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# GETTING BACK ON THE FIELD: RECOVERING FASTER FROM SOCCER INJURIES

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## Soccer Injuries and Treatments

As the most popular sport in the world, it's not surprising that soccer also creates the most sports injuries. The reason for this is not just the frequency with which it is played, but also the highly athletic nature of the game. At all levels of the game, from youth programs to professional leagues, soccer injuries are inevitable.

Studies have shown that 86-100% of soccer players are injured in a season. In addition, most teams can expect to see one or two injuries per player per season. The average time away from competition is about three to four weeks, which means you can count on having some key players out of the game for a period of time each season. Fortunately, only about 15% of injuries keep players out of the game for more than four weeks, so the recovery time for the majority of soccer injuries is relatively quick.

Although muscle and joint injuries are the most dominant, soccer players are also susceptible to fractures. In general, players with muscular injuries experience a 22-30% recurrence rate, which puts them out of the game for even longer. Injuries to the lower extremities are the most common, with almost half of players having a long-term knee-related injury upon retirement.

What does all this mean for coaches and trainers? You can expect soccer injuries to happen and you should be prepared to treat them. Proper treatment of soccer injuries will not only help athletes get back in the game faster, it can also help prevent future re-injury. This is good news both for coaches who want more wins in the short term, and for players who want to protect their bodies in the long term.



## The 5 Most Common Soccer Injuries

Although it's possible for almost any type of injury to occur during the course of a soccer game or practice, some happen more often than others. Some of the most common types of soccer injuries are:

1. Muscle strains
2. Ankle sprains
3. Knee injuries
4. Fractures
5. Wrist injuries

Although many of these injuries have a relatively quick recovery time, all injuries should be assessed by a healthcare professional who can provide a proper diagnosis.

### Muscle Strains

Muscle strains can occur in the quadriceps, groin, hamstrings, and other areas when the muscle is over-stretched and tiny fibers in the muscle are torn. A muscle strain can result from over-use, insufficient stretching, or contracting a muscle hard against resistance.

Symptoms of this type of injury can include:

- Bruising or discoloration in the affected area
- Pain
- Stiffness
- Limited range of motion
- Swelling

Muscle strains are common soccer injuries because these athletes often take strides that are too long, and because of the constant stopping and starting they must do.

### Ankle Sprains

An ankle sprain results from torn ligaments in the ankle joint. This can occur during the course of a soccer game when a player takes a bad step and rolls the foot or pivots too quickly and twists the ankle.

Some of the symptoms that are most common with ankle sprains include:

- Swelling around the ankle joint
- Pain
- Limited range of motion
- Edema
- Warmth
- Redness

In addition to the movements that can cause an ankle sprain, other contributing factors include poorly fitting shoes, insufficient stretching, and weak muscles or tendons.



### Knee Injuries

ACL and meniscus tears are the two most common types of knee injuries that soccer players encounter. In either case, the injury may be relatively minor and require a few weeks of healing, or it may be significant and require surgery.

Over-stretching, hyperextension, twisting, or a sideways blow to the knee can cause an ACL tear. A torn meniscus most often results from twisting while the leg is bent.

Symptoms for both of these knee injuries are similar:

- Pain
- Swelling
- Joint locking
- Instability in the knee joint

It is particularly important to treat knee injuries as soon as they occur to help prevent further damage to the connective tissues in the joint.

## **Fractures**

Occasionally, fractures to the tibia and/or fibula can occur during soccer games or practice. These injuries typically happen as a result of an impact with another player, either during a slide tackle, colliding with the goalie, or while competing for a loose ball.

Fractures should be treated immediately and may require surgery depending on the severity of the injury. It is usually obvious when a fracture has occurred, but if there is any uncertainty and a fracture is suspected, medical attention should be immediately sought to prevent exacerbation of the injury.

## **Wrist Injuries**

Soccer players often fall during the course of play, and when they try to break a fall with their arms, a wrist injury can occur. Whether it is a muscle strain, a wrist sprain, or a fracture, the injury will likely result in pain, swelling, and limited range of motion.

Goalkeepers are particularly susceptible to wrist injuries, including those that result from impact with the ball, another player, or the goal posts.

## **Common Treatments for Soccer Injuries**

Regardless of the injury type, its effects – inflammation, edema, cellular metabolic changes – can lead to secondary injuries such as cartilage damage and chronic inflammation if not treated properly.

### **RICE Therapy**

The most common treatment approach for most soccer injuries is the traditional RICE therapy – rest, ice, compression, and elevation. However, although the principles behind the therapy remain the same, it has evolved and improved over the years. Because the application of ice directly to skin can have negative effects, most trainers and physical therapists apply a cold source that does not allow ice or cold packs to come into direct contact with the skin.

