

An Owner's Guide to Natural Healing

Autologous Conditioned Plasma (ACP)



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Healing after an injury involves a well-orchestrated and complex series of events where proteins in the blood have primary roles, promoting effective repair. Many of the proteins that participate in the healing process come from the components of blood called platelets.

Platelets are small, colorless, cell fragments. They are formed in the bone marrow and pass freely through the bloodstream in the normal or rested state. However, when an injury occurs, the platelets become activated and start to gather at the injury site to release beneficial proteins called growth factors. This is the beginning of the healing process.¹

Although blood products have been used in different types of therapies for many years, new research and technology into the beneficial effects of platelets have expanded the application of blood products for use in orthopedic procedures in people, dogs, and horses.²⁻⁹





What Is Autologous Conditioned Plasma (ACP)?

Autologous conditioned plasma is a specialized blood product made by concentrating a patient's own platelets and growth factors in a small volume of plasma (the yellow, fluid portion of blood in which red and white blood cells and platelets are suspended). The concentrated ACP can be used to supplement the patient's own growth factors to improve signaling and recruitment of cells to an injury site. ACP is one of the platelet-rich plasma (PRP) products being successfully used to assist in the treatment of orthopedic injuries in human and veterinary medicine.

How Does the ACP Process Work?

The veterinarian or technician will take a blood sample from the patient using a needle and a specially designed System. The sample is put through a rapid spinning process that separates and concentrates the platelets and beneficial growth factors in the plasma portion of the blood. The plasma containing the richly concentrated platelets and growth factors is then injected into the injured muscle, tendon, ligament, joint, or wound. The entire ACP treatment process is usually completed in less than 20 minutes.

What are the Clinical and Surgical Applications of ACP?

Tears, defects, degeneration, or inflammation of muscles, tendons, and ligaments can often be treated successfully with ACP. Additionally, healing following surgical repairs to these tissues may be enhanced using ACP.

ACP has also shown significant promise for improving pain relief and function in the treatment of osteoarthritis.¹⁰⁻¹⁵ The potential option of using the patient's own ("autologous") platelets and plasma to help treat this common, debilitating disease is a welcome advance for veterinarians and clients.

Dogs and horses are often afflicted with wounds that do not heal well for a variety of reasons. ACP provides the growth factors that promote healing of these difficult wounds.¹⁶⁻¹⁹

ACP has been used for many years in people undergoing orthopedic procedures, including joint replacement, fracture repair, and joint fusions,^{20,21} where it has been reported to improve bone and soft-tissue healing.²³⁻²⁷ In addition, treatment with ACP in these cases may help prevent excessive blood loss, decrease the risk of infection, enhance wound healing, and reduce pain such that fewer pain-relieving drugs are required.



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Contact Information

Any serious incident that occurs relating to use of the device should be reported to the manufacturer and to the health authority where the incident occurred.

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