## I ruptured my ACL: Should I have surgery?



## Who should read this decision aid?

This decision aid is for children or adolescents who have ruptured their anterior cruciate ligament (ACL).

ACL rupture is when the two ends of the ligament become completely separated, often because of quickly changing direction or landing from a jump. If you also injured other parts of your knee (e.g., meniscus) or your knee continues to 'give way' or feel unsteady, your treatment needs may be different.

This decision aid should be used with parents/guardians and a health professional team. For example: Physiotherapist, Orthopaedic surgeon, General Practitioner.

## Option #1 Rehab only\* (or delayed ACL surgery



## Management options after ACL rupture

Health professionals will prescribe your exercises and perform testing to guide progression and return to activity, training or sport.

6-9 months

Potential return to sport

Continue exercises + injury prevention

Option #2

early ACL reconstruction

\*Talk to a health professional if your knee keeps 'giving way' despite following advice.

No option guarantees you won't injure your knee again, but this decision aid was developed to assist patients with choosing the best option.

Remember to consider long-term goals and see people who can support you (e.g., friends).

## What is covered in the decision aid?

Page

What are the treatment options covered in this decision

Comparing potential benefits and harms between rehab only (or delayed ACL surgery) and ACL surgery (early ACL surgery) using data from people under 18 years old

Summary of potential benefits and harms of rehab only (or delayed ACL surgery) and ACL surgery (early ACL surgery) using data from people under 18 years old

Important: This decision aid is not a substitute for advice from a health professional who should confirm your diagnosis.

Disclosure: There was no funding to develop this tool. The developers of this decision aid include orthopaedic surgeons, physiotherapists, psychology researchers & occupational therapists. None of the developers will gain or lose anything based on the choices that people make. Last reviewed: Updated 17.10.2023 and to be updated by 17.10.2025. Developed by Andrew Gamble, Institute for Musculoskeletal Health, School of Public Health, The University of Sydney, NSW, Australia.





## What are the treatment options covered in this decision aid?



## 1. Rehab only (or delayed ACL surgery)

Exercise-based rehabilitation is used to improve movement, strength, control and fitness. You can see if you can gradually progress to harder exercises without surgery. It is okay to experience some discomfort with exercise.







After an ACL rupture occurs

See a health professional.



## 0-1 month post injury

With the help of a health professional, gradually perform harder exercises at home or in a gym. You may be recommended to wear a brace.



## 1-3 months post injury

You may begin activities like running, swimming or outdoor cycling.



## 6-9 months post injury

You may return to sports like soccer, basketball, volleyball or rugby.



## After 9 months post injury

Continue exercises to help your functional recovery and keep the knee strong.



If you decide to have delayed ACL surgery at any point, then you should follow the milestones from option 2 (ACL surgery) from the beginning.

Caution: If your knee 'gives way' after 3 months, talk to your health professional. You may be at risk of further injury.

## 2. ACL surgery (early ACL reconstruction)

During surgery you are put to sleep. A replacement ACL from another part of your leg or from a donor is attached by drilling into the bone inside the knee. For weeks after surgery, you will need crutches to walk and for months, you will have pain and swelling in the knee. Expect to have small scars from







er an ACL rupture occurs

See a health professional.



After surgery you will have pain and difficulty with self-care/walking. With the help of a health professional, gradually start exercises. You may be recommended to wear a brace.





With the help of a health professional, gradually start harder exercises at home or in a gym.



You may begin activities like running, swimming or outdoor cycling.



## 9-12 months post surgery

You may return to sports like soccer, basketball, volleyball or rugby.



Continue exercises to help your functional recovery and keep the knee strong.



