

# Harnessing And Enhancing The Body's Healing Mechanisms

Platelet Rich Plasma • Bone Marrow • Fat Graft Processing & Stromal Vascular Fraction Ready

- Achieves Purer Product With Higher PRP Concentrations
- Process PRP & Treat Patients In A Single Appointment
- Tailor White Blood Cell Levels To Targeted Treatment Outcomes
- Fast Process
- Less Cell Damage
- Bone Marrow Concentrate
- Centrifuge Ready For Fat Graft Processing & Stromal Vascular Fraction











#### Achieves The Highest Yields Of Any PRP Concentration System

Pure PRP achieves the highest recovery rates of any PRP concentration system. The system produces platelet recoveries of over 80% - far higher than earlier generation PRP concentration systems. Pure PRP® is the only PRP composition that is capable of achieving platelet concentrations of up to 9 times baseline in 7mLs, with 99% of the RBCs removed. This gives practitioners the ability to choose the platelet concentration they require to deliver therapeutic efficacy.

#### Tailor Neutrophil Granulocyte Levels To The Indication You Are Treating

Emcyte Pure PRP achieves better separation of blood constituents allowing practitioners to quickly attain the cell preparation appropriate for the patient. This allows practitioners to choose to include or exclude neutrophils depending on the treatment they are performing. Pure PRP® also greatly enhances monocyte concentrations (up to 7 times baseline). Monocytes are the largest of all leukocytes and are characteristically non-inflammatory phagocytic cells. They elicit an immune response which lasts for longer periods of time (months rather than days when compared to neutrophils).

#### Intelligent Processing Technique Allows For Faster Processing And Treatment

Protocols for Emcyte Pure PRP allow for collection, processing and treatment within a standard 20-30 minute appointment. This is more convenient for patients by eliminating the need for multiple appointments and travel time. Busy clinics can also schedule appointments with greater confidence and achieve optimal use of clinic time and resources.

#### The Technology That Delivers Improved Performance

The key to the Emcyte Concentrating System is the new ClearVUE Conical Piston. The piston is specially designed to greatly improve the collection of the cell concentrate buffycoat layer.

The primary feature of the new ClearVUE Conical Piston is it's deep conical design that perfectly extracts the cell concentrate buffycoat with minimal red cell integration. This provides quality platelet rich plasma and bone marrow concentrate with near perfect collection yields.

The ClearVUE Conical Piston also features enhanced handling of the concentrating device with frictionless motion and a CLEAR VIEW of the buffycoat while its being aspirated, further instilling confidence in the quality of the end product.



#### Pure PRP<sup>®</sup> Protocols Tailored To Your Patient's Needs

#### Protocol A - Low-Inflammatory PRP

- High Platelet Count
- Low Granulocyte
- Low Viscosity
- Less Than 1% HCT

The Low Inflammatory PRP Protocol processes Pure PRP® without red blood cells or neutrophil granulocytes. This protocol is used when powerful healing without inflammatory activity is required at the application site. This protocol is also the low viscosity solution to a viable PRP product, providing very high concentrations of platelets in a bath of nonviscous plasma. This protocol has also been reported to reduce the potential for pain at the application site. It is the most frequently used protocol.

#### Protocol B - PRP With Increased Cytokines

- Higher Platelet Count
- High Neutrophil Granulocytes
- Moderate Viscosity
- HCT Less than 20%

This protocol processes Pure PRP® with low red blood cell counts and very high cytokine activity and neutrophil cell recoveries. This protocol is used when the phagocytic powers of neutrophils are needed to help fight infectious processes. This protocol produces the highest chemoattractant activity and significantly increases regeneration potential. Once the neutrophils have completed phagocytosis, they become apoptic cells and are subsequently removed, thereby also eliminating the inflammatory activity.





#### Produce Bone Marrow More Consistently And Effectively

PureBMC® processes BMC in a system that remains closed and sterile throughout all steps of processing. This is especially important when processing in a surgical suite. It is also proven to concentrate viable platelets, hematopoietic stem cells (HSC), total nucleated cells (TNC) and mesenchymal stem cells (MSC) in a bath of plasma with a low hematocrit. PureBMC® can be prepared with or without Heparin, either way it provides viable platelet concentrates that further add to the strength of the cell composition. PureBMC® delivers the excellence and reliability physicians can depend on.

#### **Higher HSC Concentrations**

Hematopoietic stem cells (HSCs) are the blood cells that have the ability to replenish all blood cell types (Multipotency) and the ability to self-renew. This includes monocytes, macrophages, erythrocytes, megakaryocytes, platelets, neutrophils, basophils, eosinophils, dendritic cells and lymphoid lineage cells.

#### **Higher MSC Concentrations**

Mesenchymal stem cells (MSC) are multipotent stromal cells that can differentiate into a variety of cell types. These cell types primarily include cartilage, bone and adipose cells. Mesenchymal stem cells are found in very small quantities in bone marrow aspirate, making the concentrating capabilities of PureBMC® more vital to the physician.

#### **Higher TNC Concentrations**

Total nucleated cell count by any method is a count of cells with nuclei. In order to properly represent the TNC cell count a correction calculation that removes nucleated red blood cells (nRBCs) is performed. It is understood, as in other therapies, that more cells = better outcomes.

#### High Cell Concentrates With Low Concentrations Of Red Blood Cells

Hematopoietic stem cells (CD34+), total nucleated cell (TNC), mesenchymal stem cell (CFU-F) and platelet isolation is perfected. Similar to the Pure PRP®, PureBMC® (2015) is designed to retain high concentrations of these multiple cell concentrates with the lowest concentrations of red blood cells in a bone marrow concentrate product. Using a specialized cell isolation technique, PureBMC® (2015) provide more than 9X cell concentration in 7mL of PureBMC®. Preparation times are less than 10 minutes at the point of care. With careful attention to the details of gradient cell isolation, PureBMC® (2015) is a viable choice for a low hematocrit and high yielding bone marrow cell concentrate product.

#### Innovative Design Achieves Higher Quality Product





# The Emcyte Difference

#### Easy To Use With Fast Processing Times

Treatment protocols have been designed to produce high-quality outcomes while making the process easy for your clinic staff to perform in a convenient time-frame.

## **Produces Better Quality Sample**

Emcyte achieves the purest samples of any PRP system with the lowest levels of red blood cells.

#### Ability To Tailor The Sample To Treatment Needs

Different treatment outcomes require different levels of Leukocytes in the sample. Emcyte can tailor the levels of Leukocytes while maintaining high levels of monocytes.

## Produce Concentrations Capable Of Achieving Therapeutic Efficacy

Achieving treatment efficacy requires optimal concentrations of PRP. Emcyte goes beyond first-generation PRP systems to provide the capability to deliver concentrations of up to 9 times baseline if required. The flexibility of the system allows the sample to be easily tailored to the concentration required for effective treatment.

#### Single System Allows For Multiple Functions

Emcyte can perform both PRP and bone marrow processing. The system is also ready for Fat Graft Processing & Stromal Vascular Fraction.

#### Distributed in Australia by:



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