

your guide to ACL reconstruction



contents

■	introduction	3
■	ACL and ACL injuries	
	ACL defined	5
	common signs and symptoms of an ACL injury	6
	diagnosing an ACL injury	6
	treating an ACL injury	6
■	our team	
	physicians	7
	physical therapists	11
	physical therapy assistants	11
■	success stories	
	Darek Smith	13
■	pain control and prehabilitation before surgery	
	pain control	17
	knee immobilizer and crutches	17
	prehabilitation	17
■	surgery	
	before your child's surgery	19
	what should I do the day before surgery	20
	what to bring with you the day of surgery	21
	ACL reconstruction	21
■	after surgery	
	pain control	23
	bracing and ambulation (walking)	23
	bathing	23
	diet	23
	activity	24
	physical therapy	24
	KOOS survey	24
	returning to sports	25
■	sports medicine	
	sports medicine	27
	Sportsmetrics™	28
■	frequently asked questions	29
■	common words and definitions	33

introduction to Dayton Children's Hospital

Thank you for choosing Dayton Children's Hospital for your child's ACL (anterior cruciate ligament) surgery! We look forward to taking care of your child.

This binder will help prepare you and your child for what to expect before and after ACL surgery. We'll discuss what an ACL injury is, what happens during surgery, caring for the injury after surgery, and we'll answer the questions we get asked the most.

Throughout the binder you'll notice that certain terms are **bolded**. These are frequently used words in the book, and throughout your ACL repair journey at Dayton Children's.

For simplicity, we will use "your child" to refer to the patient throughout this binder. We know that many of our patients are able to understand and follow these instructions on their own. Using one reference term, rather than "you/your child" throughout will make the document easier to read.

While this binder should answer many of your questions, you can always ask anyone on your surgical and rehabilitation teams. We are all here to help you and your child.

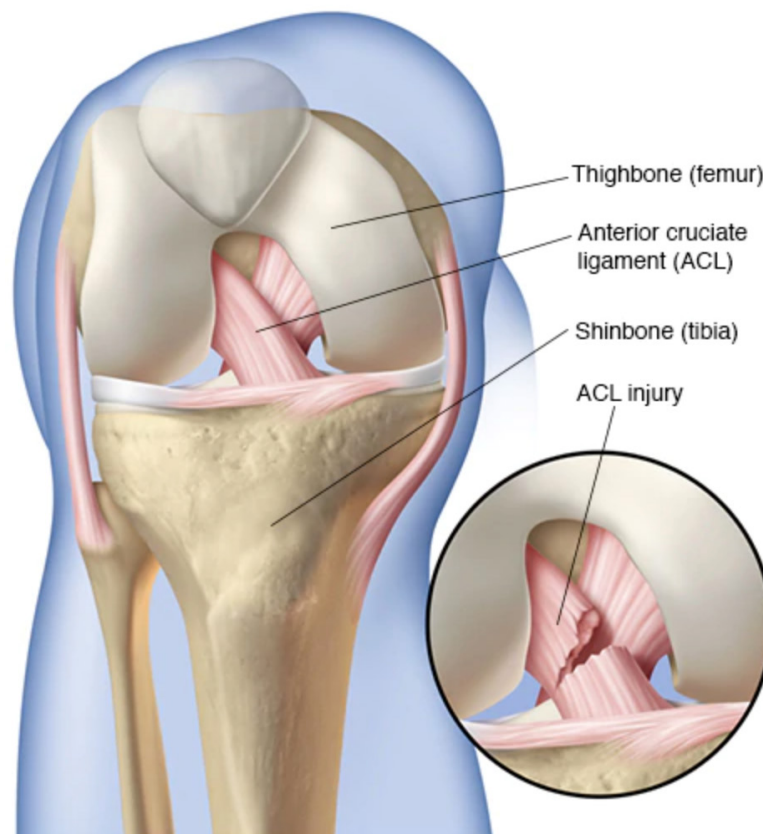
ACL and ACL injuries

ACL

The anterior cruciate ligament (**ACL**) is a thick band of tissue that is made up of lots of fibers, like a rope. It is one of four **ligaments** that connect the upper leg bone (**femur**) to the lower leg bone (**tibia**). It is one of the major stabilizers of the knee.

