Achilles Tendon Rupture: Should I Have Surgery?

Here's a record of your answers. You can use it to talk with your doctor or loved ones about your decision.

1. Get the facts
2. Compare your options
3. What matters most to you?
4. Where are you leaning now?
5. What else do you need to make your decision?

1. Get the facts

Your options

- Have surgery for a ruptured Achilles tendon.
- Treat the rupture with a cast or brace (immobilization).

Key points to remember

- You can treat an Achilles tendon rupture with surgery or by using a cast, splint, brace, walking boot, or other device that will keep your lower leg from moving (immobilization).
- Both surgery and immobilization are usually successful. Another rupture is less likely after surgery than after immobilization. But immobilization has fewer other risks.
- The success of your surgery depends on many things, including how badly your tendon is damaged, how soon after your rupture you have surgery, and how soon you start and how well you follow a rehabilitation program.
- If you are younger or are physically active in sports, at work, or at home, surgery is often advised. If you are older or are inactive, immobilization is often advised.

FAQs

What is the Achilles tendon, and what is an Achilles tendon rupture?

The Achilles tendon (See figure in appendix) connects the calf muscles to the heel bone. It is the biggest tendon in the human body, and it allows you to rise up on your toes while walking. It withstands a large amount of force with each foot movement.

An Achilles tendon rupture (See figure in appendix) occurs when the tendon is completely torn in two. When this happens, your leg may be weak, and walking may be difficult. You may not be able to rise up on your toes. An Achilles tendon rupture must be treated.
How well do treatments work?

Surgery is the most common treatment for Achilles tendon rupture. It reattaches the torn ends of the tendon. It can be done with one large incision (open surgery) or many smaller incisions (percutaneous surgery).

Nonsurgical treatment starts with immobilizing your leg. This prevents you from moving the lower leg and ankle so that the ends of the Achilles tendon can reattach and heal. A cast, splint, brace, walking boot, or other device may be used to do this.

Both immobilization and surgery are often successful. They both help the tendon to heal. Another rupture is less likely after surgery than after immobilization, but immobilization has fewer other risks.

The success of your surgery depends on:

- Your surgeon's experience.
- The type of surgery you have (percutaneous or open surgery).
- How badly your tendon is damaged.
- How soon after the rupture your surgery is done.
- How soon your rehabilitation (rehab) program starts after surgery.
- How well you follow your rehab program.

What are the risks of surgery?

The risks of surgery are similar, whether you have percutaneous surgery or open surgery. The biggest risk of either type of surgery is wound infection. It is more common with open surgery. Your risk can also change depending on whether you begin walking and using your foot sooner after surgery rather than later. This is called early mobilization.

The small risk of other complications was about the same with either open or percutaneous surgery, and most problems go away over time. These complications included pain, delayed wound healing, nerve damage, and problems with scarring.\(^1\)

What are the risks of immobilization?

With immobilization, the greatest risk is that the tendon will rupture again.

As with surgery, minor pain and temporary nerve damage are also risks when immobilization with a cast or brace is used. There is also a very slight risk of deep vein thrombosis or permanent nerve damage with nonsurgical treatment.

What do numbers tell us about treatment for a ruptured Achilles tendon?

Results of treatment for Achilles tendon rupture*
### Results of treatment

<table>
<thead>
<tr>
<th>Results of treatment</th>
<th>With surgery to repair</th>
<th>With immobilization (no surgery)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No problems with pain, shoes, or walking after 1 year</td>
<td>73 out of 100</td>
<td>51 out of 100</td>
</tr>
<tr>
<td>Return to sports at pre-injury level within 1 to 2 years</td>
<td>69 out of 100</td>
<td>68 out of 100</td>
</tr>
<tr>
<td>Re-rupture of tendon within 1 to 2 years</td>
<td>5 out of 100</td>
<td>12 out of 100</td>
</tr>
<tr>
<td>Deep wound infection</td>
<td>2 to 3 out of 100</td>
<td>0 out of 100</td>
</tr>
</tbody>
</table>

*Based on the best available evidence (evidence quality: borderline to inconclusive)*

### Effects on pain and activity

When it comes to reducing problems with pain, wearing shoes, and walking, surgery may help more (See figure in appendix) than treatment with a cast or brace. (The quality of the evidence about this is inconclusive.)

- Out of 100 people who have surgery, 73 of them will not have any problems 1 year later. This means that 27 out of 100 will still have problems.
- Out of 100 people who don't have surgery, 51 of them will not have any problems 1 year later. This means that 49 out of 100 will still have problems.

When it comes to helping people return to sports at the level they were before they got hurt, the results are about the same (See figure in appendix) with or without surgery. (The quality of the evidence about this is borderline.)

