

G A M E  R E A D Y®



THE GAME READY GUIDE TO KNEE SURGERY RECOVERY

EVERYTHING YOU NEED TO KNOW FROM
IMMEDIATELY POST-OP TO FULL RECOVERY.

The Game Ready Guide to Knee Surgery Recovery

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Introduction

Recovering from any type of surgery is challenging, but knee surgery presents a unique set of challenges because mobility is significantly impacted. Full recovery also takes quite some time, even after the pain has subsided and mobility has been restored. For these reasons, accelerating recovery after knee surgery is essential for returning to normal activity as soon as possible. For athletes, a speedy recovery is even more important.



So how do you ensure the fastest knee surgery recovery? This e-book is designed to help you do just that. You will learn:

- The most common reasons for knee surgery
- The steps that will help you recover more quickly
- The typical timeline for recovery
- How using active cold and compression can help you recover faster

If you have a knee surgery scheduled or are in the early phases of recovery from a recent procedure, this e-book will provide all the supplemental information you need to get back on your feet faster.

Common Reasons for Knee Surgery

Although knee injuries are more common with athletes, they can also happen because of a fall, a sudden impact, or other everyday occurrences. Regardless of the cause, the effect is often the same: torn tissue in the knee joint.

Torn ACL

The anterior cruciate ligament, or ACL, is a band of tissue that connects the tibia to the femur through the center of the knee joint. As one of the most common knee injuries, the ACL can become damaged or torn when the body rotates while the foot stays planted. The injury does not necessarily require contact and, in fact, can happen simply by pivoting or planting the foot in a certain way.

Because the ACL is such an important component of knee stabilization, reconstructive surgery is often recommended, especially for athletes who want to continue playing sports.

Torn MCL

The medial collateral ligament, or MCL, is another one of the four ligaments that create stability in the knee. This connective tissue runs along the inner side of the knee joint and, therefore, is most frequently damaged by a blow from the side. MCL tears can also result from a poor landing or bending at certain angles.

Torn Meniscus

The meniscus is a cartilaginous tissue that disperses friction and provides cushioning between the tibia and femur. There are actually two menisci in the knee joint that work together to disperse body weight and reduce friction as the knee straightens and bends.

A meniscus can experience an acute tear from impact or from rotation at certain angles. The tear can be repaired, or in some cases, the entire meniscus can be replaced.

For athletes, the damaging of all three of these important tissues in a single injury is not uncommon. The treatments for these injuries vary depending on factors such as severity, the patient's age, activity levels, and so on. When surgery is prescribed, it might include:

- Repairing damaged tissue
- Replacing damaged tissue
- Removal of torn cartilage
- Arthroscopic procedures

Regardless of the reasons for knee surgery and the procedures used, the recovery pathway is similar in most cases.

Recovering from Knee Surgery



Whether you are an athlete, a weekend warrior, or a grandmother, you want to get back on your feet as soon as possible after knee surgery. Working closely with your physician and following all his or her recommendations is important. Talk to your doctor about all of the following factors that can help you speed up recovery.

Rest

Your body requires energy to heal, so the more you can rest, the faster you will recover. Resting your

injured leg as much as possible is important, even as range of motion returns. Follow recommendations from your doctor and physical therapist regarding how much activity you can sustain during the various phases of recovery, and make the time to stay off your feet whenever possible.

In addition to resting during waking hours, getting ample sleep will also help speed up the recovery process.

Cryotherapy

Cryotherapy is the application of cold to an injury to help reduce pain, swelling, inflammation, and the build-up of excess fluid, or edema. Cooling damaged tissue slows down cellular metabolism and decreases

the demand for oxygen. This results in faster tissue repair and an overall quicker recovery.

Although traditional ice packs are effective, more powerful ways have been developed to deliver consistent cold temperatures after knee surgery.

Compression

The build-up of excess fluid in and around the knee joint after surgery can slow the healing process. Compression helps prevent this fluid build-up and reduces inflammation at the same time.

Active compression, which provides a natural pumping effect, is even more beneficial. In addition to preventing edema, active compression also brings freshly oxygenated blood to the damaged tissue in the knee, thus allowing it to heal more quickly.

Healthy Living

Proper healing depends on healthy habits such as regular sleep and good nutrition. Your body uses more energy while it is recovering, so be sure to give it everything it needs to repair itself as fast as possible.

Pain Management

Unfortunately, one of the side effects of knee surgery is some pain. Your doctor will help you manage any pain immediately after surgery and will likely prescribe medication if you have ongoing discomfort. Pain can also be managed without medications with active cold compression therapy.

Physical Therapy

As your body heals after surgery, you will regain range of motion and flexibility in the joint. During the duration of your recovery, finding the right balance between activity and rest is important. Work with a physical therapist to learn appropriate exercises for each stage of your recovery.

Although each of these factors plays a role in accelerating knee surgery recovery, each case is different, which is why working closely with your healthcare providers every step of the way is so important.

How Active Cold and Compression Accelerates Recovery

Although you can't control every factor of your knee surgery recovery, you can employ certain techniques and resources to accelerate the healing process. Active cold and compression therapy uses patented technology to provide consistent cooling and a natural pumping effect to the entire area surrounding the knee joint.