ACL injury

The ACL can be stretched or torn by forcing the knee beyond normal motion. This often happens when changing direction rapidly, slowing down from running or landing a jump.



© MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. ALL RIGHTS RESERVED

Photo credit of Mayo Foundation for Medical Education and Research

About 200,000 ACL injuries occur every year in the United States. Adolescents, females and athletes in pivoting/cutting sports like soccer or basketball tend to have more ACL injuries.

common signs and symptoms of an ACL injury

Patients may feel a sudden “pop” with pain deep in the knee. There is usually significant swelling in the knee that develops within a few hours of injury. Patients may have limited knee motion due to pain and swelling. The knee may feel unstable, buckle or “give out.”

It is common for pain to resolve within a week or two. This does not mean the ACL is healed.

diagnosing an ACL injury

Your provider will check the knee for stability, movement and tenderness. They will compare the injured knee to the uninjured knee.

X-rays will be done to look for damage to the knee bones. More testing may be done too if your child’s provider thinks they have an ACL tear or other damage to **cartilage**, the **meniscus** or ligaments. An example is an MRI. An MRI shows damage to ligaments, tendons, muscles and cartilage. Other injuries may be found if a scope, an arthroscopic camera, is placed in the knee during surgery.

treating an ACL injury

When the ACL is torn it does not heal on its own, and the knee is unstable. Without the ACL limiting excess knee movement, the knee bones are more likely to rub against each other with activity. This leads to injuries of the tissue that covers the ends of the bones (cartilage), and can trap and tear the pads that cushion the knee joint (meniscus).

The radiologist and orthopaedic surgeon will carefully review the images from the tests to see the extent of the injury. Then, the surgeon will discuss with you and your child the best treatment option based on age, lifestyle and future goals. This could include surgery.

If the ACL is partially torn, sometimes these can be rehabilitated. However, 90 percent of ACL injuries usually go on to need reconstruction, followed by **physical therapy** and bracing.

our team

Sarah Steward, MD

Attending Orthopaedic surgeon

Dr. Steward earned her medical degree from the Medical College of Wisconsin. She then completed residency training in orthopaedic surgery at the University of Virginia, and at Medical College of Wisconsin. Dr. Steward completed her fellowship in pediatric orthopedic surgery at Cincinnati Children's Hospital Medical Center. She joined Dayton Children's in 2019.



when asked why she chose her specialty: “I am able to treat patients hands-on and it is gratifying to see results very quickly. Also, I was heavily involved in sports as I grew up and now enjoy taking care of the next generation of young athletes.”

special interests: Pediatric sports injuries, arthroscopic surgery, knee injuries, treatment of fractures

personal interests:

Spending time with family, working out, cycling, cooking/baking and learning to play piano

Melissa Martinek, DO, PhD

Attending Orthopaedic surgeon



Dr. Martinek received her medical degree at Virginia College of Osteopathic Medicine in Blacksburg, Virginia. She completed her orthopaedic surgery residency at University Hospitals Regional Medical Center in Richmond Heights, Ohio, and her pediatric orthopaedic fellowship at St. Christopher's Hospital for Children/Philadelphia Shriners' Hospital in Philadelphia. Before coming to Dayton Children's, Dr. Martinek worked as a pediatric orthopaedic surgery attending at HSHS Medical Group in Springfield, Illinois.

when asked why she chose her specialty: The variety in pediatric orthopaedics is exponential and exciting! I feel very fortunate that I get to be a small part of a child or teenager's life and can work with them to get them back to their passion; whether it be school, sports, music, theater, or whatever they find joy in.