- Out of 100 people who have surgery, 69 of them will be back at their regular level of sports activity within 1 to 2 years. This means that 31 out of 100 will not.
- Out of 100 people who don't have surgery, 68 of them will be back at their regular level of sports activity within 1 to 2 years. This means that 32 out of 100 will not.

### Risk of tendon rupturing again

No matter what kind of treatment you have, there is a chance that your Achilles tendon will rupture again. Evidence suggests that this may be less likely with surgery. (The quality of the evidence about this is borderline.)

Take a group of 100 people who have a ruptured Achilles tendon (See figure in appendix).

- With surgery, 5 out of 100 will rupture the tendon again within 1 to 2 years. This means that 95 out of 100 will not.
- Without surgery, 12 out of 100 will rupture the tendon again with 1 to 2 years. This means that 88 out of 100 will not.

### Infection after surgery

Achilles tendon surgery can sometimes cause a deep infection in the foot or leg. (The quality of
the evidence about this risk is borderline.)

Out of 100 people who have the surgery, 2 to 3 of them will get a deep infection (See figure in appendix). This means that 97 to 98 will not.

Understanding the evidence

Some evidence is better than other evidence. Evidence comes from studies that look at how well treatments and tests work and how safe they are. For many reasons, some studies are more reliable than others. The better the evidence is—the higher its quality—the more we can trust it.

The information shown here is based on the best available evidence. The evidence is rated using four quality levels: high, moderate, borderline, and inconclusive.

Another thing to understand is that the evidence can't predict what's going to happen in your case. When evidence tells us that 2 out of 100 people who have a certain test or treatment may have a certain result and that 98 out of 100 may not, there's no way to know if you will be one of the 2 or one of the 98.

Why might your doctor recommend surgery for a ruptured Achilles tendon?

Your doctor may advise you to have surgery if:

- You are physically active in sports, at work, or at home.
- You have a job that requires leg strength.

2. Compare your options

<table>
<thead>
<tr>
<th>What is usually involved?</th>
<th>Have surgery for Achilles tendon rupture</th>
<th>Treat the rupture with a cast or brace (immobilization)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• You will most likely go home the same day as surgery.</td>
<td>• You'll wear a cast, splint, brace, walking boot, or other device for several months.</td>
</tr>
<tr>
<td></td>
<td>• You will spend 6 to 12 weeks after surgery wearing a walking cast or boot.</td>
<td>• Your total recovery time can be up to 6 months.</td>
</tr>
<tr>
<td></td>
<td>• If you sit at work, you can go back in 1 to 2 weeks. If you're on your feet at work, you may need 6 to 8 weeks before you can go back.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Your total recovery time can be up to 6 months.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What are the benefits?</th>
<th>Have surgery for Achilles tendon rupture</th>
<th>Treat the rupture with a cast or brace (immobilization)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Surgery repairs the tendon and makes another rupture less</td>
<td>• Immobilization allows you to avoid surgery and the risk of</td>
</tr>
</tbody>
</table>
likely.
- You can go back to work and resume daily activities sooner than with immobilization.

| What are the risks and side effects? | All surgery has risks, including bleeding and infection. Your age and your health can also increase your risk. | You may have:
- Repeat tendon rupture.
- Loss of strength in the leg.
- Minor pain and temporary nerve damage.
- A very slight risk of deep vein thrombosis or permanent nerve damage. |

- You may have:
  - Minor pain and temporary nerve damage.
  - Slight risk of deep vein thrombosis or permanent nerve damage.
  - A small risk of repeat tendon rupture.

Personal stories

Are you interested in what others decided to do? Many people have faced this decision. These personal stories may help you decide.

Personal stories about surgery for Achilles tendon rupture

These stories are based on information gathered from health professionals and consumers. They may be helpful as you make important health decisions.

"I blew out my Achilles playing basketball—and we still lost! I've talked to my doctor about this, and he recommends surgery, as I want to continue playing basketball and am active in a lot of other ways. I'm going with an open surgery, because that seems to be the best for not having another rupture. I realize there is more of a possibility for wound infection, but that's worth the risk—I don't want to pop my Achilles again, and, to tell the truth, I don't really worry about infections."

— Carlo, age 34

"I don't really know how I did it, but I ruptured my Achilles tendon. I guess sometimes a simple action can do it. I don't like the idea of surgery, so I'm going with a cast and a good rehab program. Although I like to go for walks, I'm not an athlete by any means, so my doctor says I probably shouldn't have to worry about doing it again."