The benefits of using active cold and compression therapy during your knee surgery recovery include:

- Reduced pain
- Less swelling
- Removal of excess fluid
- Better fluid drainage
- Faster recovery time

Cold therapy and static compression bandages will create a positive effect on the healing process. You can take that benefit to another level with active cold compression therapy.

How Cryotherapy Accelerates Healing

Cryotherapy is proven to produce therapeutic effects in the following ways:

- **Blood flow** – When cold is applied to the body, the blood vessels in the area constrict, which restricts blood flow. The body's natural response to this constriction is to allow the blood vessels to dilate, thus bringing fresh, new blood to the surgical site. The cycle continues as cellular waste is removed and oxygen-rich blood delivers healing nutrients to the knee joint.



- **Cellular metabolism** – The cells in your body act like little machines. They constantly work to perform their designated functions. This requires energy, and when cells do not receive enough energy, they die and are replenished with new cells. When cold is applied, it enables the surrounding cells to work at a slower pace, thus requiring less energy and limiting the amount of cell death that occurs during the healing process.
- **Pain** – Cold helps reduce the activity of nerve fibers, which thereby reduces the amount of pain you will feel. Cryotherapy can often be used in place of or in combination with pharmaceutical painkillers, many of which come with unwanted side effects.

All these factors combine to help you recover from knee surgery faster by reducing the body's natural inflammatory response. However, ice alone has its drawbacks. When ice packs are applied, heat from your body is transferred to the ice, effectively warming it up. This means that the temperature of the therapeutic cold gradually increases over time, becoming less effective throughout the therapy session.

Fortunately, Game Ready has found a solution to this problem with patented ATX® (Active Temperature Exchange) technology. Specialized wraps allow cold water to constantly flow from an ice reservoir, around the knee, and back to the ice reservoir to deliver a constant therapeutic temperature. The result is longer-lasting cold that penetrates deeper to enhance the cryotherapy benefits described above.

How Active Compression Accelerates Healing

Just as cryotherapy has been improved with the help of technology, static compression can also be enhanced with the addition of active motion.

Active compression provides the following benefits for patients recovering from knee surgery:

- **Edema removal** – Excess fluid generated during the body's natural inflammatory response after surgery can contribute to greater swelling and discomfort. Active compression mimics and enhances the body's natural pumping effect to draw fluid away from the knee joint.

- **Blood flow** – The pumping effect of active compression helps the blood vessels expand and contract, thus refreshing the oxygen-rich blood that tissues in the knee need to repair themselves.
- **Enhanced cryotherapy** – Compression provides better contact with the cold source so that the benefits of cryotherapy can be achieved more thoroughly and quickly. Compression wraps also provide an insulating effect that allows the therapeutic cold to penetrate deeper and last longer.

Active compression works well alone, but it provides even more benefits when combined with cryotherapy.

Game Ready wraps feature an integrated chamber that pneumatically pumps air to provide active compression to the entire area surrounding the knee joint. The patented ACCEL® (Active Compression and Cold Exchange Loop) system uses both active compression and consistent cold therapy to help you heal faster.



Typical Knee Surgery Recovery Timeline

KNEE SURGERY RECOVERY TIMELINE

Everything you need to know from immediately post-op to full recovery

● WEEK 1

Diminish Pain & Swelling

Your therapists will reduce swelling by using cold and compression therapy. Then you will start range-of-motion exercises.

● WEEK 2

Full Knee Extension

Through non-weight bearing exercises your therapists will help you reach a full knee extension.

● WEEK 3-6

Walking & Light Aerobics

Most therapists will start you on walk exercises, gentle strengthening, or light aerobics to help further your range-of-motion.

● WEEK 7-12

Strength Training & Jogging

At this state you will increase your activity level; some patients start to jog around the 12th week in recovery. Adding in cold and compression therapy will help further your range-of-motion.

● MONTH 4-7

Enjoy a wide range of sports

At this stage you may start to enjoy sports like outdoor cycling, jumping rope, and many other sports that do not require side-to-side motion like soccer and football.

● MONTH 8+

On Your Way to Full Recovery

You may then begin participating in most all sports slowly. Do not over exert the knee. Use cold and compression therapy to ensure a healthier and faster recovery.

The time needed to recover from knee surgery depends on a number of factors, including:

- The type of injury
- Age of the patient
- The extent of the injury
- The type of surgery
- Action taken during recovery

Use Game Ready to Speed Up Knee Surgery Recovery

The best way to accelerate your recovery from knee surgery is to be prepared. Talk to your doctor before surgery to discuss your pain management plan, what you can expect in terms of physical therapy, and what you can do to reduce the pain and swelling you are likely to experience after surgery.

Game Ready Knee Wraps

Immediately after surgery and in the first few weeks when inflammation is at its peak, use a Game Ready system with a straight-knee wrap to help control pain, swelling, and edema. As you regain mobility and start physical therapy, an articulated knee wrap gives you the benefit of active cold and compression therapy while still being able to move the joint.

All Game Ready knee wraps feature:

- Simultaneous circulation of cold water and air to provide consistent cooling and compression
- Ergonomic design to ensure complete coverage
- A washable outer sleeve
- Velcro-like closures for the perfect fit and easy removal
- Quick-connectors that easily snap onto the system

**Do you have a knee surgery scheduled?
Make sure you're ready with Game Ready.**