

# Osteoarthritis of the knee

a decision support tool  
for patients considering  
treatment options



# USING THE DECISION SUPPORT TOOL

## This tool is for people who:

- Have osteoarthritis of the knee
- Are aged 45 years and over, and
- Would like more information about the potential risks, benefits, side effects and costs of different treatment options.

## How to use this tool

The aim of this tool is to help you discuss the main treatment options available, and to support you to make decisions about your care. You can use this tool when you are first starting to think about your treatment options, or if you feel like you need to review or modify your treatment.

Read about the different treatment options and think about the questions that you may like to ask. Talk with your doctor, physiotherapist, nurse, or other member of your healthcare team about which option, or combination of options, is best for you.

The treatment options described in this tool are based on the Osteoarthritis of the Knee Clinical Care Standard. This is available at: [www.safetyandquality.gov.au/ccs](http://www.safetyandquality.gov.au/ccs)

## What is osteoarthritis of the knee?

Osteoarthritis is one of the most common chronic joint conditions in Australia. It can cause joints to become painful and stiff.

The knee is a common joint that is affected. Pain and stiffness from knee osteoarthritis can affect some people's ability to take part in their usual activities.



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This decision support tool was developed by the Australian Commission on Safety and Quality in Health Care and is based on the treatment options included in the Osteoarthritis of the Knee Clinical Care Standard. The information in this tool is provided for general information only. It is not intended as medical advice and should not be relied upon as a substitute for consultations with a qualified health professional who can determine your individual medical needs. Publication Date: April 2019.

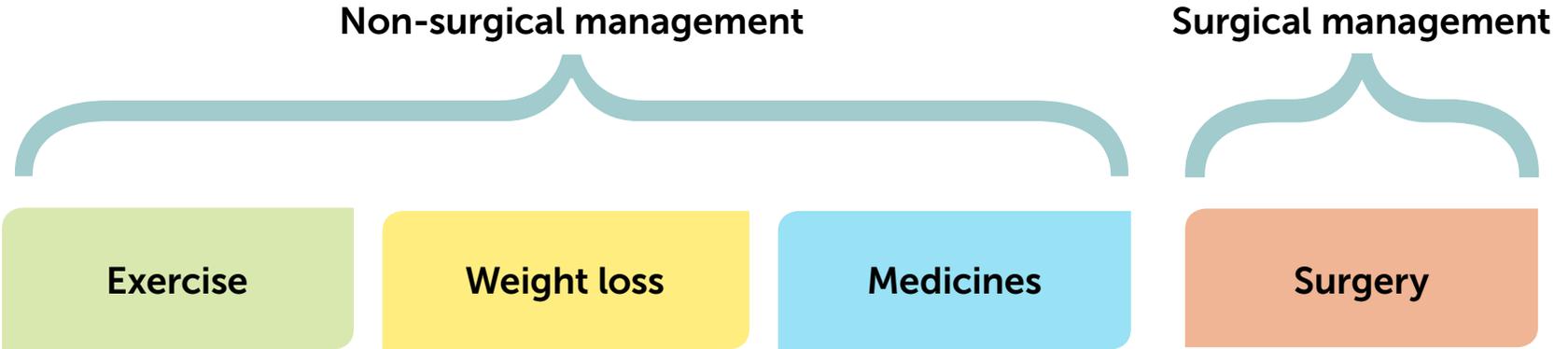
# USING THE DECISION SUPPORT TOOL

Step 1

Identify what you need to consider when thinking about your options PAGES 3 TO 4

Step 2

Understand your main treatment options PAGES 5 TO 11



# WHAT QUESTIONS SHOULD I THINK ABOUT?

Some questions that you could consider when thinking about your treatment options are:



## What matters the most to you?\*

- Deciding which treatment option is best for you will depend on a number of different things including:
- Your reasons for seeking treatment
- The severity of your symptoms
- Your knowledge of the treatment options, and
- Your personal preferences and lifestyle.

