

## UP TO 4X MORE EFFECTIVE THAN STANDARD CENTRIFUGES.

The first commercially available horizontal centrifuge specially designed for the production of platelet rich fibrin.



A photograph of two scientists, a woman and a man, both wearing white lab coats, in a laboratory setting. The woman is holding a small vial with a red cap and a blue glove, and they are both looking at it intently. The background shows laboratory equipment and shelves.

## SIMPLE, EFFECTIVE AND 100% AUTOLOGOUS.

- Improves vascularization
- Excellent soft tissue wound healing
- Low cost
- Growth factors release > 10 days
- Production of a 'sticky' matrix for optimal bone graft handling
- No chemical additives





## THE BIO-PRF SYSTEM IS THE FIRST COMMERCIALY AVAILABLE HORIZONTAL CENTRIFUGE SPECIFICALLY-DESIGNED FOR THE PRODUCTION OF PLATELET RICH FIBRIN

Bio-PRF is a 100% natural and autologous three-dimensional fibrin scaffold derived from peripheral blood. Following effective centrifugation, platelets and leukocytes are accumulated within the upper PRF layer. Protocols utilizing using horizontal centrifugation with the Bio-PRF system are able to accumulate up to 4 times more platelets and leukocytes when compared to standard fixed-angle centrifuges.



### ADVANTAGES OF HORIZONTAL CENTRIFUGATION:

- ✓ Up to 4 times more platelets and leukocytes
- ✓ Higher growth factor release when compared to fixed-angle centrifugation
- ✓ Better horizontal layer separation between PRF-clot and red blood cells
- ✓ More even distribution of regenerative cells throughout the PRF-clot
- ✓ Less cell damage/death on the tube walls produced on fixed-angle centrifugation
- ✓ Less RBCs accumulation

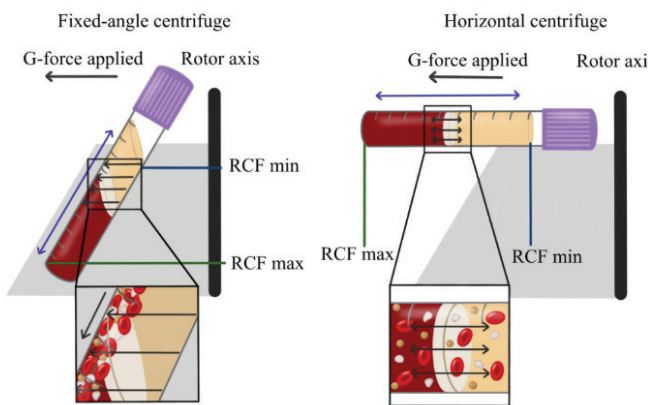
**LIQUID**PRF  
**SOLID**PRF



**100% NATURAL AND ACCUMULATES UP TO 4X MORE PLATELETS AND LEUKOCYTES**

## MODERN STUDIES PROVE THAT HORIZONTAL CENTRIFUGATION PRODUCES GREATER CONCENTRATIONS

A series of lab experiments demonstrated that horizontal centrifugation produces significantly greater concentrations of platelets and leukocytes when compared to the currently available fixed-angle centrifugation devices most commonly utilized to produce L-PRF or A-PRF.



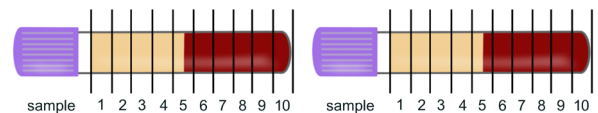
On a fixed-angle centrifuge, platelets, white blood cells and red blood cells accumulate on the back walls of the tube. This leads to improper cell separation and reduction in platelet and leukocyte concentration.

On a horizontal centrifuge, the cells separate much more efficiently throughout the entire tubes. This leads to better layer separation and also favors cells that are evenly distributed throughout the PRF clot.