I chose Dayton Children's because of the enthusiasm that exudes from the hospital and their focus on what matters; kids and their families.

special interests: Lower limb deformity and length discrepancy, club foot, foot and ankle, trauma, sports injuries

personal interests:

Traveling, hiking, bike riding, gardening, and reading historical fiction

**Emily Dippold,
MPAP, PA-C**
Certified Physician Assistant

Emily attended the University of Dayton for her undergraduate and graduate studies. She has a bachelor's degree in exercise physiology. Emily started at Dayton Children's in 2020.



**when asked why she chose
her specialty:**

"I grew up playing and watching a lot of sports, so I've always been drawn to orthopedics and sports medicine. I found that I really enjoyed working with kids while I was in college and graduate school, so this job was a perfect fit!"

personal interests:

Playing and watching sports, reading, spending time with friends and family, exploring local restaurants, and anything that involves water - swimming, boating, kayaking, tubing, skiing!

Carrie Houtz, PA-C **Certified Physician Assistant**

Carrie attended Barry University for her graduate studies. She started at Dayton Children's in 2007.



when asked why she chose her specialty:

"It is truly a privilege for me to work with children. I feel passionate about the health of our children. I enjoy being able to provide a sense of comfort and a source of information for children and their families when bumps in the road arise."

personal interests:

My husband and three children keep me busy. I enjoy anything outside. I am enthusiastic about running, biking, hiking and playing. I love listening to live music, reading, watching movies and spending time with family and friends.

Ann Smith, PT, DPT, MS, PCS, OCS Director OT/PT

Ann graduated from Northwestern University in Evanston, Illinois and received her doctorate in PT from Rocky Mountain University in Provo, Utah. She completed a developmental fellowship at Georgetown University and is board certified in orthopaedics and pediatrics. Ann is the director of occupational and physical therapy at Dayton Children's.



She has a dedicated team of physical therapists that work hard to make sure that you are back to doing what you love as quickly as possible.

favorite thing about working at Dayton Children's:

"Being able to interact with an amazing team of professionals and our fantastic patients. It is truly a great place to work!"



success stories



Darek Smith - ACL reconstruction surgery

After dealing with two ACL surgeries himself, and his daughter having two ACL surgeries, Trevor knew his son, Darek, would bounce back after finding out he, too, needed an ACL reconstruction.

Darek has always had a passion for playing sports. “Ever since Darek could run he was playing a sport,” says Trevor. He played soccer and basketball growing up, but within the last few years has become very passionate about lacrosse.



Throughout the years, Darek has pretty much stayed injury free, but in January that changed. Darek was playing lacrosse at an indoor facility in Cincinnati when he twisted the wrong way and popped his knee out of place. “Turf is notorious for catching feet and twisting legs and sure enough that’s what happened to Darek.”

Unfortunately, Darek’s parents weren’t with him when he got hurt, but as soon as Darek got home they had a pretty good idea of what was wrong due to their previous history with knee injuries. Darek was experiencing intense pain, popping sound and sensation, and rapid swelling and instability.

Darek was referred to Dr. Sarah Steward, MD, orthopedic surgeon at Dayton Children’s Hospital and he had ACL reconstruction surgery on March 10. Dr. Steward performed a minimally invasive quadriceps graft with only four to five small incisions. Darek was released the same day with no overnight stay!

the partnership

For Darek, getting back on the field has been a true partnership between himself, his family, and his care team at Dayton Children's.

"From Dr. Steward and the surgery staff, to Darek's physical therapist, John, everyone has been wonderful in taking care of Darek," says Trevor.

But it's not just the team at Dayton Children's responsibility when it comes to recovery; it's very important for the patient to be motivated, as well.

"The relationship between the patient and their physical therapy team is so important," said Trevor. "If Darek wasn't motivated to get back out and play lacrosse, his surgery wouldn't have been considered successful. The therapy team provided strong instruction and goals. Darek needed to be highly motivated to achieve those goals and to have a successful outcome."

getting back on the field

Darek has been going through rehab and physical therapy for seven months now and is highly motivated to get back on the field.

