

Research-based information and advice for people with knee osteoarthritis from clinicians and researchers at the University of Otago



Hei whakarāpopoto

Summary

- Knee osteoarthritis is common, but this does not mean that you should not seek help. By forming a good plan, you can improve your well-being now and in the future.
- Changes in knee joints happen slowly over a long period of time.
 You will not damage your knee by using and moving it.
- Pain is an early warning signal to protect you. It does not tell you how bad your joint is. Your knee pain can increase without your knee being harmed.
- Knee pain is influenced by all sorts of things, and the knee itself is only one of these.
- Knee pain does not mean you should stop movement or activity.
- The best thing you can do for your knee and your health is to stay active and take part in things that are important to you.
- Keep being you osteoarthritis is part of your life but it does not need to define you.

THE AUTHORS

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Hei whakataki

Introduction

Knee osteoarthritis (OA) can affect your life and well-being. This booklet explains things you can do to reduce its impact. It has three sections:

UNDERSTAND: The more you know about **osteoarthritis** (page 2), the better you can manage it. There are **myths** (page 4) that can be unhelpful and **X-rays** (page 5) can be concerning. **Pain** (page 6) is a big part of knee OA and **noises** are common (page 8).

LIVE: You can **live well with knee OA** (page 9), especially if you **move** (page 10), take part in **activity** (page 12), and work on your **whole health** (page 14).

SUPPORT: There are many **options** (page 16) and a number of ways that you can get **help** (page 17). Places where you can get help are listed on the back cover.

You can change your knee OA for the better. By taking action now, you can change the future rather than waiting for it to happen.

"By doing what I do today, I'll create a better outcome for further down the path."

SUSAN*, 60 YEARS OLD, KNEE PAIN FOR 2 YEARS

Things you can do now to help your knee problem include:

- Take part in regular physical activity.
- Use your knee and strengthen your muscles.
- Live a healthy lifestyle.

^{*} Quotes are from real people with knee OA. We have changed their names for privacy. We are very grateful to these people. There are more stories on the website: freefromkneepain.org

He aha te uruuma ā-turi?

What is knee osteoarthritis?

Your body is constantly changing as old cells are replaced with new ones. Cartilage, bone, joint linings, muscles, and nerves adapt to life and movement. These changes can be helpful (like those that happen with exercise training) but some changes can be linked with pain, stiffness, or swelling.

Osteoarthritis (OA) is a term that is used to describe changes in joints. Changes in knee cartilage and joint surfaces happen, but these are only part of the story. Most of what you see and feel is due to changes in tissues around your knee and how your brain and body respond.

Key points about OA:

- OA is a process not an end-point.
- OA involves many tissues (not just your cartilage).
- OA is a process you can help.

OA is not something that happens suddenly, but rather a process that has been going on very slowly for a long time. Changes in your knee will have been there for much longer than you have noticed pain.

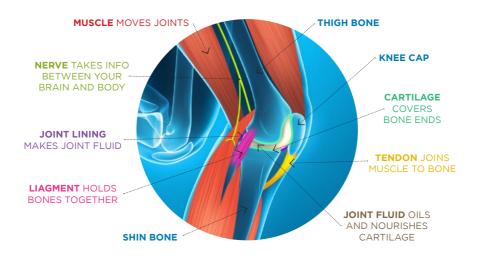
OA changes are more often painful in people who have been less active, are overweight, or who have old injuries. It is not true that everyone gets OA as they get older. It is also not true that OA always gets worse with age.

What has affected your knee so far is not the most important thing. What matters is that there are many things you can do to improve your joint health, how it feels, and how well you can take part in life.

"I'd thought, 'I've got OA, that's it, I'm done.' But reading this information has given me hope."

TEUILA, 41 YEARS OLD, KNEE PAIN FOR 10 YEARS

There is a lot more to your knee than just cartilage. It is important to also think about muscles, tendons, bones, joint linings, joint fluid, ligaments, and nerves.



The fact that bodies are always changing means that you can help the OA process.

You can do things to improve how your body changes.

Daily activity and exercise promote helpful changes and do not harm joints.



MŌHIO

ORA

TAUTOKO

He kõrero teka

Myths about OA

It can only get worse from here

Research shows that people who have OA can improve the health and function of their joint. They can also improve how they feel, and what they are able to do.

Not all OA gets worse over time.

