

Long-lasting, proven pain relief for knee osteoarthritis — without surgery.<sup>1,2</sup>



### What is knee osteoarthritis?

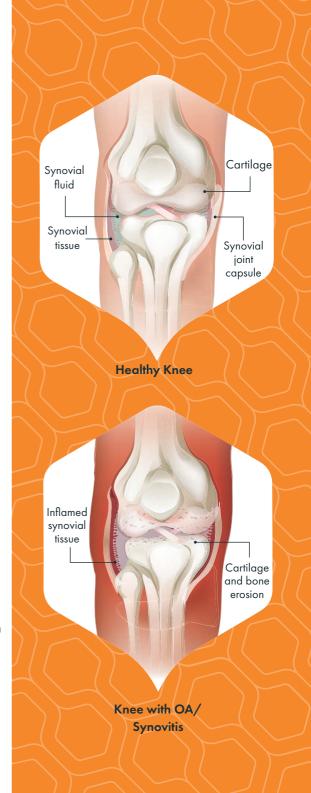
Knee osteoarthritis (OA) is a long-term condition where the shock-absorbing cartilage is worn away causing bones to rub together and the joint to become stiff, swollen and painful. The knee joint worsens over time resulting in synovial pain and disability.

Despite OA being the most common type of arthritis and the fastest growing cause of disability worldwide<sup>3</sup>, the treatment area has seen minimal progression in the last 20 years. With so little known about exactly what causes knee OA, a permanent cure has yet to be discovered.

As a result, the options available to the one third of over 65s currently living with OA worldwide have been limited<sup>4</sup>, with treatments to date having focused on pain relief and managing the symptoms of the condition.

### Synovial pain (synovitis)

Synovial pain is a common symptom experienced by patients with knee OA.<sup>5</sup> This is caused by the inflammation of synovial tissue (the lining) located inside the knee joint<sup>5</sup>, and is strongly linked with the level of pain experienced by knee OA patients.<sup>6</sup>



Of 1,504 respondents surveyed in the UK in March 2024:<sup>7</sup>



would pay for non-surgical procedures for chronic joint pain,



are concerned about side effects of surgery e.g. pain and discomfort, and



are anxious about surgery.

## The link between knee OA and synovial pain

Synovial pain is known to play an important role in the development of knee OA. In addition to its relationship with knee pain, there is also strong evidence that synovial pain is associated with further worsening of OA.<sup>5</sup>

# Pain is the most common symptom experienced by patients with knee OA.8

### Synovial pain cycle<sup>5</sup>

Too many inflammatory cells can result in a buildup of enzymes responsible for cartilage breakdown, which means the knee joint cannot heal, cartilage continues to breakdown and the pain cycle continues.

The synovial tissue or fluid is damaged or irritated.



The affected area of tissue thickens and becomes inflamed, causing pain.

Inflammatory cells are released into the synovial joint capsule in an attempt to heal the damaged tissue.

Inflammatory cells are produced in response to the inflammation.

# Introducing Arthrosamid®

Arthrosamid® is a permanent injectable hydrogel9 that delivers long-lasting, proven pain relief without surgery<sup>1,2</sup> — redefining treatment for knee OA.

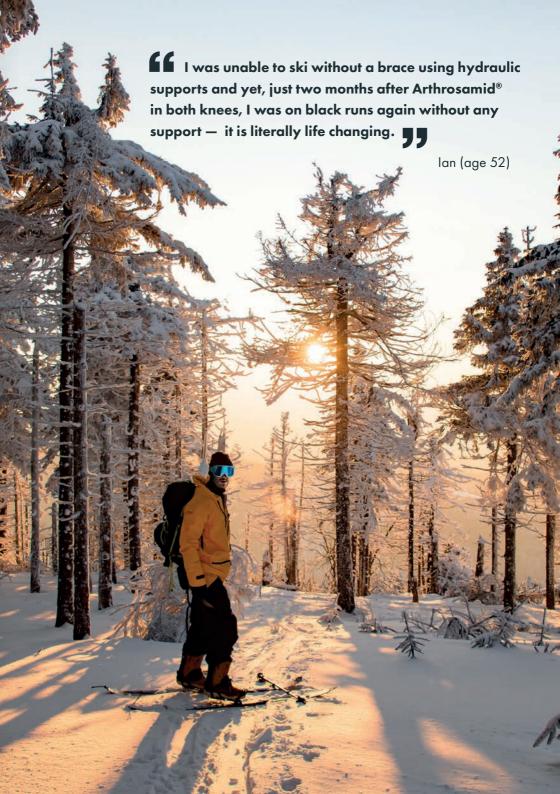
The first and only approved injectable treatment that permanently combines with the knee's synovial tissue<sup>9</sup>, Arthrosamid<sup>®</sup> decreases joint stiffness, diminishes pain, improves the function of the knee, and enhances your quality of life.<sup>2,10,11</sup>