"Darek has been very resilient throughout this whole process," said Trevor. "He was definitely upset to miss out on his junior year season, but after seeing his sister come back not once, but twice, from the same injury, he was motivated to do the same."

In December, Darek will have his nine month evaluation and he is hopeful that he will get cleared to begin training for his senior year of lacrosse.



pain control and prehabilitation before surgery

pain control

One of the major causes of pain following a knee injury is the fluid and blood within the knee joint. The knee often appears swollen with limited motion and weight bearing is either painful or impossible. Crutches may be used temporarily in addition to a brace to keep the leg from moving (**immobilization**) to help stabilize the knee and reduce pain. Swelling responds well to the acronym **RICE**:



Rest



ICE



Compression



Elevate

We also encourage anti-inflammatories (naproxen, ibuprofen) in the initial injury phase to help reduce inflammation.

knee brace and crutches

Your doctor will discuss how often to use your knee brace and crutches based on other injuries you may have.

prehabilitation

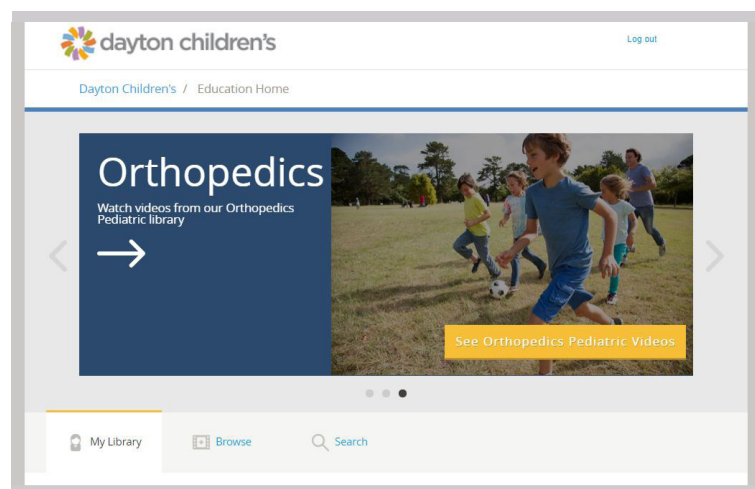
Before surgery, we will work with your child in prehabilitation (pre-surgery rehab) to return their knee back to the size and strength they had before their injury. Research shows that this helps better prepare the knee for surgery and reduce post-op complications. A few visits with our physical therapists are also very important in helping to lessen pain. The main goals of prehab are preparing the knee for surgery by reducing the **joint effusion**, regaining knee motion and working on the muscles in the upper thigh (**quadriceps**). It typically takes 3-4 weeks following injury to meet these goals, which allows for the best timing of surgery.

surgery

This can be a very stressful time for you and your child. That's why the time spent preparing for surgery and recovery is so invaluable. We believe that learning about what is to come and getting answers to your questions can help reduce stress. If you have concerns, we encourage you to discuss them with your nurse. While we are very good at what we do, no one knows your child better than you. We encourage you to be an advocate for your child. If you feel something isn't right, please let us know. You will be able to stay with your child the entire time they are in the hospital. Our staff can also connect you with resources to help with your child's emotional health.

before your child's surgery

- Contact your child's insurance company for any special requirements. Our staff will work with your insurance to get authorization for the surgery.
- Notify us of any special needs (for example, language interpreters).
- Contact your child's school office to let them know about the absence. The school may need to arrange homework assignments or a tutor for an extended absence. Most patients do not return to school for 5-7 days following surgery. This gives time for the pain and swelling to subside, and to make sure they are safe on crutches in a crowded environment.
- Make sure you're signed up for MyKidsChart, and have accessed your GetWell Go pre-surgery pathway. MyKidsChart is an online portal to access your child's health information. If your child is 14 or older, they can create their own account. Once you login, click "My GetWell education," and it will pull up the pre-surgery pathway. Complete the pathway before you arrive for your child's surgery, and let us know if you have any questions.



what should I do the day before surgery?

