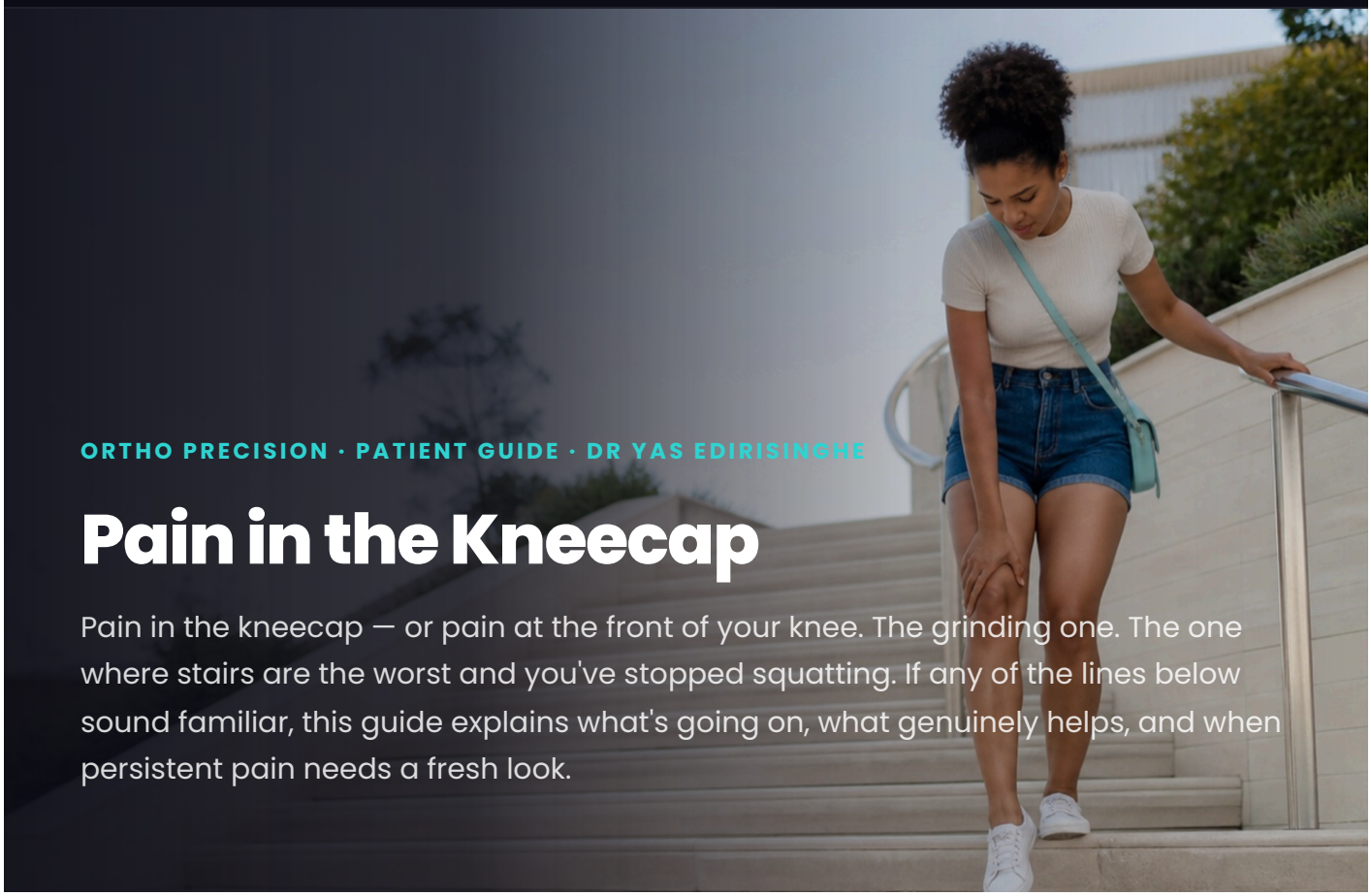
ORTHO PRECISION

A PLAIN-ENGLISH PATIENT GUIDE



ORTHO PRECISION · PATIENT GUIDE · DR YAS EDIRISINGHE

Pain in the Kneecap

Pain in the kneecap — or pain at the front of your knee. The grinding one. The one where stairs are the worst and you've stopped squatting. If any of the lines below sound familiar, this guide explains what's going on, what genuinely helps, and when persistent pain needs a fresh look.

