



Cellenis PRP System™ is an advanced and innovative Platelet Rich Plasma ("PRP") preparation system to collect, separate and concentrate pure PRP.

Simple and easy to prepare, and above all, cost effective.

Key advantages of the Cellenis PRP System

1. Optimal biological profile of PRP due to the separation gel :
 - High platelet concentration can be achieved with more than 90% yield of platelets.
 - Reduction of granulocytes, which mediates the catabolic effect (MMPs) ([Deryugina E/ Quigley JP., 2006. Cancer Metastasis Rev.](#)).
 - Eliminating red blood cells (RBC), which may inhibit proliferation and induce apoptosis ([Fredriksson K. et al, 2004. Scand J. Immunol.](#)).
 - Enriching mononuclear cells which induce anabolic effect, increase collagen expression and fight infection ([Yoshida R. Murray MM., 2013. J Orthop Res.](#)).
2. Short preparation and handling - only 10 minutes centrifugation (one spin) at a Relative Centrifugal Force of 1500g. This simple process will result in a pure PRP with its growth factors and without RBC and Granulocytes. Total preparation time about 15 minutes. Only five or six preparation steps.
3. Easy to use system, with both a closed and semi open system available. The short and easy guidelines enable consistently reproducible PRP
4. Expensive capital equipment is not required - Simple swing centrifuge will work with Cellenis PRP as well as fixed angle.
5. The flexible and easy to use system enables the users to obtain higher/lower concentration by simply adjusting the amount of clear plasma removed from the tube. Concentrations from 1.8 x above base line to up to 10 x (not recommended) can be achieved. Typically, a concentration of 4-5 x is used by clinicians.
6. Cellenis PRP vacuum tube is pre-filled with anti-coagulant and is manufactured using QA controlled accurate filling devices. No risk of too little or too much anticoagulant; this is important.

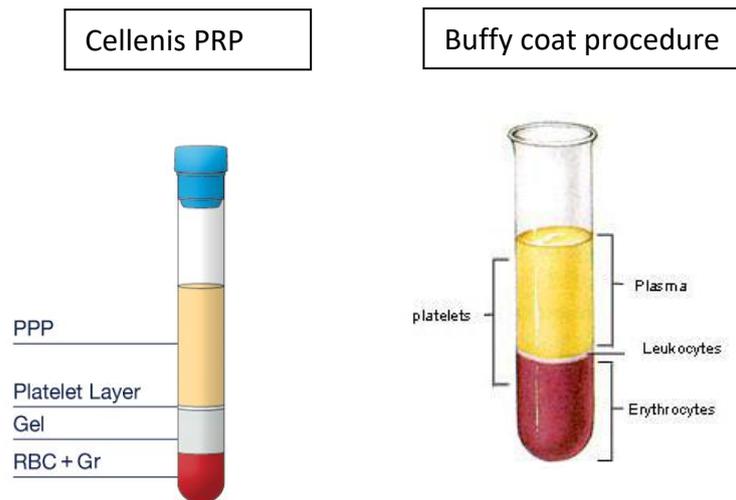
7. Cellenis PRP is a patented medical device, FDA cleared and CE certified (Class IIb). The device and its components are tested for biocompatibility, cytotoxicity and other relevant tests.

Several important factors to consider when comparing different PRP Preparation systems

1 Platelet Concentration: is there the ability to concentrate platelets above an average 1.6 times above baseline? With the Cellenis system, platelet concentration can be adapted to the needs of the clinician and the indication.

2 Cellular Content of PRP:

- Our patented device, containing the latest, advanced separation gel and filter, ensures efficient collection of platelets with a harvest rate in the region of 90%. Other systems which use a buffy coat method for the separation often result in RBC and granulocytes contamination as well as low platelet yield of about 60%.
- As shown in the figure below, platelets from a buffy coat preparation are dispersed in and below the buffy coat "ring". With the Cellenis gel based separation, platelets are forced during the centrifugation process, to the top of the gel, completely separate from the RBC layer.
- The separating gel also enables re-suspension of the platelets within the plasma after centrifugation.
- Importantly, young platelets, representing the densest and the most active in their population will usually be found right on top of the gel after centrifugation. Without this gel it would be almost impossible to harvest the young platelets off the top of the RBC as in a buffy coat method of preparation



3 Safety and Efficacy of the PRP System. Cellenis PRP is registered as a Medical Device while some of the alternates are designated for In-Vitro Diagnostics.

Cellenis separating gel is independently tested in four major studies submitted to regulators, including cytotoxicity. It is a polymer inert gel and is 100% biocompatible. It does not react in any way with the plasma.

4 Procedure duration. Cellenis PRP device requires a short four to six step preparation process which results in a highly pure fraction of PRP (compared to buffy coat systems) in only a few minutes (compared to other systems which often require two spins and prolong handling with many steps in the preparation).

5 Accuracy in anticoagulant volumes. Cellenis PRP contains an anticoagulant in a pre-filled tube. The vacuum tube will be filled with the exact measured blood volume which is correlated with the anti-coagulant volume. This will avoid cumbersome progress and reduces margin for error.

6 High technology. Cellenis PRP tubes have a special coating which prevents cells from adhering to the tube surface. This elevates platelet yield and product efficacy.

7 Platelet pre-activation. Cellenis PRP is not activated prior to injecting. Activation occurs in a controlled, natural and sustained manner in situ when platelets come into contact with thrombin, collagen or endothelial cell walls. Nevertheless, in several applications where pre-microactivation is needed, ex-vivo activation is possible with the Cellenis PRP

8 Low expense. Expensive capital equipment is not required