Caution: You are twice as likely to have another ACL rupture if you return to competitive sport at 8 months compared to 9 months. The risk is even higher if you return to sport before 8 months.<sup>1</sup>

## Comparing potential benefits and harms between rehab only (or delayed ACL surgery) and ACL surgery (early ACL surgery) using data from people under 18 years old

This page is based on the best but very low-quality evidence in people under 18 years old at approximately 2 years post injury. People participated in pivoting sports (e.g., soccer or skiing).<sup>2</sup> High-quality evidence shows that adults who choose rehab only (with the option for delayed ACL surgery) or early ACL surgery can achieve similar function and return to sport outcomes.<sup>3,4</sup>

## 1. Rehab only (or delayed ACL surgery)

Delayed ACL surgery = 3 months or later

## 2. ACL surgery (early ACL reconstruction)

Early ACL surgery = before 3 months

## Return to pre-injury sport

Not everyone will return to their pre-injury level of sport with either option.

## Rehab only:

Between

6 and 50 people per 100 return to their pre-injury sport around 20 months after injury. 2



## **Early ACL surgery:**

Between

**57** and **100** people per 100 return to their pre-injury sport around 24 months after injury.<sup>2</sup>



## **Delayed ACL surgery:**

Between

63 and 100 people per 100 return to their pre-injury sport around 22 months after injury.2







## Precautions and potential harms

- Between 0 and 40 people per 100 decide to have **ACL surgery** after 6 months or longer. <sup>2</sup>
- Delaying **ACL surgery** if the knee is unstable may increase the risk of meniscus\* injury or ongoing knee instability.2
- \* meniscus are important shock absorbing structures that protect the knee against osteoarthritis.2
- On average, 1 in 4 people rupture their ACL graft or have another ACL rupture on the other knee after 12 months or longer. 5
- 2 people per 100 can experience growth issues due to ACL surgery.6
- ACL surgery also has other risks (e.g., infection, general anaesthetic, graft site issues and loss of feeling around the knee).<sup>7</sup>

## Questions to consider when talking to a health professional...



Will my choice affect what sport I play?



• If I am still growing, will this affect my management?



- What type of graft is best for me if I have ACL surgery?
- Is there any psychological support available?





• What should I do now? How do previous injuries and the timing of the sport season influence me? What experience do you have with people my age? Do I need pain medication? and what are the potential costs involved?

# Summary of potential benefits and harms of rehab only (or delayed ACL surgery) and ACL surgery (early ACL surgery) using data from people under 18 years old

## Rehab only (or delayed ACL surgery)

## Positives and potential benefits

- Between 41 100 children and adolescents per 100 may avoid having ACL surgery.<sup>2</sup>
- In some countries you may save money by avoiding ACL surgery.
- You may return to sport sooner.<sup>2</sup>
- You will not increase your risk of knee osteoarthritis.<sup>8</sup>
- Your ACL may heal.<sup>9</sup>

## Precautions and potential harms

- You may still have delayed ACL surgery and slow your return to sport or activity.
- You may experience 'giving way' of the knee which could cause further injury.
- Cost of rehabilitation.
- Consider the risk of meniscus damage if the knee continues to be unstable.<sup>2</sup>
- You may be recommended to use a brace when returning to activity and sport.<sup>2</sup>

## 2. ACL surgery (early ACL reconstruction)

## Positives and potential benefits

 You may be more likely to return to your pre-injury level of sport.<sup>2</sup>

## Precautions and potential harms

- On average, 1 in 4 people rupture their ACL graft or have another ACL rupture on the other knee after 12 months or longer.
- It can take 12 months to return to competitive sport.<sup>7</sup>
- Cost of ACL surgery plus rehabilitation.
- You will need time off school/work due to pain, swelling, reduced movement and the need to use crutches.
- 2 children per 100 may experience growth issues following surgery.<sup>6</sup>
- ACL surgery also has other risks (e.g., infection, general anaesthetic, graft site issues and loss of feeling around the knee).<sup>7</sup>

## Key points

- Choose what is best for your situation
- If you chose rehab only, you could still decide
  to have delayed ACL surgery later
- See family, friends and health professionals for support
- Listen and care for your whole-body
- Care for your mental and physical health
- Plan to try new activities
  - Don't rush expect challenges
  - Stay positive!

### References:

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