DOES ONE OF THESE SOUND LIKE YOU?

"My kneecap grinds." *"Can you feel that grinding?"* *"I can't squat any more."*

"Steps and stairs are the worst." *"It's right at the front, on the kneecap."*

"It aches after I've been sitting a while." *"The scan said chondromalacia."*

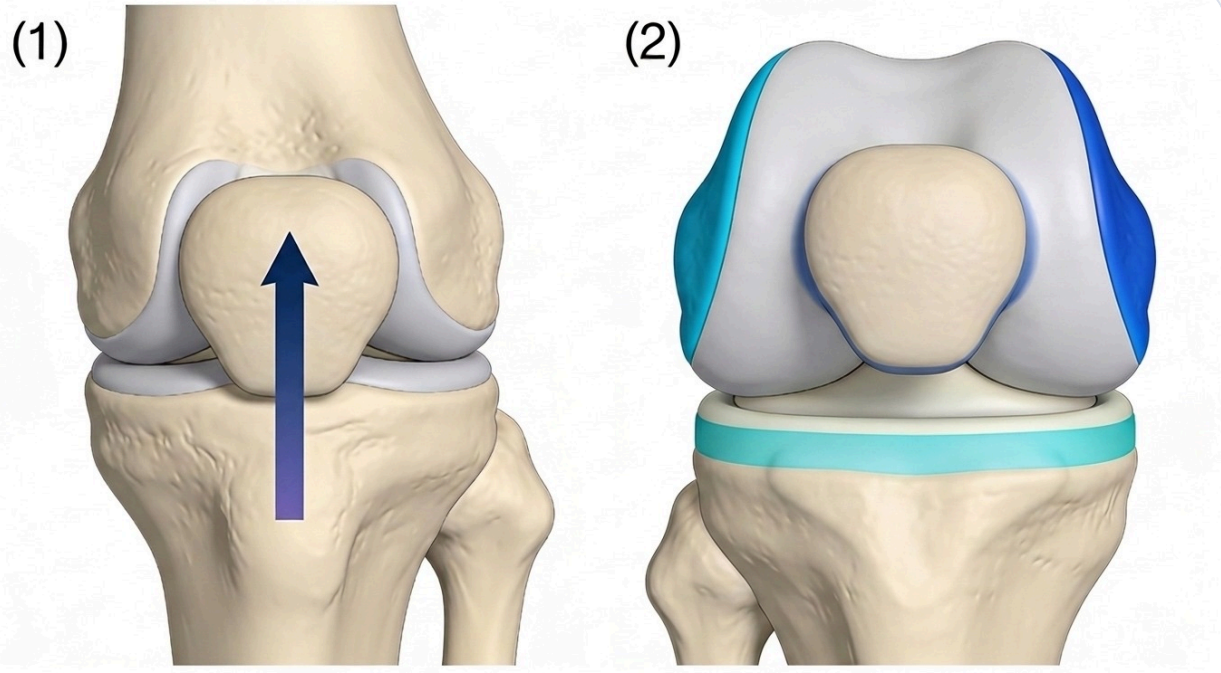
1 · You've probably been given several different names for this

Kneecap pain. Runner's knee. Anterior knee pain. Patellofemoral pain. Chondromalacia patellae. **These are all names for the same problem.** In 2016 an international group of specialists agreed to settle on one term — *patellofemoral pain* — and to treat the others as synonyms for it.[1]

That matters because some of those names sound much more frightening than others. "Chondromalacia" in particular sounds like permanent damage. It isn't a

separate disease — it's a word describing how cartilage looked — on a scan, or through a camera in the joint.

