



SPECIAL POINTS OF INTEREST:

WCR Website Online

New Equipment

Equine Gastric Ulcer Syndrome

Regenerative Medicine

Loyalty Program

Winner's Circle Ranch Website Available

After a lengthy delay, our new website is finally operational. Please visit us at:

www.winnersranch.com

As mentioned in our previous newsletter, the new website will enable you to see the high level of care and the cutting edge treatments your horses receive at our ranch. The site will also allow you to contact us more easily should you be interested in further information about our care, supplements, procedures, equipment or our advanced veterinary care and therapeutics.



New Equipment Arrives



Three-meter Portable Video Gastroscopy System

In an effort to provide our clients with continued access to the latest equipment and procedures, we have added a video gastroscope to the ranch. This ten-foot-long video endoscope allows us to visualize the horse's stomach to check for ulcers.

It has been shown that stomach ulcers occur in about 90% of racing thoroughbreds and about 60% of other performance horses. Ulcers can be a source of poor performance, weight loss, colic and minor lameness or reluctance during training.

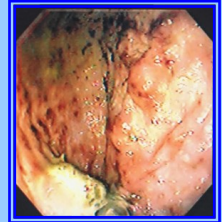
Gastric ulcers are easily detected with a three-meter video gastroscope.

“Our results thus far confirm what other studies have suggested about the high frequency and degree of ulceration in horses that are outwardly normal in appearance.”
Dr. Don Shields

EQUINE GASTRIC ULCER SYNDROME SCORING SYSTEM



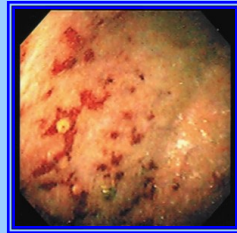
Grade 1: Intact lining with reddening or flaking



Grade 2: Single or multiple small ulcers



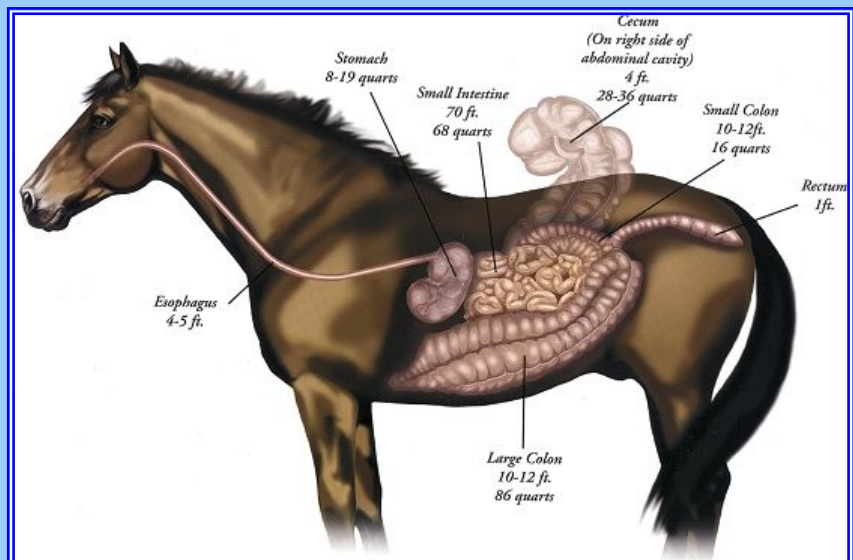
Normal



Grade 3: Single or multiple large ulcers



Grade 4: Extensive large ulcers often merging



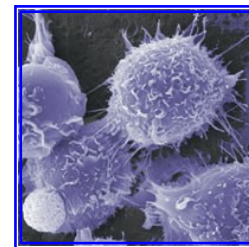
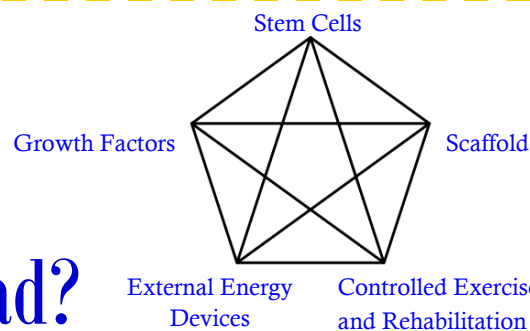
Regenerative Medicine

These days there is great interest in the areas of **Regenerative Medicine** and **Tissue Engineering** in both veterinary and human medicine. What are these futuristic medical treatments that are now available to us, and do they work?

Regenerative Medicine is where veterinarians or doctors inject patients with stem cells, growth factors, scaffolds or a combination of these items. **Stem Cells** are cells that have the ability to proliferate and become a number of different types of adult tissues. Stem cells are generally classified as embryonic or adult. The adult stem cells can be collected directly from our patients, and the use of these cells for medical therapy **does not** involve taking the life of an embryo. Besides being capable of differentiating into a number of different kinds of cells, stem cells also produce a number of chemical signals called **cytokines** or **Growth Factors** that stimulate and support healing. There are many different growth factors which are produced by a variety of different cells and that have many different functions in the body. Some growth factors stimulate cells to divide, some tell stem cells what type of tissue to become, and some call blood vessels into an injured area to speed healing. We currently utilize growth factors to improve healing when we conduct **Platelet Rich Plasma Therapy (PRP)** on our injured horses.

As you can imagine, the cells of our body are not just floating around all over the place. Tissues have very specific forms and functions. For cells to stay close to each other and function together as a specific organ, they must have something to attach to. The **Extracellular Matrix** or cellular **Scaffold** is what allows cells to adhere, proliferate, and interact with other cells to function normally. We now have the ability to treat our injured patients with one or all three of these components of regenerative medicine. The collection of stem cells and growth factors from our patients and the treatment of our patients with these items is minimally invasive, relatively straight-forward (with some experience), and holds great promise for improved healing of even difficult injuries such as **tendon** or **suspensory** damage and **arthritis**.

