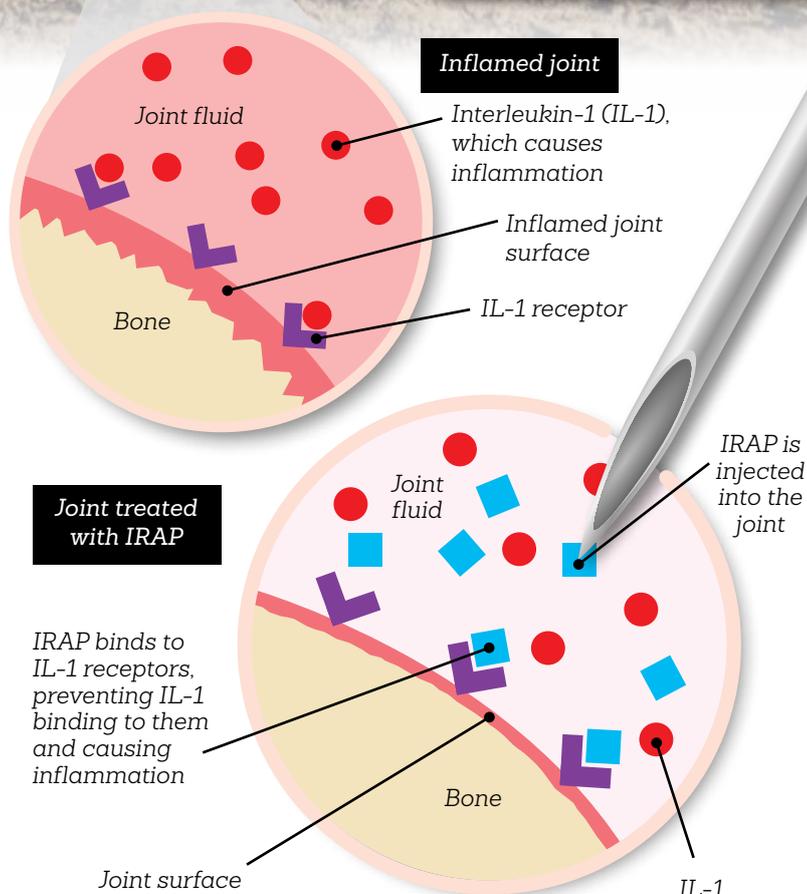


# Natural healing

## IRAP explained



Discover an innovative natural remedy for joint problems, explained by XL Equine vets

New treatments for our horses are always welcome, particularly for joint problems that are troublesome to heal, and IRAP is one of the latest. IRAP (interleukin receptor antagonist protein) is a natural anti-inflammatory product that can be used to treat a variety of joint injuries. It is produced from your horse's own blood and can be injected into joints to treat inflammation and lameness, and to encourage joint healing.

### How does it work?

When a horse's joint becomes injured, the body's normal repair process includes the release of chemical components that can actually accelerate cartilage and joint damage. These components include a chemical called interleukin-1 (IL-1), which binds to IL-1 receptors on the surface of the joint, and is responsible for causing ongoing inflammation, pain and lameness. By collecting and processing a sample of the horse's blood, IRAP protein can be produced in 24 hours.

Once prepared, the sterile solution of IRAP, called autologous conditioned serum (ACS), can then be injected into the joint, where it binds to the IL-1 receptors, preventing the IL-1 from binding to them and suppressing its action. This helps to alleviate pain and reduce lameness.

**When a joint is injured, the body's normal repair process can actually accelerate cartilage and joint damage**

## What does IRAP involve?



**IRAP is created from the horse's own blood**

A blood sample is taken from the patient under sterile conditions at your yard or at a clinic. The sample is then incubated in a laboratory for 24 hours (pictured below), centrifuged (spun rapidly to separate the cells and liquid) and the liquid serum (containing the IRAP) is collected and separated. The IRAP solution can then be injected into the affected joint or injured area immediately, or frozen for further treatments.



Prior to injection into the joint, the area will usually be clipped and scrubbed with antiseptic. The patient will often be sedated, too, to ensure accurate and safe needle placement.

### Further treatments

The initial blood sample normally produces enough IRAP serum to carry out between three and five further treatments. The serum is sealed in individual syringes, that can be kept frozen for up to seven months and used to repeat the treatment as necessary. A course of treatment normally involves once-weekly injections for up to six weeks.

### Key points

- IRAP is a product obtained from the patient's own blood.
- It is used to treat injuries, and degeneration of joints and their supporting structures.
- IRAP is a natural anti-inflammatory that the body produces and uses to assist with repair of damaged tissues.
- It is a low-risk procedure.
- The procedure is one of the state-of-the-art biological therapies used in equine orthopaedics.

### + What are the risks?

As with any joint injection, there is a very small risk of joint infection which, if not promptly treated, can have serious consequences. However, adequate restraint of the patient and careful preparation of the site serve to minimise these risks. No significant side effects of treatment have been reported.

### + Will it help my horse?

IRAP has had some very encouraging initial results, but like all treatments it will not be successful in all cases. Being a relatively new treatment, long-term comparative scientific studies on its use are lacking. It can be useful in a number of cases, particularly when more conventional treatments, such as cortisone injections, have been unsuccessful, or following joint surgery.

### + Can I compete?

There are currently no restrictions on its use in competition, other than it cannot be administered on the day of the competition. Competition rules do change, so owners are advised to check with their regulatory body for the most up-to-date information.

### ★★★ Rate this feature

Go to [tinyurl.com/RateApril](http://tinyurl.com/RateApril) for a chance to win a Mountain Horse Crew jacket (see p9).

**The IRAP injection is sterile, to reduce the risk of infection**



**For more information:**  
XL Equine is a group of 35 equine veterinary practices. To find out more about IRAP, and information on other veterinary treatments and conditions, visit [xlequine.co.uk](http://xlequine.co.uk)