- Bathe or shower the evening before or the morning of surgery (be sure to wash your hair).
- Your child will receive a bottle of chlorahexidene to wash with the night before surgery.
- Remove any metal jewelry, including all piercings.
- Remove any nail polish from finger nails and toe nails. An oxygen saturation monitor (a little clip that goes on your finger) will be placed on your finger during surgery. The monitor shines through the nail bed to measure how much oxygen is in the bloodstream. This can be difficult to read if your nails are painted.
- Do not apply lotion the day of your surgery. Lotion can make it difficult for tape to stick to the skin correctly and can increase the risk of infection.
- Do not wear makeup the day of surgery.
- Put long hair up with a nonmetal hair ponytail holder. Please part your hair in the middle from front to back, and fix the hair in pigtails that start behind each ear. Secure them with a hair fastener that does not have any metal in it. Your hair should be clean and dry with no hair products in it.
- Remove contact lenses and bring eyeglasses.
- If applicable, remove any removable mouth appliances (e.g., retainers).
- Do not take any aspirin or ibuprofen (like Aleve, Advil or Motrin) before surgery.
- If your child is old enough to smoke or drink alcohol, they are not to do so for two weeks before surgery. We also recommend that your child quit smoking to protect their health.

don't eat

Do not eat solid foods (including candy, chocolate or chewing gum), or drink milk. You will get a phone call from one of our pre-surgery nurses with specific times to stop eating and drinking.

what to bring with you the day of surgery

- Health insurance card and photo identification.
- Health insurance co-payment.
- Medicines that your child takes including inhalers, vitamins, herbals and over-the-counter drugs in their original containers.
- If your child is bringing their contact lenses, bring contact lens solution, contact lens case and eyeglasses.
- If your child is bringing removable mouth appliances such as retainers, bring the appliance case.
- If your child is 18 years old or older, bring a copy of their living will or advance directives.

ACL reconstruction

The ACL is the most commonly injured ligament in athletes. There are a few different ways to perform reconstruction of a torn ACL. Our experienced orthopaedic surgeons discuss all surgical cases weekly and work together to stay current in the best techniques and practices.

The main goal of ACL reconstruction is to recreate a safe, stable knee by placing a “new” ACL in the position where the “old” one was. The “new” ACL, or graft, may be taken from the patient (**autograft**), or it may be a prepared cadaveric tendon (**allograft**). Allografts are not a preferred choice for young athletes that participate in contact sports.

continued on back

ACL reconstruction (cont.)

Different types of grafts are used for ACL reconstruction. Your surgeon will carefully evaluate your child's knee and will take into account their age, whether they are finished growing, their level of sports participation and their future athletic goals to recommend the best graft.

We perform many types of ACL surgeries for young children and avoid injury to the growth plates when applicable:

1. For females ≤ 11 years old and males ≤ 12 years old (substantial growth remaining): Physeal sparing surgery.
2. For females ≥ 10 -12 years old and males ≥ 13 (with some growth remaining): Transphyseal or partial transphyseal approach with soft tissue graft
3. For patients who are finished or nearly finished growing: Adult type ACL reconstruction. Graft options include:
 - a. Bone-tendon-Bone
 - b. Hamstring tendon
 - c. Quadriceps tendon

Your surgeon will discuss with you the best surgical option for your child, taking into consideration their age, anatomy, what structures need to be addressed and activity/athletic level.

Other injuries may need to be repaired as well, such as meniscal tears or cartilage damage. Your surgeon will discuss the repair of these injuries and their possible impact on rehabilitation.

after surgery

pain control

An ice machine will be placed on your child's knee. This is a great tool for pain relief. Please refer to the ice machine instructions for proper use.

Around the clock ibuprofen and acetaminophen should be used to decrease swelling and pain, and reduce the need for narcotics. A short course of narcotic pain medicines will be prescribed. Please stay ahead of your child's pain by using this as needed the first few days.