My pain tells me how damaged my joint is

Pain levels and joint changes often relate poorly to each other. No two people are the same. Pain is influenced by much more than just your knee.

l've worn out my joint

Some cartilage loss is one part of OA, but this loss is not simply due to using the joint. What's more, pain or noises such as grinding are due to many factors other than cartilage and bones. Using your joint is the best thing you can do for it.

X I'd better be careful so I don't wear out my knee

Being careful stops you from using the knee normally. Being careful can also stop you doing many things you enjoy, or stop you enjoying the things you do. **Movement (not rest)** helps the knee to stay healthy.

OA always gets worse with age

Research shows that OA can stay the same over long periods of time and **symptoms can improve**.

Having OA means I will need a joint replacement

Joint replacement is one option for some people with OA. You can do things that will decrease your chances of needing surgery. Only a small portion of people with OA need surgery.

He mātai whakaroto

X-rays and scans

Some people with OA have X-rays and scans, but these only show part of the whole picture.

Your doctor, physio or surgeon may show you X-rays and scans. It's useful to know what these can and cannot show.

X-rays

X-rays only show your bones. You cannot see the cartilage, muscles or other tissues, and you cannot see pain. This means that an X-ray can only say what the bones look like on that day. X-rays cannot say how you feel or how much your OA affects you. X-rays also cannot say how long the joint has looked like this or what this means for the future.

Do not be surprised if your X-ray looks a lot better or a lot worse than you feel. Some people with no pain have a lot of joint changes on X-ray. Others have a lot of pain but few X- ray changes.

It's likely that any changes you see on X-ray took place slowly over a long time and will change only slowly in the future.

Scans

Scans (like ultrasound or MRI) are usually not needed for people with knee OA.

Do not be concerned if your doctor says that you do not need an x-ray or scan.

X-rays and scans are not needed to diagnose OA and don't tell you what to do next.

He mamae

Pain

Physical changes in and around your knee only explain part of your pain. Sensors in your knee, messages in your nerves and spinal cord, and circuits in your brain are all part of the pain system.

Pain and harm

Tissues in the body have an amount of force or load they can take before being harmed. Luckily, pain protects you by warning when your body may be in danger. For example, if you bend your finger backwards far enough, it will start to hurt. If you let it go at this point, the pain will have saved you from harm.

Pain from a long-term condition like OA may be more complex. OA pain can be over-protective. This means you feel pain a long time before reaching the point of danger or harm.



Your pain is changed by more than just what's going on in your knee.

Pain is also changed by things elsewhere in your body and elsewhere in your life.

The **brain makes knee pain** when all the information it has says the knee needs protection. This includes what you're doing, what you're thinking, and how you're feeling. It also includes what's happened in the past, and what you expect to happen.

When you are angry, worried, feeling down, stressed, tired or sleeping poorly, the knee problem seems worse. So, you get more pain. This does not mean that your knee is more damaged.

You do not have direct control over your brain making more or less knee pain. If you realise why this happens, you can change how you view and react to these changes in pain. This way, the pain may have less effect on you and your life.

"Keep rising above it. I had to keep my personality the same, and not sit back and wallow in self-pity. It's helped me, even though the pain is quite bad."

TUI, 64 YEARS OLD, KNEE PAIN FOR 11 MONTHS

The pain from OA often changes from day to day. This does not mean that your joint problem is changing a lot, or that you've done something wrong. Rather, it means the amount your body tries to protect your knee can change.

Sometimes you may have more pain or stiffness than normal for a week or so. It may be a good idea to ease back a little while this settles, but don't stop altogether.

"I actually did change my mindset about things... I tried to change how I feel, instead of moping around... After that, my knee wasn't as sore. And I was more active too, actually."

SELA, 36 YEARS OLD, KNEE PAIN FOR 6 MONTHS

Ngā rongotanga

Things you might see, hear, or feel

SWELLING

Swelling is common. Some people with OA have swollen knees all the time. For some people the swelling comes and goes. Swelling does not mean you have damaged your joint. If you have sudden or tense (tight) or hot swelling you should see your GP.



3

NOISES

It is normal for knees to be noisy at any age. Noises are not a big deal. Noises do not mean you are causing damage. Don't worry about noises unless you are getting a lot of pain with each one. Don't let them stop you moving.

LOOKING DIFFERENT

Knees with OA often look different. This can be due to bony swelling, or changes in leg muscles or knee shape. These changes happen as your body adapts to OA and do not mean there is a problem.





LOCKING

It is normal for your knee to seize up from time to time. If your knee locks and you cannot overcome this, you should see your GP.

