

Should I have ultrasound treatment for osteoarthritis (OA) in my knee?

A Cochrane decision aid to discuss options with your doctor

This decision aid is for you if:

- You are 16 or older.
- Your doctor has told you that you have osteoarthritis (OA) in your knee.

What is osteoarthritis (OA)?

Osteoarthritis is a disease of the joints, such as your knee or hip. When the joint loses cartilage, the bone grows to try and repair the damage. Instead of making things better, however, the bone grows abnormally and makes things worse. For example, the bone can become misshapen and make the joint painful and unstable. This can affect your ability to go about your daily activities.

What is ultrasound?

Therapeutic ultrasound means using sound waves which cause vibrations to try and relieve pain or improve your knee's function. The vibrations can be pulsed (off and on) or continuous. Continuous ultrasound generates heat. Pulsed ultrasound produces does not and is generally recommended for acute pain, swelling and redness in knee. The vibrations happen at such a high frequency that in most cases, you won't be able to feel the vibrations or heat.

Ultrasound treatment takes place in your doctor's office or a physiotherapy clinic. Your doctor or physiotherapist will use a round-headed wand or probe on the skin of the painful area. Ultrasound gel is used on the wand and on your skin to make it more comfortable and help the sound waves reach the painful area.

What are your options?

- Ultrasound
- Discuss other OA options with my doctor.

What other health factors may affect your choice?

Check any that apply and discuss your concerns with your doctor.

- I have had recent trauma to my knee.
- I have another condition that could be causing the pain in my knee.
- I have metal in my knee such as an artificial joint or prosthesis
- I have a skin infection or open wound.
- I am in the active stage of any cancer.
- Other factors: _____

Working through the 4 steps of this decision aid may help you decide.

Step 1: What are the benefits and side effects of each option?

What does the research show?

Blocks of 100 faces show a 'best estimate' of what happens to 100 people who had tried ultrasound. Each face (☺) stands for one person. The shaded areas show the number of people who had improvement. There is no way of knowing in advance if you will be the one who improves.

Benefits ++

6 more people who used ultrasound for 2-8 weeks had improvement in their pain.
(NNT: 6)

Ultrasound

63 Do not improve

37 Improve



Fake ultrasound or no treatment

69 Do not improve

31 Improve



Side Effects ++

Therapeutic ultrasound may not have any side effects: **no side effects were reported**, but we do not have precise information about side effects and complications. This is particularly true for rare but serious side effects.

Note: The options include 'estimates' of what happens to groups of people based on the available research.

The quality of these estimates is summarized using the GRADE system as follows:

- ++++ **High** quality – further research is **very unlikely to change** the estimate.
- +++ **Moderate** quality – further research **may change** the estimate.
- ++ **Low** quality – further research is **likely to change** the estimate.
- + **Very low** quality – further research is **very likely to change** the estimate.

**NNT stands for Number Needed to Treat. It is a way of showing how many people must take a drug for one person to benefit.*

Step 2: Which reasons to choose each option matter most to you?

Common reasons to choose each option are listed below. Check ✓ how much each reason matters to you on a scale from 0 to 5. '0' means it is **not** important to you. '5' means it is **very** important to you.

How important is it to you...	←—————→
	Not important Very important
...to have slight improvement in your pain from OA?	No ultrasound ① ② ③ ④ ⑤ Ultrasound
... to avoid to the cost of ultrasound (if they aren't covered by your insurance)?	Ultrasound ① ② ③ ④ ⑤ No ultrasound
...to avoid to inconvenience of going to ultrasound sessions?	Ultrasound ① ② ③ ④ ⑤ No ultrasound
List other reasons that are important:	
_____	① ② ③ ④ ⑤
_____	① ② ③ ④ ⑤
_____	① ② ③ ④ ⑤

Now, think about which option has the reasons that are most important to you.

Which option do you prefer? Check one.

- Ultrasound treatment
- I will discuss the other treatment options with my doctor

Step 3: What else do you need to prepare for decision making?



Knowledge

Find out how well this decision aid helped you learn the key facts.

Check the best answer.

- 1. Ultrasound may improve my pain slightly True False
- 2. Ultrasound treatment takes place in a clinic. True False
- 3. If 100 people have ultrasound, how many more people have an improvement in pain compared to people taking fake ultrasound or no treatment? 1 6 25 Don't know
- 4. Researchers are not sure whether ultrasound has any side effects or complications because these were not reported in studies of ultrasound. True False

Check your answers at the bottom of the page.

Do you know enough about the benefits and side effects of having ultrasound?

Yes No



Values

Are you clear about which benefits and side effects matter most to you?

Yes No



Support

Do you have enough support and advice from others to make a choice?

Yes No



Uncertainty

Do you feel sure about the best choice for you?

Yes No

Step 4: What are the next steps?

- I will have ultrasound
- I will not have ultrasound at this time, and I will discuss other options with my doctor

This information is not intended to replace the advice of a health care provider.

Answers for key facts: 1. True 2. True 3. 6 4. True

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