Should I have transcutaneous electrostimulation (TENS) 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 transcutaneous electrostimulation (TENS)?

Transcutaneous electrostimulation, such as TENS, is a kind of pain relief typically using electrical currents applied to the skin. Transcutaneous electrostimulation machines are typically small, battery-operated machines with 2 electrodes attached. Electrodes are wires that send the electrical current. Usually, you connect two electrodes from the machine to your skin on the painful area. Your doctor or physiotherapist will show you how to use it, and most machines can be used at home.

What are your options?

- TENS
- 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 epilepsy
- I have a cardiac pacemaker or defibrillator
- I have moderate to severe heart disease
- I have broken, infected or damaged skin or a cancerous lesion
- I have a diminished sensation to heat, and touch
- 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?

Benefits ++

3 more people who used TENS had improvement in their physical function 4 weeks after using it. (NNT: 10)

We are uncertain whether TENS will help your pain because of the very low quality of the evidence.

<table>
<thead>
<tr>
<th>TENS</th>
<th>Fake TENS or no treatment</th>
</tr>
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<tbody>
<tr>
<td>71 Do not improve</td>
<td>74 Do not improve</td>
</tr>
<tr>
<td>29 Improve</td>
<td>26 Improve</td>
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</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>How important is it to you…</th>
<th>TENS</th>
<th>No TENS</th>
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</thead>
<tbody>
<tr>
<td>…to be certain about the benefits and harms of TENS?</td>
<td></td>
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<tr>
<td>… to avoid the cost of TENS (if it is not covered by your insurance)?</td>
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<tr>
<td>…to avoid inconvenience of going to TENS sessions or learning to use TENS at home?</td>
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<tr>
<td>List other reasons that are important:</td>
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Now, think about which option has the reasons that are most important to you.

Which option do you prefer? Check ✓ one.

- ☐ TENS
- ☐ I will discuss the other 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. Researchers are uncertain whether TENS will improve your pain.
   - True
   - False

2. TENS treatment is available in a clinic or at home.
   - True
   - False

3. Researchers are not sure whether TENS has any side effects or complications because these were not reported in studies of TENS.
   - True
   - False

Do you know enough about the benefits and side effects of having TENS?
   - 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 TENS
- I will not have TENS 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. True

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