GIVING WAY

Giving way or sudden weakness is common when you have OA. Improving muscle strength around the knee with exercise will help. See your GP if you are worried.



STIFFNESS

Joints with OA can feel stiff. Most of the time, the best thing to do is move the joint more.

Tō oranga pai

Living well with OA

Living with OA can feel like a balancing act at times. With more knowledge you will have more choices to help you live well.

Keep being you

OA is part of your life but it does not need to define your life. Aim to do the things that are important to you and things that you enjoy. Focus on what makes you 'you' and work out how to keep (or return to) doing these things. If this is hard, seek support to help find solutions that work for you.

Improve joint health

Your knee is designed to be used. It needs movement and load to stay healthy. Movement and weight-bearing activities help to nourish the cartilage and strengthen the bone. It is fine to feel some pain while doing this. Many people worry that they will wear their joint out if they use it too much. Research shows exercise does not wear out cartilage.

Movement is also great for the tissues around the joint and muscle strength. Stronger muscles around the joint reduce the problems of OA.

Improve your well-being

Take part in life, be active, laugh, connect with others, and eat well. These will all help your well-being as well as your knee. You may have other health concerns as well as OA. Things that help OA will also help other areas of your health.

"Good for the knee, and for me. No such thing as 'iust for the knee'."

IOSEFO, 70 YEAR OLD, KNEE PAIN FOR 4 YEARS



Move and



Good for me

I have fun and enjoy myself.

My brain releases chemicals that make me feel better.

I meet and move with others.

I improve my balance.

I control stress and worry.

I improve my whole health.



Good for my knee

I oil and nourish joints, muscles and nerves.

I get stronger.

I move with more ease.

DO HURT LIVE

What?

Do activites I enjoy to get the most out of them



Makes me short of breath

I improve my circulation, heart and brain health.



Makes my muscles tired

I improve my strength and bone health.

whakapaipai

Improve

How?

Be realistic

I should build up activities over time. I may need to start with gentle activity or with my bodyweight supported, such as water-based exercises or on an exercycle.



Be Regular

I will get the best results when I exercise regularly.



MORE
LESS
BETTER
LONGER

Is Pain OK?

It is safe to exercise when I have knee OA.
It is normal for pain to increase during exercise.

- This is fine if:
- **1.** My pain does not go above 5/10
 - **2.** My pain is no worse than normal the next morning



Hei tīmatanga māu

Getting Started

There are ways that you can manage the use of your joint so that you get the best response. It is helpful to design a plan that is right for you. If you have other health conditions, speak to your GP or nurse. If you are not sure what exercise you should do, ask a physio for advice.

BUILD UP

The body doesn't like rapid change and your knee is no different. This means that the knee will respond best to gradual changes in use. If you want to start a new activity, or increase how much you are doing of a certain activity, it is best to start at a low level and build up over time.



STRENGTHEN



People often think of cartilage as a shock-absorber for their joint. But muscles are much better at absorbing shock. Strong muscles help to cushion the load on your knee so that you can do more and hurt less. A physio can teach you an exercise programme that is right for you.

MOVE YOUR KNEE

The more your knee moves, the more free it will feel. More movement means you will have more options for what you can do. Aim to move your joint as much as you can. If you are having trouble getting started, ask a physio for help.



PLAN

You may have been told to 'pace' yourself. Spreading out things that use the joint over the day rather than doing them all at once may be best for your knee.

"My knee pain makes me think about how I do things. But it doesn't stop me... it makes me think about how I'm going to do it. It's a planned move."

KAREN, 62 YEARS OLD, KNEE PAIN FOR 20 YEARS



Physical activity

Do activities you enjoy to get the most out of them. You can walk, dance, run, swim, cycle, do waka ama, kapa haka, tai chi, or play bowls or golf. While doing these activities, focus on what you are doing, rather than trying to protect your knee. You may have heard that some activities (such as running) are bad for the knee and may cause or worsen OA. Recent research has shown this is not the case.

MÕHIO ORA TAUTOKO

Hauora whānui

Whole Health

Eating well and sleeping well play key roles in your health.

Eating for health

Eating well is great for your whole health as well as your knee health. This is because foods that are good for your heart and brain are also good for your muscles and joints.

Eating well is about what you eat and how you eat. Eating well can be hard at times, but it does not need to be complex. It is best to learn what works for your health and what you can keep up long-term.

