

Platelet Rich Plasma (PRP)



Before Your First PRP Case

- Open up all the equipment boxes, set up the equipment & check all equipment is operating correctly
(This should be done a few days before 1st case)
 1. Clean Room Hood requires assembly (~1 hour)
 2. Secure rotor & adaptors properly into the centrifuge (< 5 min)
- Wipe down the hood with isopropyl alcohol. **THIS MUST BE DONE BEFORE EACH CASE.** (It is good practice to give everything a wipe down since it was previously packaged)

Equipment



■ Centrifuge

- Swing-arm centrifuge or equivalent
- Capable of producing adipose-derived stem cell therapy, bone-marrow derived cells, PRP, and IRAP



■ Portable Clean Room Hood

- HEPA-Filtered Laminar Flow Biological Safety Cabinet (LFBSC)
- Provides a compact and HEPA-filtered sterile work area which is ideal for stem cell processing in any environment

Flow Hood Assembly



- **Assembly Time: ~ 1 Hour**
- **Step-by-step Flow Hood Assembly Instructions:**
 - All items listed and numbered
 - Tools needed for assembly specified
 - Graphic representation for each step
 - Phone support provided
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Platelet Rich Plasma Protocol

Protocol/Checklist: Isolation of Human Platelet Rich Plasma

Patient Name: _____

REQUIRED MATERIALS (Not Included In the Kit):

Materials Needed	Quantity Required
Reinjection Syringe	1
Needle	1

MATERIALS INCLUDED IN KIT:

Plastics Convenience Kit	Quantity Required	Lot Number	Expiration Date
50 ml Conical Tube	1		
Cell Extractor	1		
Blood Collection Set	1		
Venous Blood Collection Tubes	4		



Platelet Rich Plasma Protocol

- ❑ 1. Dispose of all material associated with previous patients. Thoroughly clean all surface areas with alcohol.
- ❑ 2. Record patient name on all 50 ml conicals and collection tubes.
- ❑ 3. Collect approximately 30-35 ml of peripheral blood using the blood collection tubing set and the 4 blood collection tubes.
- ❑ 4. Thoroughly spray the tubes with sterile alcohol, and place in the hood.
- ❑ 5. Spray one 50 ml conical tube and place in hood.
- ❑ 6. Remove the caps from the blood collection tubes and pour into the 50 ml conical.
- ❑ 7. Cap the 50 ml conical tube and centrifuge it at 500g (2000rpm) for 8 minutes.
- ❑ 8. Attach one of your own reinjection syringes to the cell extractor in the kit and collect the desired amount of Platelet Rich Plasma.

Blood Collection

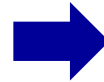
All materials, instruments, etc should sprayed with alcohol prior to placing inside the LFBSC

1. Obtain blood tubes with patient blood & invert to mix with anticoagulant solution.
2. Spray outside of tubes containing blood with alcohol and place into LFBSC along with a 50ml conical tube.
3. Pour blood from tubes into the 50ml conical tube.



Plasma Separation

Centrifuge the conical at 500g (1800 rpm) for 8 minutes.



Plasma Separation

After centrifuging, you will get multiple layers as shown:



Platelet Poor Plasma (PPP) and Platelet Rich Plasma (PRP).

***PPP is towards the top and PRP is near the buffy coat (the location of the most concentrated platelets). You will not be able to distinguish these two layers.**

White blood cells or buffy coat (thin white cloudy layer)

Red blood cells

PRP Isolation

Attach the cell extract to your reinjection syringe and collect the PPP layer and the desired amount of Platelet Rich Plasma.