Think about how important the different risks and benefits are to you for each option and talk to your doctor or healthcare provider about what matters most to you.

## Which symptoms are you finding most difficult

- Which symptoms bother you the most, and which are less important to you?
- How do your symptoms affect your everyday life?

Thinking about this may help you to identify your goals for treatment.

## What do you expect from your treatment?

- Do you expect improvements in your pain, movement and mobility?
- Do you expect to be able to complete a specific activity like gardening, walking, playing sport or doing your everyday work?

It may help to find out whether your expectations about treatment are achievable.

## What do you want to know about your options?

- What questions do you have about the risks and benefits of each treatment option?

To help you build a list of questions to ask your doctor or healthcare provider, you can use the Question Builder. This is a free web-based tool available at:

[www.safetyandquality.gov.au/questionbuilder](http://www.safetyandquality.gov.au/questionbuilder)

\* Adapted from the SURE test © 2008 O'Connor & Legare and Ottawa Personal Decision Guide © 2015 O'Connor, Stacey, Jacobsen, Ottawa Hospital Research Institute & University of Ottawa, Canada.

# WHAT QUESTIONS SHOULD I THINK ABOUT?

Some questions that you could consider when thinking about your treatment options are:



## Which risks and benefits matter most to you?

- Which risks and benefits are most important to you when considering the treatment options?
- Are there particular risks that you are worried about?
- Do you know how likely these risks are to happen to you?

It may be helpful to rate each benefit and risk to show how much each one matters to you. If you are unsure, you could talk to others who have knee osteoarthritis and have made a decision about treatment.

## Do you have enough support and advice to make a decision?

Discuss your options with someone you trust. This could be your doctor, an appropriate healthcare provider such as a physiotherapist, or a family member or a friend.

## How important is cost to you?

Different treatment options involve different costs. Think about how the cost of treatment may influence your treatment decisions.

Ask your doctor or healthcare provider how much the treatment will cost.

## How much do you want to be involved in treatment activities?

- Do you have any personal or mental health issues (such as depression or anxiety) that may affect your ability to be involved in your treatment?
- Are you willing to make changes to your lifestyle?

Think about things that may affect you trying to make changes to your behaviour.

Speak to your doctor or healthcare provider about how you might address these issues and whether you may need support.

# What are my treatment options?

You may wish to consider a combination of these treatment options. Your doctor or healthcare provider can support you to find the best option for you.

## Non-surgical management



### What does this involve?

#### Exercise

Exercise is important for all people with knee osteoarthritis. It can help strengthen the muscles around your joints, improve pain and increase your fitness.<sup>1</sup>

A combination of exercises that increase your strength, flexibility and fitness are recommended. These could include walking, muscle strengthening exercises, Tai Chi, weight training and cycling. Other low-impact exercises such as swimming, stretching and balancing are beneficial to improving flexibility and joint motion.<sup>1,2</sup>

You should exercise at least three times per week. To increase your fitness exercises such as walking, swimming and cycling should be done at a moderate intensity for at least 30 minutes. The 30 minutes can be done in sessions of at least 10 minutes.<sup>3</sup>

To help encourage your exercise goals, you could see a physiotherapist or an exercise physiologist.

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#### Weight loss (if you are overweight)

Maintaining a healthy weight is important for all people with knee osteoarthritis.

If you are overweight or obese, weight loss is recommended to relieve osteoarthritis symptoms. For every 1kg of weight you lose your knees will experience four times less pressure for each step you take.<sup>5</sup>

Make changes to your lifestyle by exercising and/or improving your eating and drinking habits, including how much alcohol you drink.

Being overweight is defined as having a body mass index (BMI) of 25 to 30 kg/m<sup>2</sup>. Obesity is defined as having a BMI of 30kg/m<sup>2</sup> or more.<sup>6</sup>

You can calculate your BMI at: [www.aihw.gov.au/reports-statistics/behaviours-risk-factors/overweight-obesity/about](http://www.aihw.gov.au/reports-statistics/behaviours-risk-factors/overweight-obesity/about)

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#### Medicines

Medicines may help to manage knee pain and other symptoms. The main medicines that can be used are:

**Pain relieving ointments**, also known as topical analgesics, are rubbed into the skin to relieve pain. They include non-steroidal anti-inflammatory (NSAID) ointments. These ointments can be used for short-term pain relief, or in addition to other treatments.