Some of the other limitations of traditional ice therapy include:

- Inability to control the temperature
- Limited cold penetration
- Heat transfer limits the effects of cold therapy
- Water leakage, which is especially a problem for post-operative patients

Compression is another important part of traditional RICE therapy that has improved with modern technology. One of the major drawbacks of static cold and compression is that it can contribute to over-cooling that can potentially lead to frostbite and other problems. Although this is an extreme scenario, it does happen and should be avoided with careful application of cold and compression together.

### Surgery

In the case of a fracture, ACL tear, or meniscus tear, surgery might be recommended as the best course of treatment. Fortunately, modern surgical methods are relatively non-invasive and often allow athletes to heal relatively quickly. Recovery from surgery often involves the traditional RICE therapy described above as well as pain medication and physical therapy.



### Physical Therapy

Strained muscles and sprained joints can benefit from professional physical therapy during the recovery process to help improve both strength and flexibility. Although introducing limited activity during the healing process is a good idea, it is important for athletes to closely follow a therapist's instructions so that they do not exacerbate the injury or become re-injured. Many physical therapists also include cryotherapy and compression as part of a comprehensive recovery plan.

## How to Optimize Recovery from Soccer Injuries

Every athlete wants to get the most from a season, which means staying healthy and avoiding injury. However, the statistics show that soccer injuries are virtually inevitable. When they do happen, both players and coaches have an interest in a speedy recovery that allows athletes to get back in the game faster.

### Accelerating Injury Recovery

The best way to accelerate injury recovery is to closely follow recommendations from doctors and therapists. This typically includes:

- Getting ample rest
- Pain management
- Not using the injured body part for as long as directed
- Cold and compression therapy
- Physical therapy
- Careful return to activity

The first few days after an injury are the most critical. This is when the body reacts most strongly to the trauma, whether it was a direct blow to a joint, a bad step that resulted in a sprain, or a long stride that strained a muscle. The body immediately reacts with an inflammatory response that, when controlled, can help accelerate the healing process. However, if left unattended, the inflammatory response can actually delay recovery.

### Tips from Physical Therapists and Athletic Trainers

Whether you are a player, coach, or trainer, it is important to be prepared for soccer injuries.

Follow these tips to stay equipped for the unavoidable soccer injuries you can expect to encounter.

- **Injury prevention** – The best way to handle injuries on a soccer team is to avoid them in the first place. Players must be taught the importance of a proper warm-up, stretching before and after practice, and respecting the limitations of their bodies. Always include a mandatory warm-up and cool-down with every practice and game. If

a player expresses that they are in pain, do not push them to play through it and give them time to rest. Taking the time to treat minor injuries can prevent major ones, enabling players to stay active for longer.

- **Workout recovery** – In addition to a proper cool-down period that includes stretching the major muscle groups, active workout recovery can help prevent injury in serious soccer players. Using cold and compression therapy after a particularly grueling practice can help reduce the natural inflammatory response that comes with muscle overuse. It can also help relieve the usual aches and pains that players experience after games and practices.
- **Activity maintenance** – When an injury does happen, it's important to stay active throughout the recovery process. This does not mean that players should use injured body parts before they are ready, but after a brief period of rest, they can continue exercising other muscle groups. This will help keep fitness levels up so they can get back up to their previous performance level more quickly after the injury has healed.
- **Slow return to sports** – Coaches are always tempted to get injured players back to the game as soon as possible after recovery. However, even when an athlete no longer experiences pain and can perform normal daily activities, it does not necessarily mean that they are ready to return to the rigorous game of soccer. Always follow doctor recommendations for returning to prior activity levels. Returning too soon can lead to re-injury and further prolong the recovery process.

Patience can be difficult for both athletes and coaches, but it is always worth taking the time to allow an injury to recover fully.

## Leveraging Insurance Programs

Coaches and trainers must have tools and resources at their disposal to help players recover from injuries. In addition to the immediate care products like first aid kits, they also need items such as knee braces, warm water baths, cold and compression systems, and other tools necessary for accelerating the injury recovery process.

Of course, these items cost money and not every high school or college has the resources to provide these important recovery tools. Fortunately, athlete insurance programs for teams can dramatically reduce the cost of medical expenses related to athletic injuries. The key is to leverage these programs before an injury occurs and to ensure that a team is pre-authorized for coverage. Learn more about Game Ready's athlete insurance program at the end of this e-book or [click here](#) to download a brochure.

### Active Cold Compression Therapy



One of the greatest improvements to traditional RICE therapy is the development of active cold and compression technology. This innovative system enables the application of consistent cold without the risk of negative impacts to the skin. Active compression also enhances the effects of cold therapy and provides other important benefits.