Tissue Engineering is where stem cells or other cells are collected from the patient and then are grown under very specific conditions and often in combination with specific materials to produce functional tissues such as a bone, a tendon, an ear or a blood vessel. The functional tissue is then surgically implanted into the patient after it has been grown in the laboratory. Tissue engineering has not yet reached the stage where we can offer this service to our clients and their injured horses. This field holds great promise, but there are many hurdles yet to be overcome before tissue engineering will be a common clinical therapy.



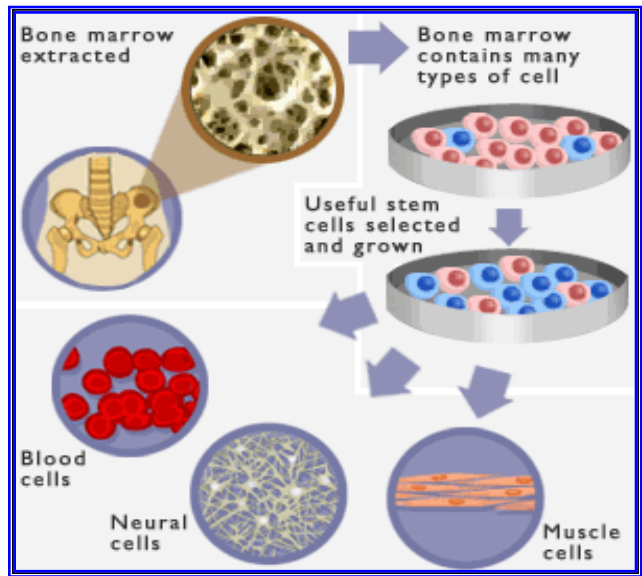
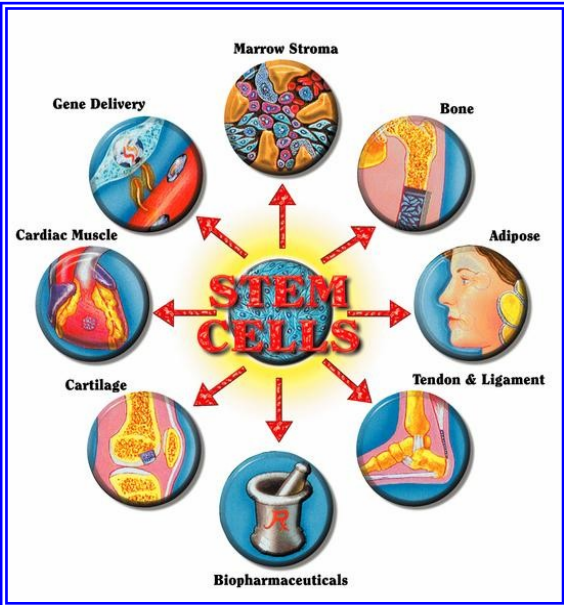
Adult stem cells attached to matrix

Healing Triad?

Many stem cell researchers speak of a **healing triad** composed of stem cells, growth factors and scaffolds. I believe that there are actually five parts to the successful outcome of our regenerative medicine therapies. We now know that stem cells are present in most adult tissues. We can certainly increase the number of the stem cells present at the site of injury through a simple local injection of harvested bone marrow or fat-derived **stem cells**. We can stimulate and improve healing by injecting **growth factors (PRP)** into the injured area and we can supplement the **extracellular matrix** present by injecting commercially produced **scaffolds** into the injured tissue. These are the conventional legs of the healing triad. What is often not mentioned is the fact that **External Energy Devices** such as focused shockwave, therapeutic ultrasound, Stasion (low-intensity pulsed ultrasound) and pulsed electromagnetic devices all can stimulate and improve healing by delivering energy to the injured area. The use of these devices stimulates blood flow into the injured area and up-regulates cellular processes which causes an increase in growth factor output by the cells. The other extremely important factor in whether our advanced therapeutics have a successful outcome or not is the pace and intensity of our **rehabilitation** program **and** the **controlled** and incremental return to **exercise**. All of these factors interact with each other as depicted above and each can greatly impact our therapeutic outcome. If we push our injured equine athletes too hard, too far and too soon, all of our efforts and our futuristic medical therapies will not improve our ability to return these magnificent animals to successful performance careers.

Bone marrow or fat-derived stem cells are easily collected from the adult horse with minimally invasive procedures. The cells are then expanded in culture at a laboratory until about 10-20 million stem cells are available for injection into the injured tissue. Some of the cultured stem cells may be frozen and banked for any potential future need.

Stem cells perform many functions and hold great promise for curing many injuries and diseases in the near future.



On the web at:
www.winnersranch.com

Loyalty Program

Winner's Circle Ranch
 150 Sawpit Lane - Bradbury, CA 91008
 (626) 303-7853

In these tough economic times, we at Don Shields, DVM, Inc. & Winner's Circle Ranch would like to thank you for your business. We are starting a client loyalty program to provide selected services to all of you at a substantial savings. As our initial offering to you, we will be available to perform video gastroscopy on your horses at the ranch or the racetrack for \$200.

The normal price for gastroscopy at the racetrack is usually between \$300-350 + tranquilizer.

We are happy to offer this special through June 20, 2010. Please contact Leigh Gray at 626-824-7455 to schedule your exam.

Gastroscopy \$200

DON SHIELDS, DVM & WINNER'S CIRCLE RANCH

Santa Anita, Hollywood Park & Bradbury, CA

Contact Leigh Gray 626-824-7455

Expiration Date: 6/20/10