EMCYTE® CORPORATION

FROM IMPOSSIBLE TO INDISPENSABLE

The Leader in Platelet Rich Plasma
& Progenitor Cell Biologics

PUBLISHED - INDEPENDENTLY REVIEWED - PROVEN

PurePRP®
SupraPhysiologic

GenesisCS Component Concentrating System

From Impossible to Indispensable

Clinical Platelet Rich Plasma (C-PRP)

Clinical Platelet Rich Plasma (C-PRP) is a complex and specially concentrated composition of cellular components, that when prepared properly, can be used to heal and repair a host of injuries and conditions. C-PRP is a biologic, and the cornerstone of the consortium of regenerative therapies used in modern medicine. It is chosen over standard PRP because of its clinical strength and efficacy. It is also chosen as an alternative for many surgical conditions ranging from degenerative joint disease, to tendon and ligament injuries, to a host of other applications. C-PRP is used to make a true clinical difference in patient outcomes.

Composition of C-PRP (7-21 billion in 7mL)

Clinical platelet rich plasma (C-PRP) contains a specific range of concentrated platelets in a treatment sample. Scientific studies show proof of enhanced bone and soft tissue healing with a PRP platelet count of 1 - 3 million platelets per microliter [2]. This translates to 1 - 3 billion platelets per milliliter. Therefore, a 7mL treatment sample of C-PRP should contain between 7 and 21 billion deliverable platelets, depending on the patient's own baseline level of platelets. Other cells that are just as important as platelets in C-PRP are white blood cell mediators, cytokines and hormones. These include agranular cell types such as monocytes, and macrophages. These cells provide a powerful antimicrobial effect. They bolster the local immune response through the uptake of microbes and particles followed by its digestion and destruction. They also act as signaling molecules between cells. They bind to specific receptors on target cells and attract regenerative cells to it. This specially concentrated milieu of regenerative cells is the power of C-PRP.

PurePRP® SupraPhysiologic Provides C-PRP

PurePRP® SupraPhysiologic is one of the few systems available that can provide C-PRP. It provides upwards of 9 - 23 billion platelets in a 7mL sample of PRP, depending on the patient's baseline level of platelets. It is a clinical marvel with processing power that's not duplicated anywhere. It provides the world's most abundant concentration of deliverable regenerative platelets and growth factors at the point of care. It also simultaneously removes the inflammatory contaminants found in most PRP products. This carefully orchestrated task yields PurePRP® SupraPhysiologic, the clear leader in PRP concentrating systems.

REFERENCES
1. Robert E. Marx, DDS. Platelet-Rich Plasma (PRP): What Is PRP and What Is Not PRP? IMPLANT DENTISTRY. 2001;Vol. 10, No. 4: 225-228
2. Platelet Concentration in Platelet-Rich Plasma Affects Tenocyte Behavior In Vitro
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PurePRP®
SupraPhysiologic

GenesisCS Component Concentrating System

One System Multiple Protocols

Non Inflammatory Antimicrobial Power of Monocytes

PurePRP® SupraPhysiologic is unique in that it greatly enhances monocyte concentrations. Monocytes are the largest of all leukocytes and are characteristically non-inflammatory phagocytic cells. Monocytes migrate to sites of injury and infection and elicit a powerful immune response. The response last for months rather than days, when compared to neutrophils. Monocyte immune response occurs through phagocytosis, antigen presentation, and cytokine production each of which has a specific and deliberate function in enhancing the immune response. The antimicrobial power of PurePRP® SupraPhysiologic monocytes is another clear distinction in performance.

PurePRP® SupraPhysiologic Protocol Versatility

Neutrophil Poor Protocol
Process C-PRP without red blood cells or neutrophil granulocyte. This protocol provides the only point of care non-inflammatory C-PRP. This protocol is widely preferred for joint applications.

Neutrophil Rich Protocol
Process C-PRP with enriched neutrophil concentrations. Used when the phagocytic power of neutrophil granulocytes are needed. It produces the highest level of leukocyte chemotaxis, producing temporary inflammation, for antimicrobial phagocytosis and tissue regeneration. Once the neutrophil granulocytes have completed phagocytosis, they become apoptic cells and are subsequently removed, thereby also eliminating the inflammatory activity.

NO-BURN Protocol
Process C-PRP within a special autologous scope that allows the acidity to be completely removed without buffers or calcium activators, providing C-PRP that is perfectly tolerated by patients.

PureBMC®
SupraPhysiologic

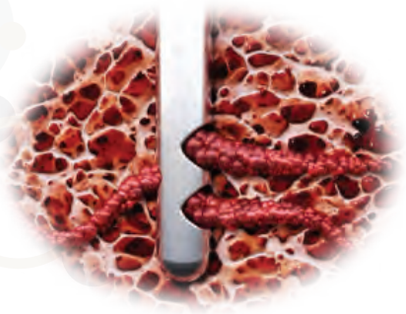
GenesisCS Component Concentrating System

Harvesting & Concentrating is Better Together

The Non Oxidative Solution

Plasma free hemoglobin is a common oxidative component of most BMA concentrating systems. Plasma free hemoglobin collectively leads to oxidative stress, loss of nitric oxide, activation of inflammatory pathways, and immunosuppression. This can cause microcirculatory dysfunction, significant tissue injury, augmented inflammation and pain.

