

G A M E  R E A D Y®



**HEAL YOUR ANIMALS FASTER:
THE INJURY RECOVERY GUIDE
FOR CANINES AND EQUINES**

Heal Your Animals Faster: The Injury Recovery Guide for Canines and Equines

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Introduction

Just as with human athletes, competitive and companion animals can become injured in the course of training, performing or everyday activities. Repetitive motions, impact injuries, sprains, and over-training are all risks that come with owning or working with animals. Owners, trainers and handlers must be aware of the various symptoms and their treatments so animals can continue to perform and be active comfortably and safely. Some injuries may also require surgery.



Understanding potential injuries and/or resultant surgeries and how you can treat them is the first step in being prepared to help animals heal faster. This e-book outlines:

- Some of the most common injuries found in horses and dogs
- What you can expect during the injury or surgery recovery process
- What you can do to make the healing process faster
- Available technology for accelerating healing after injury or surgery

Whether you are a trainer, rider, or owner, keeping your animals healthy and in top form is a priority. Taking steps to accelerate healing will get them back in the ring, on the track faster or to their active lifestyle faster.

Injuries in Competitive and Companion Animals

Competitive and companion animals push their bodies to the limit on a regular basis. Unfortunately, sometimes they go beyond their limit and become injured. Both chronic and acute injuries can have a significant impact on the career of an animal athlete. Of course, injuries also affect the animal's comfort and well-being. Understanding some of the most common injuries can help you identify them more quickly, and possibly even prevent them in the first place.

Common Equine Injuries

Whether your horse performs dressage, jumps, is a cutter or reiner, plays polo, or races, it is at risk for both acute and chronic injuries. Acute injuries can occur any number of ways, including a bad step, an awkward landing on rough ground, or overloading the legs. Chronic injuries can result from fatigue, repetitive motions, and over-training.

Sprains, Strains, and Tears

A horse can suffer a muscle strain or ligament sprain just like a human athlete can. In horses, sprains and strains are most commonly found in the lower limbs, typically in the tissues that run between the lower leg joints and the feet:

- Superficial digital flexor tendon
- Accessory ligaments
- Deep digital flexor tendon

Some of the causes of injury to these tissues include a direct blow, overloading, and overstretching. Overtraining, aging, and overuse of restrictive bandages can also increase the risk of this type of injury.

Treatment of sprains, strains, and tears depends on the severity of the injury and might include cold therapy, compression, rest, medication, and surgery.

Hock Injuries

Although injuries to the front limbs are generally more common than they are in the rear limbs, hock injuries are also a potential risk, particularly in horses that do a lot of jumping, cutting, and turning. The hock is made up of several joints, bones, and connective tissues, any of which can become injured. Some of the more common hock injuries include:

- Bone spavin
- Bog spavin
- Curb

Treatment of hock injuries ranges from periods of rest to medication to surgery.

Cellulitis and Lymphangitis



Cellulitis in horses is caused by a bacterial infection under the skin that can occur anywhere, but is most often found in the hind legs. Symptoms include inflammation, fever, lameness, and drainage through cracks in the skin.

Known as “fat leg” because of its most obvious symptom, lymphangitis is characterized as an extreme form of cellulitis caused by inflammation of one or more lymphatic vessels. It is sometimes caused by a bacterial infection, and in other cases the cause is unknown.

In both cases, common treatments include cold hosing, pressure bandages, and rest. In some instances, surgical drainage is required.

Tendon Injuries

Tendons are the connective tissues that join muscle and bone. They can become inflamed, overextended, or torn from overuse, a poor landing, or a direct blow to a joint. Some of the most common tendon injuries in horses include:

- **Tendonitis** – In horses, the most common site for tendonitis is in the tendon that runs down the back of the front leg, the superficial digital flexor tendon (SDFT).
- **Bowed tendons** – A bowed tendon can occur as a result of healing from tendonitis in the SDFT or another tendon if it thickens during the recovery process.

