

# What are the benefits and harms of each treatment option for osteoarthritis pain?

## What does improve mean?

An example of a 30% reduction in pain scores is a decrease from 6 to 4 on a 10 point pain scale



## What do the faces mean?

- Improve with treatment
- Improve with control
- Do not improve



Osteoarthritis is a common cause of joint pain and stiffness. This tool is specifically designed to help you to manage pain in osteoarthritis. Options include understanding your pain; treatments for which the mechanism of pain relief is not fully understood; complementary options; paracetamol; lifestyle measures; non-steroidal anti-inflammatory creams and tablets; duloxetine; opioids; medicines to improve sleep and pain perception; joint injections; and joint replacement.

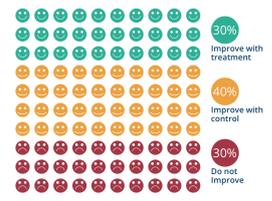
Pros and Cons decision aid

Treatment Option area	Treatment Options	Benefits	Serious harms and side effects
Understanding your pain	Please visit the live well with pain website	The good news is there are many things you can do to live a full enjoyable life, despite your pain. Acceptance helps to reduce pain's nasty effects on your life and health. Seek help to improve your sleep and any emotional health problems.	No evidence of harm in exploring the tools available on <a href="http://livewellwithpain.co.uk">livewellwithpain.co.uk</a> It takes commitment and support to work out what is affecting your sleep and how to deal with your emotions more effectively.
Treatments for functional pain (Mechanism of pain relief not fully understood. Inactive treatment, or placebo, works just as well.)	Chondroitin, glucosamine, electrical treatment applied to the skin (TENS), capsaicin cream (hot pepper, topical balms, viscosupplementation (jelly injections into the joint)	40% of people will improve if they take any treatment to help their pain. 	Side effects are rare. Capsaicin can cause discomfort when applied to the skin. Most people will prefer the low cost options in this group.
Complementary options	Acupuncture	An extra 2-6% improve 	Whilst Acupuncture may not give a clinically important relief to pain It is safe. Not available on the NHS. Acupuncture can cause bruising.
Over the counter medication	Paracetamol	An extra 2-6% improve Whilst paracetamol may be marginally better than placebo for pain, it is cheap. 	Stop if not helpful. Not helpful for back pain. Paracetamol may be linked to a tiny risk of bleeding from the bowel lining. Paracetamol is very harmful to the liver if taken in overdose (more than 8 tablets a day for adults). It causes changes to liver function blood tests (probably not important).
Lifestyle	Exercise Consider apps or pedometers with specific exercise goals. Type of activity is not important. Healthy weight - avoid being overweight (BMI over 25). (Benefits not quantified) Walking sticks, gloves and splints can take the load off painful joints.	94% improve 	Exercise can cause people to stop due to pain. <b>Exercise Harms</b> Withdrawal due to Adverse Events  The red bar represents the percentage of negative outcomes with the treatment. The amber bar represents the percentage of negative outcomes with placebo or control treatment.

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Non-Steroidal Anti-Inflammatory (NSAID) creams	eg Algesal, Ibuprofen, diclofenac	<p>51% improve</p>	<p><b>NSAIDs (Topical) Harms</b></p> <p>Withdrawal due to Adverse Events 5.5%</p> <p>3.5% (placebo)</p> <p>Local Site Reactions 15.3%</p> <p>12.9% (placebo)</p> <p>Gastrointestinal Adverse Events 3.4%</p> <p>3.1% (placebo)</p>
Prescription medication	<p>Non-Steroidal Anti-Inflammatory (NSAID) tablets</p> <p>Consider naproxen or ibuprofen. Diclofenac and COX-2 inhibitors (celecoxib) may increase cardiovascular risk.</p>	<p>58% improve</p>	<p>NSAID pills can cause nausea, stomach bleeding or ulcers, or even a heart attack. In 100 people under 60 years with no history of a heart disease: 99 are not harmed, <b>1</b> person gets serious harm due to NSAID pills with long term use. Avoid when possible if previous heart attack, above 65 or on SSRI antidepressants.</p> <p>Gastrointestinal Adverse Events 35.5%</p> <p>7.7% (placebo)</p>
	Duloxetine	<p>61% improve</p>	<p><b>SNRIs (Duloxetine) Harms</b></p> <p>Withdrawal due to Adverse Events 12.4%</p> <p>5.5% (placebo)</p> <p>Serious Adverse Events 1.1%</p> <p>1.2% (placebo)</p>
	<p>Opioids</p> <p>eg Tramadol, codeine, morphine, oxycodone</p> <p>There is a real risk of addiction and it is unusual for people to get much benefit from opioids compared to safer options.</p>	<p>An extra 6% improve</p>	<p><b>Opioids Harms</b></p> <p>Withdrawals due to Adverse Events (Any Opioid) 25.9%</p> <p>7% (placebo)</p> <p>Constipation 16.2%</p> <p>5.3% (placebo)</p> <p>Drowsiness 15%</p> <p>4.2% (placebo)</p> <p>Nausea 25.9%</p> <p>8.2% (placebo)</p> <p>Dizziness 15.1%</p> <p>5.6% (placebo)</p> <p>Headache 8.6%</p> <p>7.8% (placebo)</p>

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Prescription medication continued	Medication to help sleep and pain perception eg amitriptyline or nortriptyline	Often effective for sleep - 25% get a worthwhile benefit with low doses eg 5-20mg at night Pain perception improves with amitriptyline more than with placebo, perhaps because of sleep improvements	Dry mouth Sensitivity to amitriptyline is very variable. If still drowsy in the morning: reduce the dose (consider cutting the tablets). Older people may be more prone to falls.
Joint injections	Intra-articular corticosteroid injections Administered by a healthcare professional effect for knee osteoarthritis peaks between 1- 2 weeks Usually need to be repeated each 3-6 months	70% improve 	<p><b>Intra-articular Corticosteroids Harms</b></p> <p>Withdrawal due to Adverse Events 1%</p> <p>4% (placebo)</p> <p>Serious Adverse Events 2%</p> <p>3% (placebo)</p> <p>1 in 10,000 serious harm (eg joint infection)</p>
If all else fails: Joint replacement	See a surgeon about joint replacement surgery if other options have not worked.	Can be very effective. Benefits depend on the joint replaced and the surgeon.	Ask your surgeon for details of the risks.