2 · What's actually happening in your knee



THE KNEECAP TRACK Front and end-on views: the kneecap is guided along the groove at the end of the thigh bone as the knee bends and straightens.

Your kneecap sits in a shallow groove at the end of your thigh bone and slides up and down that groove every time you bend and straighten. It is the point where a great deal of force is transmitted — far more than your body weight when you go down stairs or squat.

For most people this is a problem of load, not of damage. When the demand on that joint outgrows what the muscles around your hip and thigh can currently handle, the joint becomes irritable. The nerve-supplied tissues around and behind the kneecap start sending pain signals. In the great majority of cases nothing is broken — the knee is telling you that the load and the capacity don't currently match. Only an examination of your own knee can confirm that this is what is happening for you.

Common triggers: a jump up in running distance, starting a new sport or gym program, a new job on your feet, a growth spurt in a teenager, or a long period of doing very little followed by a sudden return to activity.

About that grinding

Almost everyone with this asks about the grinding — the crunching or creaking you can hear, or feel through your hand if you rest it on your kneecap while you bend the knee. It has a name (crepitus), it is extremely common, and **it is a sound, not a symptom.** Plenty of people with completely pain-free knees have kneecaps that grind. It does not mean the joint is wearing out, it does not tell us how bad things are, and it is not a reason to stop using the knee. If your knee grinds and doesn't hurt, that is not a problem that needs solving.

If you've had a scan

Scan reports of the knee often mention cartilage changes, and this frightens people badly. Some perspective from the research:

23% vs 21%

kneecap cartilage changes in painful knees compared with pain-free knees — essentially the same[2]

57%

of adults with no knee pain at all have kneecap cartilage changes on a scan[3]

48 of 50

patients X-rayed five to eight years after this diagnosis had no sign of knee arthritis — a small follow-up group, but a reassuring one[4]

The most useful fact on this page: cartilage itself has no nerve supply — it cannot hurt. So a cartilage change on a report is rarely the reason your knee is sore. For most people with this pattern of pain it is not arthritis, not "bone on bone", and not a reason to stop moving — though only an assessment of your own knee can confirm that.

3 · If you're between about thirteen and forty, this is your condition

Pain at the front of the knee is most common in adolescents and young adults, and more common in women.[18] If you're a teenager whose knee started hurting during a growth spurt or a heavy season, or you're in your twenties or thirties and it began after a change in training, a new job on your feet, or a return to running — that is the classic story.

It's also the age group that tends to get the least help, and it's worth understanding why, so you can push for better:

- **You're too young for the knee problem everyone knows about.** Australia's national standard for knee pain is written for people aged 45 and over, and specifically says it does not cover knee pain in people under 45.[17] There is no equivalent standard for you.
- **Your knee X-ray will be normal** — and that is expected rather than reassuring, because an X-ray was never going to show this.
- **An MRI usually isn't the answer either.** Medicare doesn't fund a knee MRI for this kind of pain, and when scans are done they very often report cartilage changes that turn out to be just as common in pain-free knees.

So people in this age group are frequently told the knee looks fine, handed a leaflet, and left to get on with it. **That is the gap this guide is trying to close.** The pain is real, it has a name, and it has a treatment that works.

4 · Will it just go away?

Here is the part most people are not told, and the reason this guide exists.

Front-of-knee pain has a reputation for settling on its own. The research doesn't support that reputation. In one large study of adults, **40% still had an unsatisfactory result twelve months later**.[5] Among teenagers, **four in ten still had frequent, intense knee pain five years on** — and across that whole group, 60% had stopped or cut back on sport because of knee pain.[6]

But there is a genuinely encouraging finding in the same research: **the most consistent predictor of a poor outcome is how long the pain went on before it was treated properly.**[5] Having symptoms for more than a couple of months before starting treatment makes a worse result more likely.

> **What that means for you:** this is a condition where starting the right thing early genuinely changes the outcome. Delay is the one factor most consistently linked to a poorer twelve-month outcome. The GP handbook says the same thing in its own words — of the options studied, **"a 'wait and see' approach (no intervention) was the least effective approach"**.[18] If your knee has been sore for more than a few weeks, book in with your GP or a physiotherapist rather than giving it another month.