**Pain relieving tablets**, also known as oral analgesics, are taken by mouth to relieve pain. They include paracetamol and NSAID tablets.

**Joint injection**, also known as intra-articular injection, is an injection given by a doctor in the knee joint to relieve short-term pain. There are two types of injections, corticosteroid and hyaluronan injections.

**Note:** Current clinical guidelines do not recommend hyaluronan injections.<sup>2,7</sup>

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# Non-surgical management



## What does this involve?

### Exercise cont.

Your doctor may refer you or you may wish to start an exercise program on your own.

Finding the right level of physical activity is important and may take time. You may wish to talk to your physiotherapist, exercise physiologist or doctor about what exercise will best suit your needs and preferences.

Your healthcare provider may recommend strategies or devices to protect your joints. This can involve restricting high-impact activities or using walking aids (such as a cane or walker), braces, or appropriate footwear.<sup>4</sup>

### Weight loss cont. (if you are overweight)

You could start a weight management plan and/or an exercise program to work towards your weight goals. A dietician, exercise physiologist or physiotherapist could assist you to develop a plan.

Members of your healthcare team are there to support you to reach your ideal weight.

### Medicines cont.

When choosing a medicine you and your doctor need to consider current clinical guidelines,<sup>1,4</sup> your symptoms, any other health problems you may have, other medicines that you take (including complementary medicines), costs, and your treatment preferences.

You should receive information about what the medicine is for, when to take it, how long to take it for, and any possible side effects.

Information for consumers on the safe and effective use of medicines is available from NPS MedicineWise at [www.nps.org.au](http://www.nps.org.au)

You can also search for information about medicines on the Therapeutic Goods Administration website: [www.tga.gov.au/consumer-medicines-information-cmi](http://www.tga.gov.au/consumer-medicines-information-cmi)

**Note:** Prescription-only pain relievers such as codeine, oxycodone and tramadol have a very limited role in managing pain for osteoarthritis. They are not recommended. Taking them provides a modest temporary benefit (if any), and there is a significant risk of harm.<sup>4</sup>

# Non-surgical management



## What are the possible benefits?

### Exercise

Exercise that is tailored to your needs and situation can reduce your knee pain, improve your function, and provides many other general health benefits.<sup>4</sup> This can include improving your mood.

If you need surgery, being physically active beforehand is likely to lessen your pain, and the time it takes to recover and return to your usual activities after the operation.<sup>4</sup>

### Weight loss (if you are overweight)

Maintaining a healthy body weight is beneficial for all people with knee osteoarthritis and can help you to avoid or delay the need for medicines or surgery.<sup>4</sup> Weight loss (if you are overweight or obese) reduces knee pain and improves movement.<sup>4</sup>

The benefits of weight loss increases with the percentage of weight you lose. If you are overweight or obese you should aim to lose **more than 5%** of your body weight over a 20 week period. For example, if you weigh 100kg, you should try to lose more than 5kg over a 20 week period.<sup>4,8</sup>

You may get a greater benefit in reducing your knee pain and improving your movement by combining exercise and weight loss together.<sup>2</sup>

Reducing your weight has many other health benefits such as decreasing your risk of type 2 diabetes, improving your heart health and maintaining a healthy blood pressure.