Allowing ample warm-up time, ensuring proper conditioning, and avoiding over-training can help prevent tendon injuries in horses. When they do happen, tendon injuries are often treated with rest, ice baths, anti-inflammatory medication, and pressure bandages.

Carpitis

Inflammation of one or both of the front knee bones in horses is known as carpitis. It can be caused by overextension of the knee during exercise and can ultimately contribute to arthritis in the joint if left untreated.

Treatment for carpitis often includes NSAIDs and other medications, physical therapy, and cold therapy to reduce pain and swelling.

Suspensory Desmitis

The degenerative disease of the suspensory ligament is a hereditary condition that leads to collapse of the fetlocks. Although the suspensory ligament is the site where symptoms are most visible, the condition is actually systemic and can affect connective tissues throughout the body.

Treatment of symptoms to reduce pain and inflammation includes rest, icing, and bandages, followed by physical therapy to return the injured horse to activity. In some cases, surgery may be required.

Wind Puffs

Swelling in the ankles, also known as wind puffs, can be caused by excess fluid in the fetlock joint capsule or the flexor tendon sheath. This injury most commonly occurs as a result of overworking, but it can also happen with insufficient conditioning.

Treatment for wind puffs includes rest and cold therapy followed by gradual introduction to exercise.

Common Canine Injuries

Many of the most common injuries in dogs are similar to those found in horses because they have the same root causes:

- Traumatic impacts to muscles or joints
- Sudden twisting motions
- Overtraining

All of these factors put dogs at risk for injury to muscles, tendons, ligaments, and other tissues.

Soft Tissue Injuries

The most common injuries in dogs are to the soft tissues, including muscles, ligaments, and tendons. Sprains, strains, and tears can result in pain, swelling, and limited range of motion. Although these types of injuries can happen in any part of the limbs, the most common injuries are in the cranial cruciate ligament in the knee.

If left untreated, they can lead to long-term tissue damage, so it is important to recognize when a dog is experiencing this type of injury. Treatment for soft

tissue injuries might include physical therapy, cold therapy, medication, massage, and in extreme cases, surgical stabilization of the joint.



Hard Structure Injuries

Dogs that are very active or perform jumping activities are at a higher risk for bone fractures. When surgery is required to repair a fracture, the recovery process often determines when or if a dog can resume its active lifestyle.

Recovery after canine surgery includes getting ample rest, cold therapy to reduce inflammation, compression to reduce swelling and edema, and physical therapy to safely introduce activity.

The Injury and Surgery Recovery Process

Injuries are often unavoidable, but there are steps you can take to reduce risk. Ensuring proper conditioning, avoiding overtraining, and reducing inflammation after a hard workout will all contribute to a healthier animal.

When injuries do occur, it's important to work closely with your vet to safely return the animal to activity. Although the specific recovery plan will vary from case to case, there are some common challenges and milestones you can expect to encounter.

Typical Recovery Challenges

People have or work with dogs and horses for a variety of reasons including athletic pursuits, career choices, and pure enjoyment. Regardless of the reason, owners and handlers are responsible for ensuring the health and well being of their animals.

Some of the most common challenges that owners and handlers face with injury or surgery recovery include:

- **Patience** – Although it may be tempting to get an animal athlete back in the game as soon as possible, this is not always the best course of action for the animal. Recovery takes time, and it is not always easy to know when to introduce more intense activities. Always follow your vet's instructions with respect to activity after an injury or surgery, even if the animal seems to no longer be in pain or if swelling has subsided.
- **Limiting activity** – You're not the only one who wants your horse or dog to return to activity. Animals are inherently continuously active, and they often enjoy it. When they stop feeling pain, they may feel the urge to run when they should only be walking. Stick to your recovery plan and find ways to engage your animals without putting them at risk for re-injury.
- **Ice baths** – Many of the injuries described above are treated with cold hosing, ice baths, or ice packs. Although cold therapy is proven to be beneficial, these methods come with inherent risk of damage to skin either from excessive cold or high-pressure water application.