5 · The treatment that works

THIS IS TREATMENT Progressive, guided hip-and-knee strengthening builds the capacity your kneecap joint needs.

Progressive strengthening exercise, guided by a physiotherapist, working the hip as well as the knee. That is the treatment. It is not a holding pattern until something more serious gets done — it is the most consistently recommended treatment across the major guidelines and consensus statements in this field, and carries the strongest grading where grades are given.[7,8]

This is not one surgeon's opinion. The Royal Australian College of General Practitioners' own *Handbook of Non-Drug Interventions* — the reference your GP may well use — lists exactly one intervention for this condition: **"hip and knee strengthening exercises"**, which it notes can be done at home, with "none reported" under adverse effects.[18] Your GP and I are reading from the same page here.

Two details that separate a program that works from one that doesn't:

- **Hip and knee, not knee alone.** Programs that strengthen the hip and buttock muscles alongside the thigh work better than knee-only programs. This is one of

the most consistently replicated findings in the whole area.[7,8,9]

- **The load has to keep increasing.** The same exercises at the same difficulty for eight weeks won't do it. Your program should get progressively harder as you improve.

How long? The College handbook advises trying the exercises regularly for a minimum of four to eight weeks, since that is how long the trials ran.[18] Broader current guidance is **at least six to twelve weeks** of structured, supervised exercise. If nothing has shifted by six weeks, that is the point to add something else — taping, footwear or orthotics — *alongside* the exercise, not instead of it. If there is still no improvement by twelve weeks, that is the point where the diagnosis itself should be looked at again.[10]

Understanding it is part of the treatment

This isn't a soft point. In an analysis of 22 randomised trials, education alone — simply understanding what the condition is and how to manage it — substantially improved people's odds of getting better at three months, and by twelve months education alone performed comparably to education combined with a physical treatment.[11] Knowing that hurting isn't the same as harming, and that progress takes months rather than weeks, changes what you do — and what you do is what fixes it.

6 · What to do this week — the 2-out-of-10 rule

Complete rest is not the answer; it lets the very muscles that protect your kneecap fade away. But nor is pushing through severe pain. The programme with the best published results for this condition uses one simple rule, and a ladder:[12]

The 2-out-of-10 rule

An activity is safe if the pain it causes stays at **2 out of 10 or less** — during it, straight after it, and the next day. Inside that zone, keep going and build gradually.

Above 2 out of 10

Step down to an easier version of the same activity: less distance, less depth, less weight, less time. Not stopping — stepping down.

Your activity ladder

Write your activities out in order, easiest to hardest — six or so rungs. Move up a rung only once the one below stays inside the 2-out-of-10 zone without a flare.

Getting back to sport: the approach with the best published results starts with warm-up participation only, then **adds about 15 minutes per week**, using the 2-out-of-10 rule above as the guide.[12] Slower than you want. Faster than stopping and starting repeatedly.

If you're a runner: increasing your step rate by roughly 10% — shorter, quicker steps at the same speed — reduces the force through the kneecap joint and gave immediate pain relief to about a third of runners tested.[13] It costs nothing to try. A metronome app set 10% above your current cadence is all you need.

7 · Things that probably won't help

Not because anyone is being unhelpful — most of these were standard advice once. The evidence has moved:

- **Complete rest.** It settles things briefly, then the problem returns because nothing about your capacity changed.
- **Knee braces, sleeves and straps on their own.** They have not been shown to add benefit over exercise.[7,14]
- **Ultrasound, TENS machines, laser and similar clinic machines.** Not recommended for this condition.[7,8]
- **Hands-on treatment by itself** — massage, mobilisation or manipulation without an exercise program. Useful as part of a program; not as the program.[7]
- **Injections.** Current guidance is explicit that patellofemoral pain should not be treated with injection therapy, and there is no good trial evidence for cortisone injections in this condition.[10]
- **Keyhole surgery to "tidy up" the joint.** When this was tested properly — 56 people randomly assigned to surgery plus exercise, or exercise alone — the surgery added no measurable benefit, and cost considerably more.[15]
- **Anti-inflammatory tablets as a treatment.** They can take the edge off in the short term, but studies show no benefit to overall pain beyond three months.[16] Ask your GP or pharmacist what's suitable for you, and treat them as something that helps you do the exercises rather than as the fix.

