

















#### PRP - Platelet Rich Plasma

The PRP therapy is gaining in popularity as single supportive treatment option for many indications. Autologous PRP contains different growth factors and other cytokines which may elicit gathering of stem cells around the damaged region stimulating cellular proliferation and tissue regeneration.

PRP contains growth factors that stimulate cellular growth and division.

- TGF-B (Transforming Growth Factor-beta)
- bGFG (Basic Fibroblast Growth Factor)
- PDGFa-b (Platelet Derived Growth Factor)
- EGF (Epidermal Growth Factor)
- VEGF (Vascular Endothelial Growth Factor)
- CTGF (Connective Tissue Growth Factor)



#### Safe

Using autologous blood means there is no risk of infection, allergic reaction, or any other side effect.

## Convenient

The treatment is quick and absolutely non-Invasive.

#### **Natural**

Patient feel no sense of violation by foreign bodies and the treatment effects are completely natural.

## **Effective**

Because the treatment uses growth factors, its effects are superior & effective.

## **Autologous Platelets: Effective but Delicate to Handle**

- Vibration free centrifugation with right speed, time & temperature is important for intact biological properties
- Platelet's Processing & storing temperature at 22\*C is important ......\*AABB Technical Manual 18th Edition
- Cooling centrifuge saves platelets from the effect of heat generated during centrifugation......\*\*Blood Vol 32, No.2 (August), 1998



Keep blood at room temperature (20 to 24 C) before separating platelet-rich plasma from the red cells. This separation must take place within 8 hours of phlebotomy.

\* Method 6.13. Preparation of Platelets from Whole Blood; AABB Technical Manual 18th Edition

Heat induced loss of functional capacity is due to irreversible structural changes in platelets develop after warming PRP above 40°C. Heat produced a distinct morphological transformation characterized by loss of discoid shape, irregular swelling, and movement of hyaloplasmic organelles.

\*\* Effect of heat on platelet structure and function; Dr James G. White; Blood, Vol.32, No. 2 (August), 1998,



Specifications subject to change without notice













## PRP Centrifuge

REMI is a leading name in India for Blood Bank & Laboratory equipment.

REMI is synonymous for centrifuge performance since year 1960. Our expertise in blood component separation brings the best  $solution - \textbf{PRP centrifuge} \ for \ low \ volume \ autologous \ PRP \ extraction \ within \ shortest \ possible \ time. \ PRP \ centrifuges \ are \ available$ in Refrigerated and Non – Refrigerated versions.

PRP Centrifuge brings automation & ease of operation with simple steps to separate the autologous PRP.

- Specially designed for PRP kits to ensure standard platelet property & standard platelet count
- Microprocessor controls on all run parameters (RPM/RCF, Acceleration, deceleration, time & temperature) for consistent high platelet's yield
- Safety Features:

Door interlock, imbalance cut off, overload protection

- Ease of Operation: LCD display to select parameter, Feather touch Keypads
- Dedicated preset button: Programmed to pre-cool / run at recommended temperature for blood processing Avoids Hemolysis (AABB manual\*)
  - F1 for pre-cool for keeping the centrifuge ready for separation
  - F2 for 1st spin for platelet separation
  - F3 for 2nd spin for platelet concentrate
- Hygienic: Easy to clean Stainless steel chamber
- Stable: Brushless induction drive motor (practically maintenance free)



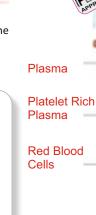




**Process** of PRP centrifuge



Dr.PRP is a medical device exclusively designed for autologous PRP separation. Highly concentrated platelets by the Dr. PRP kit release large amounts of growth factors which are normally inside the platelets.





(Dr. PRP Kit is a FDA approved product Imported from Korea)

How

To

**Extract** 

**Platelet** 

Rich

Plasma



Use 20 cc syringe take 2 cc of anticoagulant and then draw 18cc of blood & mix well.

Mix & draw Platelet concentrate with 5 cc syringe. Then administrate



Inject the blood to Dr.PRP kit through the upper injection port (For easier injection, tilt the kit)



Open the upper silicone lid on the Kit. Take out PPP with 10cc syringe



1st centrifugation press F2 button on PRP Centrifuge. (balance before procedure)



2nd Centrifugation press F3 button on PRP centrifuge. (balance before procedure)



Adjust the height of

separated boundary

by pulling up or

down the adjusting

knob.

Block the plasma and the RBC layer completely, fasten the adjusting knob (clockwise)













Technical Data		
	PRP Plus	PRP
Max. Speed (rpm)	4000	4000
Max. RCF (g)	5000	5000
Max. Tube Size (ml)	20	20
Max. Capacity (ml)	120	120
*Min. Temperature (°C)	22	37
Dimensions WxDxH (mm)	480 x 585 x 530	380x470x300
Voltage Stabilizers	VS - 02	— NA
Supply: 220-240 Volts 50 Hz single Phase		

Note: Depending on capacity, type of rotor centrifugation speed, ambient temperatures and other process parameters.



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