Fortunately, it is possible to overcome each of these challenges. Being committed to the health of your animal will help you develop the necessary patience to wait until they are completely healed. Ongoing research provides the latest methods for injury and

surgery recovery, including the most successful treatment plans. New technologies allow animals to receive the benefits of cryotherapy and active compression without risk for other injuries.

The Recovery Timeline



In the first few days after an injury is sustained or surgery is performed, the primary objective is to keep the animal comfortable by reducing pain and swelling. A combination of cold therapy, compression, rest, and anti-inflammatory medication (when prescribed by a vet) is a standard approach.

When the initial pain and swelling has subsided, the goal during the next stage of recovery is to limit the spread of inflammation and repair any damage caused. A typical approach includes

a combination of alternating temperature therapy, compression, and the introduction of gentle exercise.

A full recovery can take six months or more, even if the animal seems to have healed. In general, horses require a longer recovery time than dogs. It is important to avoid vigorous exercise during this time and continue a program of controlled exercise while damaged tissues continue to fully recover.

Accelerating the Healing Process

When an injury occurs or surgery is performed it's important that vets, trainers, and owners take a unified approach to treatment and recovery. Introducing too much activity too soon can slow down the healing process and prolong the recovery time, which can be both costly and frustrating for owners and the animals themselves.

Some of the steps you can take to accelerate healing for many of the most common equine and canine injuries and surgeries include cold therapy, compression, rest, and physical therapy.

Cold Therapy

Cold therapy is proven to reduce pain and inflammation in both humans and animals. Therapeutic cold has the following beneficial effects:

- Deadening nerve endings to reduce the sensation of pain
- Reducing muscle spasms that contribute to additional pain
- Reducing swelling
- Slowing cellular metabolism to help speed up the healing process

Cold hosing and ice packs are the traditional methods for applying cold therapy in horses, and ice packs are frequently used for dogs. Although these methods are effective for delivering cold, they do have some drawbacks.

Cold hosing can result in skin problems because of the excessive amount of water used and the frequency of application. Ice packs lose effectiveness and coldness over time because heat from the animal's skin is transferred to the ice pack. It can also be difficult to get sufficient coverage with ice packs because they do not conform to the animals' bodies.

Compression Therapy

Lymphatic drainage and good blood flow are essential for speeding up recovery in animals. The body does this naturally through the circulatory and lymphatic systems, but excessive swelling can impede the function of these systems.

Pressure bandages can be used to help control swelling, but they also present risks. Too much pressure can limit the flow of blood and lymph. Prolonged use of pressure

bandages can cause tendons and other connective tissues to weaken. Animals present an additional challenge with the use of pressure bandages because they cannot effectively communicate comfort levels.

Active compression therapy mimics the body's natural pumping action to remove excess fluid from treatment sites and bring fresh, oxygenated blood to healing tissues.

Rest

Perhaps one of the most challenging aspects of injury recovery in animals is the ability to get adequate rest. Despite this inherent challenge, it is important that horses and dogs rest not only the injured or surgical area, but also get an adequate break from all activity.

Healing after an injury or surgery requires a significant amount of energy for cellular regeneration and tissue repair. When the body is at rest it has a better opportunity to repair damaged tissues, thereby speeding up the healing process and shortening overall recovery time.

Physical Therapy

Although adequate rest is essential, a certain amount of appropriate activity is also important for the recovery process. Introducing mild activity in the early stages of recovery and then later increasing intensity will help an animal return to peak activity more quickly.

Working closely with a veterinarian and a qualified handler is important for identifying the right balance of activity during recovery.



Active Cold and Compression Technology

Modern advances in technology have made the cold therapy and compression components of injury and surgery recovery even more effective. Game Ready's patented active cold and compression system improves the efficacy of these important treatment approaches.