8 · When it isn't simple kneecap pain

Most front-of-knee pain is exactly what this guide describes. A few things need looking at sooner rather than later. **See your GP promptly if:**

· Your knee is **swollen, hot or red**, or you feel unwell with it
· It **truly locks, catches painfully, or repeatedly gives way**, or your kneecap has ever slipped out of place. Painful clicking can sometimes come from the kneecap not tracking smoothly, so it deserves assessment rather than an automatic "meniscus" label
· You **can't put weight on it**, or the pain started with a specific injury
· You have **severe, unrelenting pain at night or at complete rest**, especially with fever, feeling unwell, swelling, warmth or redness. Bone tumours and joint infection are very rare causes, but this particular pattern is a red flag. Ordinary discomfort that changes when you move or reposition the knee is not the same thing
· It's a **child or teenager** — especially if they're limping, or if the knee itself seems fine on examination. Hip problems in growing children can show up as knee pain, and they need identifying early

NOT GETTING BETTER?

If a well-structured rehabilitation program has made no meaningful difference by about twelve weeks, the diagnosis should be reconsidered rather than the same treatment simply being continued.

9 · When to ask about seeing a specialist

Most people never need to. It's worth asking your GP about a referral if:

- You've done **three months of proper, progressive rehabilitation** and you're genuinely no better
- Your knee **gives way or feels unstable**, or your kneecap has dislocated
- It **swells repeatedly**, locks or catches
- You want to know **whether the shape of your knee is part of the problem** — the way your kneecap sits, how deep its groove is, how it lines up. These are specific

measurements that a routine scan report does not usually include

- You're a teenager or young adult and something about the picture doesn't add up

A specialist assessment either identifies a reason the pain has persisted or rules important causes out. Both answers are useful. **In my clinical experience, more often than not a person who has genuinely failed an appropriate rehabilitation program has a specific contributor that can be identified and treated.** That does not mean surgery: many problems are managed with a more precise diagnosis, a different rehabilitation or loading plan, or targeted treatment for maltracking or instability. Most people I assess for front-of-knee pain do not have an operation. The aim is to avoid missing a treatable problem and repeating an ineffective plan.

How your GP refers you — it's quick

Worth knowing, because "I'll need a referral" often becomes the reason nothing happens. The easiest route is for your GP to email the referral and any imaging reports to **admin@orthoprecision.com.au**, or call **08 7081 4100** if they want to discuss the case. An online referral form, fax and secure messaging are also available. Secure messaging: HealthShare recipient ID **dryediri**.

Every referral is acknowledged, privately referred patients are usually offered an appointment within one to two weeks, and you'll see me — not a registrar or a fellow.

WHEN REHABILITATION HAS STALLED

A clearer diagnosis. A plan that fits.

Dr Yas Edirisinghe · Specialist Orthopaedic Surgeon · Hip & Knee

Advanced fellowship training in complex knee arthroscopy and joint replacement, from sports knee injuries and reconstruction through to partial and total knee replacement. Director of Training for the Australian Orthopaedic Association in South Australia.

If your knee pain is not improving, or you want to know whether the anatomy of your knee is part of the picture, ask your GP about a referral. **Every patient is seen by me personally, and privately referred patients are usually offered an appointment within one to two weeks.** Waiting times vary with clinic demand.