#### What are the Benefits of Cold and Compression Therapy?

Cold therapy alone has several benefits for athletes with soccer injuries. The application of controlled, consistent cold:

- Reduces the temperature in the affected joint and surrounding tissue
- Reduces blood flow to the injury
- Reduces edema or the build-up of excess fluid
- Reduces inflammation in the joints and muscles
- Reduces cellular metabolism
- Reduces muscle inhibition that can cause additional pain
- Helps minimize secondary injury to the cartilage

While these effects are certainly beneficial, they can be further enhanced with the addition of active compression. Adding active compression to cold therapy provides:

- Better skin contact to enhance the delivery of therapeutic cold
- More pressure on tissue to help reduce inflammation
- Reduction in edema and fluid build-up
- Reduction in fluid loss from capillaries
- Reduction in blood flow to the injury
- Reduction in inflammation
- Less muscle inhibition

In addition to these benefits, active cold compression therapy overcomes the challenges of traditional RICE therapy by controlling the temperature to prevent risk to skin and ensuring that the amount of pressure applied during compression is not excessive.

### Active Cold and Compression Enhances Soccer Injury Recovery

All of the above benefits combine to promote a faster healing process. The deeper and faster cooling effect created by cold compression therapy also helps acute soccer injuries mend more quickly with less pain and better range of motion earlier in the recovery process.

### How Cryotherapy Affects Soccer Injuries

Applying cold to an injury helps improve recovery by providing the following therapeutic effects:

- **Vasoconstriction and reflexive vasodilation** – When a cold source is applied to the skin, thermal energy is transferred and heat is absorbed from the body. This heat transfer causes immediate narrowing of the blood vessels, also known as vasoconstriction, which reduces blood flow to the injury site. When vasoconstriction occurs, the body reflexively dilates the blood vessels to maintain blood flow. This natural response of constriction and dilation helps remove cellular waste while replenishing nutrients and oxygen-rich blood at the same time.

- **Slower local metabolism** – The rate of chemical reactions in injured tissue slows down when cold is applied, causing a decrease in the demand for cellular energy. This decrease in cellular metabolism reduces the incidence of cell death, which allows more of the injured tissue to survive during the healing process and also reduces the incidence of secondary tissue.
- **Less muscle activity** – Two of the body's natural responses to an injury are muscle spasms and muscle guarding, which can further contribute to the pain caused by the injury. Cryotherapy helps reduce muscle activity, which consequently reduces these painful responses and make the recovery process easier for athletes.
- **Less pain** – Injuries often result in the activation of nerve fibers that contribute to the sensation of pain. Application of cold provides an analgesic effect by slowing down the conduction of these nerve fibers.

Although the natural inflammatory response is an important component of the healing process, using cryotherapy to reduce cellular metabolism and muscle and nerve activity helps control inflammation and contributes to a faster and more comfortable healing process.

### How Active Compression Affects Soccer Injuries

Adding active compression to cryotherapy enhances the therapeutic effect and contributes to a faster recovery from soccer injuries. By using a pneumatic system to simultaneously provide pressure and pump fluids through the body, active compression provides the following therapeutic effects:

- **Edema removal** – When damaged cells rupture they release fluid that contributes to swelling around the injury site. Active compression creates a natural pumping effect that removes edema more quickly than the body can do on its own, allowing damaged tissue to repair more quickly.



- **Enhanced cryotherapy** – Active compression with a cold source allows therapeutic cold to cover more surface area and penetrate more deeply, enhancing all of the inherent benefits of cryotherapy.
- **Reduced blood flow** – The natural vasoconstriction that occurs when cold is administered is intensified with the application of active compression.
- **Better insulation** – Therapeutic cold penetrates more deeply and stays colder for longer partially due to an insulating effect created by compression wraps. Active compression also contributes to a rapid cooling process, which more quickly slows the body's inflammatory response.

When combined, cryotherapy and active compression are proven to promote a faster recovery. The statistics behind cold compression therapy speak for themselves. In ongoing surveys of over 2800 patients, more than 91% of people that used Game Ready's active cold and compression for injury recovery reported that they were able to return to daily activities more quickly. For patients that had surgery, more than 94% reported a better recovery experience than with other types of cold therapy (percentage of survey respondents as of December, 2012). For athletes, trainers, and coaches, this means getting back in the game faster.

## Game Ready's Active Cold and Compression Therapy

Game Ready's active cold compression system is based on NASA technology that uses the circulation of cold air and heat exchanging material to help keep astronauts cool. Instead of cold air, Game Ready uses cold water to provide cryotherapy for injured athletes.