Your child will also be prescribed a muscle relaxant to help with any muscle spasms after surgery.

bracing and ambulation (walking)

Your child will leave surgery with a brace and post-operative dressings in place. Please leave this in place until your follow-up visit with your surgeon or physical therapy. Your child will leave with crutches. Please carefully follow the weight-bearing restrictions outlined by your surgeon as they are essential to your recovery.

bathing

Please keep your dressing clean and dry until the first follow up appointment. Sponge baths may be the easiest to tolerate during the first week. We will usually let your child shower the fifth day after surgery. Your child should not get in a bath/hot tub/swimming pool/lake until cleared by their physician or therapist.

diet

Good nutrition is essential to healing. After surgery, we recommend light, frequent meals for the first few days with plenty of fluids to rehydrate you. Many patients experience constipation related to the pain medications. We recommend taking a stool softener daily, but let your physician know of any problems with medicines.

activity

The first day after surgery is usually one of rest. Before surgery, it is important to establish where your child can safely sleep and use the restroom – preferably on the ground floor. The ice machine will be a big help with pain control and should be used as much as possible. The next few days your child will need help positioning their leg and getting up to read, watch television and eat, and getting in and out of the restroom safely. Physical therapy usually begins two to five days after surgery.

physical therapy

Physical therapy (PT) is a vital part of your recovery from ACL surgery. We offer physical therapy at several different Dayton Children's locations. (See the list below). We will work with you to schedule your child's PT at the location that is most convenient for you.

Your first post-operative PT/follow-up visit will be scheduled at the same time we schedule your surgery. Hopefully we have met your child before their surgery. If so, they will already know the exercises to perform for the first few days after surgery.

KOOS survey

The most important outcome is that your child feels their knee is steadily improving. We use an outcome survey designed for children and adolescents to see how they are doing. It asks how their knee is feeling, and whether there are any associated problems with performing normal day-to-day activities and returning to sports. The survey takes 10-20 minutes to complete. We will ask your child to complete the survey before surgery and at 3, 6 and 9 month intervals.

return to sports

The return to sports timeframe for ACL reconstruction is different for each patient and is based on several factors. These factors include:

- The type of surgery
- What sport(s) the athlete is involved in
- Progress with rehabilitation
- Knee stability
- Objective testing

The minimum return to play (supported by numerous research articles) is nine months, with most athletes returning to sports 12 months or later. Return to sports clearance is a decision that will be made together by the operating surgeon and physical therapist.



Regaining strength, balance and agility, and the ability to stabilize the knee during the high demands of pivoting and cutting sports are all very important. Our goal is not just to help your child regain full range of motion and strength, but also to help your child regain the ability to “trust” their knee with all activities before returning to the playing field.

We perform weekly measurements in PT, and use the **Biomedex** for isometric/isokinetic testing to test the strength of your muscles at different speeds. We also hold a monthly knee clinic with our surgeons and encourage our post-op patients to attend usually at one, three, six and nine months after surgery. At the knee clinic, the entire rehab team is available to review testing results and answer questions.

sports medicine



sports medicine

Our sports medicine team is an integral part to your child's diagnosis and recovery. Our certified and fellowship-trained sports medicine experts are dedicated to the care of athletes. We understand how an injury may impact growth or how growth might impact rehab. For a growing athlete, that can mean a huge difference in recovery and return to play.

Our athletic trainers work with athletes from age five through college, and often make the initial diagnosis of an ACL tear. By working many athletic events, they can provide first care and triage of an injury. Once an athlete is seen in the sports medicine clinic, and it is determined that they have an ACL tear, the child is referred to orthopaedics and physical therapy.

When an athlete is ready to return to sports, the sports medicine team's athletic trainers help apply the patient's PT training and exercises to their specific sport. Athletic trainers are the first line of defense against acute knee injuries, and the final assist before returning to play. Athletic trainers train athletes in sport-specific return to play procedures to make sure the athlete has minimal risk, and maximum strength and endurance to get back in the game.