MBChB · BHB · MSurg · FRACS · FAOrthA

EMAIL REFERRALS & ENQUIRIES
admin@orthoprecision.com.au

CALL THE ROOMS
08 7081 4100
Monday to Friday, 9am–5pm

PREFERRED CONTACT
admin@orthoprecision.com.au for referrals and enquiries · **08 7081 4100** for discussion or urgency

OTHER REFERRAL ROUTES
Secure messaging: HealthShare recipient ID **dryediri** · fax **08 7078 7744** · **online referral form**

WHERE I CONSULT
Ashford · Elizabeth Vale · Gawler · Magill

BRING THIS GUIDE
Take it to your GP or physiotherapist appointment; the six-to-twelve-week plan in section 5 is a good starting point for the conversation

Questions people ask me

? Does this mean I have arthritis?

No. This is a load problem in a joint, not a wearing-out of it. In the study that followed people up five to eight years later, 48 of the 50 who had X-rays showed no sign of arthritis,[4] and there is currently no good evidence that this condition leads to arthritis later.[14]

? Should I stop running or playing sport?

Not completely, and not indefinitely. Use the 2-out-of-10 rule in section 6 to find a level your knee accepts, then build from there. Complete rest tends to leave you where you started, because nothing about your knee's capacity has changed.

? Do I need an MRI?

Usually not. This diagnosis is made by examination — a squat in the consulting room reproduces the pain in about eight out of ten people who have it.[1] A scan often adds a frightening word without changing the plan.

? How long before I feel better?

Think in months, not weeks. Six to twelve weeks of consistent, progressive work is the expected course.[10] Progress usually comes in steps rather than a straight line. If there's been no change at all by twelve weeks, that's the point to have it reassessed rather than push on unchanged.

? My physio said much the same as this page. Is that right?

Yes — and if they're progressing your loading and reassessing you, they're doing exactly what the evidence supports. A specialist opinion is for when that hasn't worked, or when something in the story suggests the anatomy needs measuring.

? Can I just get it scoped?

I'd advise against it, and so does the evidence. When keyhole surgery was tested head-to-head against exercise alone, it added no measurable benefit.[15] I'd rather find out why your knee hurts than operate on a scan report.

Dr Yas Edirisinghe — Specialist Orthopaedic Surgeon · Hip & Knee · Adelaide · Ortho Precision
admin@orthoprecision.com.au · **08 7081 4100** · orthoprecision.com.au
Consulting at Ashford, Elizabeth Vale, Gawler and Magill. Ask your GP for a referral.

Where this information comes from — 1. Crossley KM et al. Br J Sports Med 2016;50:839-43. 2. van der Heijden RA et al. Am J Sports Med 2016;44:2339-46. 3. Horga LM et al. Skeletal Radiol 2020;49:1099-107. 4. Lankhorst NE et al. Br J Sports Med 2016;50:881-6. 5. Collins NJ et al. Br J Sports Med 2013;47:227-33. 6. Rathleff MS et al. BMJ Open 2019;9:e024113. 7. Willy RW et al. J Orthop Sports Phys Ther 2019;49:CPG1-95. 8. Collins NJ et al. Br J Sports Med 2018;52:1170-8. 9. Neal BS et al. J Orthop Sports Phys Ther 2022;52:750-68. 10. Ophey M et al. Knee Surg Sports Traumatol Arthrosc 2025;33:457-69. 11. Winters M et al. Br J Sports Med 2021;55:369-77. 12. Rathleff MS et al. Am J Sports Med 2019;47:1629-37. 13. Esculier JF et al. Front Sports Act Living 2023;4:1048655. 14. Gaitonde DY et al. Am Fam Physician 2019;99:88-94. 15. Kettunen JA et al. BMC Med 2007;5:38. 16. Heintjes EM et al. Cochrane Database Syst Rev 2004;CD003470. 17. Australian Commission on Safety and Quality in Health Care. Osteoarthritis of the Knee Clinical Care Standard, 2024. 18. Royal Australian College of General Practitioners. Handbook of Non-Drug Interventions (HANDI) — Exercise for patellofemoral pain syndrome, 2021.

Please note: this guide is general information only. It cannot replace an assessment of your own knee by your GP, physiotherapist or surgeon, and it is not personal medical advice. If your knee is acutely swollen, hot, or you cannot put weight on it, see a doctor promptly.