









## Knee replacement surgery for osteoarthritis related pain

#### How likely are you to benefit?

If you find it difficult to move or use your knee because of pain, and you have been told by your doctor that you have osteoarthritis in your knee, you may be wondering whether knee replacement surgery would improve your quality of life. The first thing to know is that experts have shown that there are several nonsurgical ways to effectively treat your osteoarthritis¹-³ and it's important to try these first. Please also refer to Better Knee, Better Me™ information booklets below:

successful, as well as the characteristics of patients who don't experience improvements; to help you reach the right decision for you.

of patients who find knee replacement surgery very

### Will your osteoarthritis symptoms continue getting worse no matter what?

No. Many people mistakenly think that their symptoms will continue to get worse regardless of what they do. But in fact, osteoarthritis symptoms can be effectively managed by doing things like strengthening excercises, increasing physical activity and losing weight.

## When your osteoarthritis flares up – will these symptoms last?

While you might experience "flare-ups" from time to time, it's important to know that these more intense symptoms do not usually persist. Studies monitoring people with osteoarthritis over many years show that symptoms fluctuate over time but flare-ups are short. It's best not to make decisions about your treatment when you are experiencing a flare-up. Refer to Better Knee, Better Me<sup>TM</sup> resource 'Understanding and managing your pain'.



#### **INFORMATION BOOKLET**



Osteoarthritis treatment options



Understanding and managing your pain

It's also helpful to understand more about osteoarthritis. In this factsheet, we'll dispel some of the common myths around this condition and some of the surgical treatment options. We'll also share with you the latest information on the characteristics

Better Knee, Better Me™

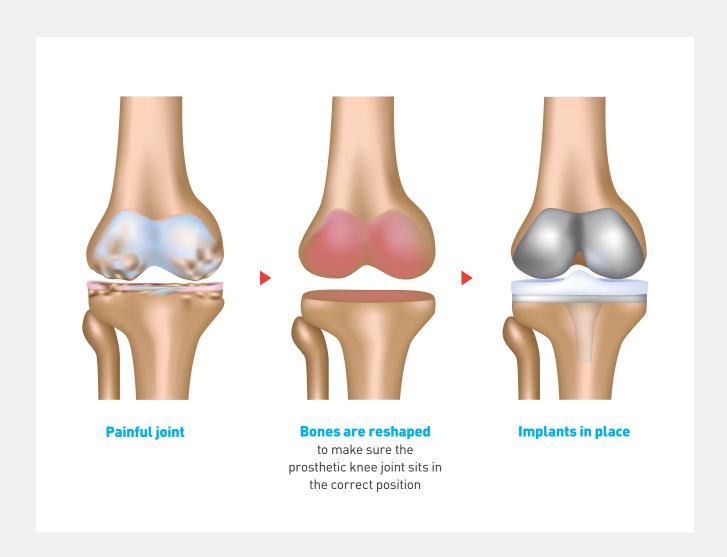


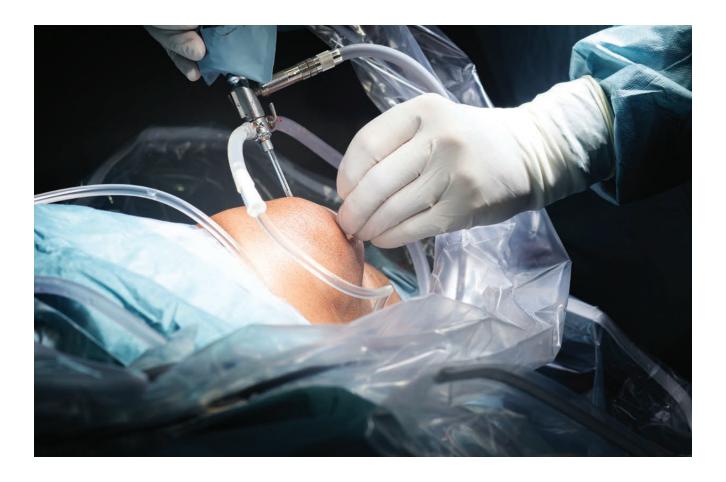
#### What is knee replacement surgery?

Knee replacement surgery is a technique that removes the rough surface of a joint and replaces it with an artificial joint (prosthesis).<sup>4</sup> By doing this it corrects the alignment of the knee and aims to improve its movement. The most common reason for this operation is severe osteoarthritis.<sup>4</sup>

## Does having osteoarthritis mean you'll need a total knee replacement surgery at some stage?

No. Most people can manage their symptoms through changes to their lifestyle, including a specialised strengthening program, physical activity plan and weight loss. In fact, less than 5% of Australians with osteoarthritis will go on to have knee replacement surgery.<sup>5</sup>





## Will a knee "arthroscopy" help your osteoarthritis?'

No, arthroscopic surgery is not effective for treating knee osteoarthritis<sup>6</sup> and research shows that it may increase your risk of needing a total knee replacement in the future.<sup>7</sup> Australian and international clinical guidelines now advise against knee arthroscopies for treatment of osteoarthritis.<sup>8,9</sup>

Arthroscopy involves inserting a camera and surgical instruments into the knee to examine the joint and clear out any small fragments of cartilage or bone. However, high quality studies have shown it is not effective for osteoarthritis.

