

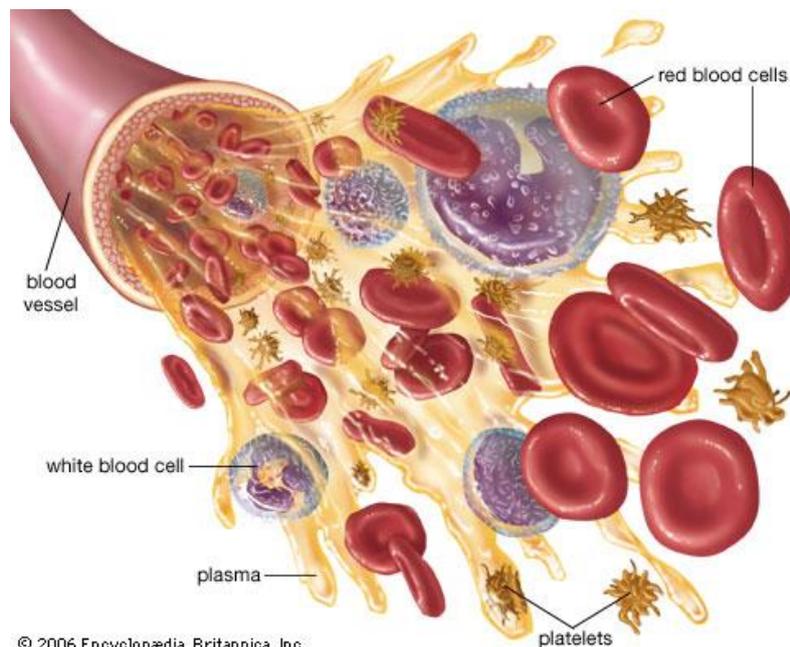
Platelet Rich Plasma (PRP)

Platelet-Rich Plasma (PRP) therapy is one of the latest regenerative technologies that can help with the management of a wide range of conditions that may affect your pet. It has proven benefits and has the advantage of being completely safe as it uses the mechanisms by which our bodies heal themselves. It is also extremely quick to prepare and administer so that the whole procedure can be performed in a single day on an outpatient basis. Compared with the cost of some treatments it is also relatively inexpensive.

Read the FAQs below to find out more about PRP and ask your vet for advice on whether your pet may be a candidate to receive this versatile treatment.

What are platelets and what is plasma?

Platelets are a type of cell produced in the bone marrow which circulate around the body in the bloodstream in an inactive state. Plasma refers to the protein rich liquid that forms the basis of your bloodstream. When platelets encounter an area of the body that is diseased or injured they bind to the area and are activated to release small proteins known as 'growth factors'. This is the beginning of the healing/repair process. These growth factors encourage other cells (including stem cells) and proteins to migrate to the affected area from the bloodstream and form new tissues.



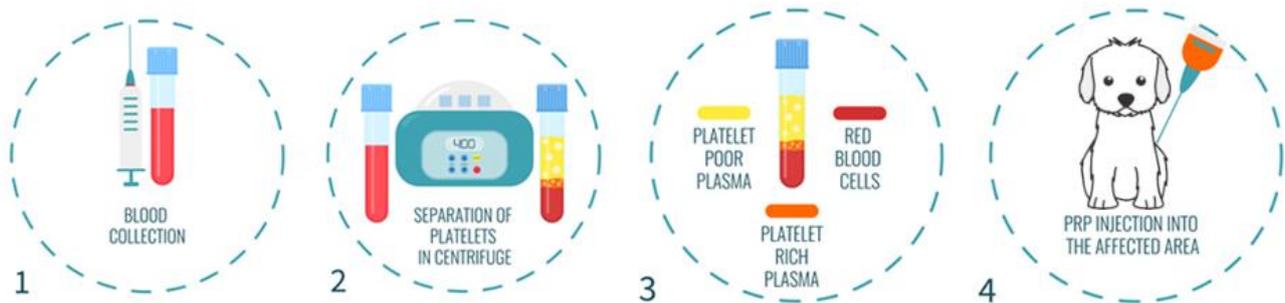
The main constituents of blood

What is Platelet Rich Plasma (PRP)?

PRP is a concentration of platelets and growth factors created from a small amount of your dog's own blood. First of all we collect a sample of your dog's blood in a specially prepared test tube and then we spin it down in a device known as a centrifuge. This helps to separate the platelets, proteins and growth factors into a highly concentrated form. It also removes unwanted white blood cells which are involved in inflammation and can be harmful to the damaged area. The final

concentrated 'plasma' is withdrawn from the test tube and can then be inserted into diseased or damaged areas of the body to help stimulate repair. The whole process from blood sampling to final preparation of the PRP takes less than half an hour.