### Medicines

#### Pain relieving ointments

Topical (rubbed onto the skin) NSAID ointments may provide a small benefit in pain relief. Topical NSAIDs are safer to use than oral (taken by the mouth) NSAIDs because less medicine is absorbed by the body.<sup>1</sup>

#### Pain relieving tablets

Oral NSAIDs are more effective than paracetamol for reducing pain and can improve symptoms for most people. However, NSAIDs also have a greater potential for harm, particularly for older people.<sup>1</sup>

Paracetamol may provide a small benefit in pain relief however you should stop using it if it is not helping your pain.<sup>1</sup>

#### Joint injection

A corticosteroid injection may provide a moderate improvement in pain and a small improvement in physical function.<sup>9</sup> Symptom relief from a single corticosteroid injection can last for 4 to 12 weeks. As corticosteroid provides rapid pain relief, it may be useful if you need to travel or attend an important occasion.<sup>1</sup>

Injections to the same joint are usually given at least three months apart.<sup>2</sup>

# Non-surgical management



## What are the possible risks?

### Exercise

You may experience some increase in knee pain when exercising. This does not necessarily mean your osteoarthritis is getting worse or that the pain is harming you.

Talk to your physiotherapist, exercise physiologist or doctor if you experience pain that interferes with your ability to exercise. Pain relieving medicines may be required to help you exercise.<sup>1, 10</sup>

A suitably qualified health professional, such as a physiotherapist, can tailor an exercise program to your individual condition and pain levels and can modify your exercise program if needed.

### Weight loss (if you are overweight)

You may be frustrated or disappointed if you do not meet your weight loss goals.

Weight loss through diet and no exercise can lead to reduced muscle mass and strength.

### Medicines

#### **Pain relieving ointments**

You may have an allergic reaction when you rub the ointment onto your skin.

#### **Pain relieving tablets**

Oral NSAIDs can cause serious problems with your heart, kidneys and gastrointestinal (digestive) system. This may include an increase in blood pressure, reduced kidney function and stomach ulcers that can bleed.

There are different types of oral NSAIDs. The risk of having a problem will depend on your individual factors like a history of kidney disease, peptic ulcers, high blood pressure or heart failure.<sup>11</sup> **Talk to your doctor about any other health problems you have so you and your doctor can choose the right medicine for you.**

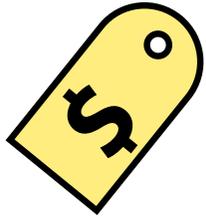
Paracetamol use may increase the risk of having abnormal liver functions. Side effects are increased when paracetamol is used with alcohol.<sup>2</sup>

NSAIDs (in ointment and tablet forms) and paracetamol should be taken for the shortest possible time and monitored for adverse events.

#### **Joint injection**

You may experience pain and tenderness at the site of the injection. Infection in the joint is a rare but serious complication.<sup>1</sup>

# Non-surgical management



## What are the possible costs?

### Exercise

Walking, cycling and swimming can be free, but there may be costs related to gym membership, exercise classes or pool entry.

Strengthening exercises can be performed at home. Ankle cuff weights and/or rubber tubing exercises provide resistance. These can be purchased at sports stores, online or at major retailers.

The cost of developing an exercise program with a health professional will vary. Some public clinics provide free services with a referral. Private fees will apply if you choose to be treated as a private patient. Prices may vary so you may wish to compare prices.

You may be eligible for a rebate from your private health insurer or through Medicare if you have a Team Care Arrangement in place with your GP and other health professionals.

Some providers offer concessional rates for people on a low income. Ask your provider if this is available for you.

### Weight loss

(if you are overweight)

If you are making changes to your diet and buy different food or drinks, you may have extra costs. However, you may find that you are saving money if you eat out less often, or drink less alcohol or sugary drinks.

The cost of developing a weight management program with a health professional may vary. Some public clinics provide free services with a referral. Private fees will apply if you choose to be treated as a private patient.

You may be eligible for a rebate from your private health insurer or through Medicare if you have a Team Care Arrangement in place with your GP and other health professionals.

Some providers offer concessional rates for people on a low income. Ask your provider if this is available for you.

### Medicines

#### **Pain relieving ointments**

These can be purchased from pharmacies without a prescription. Prices range from \$15 to \$30.

#### **Pain relieving tablets**

Some pain relieving tablets, such as paracetamol and low dose oral NSAIDs can be purchased from pharmacies without a prescription. Prices vary depending on the number of tablets you buy and the brand.

