

Analyzing Clinical Literature: Making Informed Decisions

by

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Todd is a nationally ranked martial artist. However, in his latest competition he tore his anterior cruciate ligament (ACL). After consulting with his doctor and discovering that he requires surgery, Todd discusses his surgical options with his friend, Sam, a medical student.

Todd: Hey, Sam! Come on in, the door is unlocked.

Sam: Hi Todd. How's your knee feeling? I heard you banged it up pretty good this time. Is it sprained again?

Todd: Not this time. I just finished my appointment with the doctor. I tore my anterior cru...cru...cru-something ligament.

Sam: Anterior cruciate ligament? Your ACL?

Todd: Yeah, *that!*

Sam: Ouch, man, you don't do things easily, do you? That's the ligament that holds your femur, the big bone in your thigh, to your tibia—what you would call your shinbone. Look, here's a picture in my anatomy book. [See Figure 1, next page.]

Todd: Wow! That little thing holds my knee together?

Sam: Yes, ligaments are small but very tough.

Todd: I have to decide what to do now. The doctor gave me... say, Sam! You're the perfect person to ask about this.

Sam: What did I do?

Todd: Nothing, it's just that you're a medical student, so you can help me decide what kind of therapy would be best for me.

Sam: Well, I can try to help. What did your doctor suggest?

Todd: The doctor told me about surgery and something about autograft and allograft, whatever that means. He also told me that it was important to weigh the pros and cons of each type of surgery and the need for future revision. I don't know the difference between an autograft and an allograft, much less how these affect revisions to my English paper.

Sam: No silly! A revision is the need to redo a surgical repair that fails after some time.

Todd: The doctor gave me a paper to read, but it's in gobbledegook, so I don't understand it.

Sam: Ha! Let me see that paper. As a medical student, I'm specially trained in gobbledegook!

Todd: Here it is. [Read: "Anterior cruciate ligament reconstruction with bone-patellar tendon-bone autograft versus allograft ..." at <<https://link.springer.com/article/10.1007%2Fs00167-016-4213-z>>.]

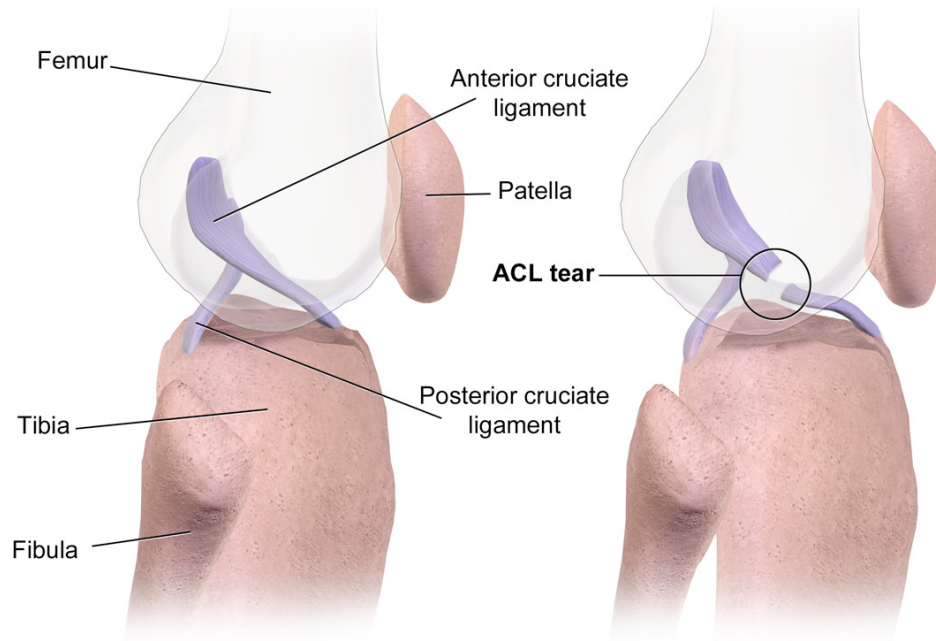


Figure 1: Anterior cruciate ligament and with a tear.

Credit: BruceBlaus, <https://commons.wikimedia.org/wiki/File:ACL_Tear.png>, CC BY-SA 4.0.

Sam: Ah, this makes things clear as mud!

Todd: Those were my thoughts exactly! So, what exactly is an autograft and an allograft?

Sam: An autograft is where they repair your ACL by using a portion of your own body. In the context of this paper, they are using a part of the patellar tendon, the bottom tendon that holds your kneecap in place.

Todd: Oh, so what is an allograft?

Sam: An allograft is the same tendon from an outside source—a cadaver.

Todd: Umm...okay?

Sam: You asked! I just give you the information; I can be your sounding board, but you have to make the decision.

Questions

1. What is the main focus of the study?
2. What is the value or importance of conducting research on ACL reconstruction?
3. What gap in the current literature are the researchers expecting to fill with the results presented in this study? In other words, what specific gap in the research does this specific study seek to address?
4. The authors of the paper discuss surgical outcomes. Surgical outcomes can include mortality, surgical complication, re-injury or disease recurrence, and recovery rates. What was the primary outcome the investigators measured in this study?
5. What are the benefits and risks associated with each procedure described in the paper?
6. Who are the test subjects included in the study? Was anyone excluded? Why or why not?
7. Why is the study particularly applicable to helping Todd decide which type of surgery to pursue? If you were Todd, which procedure would you choose and why?