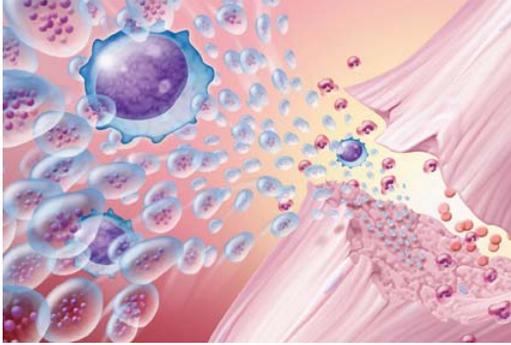


Vet-Stem GenesisCS-2

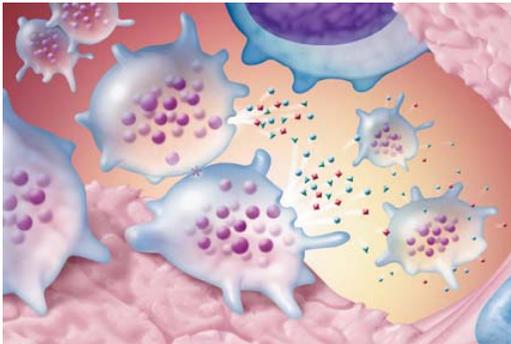
Veterinary Platelet Rich Plasma Kit

A Rich Source of Autologous Growth Factors and Bio-Scaffolding: **Optimized for Equine Use.**
For veterinary use only.



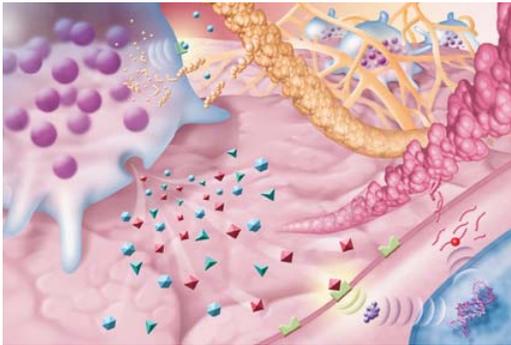
Intralesional Injection of Autologous PRP

Increasing the number of platelets at an injury site intensifies the concentration of tissue growth factors as well as signaling agents. Injected intralesionally, Platelet Rich Plasma (PRP) amplifies cellular processes that aid in the repair and healing of damaged tissue.



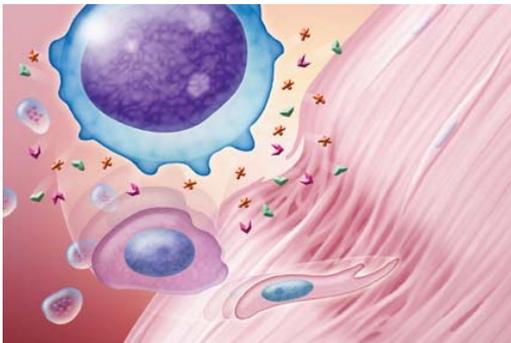
Platelet Activation

Once injected into the injury site, platelets become exposed to collagen and are activated. Upon activation, the platelet's α -granules release growth factors, clotting factors, and other proteins into the area of damaged tissue. The binding of growth factors to cell receptors further activates endogenous signaling processes that promote regeneration and healing.



Matrix Formation Begins

The activation of cell receptors by growth factors stimulates tissue repair. The biological response stimulates matrix formation and collagen synthesis, replacing the provisional matrix. This response increases tensile strength, accelerates epithelization, and stimulates remodeling of the damaged tissue.



Autologous Regenerative Cells & PRP

Injecting regenerative cells increases the number of undifferentiated multipotent mesenchymal cells (MSC) present at the site of injury. Many cell types, including MSCs, have transmembrane receptors for PRP-derived growth factors. These transmembrane receptors, once activated, cause the expression of genes involved in cell proliferation, matrix formation, collagen synthesis, and the production of other trophic factors that aid in the healing process.

Platelet Rich Plasma: [pleyt-*lit* rich plaz-muh] -noun

1. a concentration (average 5.4x) of autologous platelets in a small volume of plasma.
2. platelets contain a rich supply of growth factors that promote wound healing and regeneration of tissue.
3. plasma contains proteins proven to aid cell migration.

Platelets and their associated growth factors have been shown to:

- ◇ Stimulate angiogenesis and enhance collagen synthesis ^{1, 5, 6}
- ◇ Promote and enhance soft tissue wound healing ^{2, 3}
- ◇ Increase endothelial, epithelial, and epidermal regeneration, ^{2, 3, 5} while providing an anti-inflammatory response ⁵
- ◇ Stimulate matrix deposition and growth factor populations, resulting in earlier wound healing ^{2, 4, 5}
- ◇ Act as local hemostatic agents and are involved in the activation of the coagulation cascade ⁵

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2. Carter CA, Jolly DG, Worden CE Sr, Hendren DG, Kane CJ. Platelet-rich plasma gel promotes differentiation and regeneration during equine wound healing. Exp Mol Pathol. 2003 Jun;74(3):244-55
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4. Del Bue M, Ricco S, Conti V, Merli E, Ramoni R, Grolli S. Platelet lysate promotes in vitro proliferation of equine mesenchymal stem cells and tenocytes. Vet Res Commun. 2007 Aug;31 Suppl 1:289-92.
5. Everts PM. Autologous Platelet-leukocyte Enriched Gel (basics and Efficacy). D&L Graphics, Kerkrade, Netherlands. 2007.
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Benefits of using GenesisCS PRP:

- ◇ **Qualified with equine blood**
- ◇ 60mls anticoagulated blood **produces 6mls PRP**
- ◇ **Competitively priced** and available directly from Vet-Stem
- ◇ **Fits into IRAP(tm) centrifuge** - no adapter necessary
- ◇ Autologous blood product, with **reduced risk of infectious disease transmission**
- ◇ Patient side treatment, **quick and easy to prepare**
- ◇ **Stand alone product**, or can be added with other treatment modalities
- ◇ **Closed system**, minimizes risk of contamination