# When should you consider referral to an orthopaedic specialist to discuss the benefits/risks of total knee replacement surgery?

You may wish to discuss total knee replacement surgery with a specialist if you answer 'yes' to all questions below.

Do you experience extreme pain and/or stiffness that profoundly limits your ability to do every-day activities or quality of life, such as:



You have trouble getting up from the toilet

Your pain is keeping you

at night so you can't get

awake/waking you up

a good night's sleep

TICK WHERE



Weight loss (if you are overweight)

Have you worked with qualified health professionals

experiencing extreme pain or other symptoms that are stopping you from participating in everyday activities?

to try all of the following, but still find you are

TICK WHERE APPLICABLE



A targeted exercise program designed and supervised by a physiotherapist



Specialised equipment such as a knee brace or walking aid





You can't walk up or down stairs



You are so afraid of falling or being stuck some distance from your home because of pain that you don't leave your house/ say no to activities and/or feel socially isolated



Pain management including heat, TENS, pain coping activities, medicines

#### Who is less likely to benefit from total knee replacement surgery?

Total knee replacement surgery is not recommended for everyone - even if you answered 'yes' to all questions on the opposite page.

Of all Australians who receive a total knee replacement to treat osteoarthritis, one or two in every 10 people<sup>10</sup> don't feel they benefit from the surgery and continue to experience pain and difficulty with daily activities. Recent research has identified which patients are most likely to improve after surgery.<sup>11</sup>

#### Surgery may not benefit you if:11

Your symptoms aren't severe— total knee replacement surgery works best in people with advanced osteoarthritis who experience extreme pain or other symptoms which limit their activity.



You are experiencing psychological distress such as depression or anxiety. Make sure your specialist is aware of any mental health condition that you have.



Your weight is in the obese category (your body mass index is  $\geq$  40). Losing weight is usually recommended before knee replacement surgery.



You are relatively young (eg <60 yrs). Young or middle-aged individuals should discuss their circumstances with their surgeon/doctor. Whilst total knee replacement surgery should be effective, there is a higher risk of needing a revision surgery because you will have more years living with the prostheses. Typically the revision surgery does not perform as well as the first joint replacement.





1 or 2 out of every 10 people continue to experience pain and/or struggle with everyday activities following total knee replacement surgery.

## How long is recovery after total knee replacement surgery?

4	Surgery time spent in hospital <sup>13</sup>	5-6 days
	Intensive rehabilitation following surgery (could be all at home or partially in hospital)	6 weeks
TP	Stop using crutches or walking aid and resume normal leisure activities <sup>14</sup>	6 weeks
	Resume driving when your knee can bend enough to get in and out of the car and you have good pain control with movement (following a discussion with your doctor / treating health professional) <sup>15</sup>	6 weeks
	Pain and swelling settles down <sup>15</sup>	3 months
	Return to work (depends on your employment type) <sup>15</sup>	1-3 months
\$ <u>\$</u> \$	"Heat" in the joint is no longer experienced	8-9 months
Ži:	Achieve maximum benefit from surgery <sup>15</sup>	up to 2 years

### What are the benefits of total knee replacement surgery?

For the right patient, total knee replacement surgery can dramatically improve quality of life, reduce pain and improve the ability to complete day-to-day activities.<sup>9</sup>

Eight to nine out of every 10 patients who have a total knee replacement for osteoarthritis report that "all or almost all" of their pain is gone within two years.<sup>12</sup>

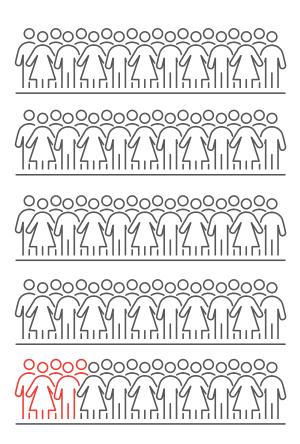
## What are the risks of total knee replacement surgery?

#### **During surgery**

All major surgery involves a small but real risk of complications such as deep vein thrombosis (a blood clot that forms in the veins of the leg) and infection. You should discuss these risks and how to reduce/manage them in detail during your consultation with your surgeon. Risk increases with age, if you smoke or are overweight. This is why it is so important to talk to your surgeon about risks and benefits.