You will need a prescription from your doctor for higher dose oral NSAIDs. Prices vary depending on the number of tablets you buy, if it is subsidised by the Pharmaceutical Benefits Scheme (PBS), and if you can get a concession price.

#### **Joint injection**

The cost of corticosteroid injections vary. If you are considering this treatment ask your doctor to provide you with the cost of each corticosteroid injection.

Knee injections are easily performed by doctors without the need for radiological or image guidance, such as an ultrasound. Radiological or image guidance does not increase the effectiveness of the injection.

# Should I have surgery?

If you have tried non-surgical treatments and you are still experiencing severe pain, difficulty with mobility or your daily activities you may wish to consider surgery. Talk to your doctor, or a member of your healthcare team, if you are considering this option.

## Surgery



### What does this involve?

Knee surgery may be considered if you have genuinely tried non-surgical treatments and they are no longer effective for you.<sup>12</sup>

There are many things to consider before and after surgery. It is important for you to talk to your doctor, surgeon and other healthcare providers to understand what is involved, the risks and benefits of surgery, and what you will need to do after surgery for your recovery.

Physical assessment is generally all that is needed for diagnosis of knee osteoarthritis. However, if surgery is being considered, your GP or surgeon may request X-rays or other tests that are helpful in planning the surgery.

There are different types of knee surgery. Knee replacement surgery (also known as total knee replacement or knee arthroplasty) is the most common type of surgery. This involves replacing the damaged knee joint with an artificial joint. There is also joint-conserving surgery. This does not require replacement of your total knee. An example is tibial osteotomy,

where a bone near the joint is cut and repositioned. This is to realign the joint to take pressure off the area affected by arthritis.

Arthroscopic procedures involve keyhole surgery to smooth damaged cartilage and remove loose pieces of tissue. These procedures are not effective treatments for knee osteoarthritis unless you have a particular complication that may benefit from it. This can include a locked knee due to a mechanical cause.<sup>12</sup>



### What are the possible benefits?

The recovery time from total knee replacement surgery varies from person to person. At 3 to 6 months following surgery: 93 in 100 people report improved pain, mobility and quality of life; 1 in 100 people report no change; and 6 in 100 people report that their condition worsened.<sup>13</sup>

It may take 6 to 12 months to feel the benefits of your new joint, and rehabilitation may be needed after your surgery. An average knee replacement can last for 10 to 15 years.<sup>12</sup>

Joint conserving surgery may be beneficial for younger or active patients. As an artificial joint may wear out over time, joint conserving surgery can enable younger or active patients with osteoarthritis to continue using the healthy portion of their knee. The procedure may also delay the need for a total knee replacement.

# Surgery



## What are the possible risks?

There are a range of possible complications from knee surgery. This can include:

- Loosening or wearing of the artificial joint (for total knee replacement surgery)
- Injury to the nerves and blood vessels
- Infection at the site that can spread to other parts of the body
- Blood clots in the deep veins of the legs. These can travel to the lungs
- Persistent pain or stiffness that may require further surgery
- A build-up of fluid in the joint
- Failure of the wound to heal
- Allergic reaction
- Risks associated with anaesthesia
- Death.<sup>12</sup>

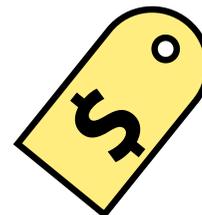
It has been reported that 32 in 100 people experience one or more post-surgical problems, and 68 in 100 people experience no post-surgical problems.<sup>13</sup> Post-surgical problems can include: urinary problems; allergy and/or reactions to drugs; problems with bleeding; and problems with their wound.

These risks may increase if you have other conditions, or if you are

a smoker or are obese. If you are overweight, younger or more active, the artificial joint can loosen or wear out more quickly.<sup>12</sup> If this occurs you will need further surgery. This is known as revision surgery. Talk with your doctor about the possible risks of having surgery. Also let them know of any concerns or questions you may have.