PureBMC® SupraPhysiologic is unique in that its composition DOES NOT contain the levels of plasma free hemoglobin found in typical bone marrow cell concentration. With the addition of the ASPIRE™ Bone Marrow Harvesting System, bone marrow can be collected with minimal hemolysis and free hemoglobin.



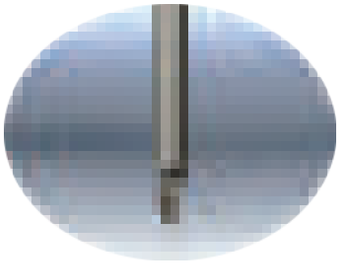
Quiescent Bone Marrow Harvesting

ASPIRE™ Bone Marrow Harvesting System

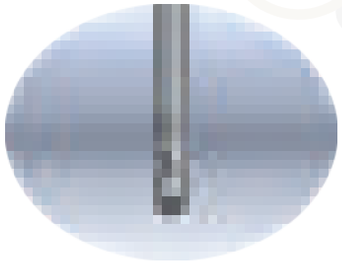
The ASPIRE™ Bone Marrow Harvesting System is highly innovative. It contains minimally invasive instrumentation that collects purified bone marrow aspirate at the point of care. The aspirate derived from this system is especially high in progenitor stem cells due to it's unique structure and aspirating technique. The system is designed to gently penetrate the trabecular bone, maintaining a quiescent tissue environment during deployment and collection. This leads to a significant reduction in tissue activation, free hemoglobin content and clotting. The system provides a better bone marrow aspirate sample for processing, ultimately leading to bone marrow concentrate that's non-oxidative and supraphysiologic in regenerative progenitor stem cells.

ASPIRE™ Bone Marrow Needle Architecture

Ergonomic and lightweight handle for even application of pressure during deployment.



Razor-sharp triple crown bevel tip for minimally invasive coring of the cortical bone.



Specially designed fenestrated blunt tip aspirating cannula for purified sample collection.

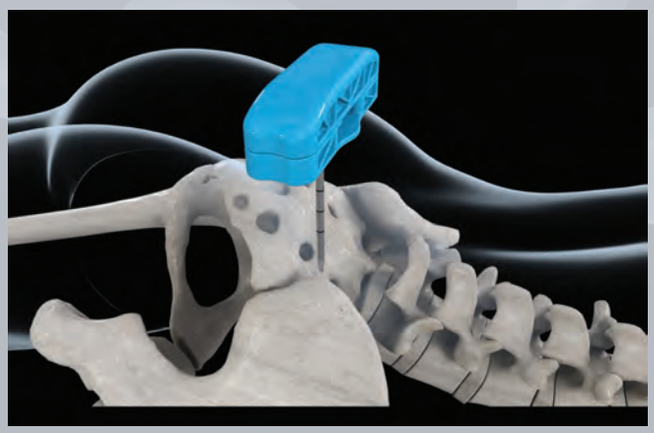
PureBMC®
SupraPhysiologic

GenesisCS Component Concentrating System

Performing with Outstanding Consistency

PureBMC® SupraPhysiologic the Optimal Niche

PureBMC® SupraPhysiologic is the flawless solution to bone marrow cell concentrate. The technology provides a viable cell concentrate in a bone marrow niche that optimizes the function of platelets, total nucleated cells, mesenchymal and hematopoietic stem cells. This promotes better cell proliferation, chemotaxis, migration, and expression, all leading to a profound improvement in clinical outcomes.



PureBMC® SupraPhysiologic the Optimal System

PureBMC® SupraPhysiologic is better than ever with processing features that make it the optimal bone marrow concentrating system.

Benefits:

- Lowest in red blood cell count
- Lowest in plasma free hemoglobin level
- Lowest in hemolysis
- Highest in viable platelet count
- Highest in hematopoietic stem cell CD34+
- Highest in mesenchymal stem cell CFU-F
- Highest in total nucleated cell count TNC
- Single device processing with reduced steps
- Best in efficiency
- Closed system sterile processing throughout
- Supraphysiologic procurement
- Quiescent cell collection

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PRODUCT SPECIFICATIONS:

Product number	Description
	Kit Disposables
GS30-SP	PurePRP® SupraPhysiologic Concentrating System 30mL
GS60-SP	PurePRP® SupraPhysiologic Concentrating System 60mL
GS120-SP	PurePRP® SupraPhysiologic Concentrating System 120mL
BC30-SP	PureBMC® SupraPhysiologic Concentrating System 30mL
BC60-SP	PureBMC® SupraPhysiologic Concentrating System 60mL
BC120-SP	PureBMC® SupraPhysiologic Concentrating System 120mL
BMH-01	ASPIRE™ Bone Marrow Harvesting System
	Accessories
QDS11-1	QuickDRAW Delivery System Malleable Spray
QDS11-2	QuickDRAW Delivery System Dual Spray
	Synthetic Bone Strips
BF2-50x10-05	Synthetic Granules in Collagen Matrix (HA-TCP) 5cc
BF1-100x25-15	Synthetic Granules in Collagen Matrix (HA-TCP) 10cc
	Equipment
GS-022624340	Executive Series Centrifuge II
PL-162063611	Platinum Series Centrifuge

Caution: Federal law (USA) restricts this device to sale by or on the order of a physician.

US Patents: US6835353, US7829022, US7976796, US9718003, US10040064, US10300481, US10537888

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