Sportsmetrics™

If your child has a goal to return to competitive sports, they will likely go through the Sportsmetrics™ training program run by our athletic trainers. Sportsmetrics is a scientifically proven, six-week jump training program that incorporates proper stretching, special plyometric exercises and weight training. It focuses on developing overall leg strength as well as improving balance of strength in the front and back of the thigh.

Athletes do 12 to 18 one-hour sessions challenging their bodies to execute jumps, cone and footwork drills and core strengthening all while gaining positive feedback from an athletic trainer. Through specialized progression of jump/plyometric drills, athletes learn proper techniques for jumping and landing; increase overall leg strength and improve symmetry in right-to-left leg power. Each session builds on the previous one, developing technique and enhancing performance.

Neuromuscular training not only increases muscular power and jump height, but also decreases stress and impact at the knee. The strength and flexibility components have been carefully reviewed for safety and effectiveness. Our ACL Bridge Sportsmetrics program is specifically designed for athletes returning to play after ACL reconstruction.

frequently asked questions

NOTE: Throughout this section, we will use you/I, meaning the patient.

when will I be able to return to sports?

Before your surgery, you will be allowed to do very limited exercise. This includes upper body strength training, core strength training and your physical therapy program. Depending on your sport, it may be ok to sit in a chair and practice shooting a basketball or hitting a volleyball. Do not expect to be very good at it! After surgery, you may continue doing these activities. Physical therapy will slowly advance any lower body exercises as you recover.

Typical return to sports is no sooner than 9 months. Average return occurs between 9 and 12 months post-op. The length of time varies based on how quickly your body heals, how often you do your home exercises, and the individual demands your sport places on the knee. For example, someone who plays golf can usually return quicker than someone who plays soccer.

We take a comprehensive team approach to allowing patients to return to sports. Physical therapists, your surgeon, parents and coaches will all be involved in assuring the safest return to sports. Nationally, the average rate of re-injury after ACL reconstruction is 30 percent. This is why taking time to heal properly is so important.

what should I expect the first few days? will I need pain medication?

You will be offered a nerve block performed by an experienced anesthesiologist. This helps with pain relief for the first 12-72 hours.

You will go home with an ice machine included in your post-op dressings. It is extremely helpful for pain control and we strongly encourage using this. You will also be fitted with a knee brace and crutches.

In addition to ibuprofen and acetaminophen, we will prescribe a short duration of a narcotic medication and muscle relaxant to be taken as needed for breakthrough pain and muscle spasms, respectively

Physical therapy should begin within two to five days of surgery. There are many studies showing the incredible value of early physical therapy in reducing pain and improving function.

when can I shower?

Please wait until cleared by your surgeon. Most patients are seen about five days post-operation and at that time your surgeon will let you know if you are cleared to shower.

will I need crutches? how soon will I be able to walk?

This will depend on what all needs to be done at the time of surgery. If a meniscus repair is also performed in addition to the ACL reconstruction surgery, your child will not be able to put weight on that leg for 4-6 weeks following surgery. If your child has a nerve block or pain catheter at the time of surgery, parts of his/her leg will be numb after surgery. While this helps reduce post-operative pain, it also makes it more difficult to walk around after surgery. Therefore, we recommend using crutches along with the supportive knee brace until your child is safely evaluated at the first post-operative appointment with the physical therapist and surgeon. Physical therapy will decide when it is safe to discontinue the crutches, based on your child's progress.

will I have to wear a brace after surgery? for sports?

A post-operative knee brace will be provided and fitted to the injured knee. It should be worn as directed. An additional sports brace may be prescribed for up to 1-2 years after surgery.

when do I get a smaller brace?

Usually, you will get a smaller brace about 4-6 weeks after surgery.

how long will I be out of school?

Patients are out of school for an average of 3-7 days. Typically, after their first visit with physical therapy patients feel more confident in their return, provided they have proper support at school.

what would happen if I don't have surgery?