If you choose to have surgery, being overweight or obese increases the chance of having complications and may reduce your functional improvements.<sup>14</sup> Being physically active and maintaining a healthy weight before surgery may improve your recovery.<sup>4</sup>

The recovery time from a knee replacement is different for each person. Rehabilitation exercises will require you to put in hard work and effort. It may take 6 to 12 months for you to feel the full benefit of your new joint.<sup>12</sup>



## What are the possible costs?

The cost of surgery is free under Medicare if you are admitted to a public hospital as a public patient. If you choose to be treated as a private patient the cost will vary. The cost will depend on what is covered by Medicare, your private health insurance (if you have it), your choice of surgeon, the cost of the anaesthetist, and hospital charges.

If you are considering surgery as a private patient ask for a full list of the costs that will be charged.

As a public patient there may be a long wait time to get your first appointment to see an orthopaedic surgeon. This is before you are placed on the surgery waitlist. Surgery waiting times in public hospitals for knee replacement surgery can vary widely. It is among the longest wait time for any type of elective surgery in Australia. The average wait time for a public patient for knee replacement surgery is 190 days.<sup>15</sup>

Also consider any costs for your rehabilitation and recovery after surgery. Costs will vary depending on if you have your rehabilitation in the hospital or outside hospital. Talk with your surgeon, doctor or another healthcare provider about the different options for your rehabilitation and how much they will each cost.

# MORE INFORMATION

## **Australian Commission on Safety and Quality in Health Care**

A consumer factsheet on the Osteoarthritis of the Knee Clinical Care Standard is available at:

[www.safetyandquality.gov.au/our-work/clinical-care-standards/osteoarthritis-clinical-care-standard](http://www.safetyandquality.gov.au/our-work/clinical-care-standards/osteoarthritis-clinical-care-standard)

Information on managing knee pain is at:

[www.safetyandquality.gov.au//knee-pain](http://www.safetyandquality.gov.au//knee-pain)

**Phone: (02) 9126 3600**

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## **Arthritis Australia**

Arthritis Australia provides a range of information and resources to help you manage your osteoarthritis, and get support.

The My Joint Pain website provides information and about different treatment options, supports you with a management plan, and connects you a community of other people with joint pain. It is available at:

[www.myjointpain.org.au](http://www.myjointpain.org.au)

More information about osteoarthritis can also be found at:

[www.arthritisaustralia.com.au](http://www.arthritisaustralia.com.au)

**Phone: 1800 011 041 (free call)**

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## **Mindspot**

Mindspot provides resources and support on managing chronic pain:

<https://mindspot.org.au/chronic-pain>

**Phone: 1800 614 434**

## **Better Health Channel (Victorian Government)**

The Better Health Channel has information on osteoarthritis and management of osteoarthritis:

[www.betterhealth.vic.gov.au/health/conditionsandtreatments/osteoarthritis](http://www.betterhealth.vic.gov.au/health/conditionsandtreatments/osteoarthritis)

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## **NPS MedicineWise**

NPS MedicineWise has consumer information about medicines for osteoarthritis:

[www.nps.org.au/medical-info/consumer-info/osteoarthritis-explained?c=what-is-osteoarthritis-2c2a12ec](http://www.nps.org.au/medical-info/consumer-info/osteoarthritis-explained?c=what-is-osteoarthritis-2c2a12ec)

**Phone: 1300 633 424**

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## **Healthdirect**

Healthdirect has a range of consumer information on osteoarthritis:

[www.healthdirect.gov.au/osteoarthritis](http://www.healthdirect.gov.au/osteoarthritis)

**Phone: 1800 022 222** (24 hour health advice and information service)

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The Australian Orthopaedic Association publishes information every year from its National Joint Replacement Registry. The registry collects data about about joint replacement surgery in Australia with the aim to define, improve and maintain the quality of care of individuals receiving this surgery. Annual reports (Lay Summary) are available at:

<https://aoanjrr.sahmri.com/annual-reports-2018>

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