Tips for eating and drinking well:

- Take time to enjoy and think about your food.
- Make most of your meals at home to be in control of what you eat.
- Eat regular meals to keep your mind sharp and energy levels up.
- Listen to your body to notice when you feel hungry or full.
- Eat plenty of different coloured vegetables and some fruit each day.
- Include wholegrains each day (like wholegrain oats, wholegrain bread, brown rice).
- Include a protein rich food at each meal (like lean meat, fish, eggs, low-fat milk, cheese, lentils, kidney beans).
- Choose foods with healthy fats (like fish, nuts, seeds, avocado, olive oil, canola oil).
- Focus on what healthy foods you can add each day to improve what you eat, rather than what you need to cut out.
- Make plain water your drink of choice.

When you are eating well you are making sure your body can perform well and you can feel your best.

Eating a range of healthy foods is a great way to improve your energy, your mood and your health. Research shows diets that restrict what you eat often cannot be kept up long-term.

Weight

A healthy weight is the weight you are when you are eating well most of the time, enjoying regular movement, and taking good care of yourself.

Weight loss may improve joint pain, but the key thing is to focus on healthy habits (and the ways you can keep doing these). You do not need to be a certain size to improve your health and well-being. Healthy habits are great for all bodies!

Sleeping for health

Sleeping well affects all aspects of your health, including knee pain. Poor sleep can make your knee pain worse. There are many things you can do to improve sleep. A few changes to your daily routines can have a large effect.

Pain can also affect sleep. If your knee pain is having an impact on vour sleep, this may show it's time to seek further support.

Support with whole health

This booklet provides some general advice to support eating well and sleeping well, but your needs are unique.

If you would like extra support around your whole health speak to your GP or nurse.



MŌHIO ORA TAUTOKO

He ara kē

Other approaches

This booklet highlights the key things that research has shown to help people who have OA. You may also be curious about other things you have come across.

MEDICINES

There are various medicines that might help with pain as part of your approach to OA. These are usually not enough on their own. Non-drug treatments (like exercise programmes) help OA pain more than most medicines and without side-effects.



You can discuss medicine options with your GP or pharmacist. They will think about how certain medicines fit with other aspects of your health and your views.

OTHER CREAMS OR PRODUCTS



There are many substances said to help OA. You will see these in ads on TV or in print. These may be called complementary, alternative, naturopathic, homeopathic, or nutraceuticals.

Research has not found strong evidence for many of these creams or products. Some may interfere with prescribed medicines. It is a good idea to talk to your GP or pharmacist if you are thinking about taking any of these

JOINT REPLACEMENT SURGERY

Most people with OA never need joint replacement surgery. There are many other things you can do to manage OA. Most of these you can do on your own or with the help of your GP, nurse, pharmacist, physio, or dietitian.



If you need an operation, there are things you can do before and after surgery. These include aiming for a healthy weight and increasing your knee movement and strength.

Hei whai āwhina

Getting help

People with OA sometimes feel they must deal with it quietly, all on their own. It is a good idea to seek help to manage your OA and reduce its impact on your life. In fact, the best results come when a programme is designed to support your needs.

"I feel more optimistic knowing that there is a whole group of people out there who have a whole lot of expertise in osteoarthritis... and that if I ask for help and advice, it's available."

MARY, 71 YEARS OLD, KNEE PAIN FOR 15 YEARS

This page may help you to think about what you would like to focus on and who could help:

۱w	ould like support to:	
	take part in activities I enjoy	
	start new activities	
	increase joint movement	PHYSIO
	increase my strength	
	improve my food choices or eating habits	— DIETITIAN
	other	
۱w	vould like to discuss:	
	my general health	GP OR NURSE
	medicines that can help ———— GP OR	PHARMACIST
	things I can do at home	
	managing my daily activities	- PHYSIO
	an exercise programme or other ways to increase activ	vity
	my footwear or insoles	- PODIATRIST
	my weight GP_NURS	E DIETITIAN

Hei whakatutuki

To put this advice into action:

- · Contact Arthritis New Zealand
 - > 0800 663 463
 - > www.arthritis.org.nz
 - > info@arthritis.org.nz



- Make an appointment with:
 - > your GP or nurse to discuss your health, or who can best help you
 - > your GP or pharmacist to discuss your medications
 - > a physio to get your knee moving or design an exercise programme
 - > a dietitian to discuss food and drink choices or habits
- Visit our website to find out about healthy living
- · Discuss this booklet with your family, whanau, and friends
- Find information about local activities and groups at your local Citizen's Advice Bureau or local i-site

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