

## Happy Customers



Endurance horse **Alpha** injured his right fore superficial digital flexor tendon while training and it was feared it could mean the end of his promising career. Following stem cell treatment he completed his first two star ride and was selected to join the British Squad.

Family allrounder **Tzarina Z** returned to eventing and won her first two-day event after stem cell treatment for an SDFT injury. Both her vet and owners were thrilled when she stayed sound and her scans showed the tendon had healed with no sign of the previous damage.



Wayne Channon's Grand Prix dressage stallion **Kasjmir** suffered a hind limb suspensory ligament injury in 2006. The ligament healed well following stem cell therapy and he returned to Grand Prix for four years and then competed at Medium with Wayne's son. He retired sound at the age of 19.

International event horse **Oingy Boingy** injured his tendon in 2005. After stem cell treatment he and rider Nici Wilson won an individual silver medal at the Young Rider European Championships. He competed at four star level until 2010 and retired from eventing in 2011, still fit and healthy.



Following injury to his suspensory ligament showjumper **Nicky's** owners decided to use stem cell therapy to give him the best chance of a full recovery. Now that he is competing successfully again, owner Bethanne's trainer says he is "jumping better than he has for a long time".

When racehorse **Nomechecki** was bought from France it was discovered that he had damage to his SDFT. After stem cell therapy he made a winning return to the track at Plumpton in 2009. This photo shows him running at Cheltenham in November 2011, clearly loving his job!



Read more of our case studies at [www.vetcell.com](http://www.vetcell.com)

# Ask your vet to use VetCell

*Evidence-based, patented and backed by  
over ten years of development*

*Peer-reviewed, published research shows it is  
the best solution for preventing reinjury*

*Fully authorised by the VMD (DEFRA) and  
covered by standard equine insurance*

*Stem cells always checked for sterility,  
viability and quantity before dispatch (ask  
for the VetCell certificate so you know  
exactly what's going into your horse)*

*Over 2000 horses and ponies treated*

**Contact us, we're here to help you!**



T: +44 (0)1865 922227  
E: [info@vetcell.com](mailto:info@vetcell.com)  
[www.vetcell.com](http://www.vetcell.com)

VetCell, 1 Threshers Yard, Kingham, Oxfordshire, OX7 6YF, UK

Stem Cell Therapy



# VetCell

**From much-loved ponies to million pound  
racehorses... the most advanced treatment  
for equine tendon, ligament & joint injuries**

# VetCell's Stem Cell Therapy

is researched, patented and quality controlled and has been used to treat over 2000 horses and ponies from all disciplines, mostly for injuries to tendons and ligaments. Vets around the world are now also successfully using stem cells to treat other musculoskeletal disorders.

## What is a stem cell?

Stem cells are cells that can develop into one or more specialised cell types within the body and can also self-renew. These cells are essentially the body's own repair kit and encourage natural regeneration of tissue that has been damaged. Unfortunately in some injuries, naturally occurring levels of stem cells cannot cope with the extent of tissue damage.

Adult mesenchymal stem cells (MSCs) are a specific type of stem cell that have the potential to develop into a range of tissue types including tendon. MSCs can be found in the bone marrow of adult horses. To make use of these remarkable cells, VetCell® have developed a laboratory technique for multiplying MSCs collected from an injured horse. Implantation of the cultured stem cells increases the number of stem cells in a particular area to aid tissue regeneration and encourage a more normalised repair.

N.B. VetCell's use of MSCs is covered by patent numbers EP1545567, EP1872789, AU2003263340, NZ539308. US patent granted, Canada pending.

## How is it done?



Bone marrow is taken from the sternum or tuber coxa (hip bone) of the injured horse



Stem cells are separated from other cells within the marrow and encouraged to multiply.



2-3 weeks later they are re-suspended in fluid from the bone marrow sample and returned to the veterinary surgeon.

All stem cell products are checked for sterility, viability and quantity prior to dispatch.



The veterinary surgeon implants the cells into the injury using an ultrasound machine to guide the needle.



The horse begins a careful rehabilitation programme to get back to full fitness.



**12 months after stem cell implantation the horse should be able to return to the racetrack or competition arena.**

## Where's the research?

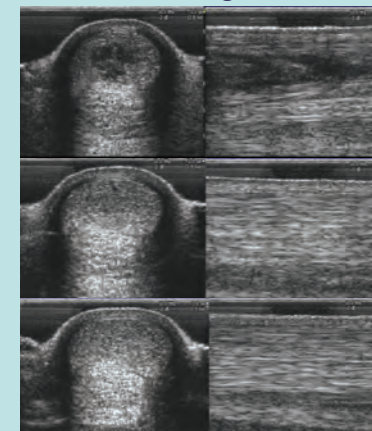
Firing used to be the traditional way to treat tendon injuries but it is now declining in popularity. Silver & Rosedale (1983) showed that there is no evidence of any clinical benefit to firing and that it has a potentially deleterious effect, not to mention the stress it causes to the horse.

Both field rest and firing lead to the formation of scar tissue in the tendon lesion which is functionally deficient when compared to normal tendon (Crevier-Denoix 1997). Before stem cell implantation appeared on the scene there seemed to be little evidence that any of the treatments were better than box rest and controlled rehabilitation (Dyson 2004).

There is now an increasing body of evidence\* that points towards the success of stem cell therapy for tendon injury. Research from the Royal Veterinary College (2012) found that using VetCell's patented stem cell therapy reduced the chance of reinjury by a half when compared with conventional tendon treatments. An investment in stem cell therapy gives your horse the best chance of returning to racing or competition with a long lasting repair.

\*Godwin 2012, Frisbie & Smith 2010, Crovace 2010, Smith 2008, Nixon 2008, Richardson 2007, Smith 2003

### Transverse and longitudinal scans of a stem cell treated tendon



Just before the stem cells are implanted the scan shows a clear core lesion in the centre of the superficial digital flexor tendon.

One month after stem cell implantation there is some infilling of the lesion and a less defined lesion border.

Three months after stem cell implantation the scan shows almost no noticeable difference between the healthy tendon and the area of injury.