

VIVASTEM®

The pioneer of Stem Cell Fluid.

Common Uses in Dogs

VivaStem[®] case reports in Dogs showed it to be effective in:

- ACL tears and strains
- Acute Renal failure in dogs and cats
- Increasing range of motion
- Reducing lameness often to complete soundness
- Faster and improved healing in acute injuries
- Post surgery healing enhancement
- Osteoarthritis and joint pain
- Some success for skin allergies
- Effective in improved healing time when used topical for eye injuries
- Skin injuries (happy tail) (topically)

Patients that show good response to pain killers have a good chance of success with VivaStem[®].

Common Uses in Horses

- VivaStem's® case reports in horses showed it to be effective in:
 - Returning EPM residual ataxia cases to normal
 - Reducing lameness often to complete soundness
 - Increasing range of motion, i.e., hind leg slow to come forward or short stepping
 - Faster and improved healing in acute injuries and surgery
 - Horses with painful lamina
 - Founder
 - Shoulder Sweeney
 - Hock soreness
 - Un-diagnosable gait abnormalities that disappeared with bute
 - Skin regeneration
 - Nerve and muscle re-growth following injury
 - Patients that show good response to pain killers have a good chance of success with VivaStem®



Stem Cell Overview

Research has shown Stem Cells have the property of recognizing sites of injury and bringing about healing.

Stem Cell Therapies

- Other stem cell therapies center on harvesting the host's stem cells, processing them, and injecting small numbers of these stem cells back in the host, often a repeated number of times to achieve results.
- Stem Cell therapies offered are
- **Medivet** – Vet must purchase (approx \$15,000) equipment, vet collects fat from injured animal, (animal must go under general anesthetic), processes the fat tissue in his office and then re-injects stem cells back into animal later the same day. Excess cells are frozen for later use
- **Vet stem-** vet collects fat, sends out for processing (about 2 weeks) . Then Vet Stem sends back the stem cells obtained from the fat to vet to treat your animal. Excess cells are frozen for later use
- Cost is about \$1,200 – \$3,000 for stem cell therapy
- **Vivergen** – Though marketed as stem cell fluid it is different than VivaStem[®], in both ingredients and amount packaged. Vivergen is 600 mg per horse dose, VivaStem[®] is 960mg per horse dose. VivaStem[®] has started FDA approval. Vivergen has not.

What is VivaStem[®]?

- VivaStem[®] is a concentration of fluid produced by activated stem cells.
- There are no cells (stem or other) in VivaStem[®] fluid.
- Research has shown that this fluid, when given subcutaneously, activates the host's own stem cells to begin reparative work, and aids in creating an environment conducive to healing.
- Research demonstrates that when this healing fluid is given to animals with acute injury, or animals with degenerative, arthritic changes, or a condition that needs healing, the animal's condition improves.
- Additionally the overall condition of the animal improves, coat, brightness of eyes, attitude and energy. Many people talk about their animals doing things they haven't done in years!
- VivaStem[®] is a natural fluid obtained from healthy animals.

How is VivaStem[®] Different?

- All the other stem cell therapies are centered around harvesting the host's own stem cells, processing them, and then putting small quantities of these cells back in the host.
- There are research publications that have tracked the course of these stem cells and **all** results indicate that these stem cells die quickly. They end up in the microvasculature of the lungs and in the Peyers Patches. Very few are noted at the site of injury, at just a few hours post injection. Yet even these therapies see positive results.

Why? ...

What Helps the Animal Heal?

VivaStem[®] research team has discovered that it is the **FLUID** the stem cells produce that is activating the healing process.

What is in VivaStem[®]'s Stem Cell Fluid?

- There are NO cells (stem or other) in VivaStem[®].
- It is a complex mixture of a multitude of proteins which have not been fully characterized as yet.
- Ongoing research using mass spectrometric analysis and other biochemical testing has shown that it consists of the following kinds of proteins in high concentrations: *(see next slide)*

Healing Proteins

- **Immune-suppressive proteins** which reduce inflammation such as AnnexinA1.
- **Growth factors which build new tissue.** Examples are vascular endothelial growth factor (VEGF), basic fibroblast growth factor (b-FGF), hepatocyte growth factor (HGF) etc.
- **Healing proteins which are known to accelerate tissue healing.** These include hemopexin, fibronectin-short chain, fibrinogen-alpha, coronin, and gelsolin etc.
- A **myriad of platelet derived growth factors** shown to be important in healing and pain reduction.

Research

- The VivaStem[®] technology is the result of **TEN** years of research carried out by the VivaStem[®] scientific team, centering on the fluid that is produced by activated stem cells.
- Research has shown that this fluid, when given subcutaneously, activates the host's own stem cells to begin reparative work, and aids in creating an environment conducive to healing.
- Process toward FDA approval is started.

How Does VivaStem[®] Work?

When VivaStem[®] is reconstituted by the vet and given subcutaneously. This fluid circulates through the animal's system and begins healing throughout the body, triggering the body to send messengers to the sites of injury, activating stem cells and other healing factors to beginning repair and regeneration.

Time is Needed to Heal!

- VivaStem[®] needs time to signal the stem cells at the site of injury to begin the reparation work.
- Pain reduction is often seen within 48 hours. The healing process can take a short time or take several months depending on the problem.
- VivaStem[®] creates a healing environment and signals the host's own stem cells to begin the repair.

Advantages of VivaStem[®]

- Unlike live cell injections which die very soon after injection, the VivaStem[®] stem cell fluid persists in the body for a longer time resulting in better and faster recoveries.
- VivaStem[®] treatment does not require either anesthesia or surgery.
- 960 mg of healing fluid in every 10cc horse dose.
- There is no wait time as VivaStem[®] is available off-the-shelf.
- It is 2-3 times less expensive than other treatments.

Where Does It Come From?

- This patent-pending technology consists of collecting stem cell fluid from healthy donor horses.
- Donor horses are housed and turned out in a normal manner.
- VivaStem[®] puts TOP priority on their happiness, welfare and care.
- After collection: The harvested stem cell fluid goes through a ten step process at VivaStem[®] laboratory. It is purified, tested, freeze dried and packaged for use as an injection.
- VivaStem[®] has a 2 yr shelf life when refrigerated.

Safety and Efficacy of VivaStem[®]

VivaStem[®] has been used safely in over:

- 500 horses
- 1000 dogs
- 75 cats

How is VivaStem[®] Administered?

- VivaStem[®] is supplied in bottles as a freeze dried powder. It is mixed with provided sterile water for injection.
- The injection is administered subcutaneously and the preferred injection site is where the neck meets the shoulder in the horse and under skin in rump of the dog.
- Before VivaStem[®] injection the area is cleaned and disinfected.

How To Order

- To Order: Have your vet email or fax Marie Hoffman and the VivaStem[®] will be shipped to your vet promptly.
- Storage: Stable for 2 years refrigerated.
- Once reconstituted: Refrigerate and must be used within 24 hours.

Contact Information

- Vets can contact the VivaStem[®] Vet Dr Chris Serpico
- Have them contact Marie Hoffman and she will put them in touch.

- Contact Marie Hoffman
- Call and leave message 815-751-4384
- Email mariehorse@aol.com(preferred)
- Fax 815-522-2202