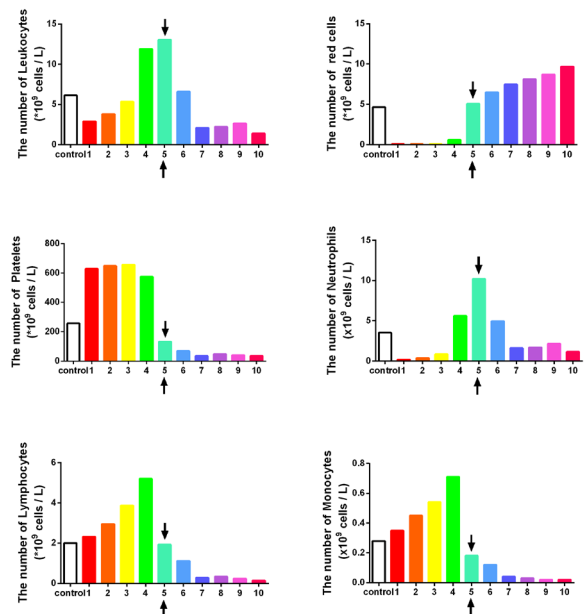
## THE MODERN SCIENCE OF PRF AND REGENERATION.

Platelet concentrates have been utilized in medicine for over 3 decades owing to their ability to rapidly secrete growth factors. They are known for speeding the revascularization of tissues (angiogenesis), acting as a potent recruitment agent of various cells including stem cells (chemotaxis), and inducing the prompt multiplication of various cell types found in the human body (proliferation).

Check out our website for more about the science and evolution behind PRF. [www.bio-prf.com](http://www.bio-prf.com)



Each blood tube as presented above is divided into 10 equal 1mL layers and quantified for cell numbers as presented below.



**Figure:** The concentration of cell types in each layer from 1mL down to the 10th mL sample utilizing the solid-PRF horizontal centrifugation protocol (700g for 8 minutes). Notice that most of the platelets as well as white blood cells are now more evenly distributed throughout the upper plasma layer. This is the first protocol generated for the production of PRF actually demonstrating an increase of white blood cells distributed throughout the upper PRF-layers.

# HORIZONTAL PRF CENTRIFUGE MACHINE WITH COMPLETE 14-PIECE KIT

The complete Bio-PRF kit comes with everything you need to get started.

The new Bio-PRF centrifuge is the first commercially available horizontal centrifuge specifically designed for the production of platelet rich fibrin (PRF). All protocols have been developed utilizing the horizontal technology. Furthermore, this machine differs significantly from other branded centrifuges in that the device can be easily programmed with newer protocols as research becomes available.

## THIS STARTER KIT INCLUDES EVERYTHING YOU NEED TO GET RESULTS:

- **Bio-PRF Tube Holder**  
Utilized to hold PRF tubes following centrifugation
- **Bio-PRF Tray**  
Used to prepare membranes and separate the red blood cells from the PRF clot
- **Bio-PRF Bowl**  
Used to cut a Bio-PRF membrane to mix with particulate bone grafts
- **Bio-PRF Scissors**  
Used to cut PRF membranes and separate the red blood cell layer from the PRF clot
- **Bio-PRF Forceps**  
Used to remove PRF clots from the centrifugation tubes
- **Bio-PRF Pad**  
Used to separate PRF membranes from the red clot.  
Used to carry PRF membranes to the oral cavity
- **Bio-PRF Small Compactor**  
Small instrument used to compact PRF-bone grafting complex into bone defects
- **Bio-PRF Large Compactor**  
Large instrument used to compact PRF-bone grafting complex into bone defects
- **Bio-PRF Double Spoon**  
Allows the carrying of bone grafting material
- **Bio-PRF Tourniquet**  
Used to facilitate blood draws
- **Blood Collection Butterfly Needles**  
Used to collect blood via veins (Box of 24)
- **Red Top Tubes**  
Used to make Solid-PRF (Box of 100)
- **White Top Tubes**  
Used to make liquid-PRF (Box of 100)

The Bio-PRF box allows for the even compression of PRF clots into even-thickness membranes that can then be utilized as barrier membranes during guided bone regeneration (GBR) procedures. These membranes contain a host of platelets and leukocytes that are capable of stimulating soft tissue wound healing and decreasing patient morbidity and pain post-op. The Bio-PRF box also contains slots to produce Bio-PRF plugs that can be utilized in extraction sockets.



## AVAILABLE FOR RE-ORDERS:



### RED TUBES

Used to make Solid-PRF. Made of 100% glass with no silica/silicone additives.



### WHITE TUBES

Used to make Liquid-PRF. PET tubes with no chemical additives.



### BLOOD COLLECTION BUTTERFLY NEEDLES

Used to collect blood via veins.

To order, visit  
[bio-prf.com](http://bio-prf.com)

To order and find more information, visit [www.bio-prf.com](http://www.bio-prf.com)



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