— Marian, age 55

"And I thought my injury days were over! I gave up playing sports a while back, but I still referee
young children’s soccer games. At the last one I did, whack, there went my Achilles. Now I have to decide what to do. I’m not overly active, but I still like to get around. I’m also getting to the point where surgery and potential complications bother me, but on the other hand, I really don’t want another rupture. My doctor told me he knows a surgeon who is very experienced in a type of surgery that does not make a big cut—I believe it’s called percutaneous surgery. This surgery is supposed to solidly fix the tendon but have less risk of complications. This sounds good to me, especially because the surgeon is experienced."

— Brandi, age 45

"I started jogging again after quite a few years, and a week later, blam!—out goes my Achilles. Talk about bad luck! My doc says surgery would be no problem, as I'm a young guy in good health. But surgery just bugs me. I'd rather have a cast, even if my doc says an operation gives me less risk of doing it again. But I've learned my lesson. After the cast comes off, I'll pay more attention to warming up and stretching. I won't be one of those guys who reruptures after using a cast!"

— Fred, age 33

3. What matters most to you?

Your personal feelings are just as important as the medical facts. Think about what matters most to you in this decision, and show how you feel about the following statements.

<table>
<thead>
<tr>
<th>Reasons to choose surgery for a ruptured Achilles tendon</th>
<th>Reasons to choose a cast or brace (immobilization) to treat a ruptured Achilles tendon</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don't want to risk having another tendon rupture.</td>
<td>I'm willing to take the risk of having another tendon rupture if it means not having surgery.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More important</th>
<th>Equally important</th>
<th>More important</th>
</tr>
</thead>
<tbody>
<tr>
<td>My job requires that I have strong legs.</td>
<td>My job doesn’t require that I have strong legs.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>More important</th>
<th>Equally important</th>
<th>More important</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm not worried about the risks of surgery.</td>
<td>I'm worried about the risks of surgery.</td>
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</table>

More important  Equally important  More important

<table>
<thead>
<tr>
<th>I'm an active person, and I want to stay active.</th>
<th>I am not very active in my daily life, and being active is not that important to me.</th>
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More important  Equally important  More important

<table>
<thead>
<tr>
<th>I want to return to my normal activity levels as soon as possible.</th>
<th>The long recovery time does not bother me.</th>
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More important  Equally important  More important

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<th>My other important reasons:</th>
<th>My other important reasons:</th>
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More important  Equally important  More important

4. Where are you leaning now?
Now that you’ve thought about the facts and your feelings, you may have a general idea of where you stand on this decision. Show which way you are leaning right now.

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Immobilization (no surgery)</th>
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<tr>
<td>Leaning toward</td>
<td>Undecided</td>
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</tbody>
</table>

5. What else do you need to make your decision?

Check the facts

1. I am less likely to rupture the tendon again if I have surgery than if I use a cast or brace.
   - True
   - False
   - I'm not sure

   You're right. You are less likely to have another rupture after surgery than after treatment with a cast or brace.

2. Surgery has some risks that immobilization does not.
   - True
   - False
   - I'm not sure

   You are right. Like most surgeries, Achilles tendon surgery does have some risks that nonsurgical treatment does not have, such as a deep wound infection.

3. My job requires a lot of walking. Immobilization gives me the best chance of getting back to that without problems.
   - True
   - False
   - I'm not sure

   You are right. People who have surgery are less likely to have problems with walking than people who use immobilization.

Decide what’s next
1. Do you understand the options available to you?
   - Yes
   - No

2. Are you clear about which benefits and side effects matter most to you?
   - Yes
   - No

3. Do you have enough support and advice from others to make a choice?
   - Yes
   - No

Certainty

1. How sure do you feel right now about your decision?

<table>
<thead>
<tr>
<th>Not sure at all</th>
<th>Somewhat sure</th>
<th>Very sure</th>
</tr>
</thead>
</table>

2. Check what you need to do before you make this decision.
   - I'm ready to take action.
   - I want to discuss the options with others.
   - I want to learn more about my options.

3. Use the following space to list questions, concerns, and next steps.

Credits and References

Credits

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The Achilles tendon connects the calf muscle to the heel bone. The calf muscle is actually two muscles, the gastrocnemius muscle and the soleus muscle. The soleus lies underneath the gastrocnemius.

The Achilles tendon is the largest tendon in the body. It allows you to rise up on your toes and push off while walking or running.
Achilles Tendon Rupture

The Achilles tendon connects the calf muscle to the heel bone. In an Achilles tendon rupture, the tendon is completely torn.

Figure

Pain and Activity After Achilles Tendon Treatment

The information shown here is based on the best available evidence.
Figure

Treatment Results for Achilles Tendon Rupture

The information shown here is based on the best available evidence.

Note: The "printer friendly" document will not contain all the information available in the online document. Some information (e.g. cross-references to other topics, definitions or medical illustrations) is only available in the online version.

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