ACCEL[®] Technology

Active Compression and Cold Exchange Loop (ACCEL[®]) technology enables controllable, simultaneous cooling and compression. This not only streamlines therapy sessions, but also allows therapeutic cold to penetrate more deeply and to last longer. Separate internal chambers in the heat exchanger of the wrap allow ice water and pneumatically pumped air to constantly flow through the system to create an active pumping effect. This pumping action mimics the body's own systems for removing edema and replenishing blood at treatment sites. Constant, active compression enhances cooling by providing an insulating effect and increasing the surface area of the therapeutic cold.

ATX[®] Technology

One of the key components in the success of the Game Ready system is the ability to maintain a consistently cold temperature throughout the duration of the treatment system. This is achieved using Game Ready's patented Active Temperature Exchange (ATX[®]) technology.

Based on the same scientific concepts that NASA scientists have used to develop space suit technology, Game Ready employs a system of chambers in the heat exchanger combined with an ice reservoir to constantly transfer heat away from the treatment site. The ice reservoir helps maintain a consistently cold therapeutic temperature, making cryotherapy more effective.

Game Ready® for Animals



Game Ready can be used for both recovery from injuries and surgeries and prevention of injuries. In the case of prevention, active cold and compression can be used to treat muscle soreness and reduce the inflammation associated with intensive training and rigorous activities. When injuries do occur, Game Ready can help accelerate the healing process and shorten recovery times so animals can get back to their activities and lifestyles more quickly.

Game Ready Equine

Game Ready has created a series of specialized equine wraps designed to treat the most common horse injuries:

- **Utility wrap** – The most versatile wrap in the equine line, the utility wrap can be used on the front or rear limbs, left or right
- **Hock wrap** – Available in options for either the right or left side, this wrap is ergonomically designed to contour to the hock
- **Full leg wrap** – Shaped much like a shipping boot, this wrap comes in right- and left-specific options for both the front and back legs
- **Back wrap** – Designed to fit from the withers to the croup, this wrap treats the area typically covered by a saddle pad.

14' long connector hoses are available, as a single or dual option, making it easy to treat one or two legs, or use one or two wraps in almost any location convenient for you and the horse. Game Ready has also made the system portable with an available rechargeable battery pack.

Game Ready Canine

When dogs get injured, Game Ready is here to help. With two different wraps designed to treat both front and rear limbs, shoulders, hips and abdomens your dog can receive the benefits of active cold compression therapy.

Choose from two different wraps designed specifically for canines

- **Utility wrap** – Designed for use on any leg, canine utility wraps can also be connected together to cover larger areas such as the shoulder, hips or abdomen.
- **Stifle wrap** – The stifle is often one of the more difficult areas to treat in a dog because of its shape. Game Ready's ergonomic, side specific design makes it easy to apply active cold and compression to this area.



All Game Ready wraps are simple to apply, comfortable for the animal, and easy to clean. All wraps are fully adjustable to conform to each animal and can accommodate various breeds.

Benefits of Game Ready for Animals

Game Ready offers many benefits over traditional methods of cold therapy treatment for horses and dogs, including:

- Less pain and fewer muscle spasms
- Less swelling and inflammation
- Less tissue damage
- Prevention of dermatological issues with dry application
- Controllable settings ensure safe application of cold and compression
- Longer-lasting cold therapy
- More effective removal of edema
- Faster healing and a shorter recovery timeline
- Portable for use at home, in clinics, in the barn, or on the road

Professional athletes, trainers, and universities have used Game Ready for years as a more effective alternative to RICE (rest, ice, compression, and elevation) therapy. Why not use this proven system to accelerate healing for your competitive and companion animals?

If you are interested in learning about how Game Ready can help accelerate the recovery process for your equine or canine, call 1.888.GameReady or go to www.gamereadyveterinary.com for more information.