#### **After surgery**

During the 10 years after total knee replacement surgery, 5.3% of patients require another repeat surgery on the same knee because the prostheses has worn out or there are other problems. <sup>15</sup> Additionally, 18.5% of patients who have a total knee replacement surgery in one knee, also go on to have a total knee replacement in the other knee within 5 years. <sup>16</sup> So learning to manage your osteoarthritis early can potentially help you avoid several surgeries.



Five out of every 100 people will need repeat surgery within 10 years.<sup>12</sup>

## Where can you find more information?

- Talk to your GP, physiotherapist, rheumatologist or surgeon.
- This resource from the UK lets you enter specific details about your situation and then see how other patients similar to you felt after their surgery.

Visit: http://www.york.ac.uk/che/patient-outcome-tool

Arthritis Australia has created a website to help you stay up-to-date on treatment options, get a tailored management plan, assess your risk and connect with others.

Visit: https://www.myjointpain.org.au/

Australian NPS MedicineWise has information on managing osteoarthritis.

**Visit:** https://www.nps.org.au/medical-info/consumer-info/managing-osteoarthritis

#### **APPENDIX**

50,609 Knee replacements in Australia in 2015

2,100,00 Self reported osteoarthritis 2014-15 (9% of Aus population)

Total knee replacement rate out of all osteoarthritis 2% (50k/2M)

#### **REFERENCES**

- <sup>1.</sup> Fransen M, McConnell S, Harmer AR, Van der Esch M, Simic M, Bennell KL. Exercise for osteoarthritis of the knee: a Cochrane systematic review. British Journal of Sports Medicine 2015; 49(24): 1554 -1557.
- <sup>2.</sup> Messier SP, Mihalko SL, Legault C, et al. Effects of intensive diet and exercise on knee joint loads, inflammation, and clinical outcomes among overweight and obese adults with knee osteoarthritis: The idea randomized clinical trial. JAMA 2013; 310(12): 1263 1273.
- <sup>3.</sup> Christensen R, Bartels EM, Astrup A, Bliddal H. Effect of weight reduction in obese patients diagnosed with knee osteoarthritis: a systematic review and meta-analysis. Annals of the Rheumatic Diseases 2007; 66(4): 433 439.
- <sup>4.</sup> Better Health Channel. Knee Replacement Surgery 2017. https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/knee-replacement-surgery (accessed 23rd May 2018).
- <sup>5.</sup> Australian Institute of Health and Welfare. Osteoarthritis Australian Government, 2017.
- <sup>6</sup> Thorlund JB, Juhl CB, Roos EM, Lohmander LS. Arthroscopic surgery for degenerative knee: systematic review and meta-analysis of benefits and harms. British Journal of Sports Medicine 2015; 49(19): 1229 1235.
- <sup>7.</sup> Rongen JJ, Rovers MM, van Tienen TG, Buma P, Hannink G. Increased risk for knee replacement surgery after arthroscopic surgery for degenerative meniscal tears: a multi-center longitudinal observational study using data from the osteoarthritis initiative. Osteoarthritis and cartilage 2017; 25(1): 23-29.
- <sup>8.</sup> Siemieniuk RAC, Harris IA, Agoritsas T, et al. Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline. British Journal of Sports Medicine 2018; 52(5): 313.
- 9. Department of Health and Human Services. Victorian Osteoarthritis Model of Care, 2016.
- <sup>10.</sup> Australian Commission on Safety and Quality in Health Care. Australian Atlas of Healthcare Variation: Knee Replacement hospitalisations 18 years and over: Australian Institute of Health and Welfare [AIHW], 2017.
- <sup>11.</sup> Dowsey MM, Spelman T, Choong PFM. Development of a Prognostic Nomogram for Predicting the Probability of Nonresponse to Total Knee Arthroplasty 1 Year After Surgery. The Journal of Arthroplasty 2016; 31[8]: 1654 1660.
- <sup>12.</sup> Healthwise. Arthritis: Should I Have Knee Replacement Surgery? 2017. https://www.healthwise.net/cochranedecisionaid/Content/StdDocument.aspx?DOCHWID=uh1514 (accessed 23rd May 2018).
- <sup>13.</sup> Medibank Private. FY 17: an analaysis of Medibank Claims and Hospital administrative data. 2018.
- <sup>14.</sup> National Health Service [NHS] choice. Knee replacement. 2016. https://www.nhs.uk/conditions/knee-replacement/recovery/ (accessed 23rd May 2018).
- 15. Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR). Hip, Knee & Shoulder Arthoplasy: 2017 Annual Report. Adelaide: AOA, 2017.
- <sup>16.</sup> Medibank Private. Total Knee Replacement and revision separations from 2008-17: an analysis of Medibank Claims and Hospital administrative data. 2018.

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