Many scientific studies have shown timely surgical intervention greatly reduces the risk of other injury due to an unstable knee. Some other injury examples are meniscal tears or damage to the cartilage and joint surface of the bones. These other injuries can increase the risk of early arthritis, as early as in your 20s to 30s.

how long will I be in surgery?

Average ACL reconstruction without other injuries can take around 2 hours. The time spent in the recovery room can vary by patient, but the circulating nurse in the operating room will keep your parent informed of updates, usually by phone. Parents can also look at the OpTime boards in the waiting area to stay posted on your progress.

will I need to stay in the hospital?

This surgery is performed outpatient in most cases, meaning you go home after the surgery and do not spend the night. However, we may suggest some of the younger patients have a one night stay.

could I develop arthritis in my knee later in life?

After a substantial knee injury, such as an ACL tear, there is a risk of arthritis later in life. However, regaining knee stability with surgery significantly reduces the chance.

will I need to do wound care at home?

The incisions should be kept clean and dry for at least 5 days. We instruct you to leave dressings in place until the initial physical therapy visit. They will help you or your parent take down the dressings and provide more wound care steps.

what are the risks of surgery?

The risks of surgery are low.

As with any surgery there is a small risk of infection. Before surgery, in the operating room, all patients receive antibiotics and the injured leg is cleansed well with a safe surgical cleansing solution. The risk of post-operative infection is low.

There is a small risk of nerve injury. Our highly trained orthopaedic surgeons and anesthesiologists are very skilled in taking all precautions to preserve all nerve function during this surgery. The risk of long-term nerve damage is very low. There can be some numbness or pain present around the incision site.

There is a risk of knee stiffness after surgery. There can also be risk of injury, such as fracture. These are greatly reduced by following the physical therapy protocol and weekly instructions.

There is risk of re-tear or tearing of the other side.

common words and definitions

ACL (Anterior cruciate ligament) - A thick band of fibrous tissue, like a rope, that connects the femur to the tibia. It provides stability to the knee.

Allograft/autograft - Tells where the graft (ACL) comes from. Allograft means the graft is a prepared cadaver tendon. Autograft means the graft is taken from the patient.

Arthroscope - A special camera used to look inside a joint through small incisions.

Articular Cartilage - Tissue that covers the ends of the bones.

Biodex - A piece of equipment that is used to test how well a patient is regaining leg strength after ACL reconstruction surgery.

Breakthrough pain - Pain that is felt even if a patient is taking pain medication.

Dressing - Bandages used around the surgery site. They need to stay clean and dry after surgery.

Femur - The bone in your upper leg.

GetWell Go - Online access to lots of health videos and medication information. Also where you access your pre-surgery pathway to help prepare you and your child for surgery. Access by clicking "My GetWell education" in MyKidsChart.

Graft - Tissue used to reconstruct the torn ACL.

Hamstrings - The group of muscles on the back of your thigh - important for successful rehab and most important in preventing re-injury to the ACL.

Immobilization - Keeping the knee from moving with a brace.

Joint effusion - Water or fluid inside the joint. For ACL injuries, this collects inside the knee.

Ligaments - Strong bands of tissue that connect one bone to another. The ACL runs between the femur and the tibia inside the knee joint.

Meniscus - Pads that cushion the knee joint.

MyKidsChart - An online portal to access your child's health information, request prescription refills, send messages back and forth to your nurse or physician, and more.

Patellar tendon - Attaches the bottom of the kneecap (patella) to the top of the shinbone (tibia).

Prehabilitation - Physical therapy and rehab movements to help strengthen the knee before surgery. Research shows this helps better prepare the knee for surgery.

Physical therapy (PT) - Uses specific movements to help regain strength, mobility and flexibility, and decrease pain to an injured part of the body.

RICE - An acronym to help remember tips to reduce swelling: Rest, Ice, Compression and Elevate.

Tendons - A tough but flexible band of fibrous connective tissue that usually connects muscle to bone.

Tibia - The bone in your lower leg, or your shinbone.

Quadriceps - The large group of four muscles on the front of your thigh - very important to successful rehabilitation following surgery.



dayton
children's