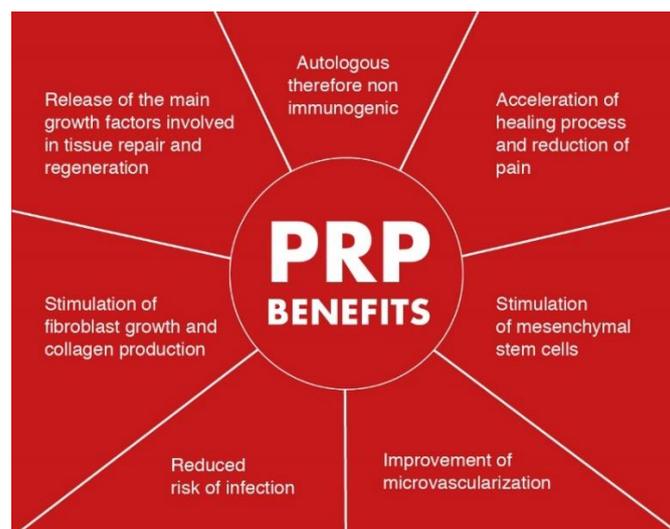
PRP PROCEDURE



How is the PRP administered to my pet?

The most common use for PRP in pets is for injured or arthritic joints and we would normally insert the cells via a long needle carefully placed into the centre of the joint. Your pet will need a little sedation for this to be done safely and extreme care is needed to ensure complete sterility so the implantation is usually performed in an operating theatre. An area of hair will also need to be clipped from around the insertion site to assist with cleanliness.

PRP is also finding new uses in the management of other conditions where accelerated healing is needed. This includes fracture repairs, skin wounds, burns and corneal ulcers. For surface wounds and ulcers the PRP can be applied topically via a dropper bottle without need for sedation.



How long do the effects last?

The beneficial effects of PRP have been shown to last for at least 3-6 months in a number of highly respected scientific studies. The effects may be even longer lasting but as this is a relatively new technology there is limited data available beyond this time frame at present.

Are there any risks to my pet?

As the treatment involves using your pet's own natural healing mechanisms there is virtually no risk of any adverse side effect. Modern sedatives are also extremely safe and very short-acting so the risks are again very small - indeed we have never had a complication arising from either the treatment or the sedation.

What is the recovery period?

After a typical implantation into an arthritic joint, we normally advise two days of rest at home followed by two weeks of gentle lead walking. It is important that you keep your pet out of water and any dirty environments for the first 7 days after the injection to reduce the risk of introducing infection. For this reason it would be worth washing or changing your pet's bedding before they return home from the procedure.

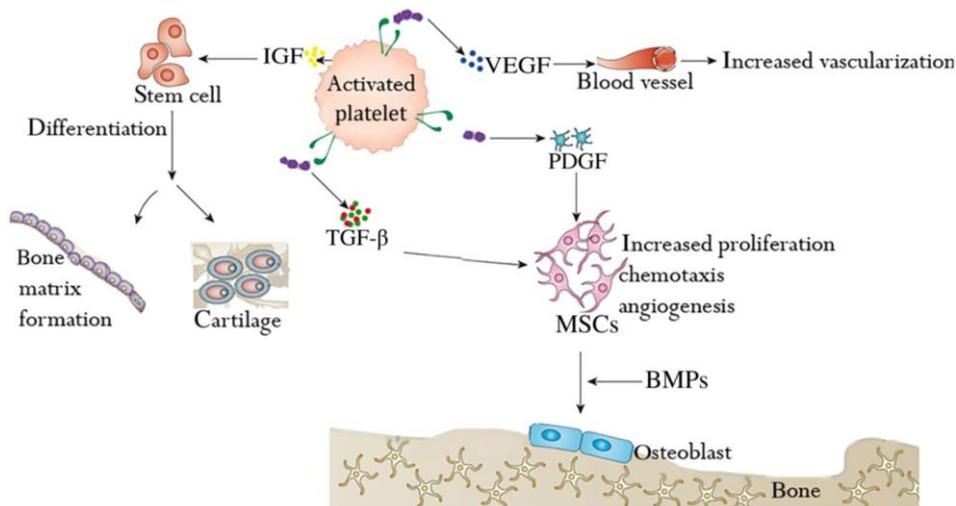
The injection sites themselves seldom require any attention but if they appear red or sore then carefully clean the area with damp cotton wool before applying an antiseptic cream such as Savlon. Do this twice daily until any soreness eases.

How soon will benefits be seen?

Every patient is different and it depends on the condition being treated but for a typical patient being treated for arthritis we would expect to see initial improvements within 2 to 4 weeks.

Can PRP be used with other treatments?

Whilst the benefits of using PRP alone have been proven, it can be used alongside other direct treatments such as mesenchymal stem cell therapy (MSC) and hyaluronic acid (HA) for maximal regenerative effect. PRP has been shown under the microscope to stimulate stem cells and actively direct their migration into the damaged area! HA is an important 'building block' in the repair of damaged joint tissues (such as cartilage) so adding this to the equation can lead to an enhanced response.



How activated platelets in PRP therapy work to repair damaged tissues and assist with the activity and differentiation of stem cells to help form new tissues



PRP can also be used with pentosan polysulphate (e.g. Cartrophen) in the management of conditions like joint disease. As pentosan polysulphate has a positive effect on cartilage health through the stimulation of chondrocytes it should complement the regenerative effects of PRP.

PRP is also compatible with other conventional pain-killers and anti-inflammatories which may still be needed to reduce pain and discomfort - however the aim of these regenerative treatments is to reduce the long-term reliance on these of course.