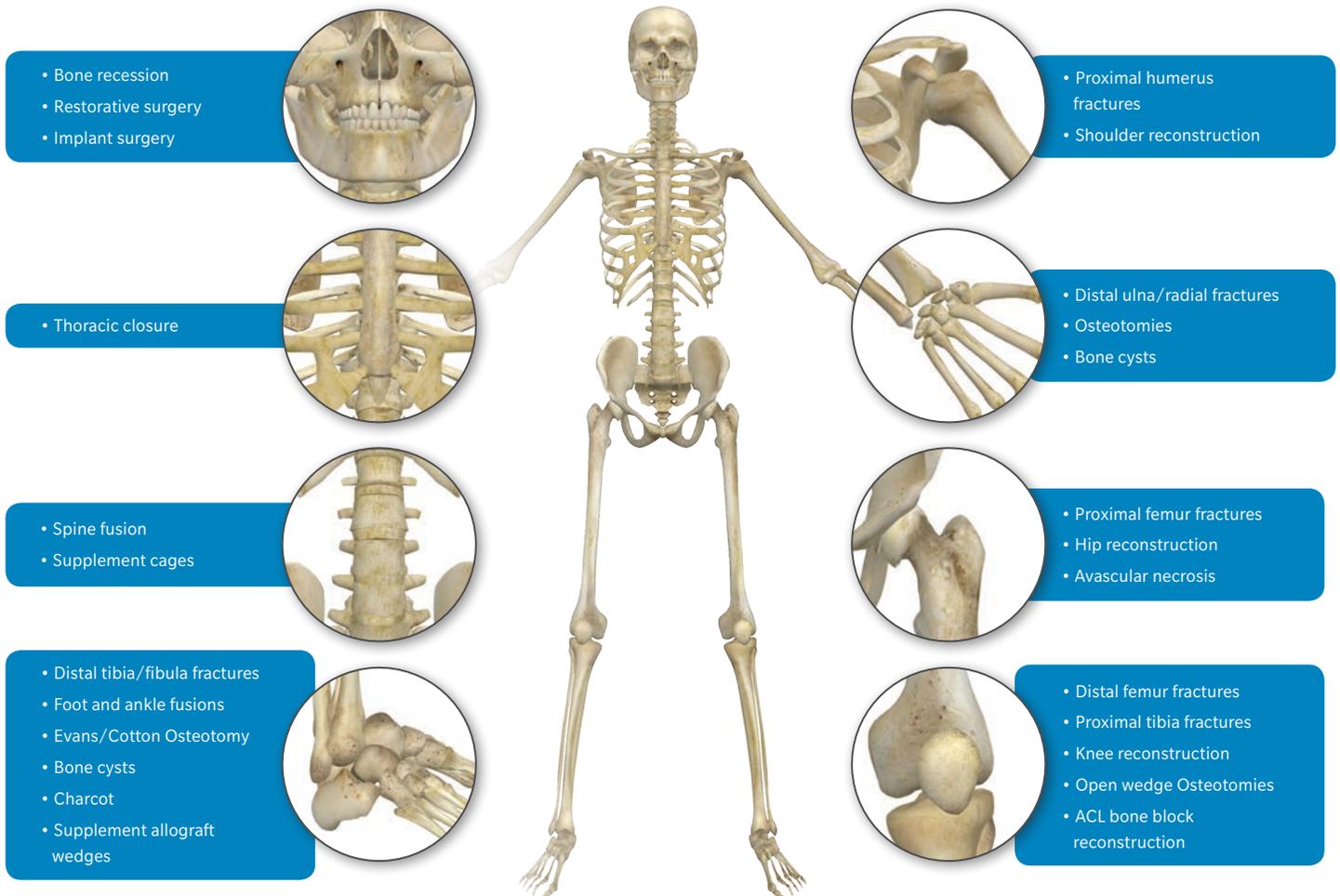


Images adapted from reference 5.



Examples of Autograft/Allograft Bone Grafting Applications

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



*The platelet-rich plasma (PRP) prepared by this device has not been evaluated for any clinical indications. The safety and effectiveness of this device for in vivo indications for use, such as bone healing and hemostasis, have not been established.

References

1. US Markets for Orthopedic Biomaterials 2013. Millennium Research Group, Inc. Published December 2012.
2. Data on file at Biomet Biologics, LLC.
3. Han, B., Woodell-May, J., Ponticello, M., Zhi Yang, Nimni, M. The Effect of Thrombin Activation of Platelet-Rich Plasma on Demineralized Bone Matrix Osteoinductivity. *J Bone Joint Surg Am.* 2009;91:1459-1470.
4. Robbins, Stanley L., Ramzi S. Cotran, and Vinay Kumar. *Pathologic Basis Of Disease.* 7th ed. Philadelphia: Saunders, 1984.
5. Kapinas, K., Delany, A. MicroRNA Biogenesis And Regulation Of Bone Remodeling. *Arthritis Research & Therapy* 2011, 13:220.

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