### ATX® Technology

Active Temperature Exchange (ATX) is a patented technology that was developed from the same heat exchange concept used in space suits. An ice reservoir is used to cool water that constantly flows through a chamber system that is integrated into wraps that conform to the body. As the cold water flows through the system it efficiently draws heat away from the body

and transfers it to the reservoir, where it is replenished with cold water maintained at a constant therapeutic temperature.

## Active Pneumatic Compression

A second chamber integrated into the body wraps is used to simultaneously pump air through the system. This pneumatic pumping can be adjusted to provide the right amount of pressure and speed to remove edema more effectively than a static compression bandage. Constant compression also enhances cryotherapy by covering more surface area, providing insulation, and allowing cold to penetrate deeper.

## Specialized Wraps

Game Ready has created a range of specialized wraps that use ATX technology and active compression to promote faster healing. Each wrap conforms to a specific part of the body for maximum coverage and provides the following benefits:

- Uniform cooling and compressing
- Pumping effect
- Insulating effect
- No water leakage
- Anatomical shape for optimal coverage
- Individualized settings that can be adjusted for each athlete
- Portability for post-game injuries

Wraps have been designed for all of the most common soccer injuries:

- **Knee Wrap** – To enhance recovery after surgery for a torn ACL or meniscus, or for pain management after a traumatic knee injury
- **Articulated Knee Wrap** – Similar to the static knee wrap, but allows movement for use during physical therapy or with a CPM machine
- **Half-leg Boot Wrap** – Stabilizes the ankle and calf for recovery of sprains, strains, shin splints, and post-surgery
- **Ankle Wrap** – For ankle sprains, strains, and fractures

- **Hip/Groin Wrap** – Covers the hip and upper leg for recovery from torn hamstrings, muscle strains, and hip injuries
- **Hand/Wrist Wrap** – Can be used for recovery from hand, wrist, or forearm injuries, particularly after a sprain, fracture, or surgery

Game Ready has also designed wraps that cover the back, shoulder, elbow, and hand to accommodate soccer injuries that occur less frequently.

## Why You Should Use Game Ready for Soccer Injuries



The statistics make it clear that soccer injuries are an inevitable reality for every team. Are you prepared for the muscle strains, ankle sprains, and other injuries that can slow your team down? Game Ready is here to help athletes, coaches, and trainers keep the team in top form with faster injury recovery.

### Game Ready Programs for Soccer Teams

High school and college soccer programs now have better access to Game Ready's advanced technology through two unique programs.

#### The Game Ready Goodwill Program

If your high school or college soccer program doesn't have the budget to invest in an active cold and compression therapy system, consider the Game Ready Goodwill Program. Professional teams with bigger budgets update their systems when new versions of Game Ready are released. The old equipment is reconditioned and made available to high schools and Division 3 colleges at a more affordable price.

If you want access to the same cold compression technology that the pros use, get Game Ready today.

### **Game Ready Athlete Insurance**

Be prepared for unavoidable soccer injuries through Game Ready's benefit verification for athlete insurance to determine your eligibility for full or partial coverage of a Game Ready active cold compression system.

The simple pre-authorization process requires completion of an application and a prescription and letter of medical necessity from a qualified healthcare provider. If you qualify, the insurance program may cover some or all of the cost of your new Game Ready system.

Athletes at all levels deserve the best injury recovery technology available, and Game Ready is here to help. For more information about the Game Ready Goodwill Program or Athlete Insurance, call 1-888-Game-Ready (1-888-426-3732).

### **Get Back in the Game Faster with Game Ready**

Every athlete wants to stay at the top of his or her game, and every coach wants all players on the team to be in top form for competition.

Unfortunately, soccer injuries can cause unplanned setbacks that impact the whole team. Using the Game Ready patented cold and compression therapy system is one of the best ways to get players get back on the field more quickly by safely accelerating the recovery process.

The facts speak for themselves:

- Soccer injuries are inevitable; they happen to virtually every player.
- The most common treatment for most soccer injuries is cryotherapy and compression.
- Active cold compression therapy is proven to be more effective than ice alone.
- Professional athletes routinely use Game Ready for injury recovery and prevention.
- The Game Ready Goodwill Program and Athlete Insurance Program allow smaller teams access to the same advanced technology.

With all these benefits, getting Game Ready for your soccer team is an obvious choice.

Remember, Game Ready is not just for occasional major injuries, you can use it for:

- Acute injury
- Reoccurring injury
- Post-operative recovery
- Injury prevention

Contact a sales representative today to learn more about Game Ready and how it can keep your soccer team at the top of their game.