Arthrosamid® is administered via a simple, one-step procedure performed under local anaesthesia by a qualified physician familiar with joint injections 12 — ensuring you're in and out of the clinic the same day.



Supported by more than two decades of research<sup>7</sup>, Arthrosamid<sup>®</sup> is suitable, safe and effective for most patients with knee OA<sup>1,2,10,11,13-15</sup> — and is proven to maintain a significant, long-lasting reduction in knee OA pain even four years post-treatment.<sup>2</sup>





### How is Arthrosamid® administered?

Before treatment with Arthrosamid®, you will have a local anaesthetic to numb the area around your knee. You should also be given antibiotics ahead of this to protect you from any potential risk of infection.

Your knee is cleaned prior to treatment. Arthrosamid<sup>®</sup> is then singularly injected into your knee's synovial cavity. This is sometimes performed with the help of ultrasound. The needle is then removed and a plaster is placed over the injection site.

Arthrosamid<sup>®</sup> distributes within the synovial fluid and begins to stick to and mesh with the synovial tissue.<sup>16</sup>

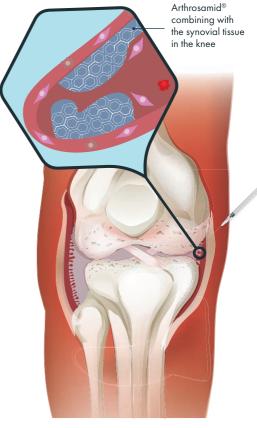


Arthrosamid<sup>®</sup> permanently combines with the tissue lining your knee joint<sup>9</sup>, thickening it to provide a barrier.<sup>7</sup>

It's this unique characteristic that provides a significant reduction in your OA pain over a longer period 1,2 — with one single treatment.







My knees were in constant pain, I was not eligible for surgery so was undergoing physiotherapy, in addition to taking over-the-counter pain medication, both on a regular basis. Nothing worked, and my walking and general mobility was deteriorating — I felt my general outlook was bleak, with no other options on the horizon. However, Arthrosamid® injections were almost immediately different and after just one week I was able to walk more normally again, pain was reduced by about 90% and I am confident my knee will continue to improve. I have my life back again and that is all due to this amazing new treatment.

Lorraine (age 60)



### Why choose Arthrosamid®?

No therapies have been able to satisfactorily halt or delay OA progression or provide effective, long-lasting symptomatic relief for patients with knee OA.<sup>17</sup> So, until now, treatments have tended to focus on pain relief and the management of symptoms through:

- Weight loss,
- Exercise and physiotherapy,
- Walking aids,
- Footwear and insoles,
- Knee braces,

Oral pain relief medication,

Viscosupplement
 Hyaluronic Acid (HA)
 injections, and — when
 these therapies fail —

 Joint replacement/ knee surgery.<sup>17</sup>

In all our studies, 1,2,10,11,13-15,18 Reproducible pain reduction results<sup>1,2,10,11,13-15,18</sup> WOMAC pain subscale change from baseline across studies 1,2,10,11,13-15,18 patients are shown to experience an improvement DAISY Study **ROSA Study** in their WOMAC pain score of 9 or more 18 — and this is maintained up to 4 years after single injection.2 SMean Change from Baseline of WOMAC† Pain Subscale MCID\*\* -9 -10 -15 Time Since Baseline

† WOMAC or The Western Ontario and McMaster Universities Osteoarthritis Index is a measure of symptoms and physical disability LSMeans are modelled/estimated means. The estimated means are using data from the other visits and also the covariates.

<sup>\*\*</sup>The minimum clinically important difference (MCID) represents the smallest improvement considered worthwhile by a patient.



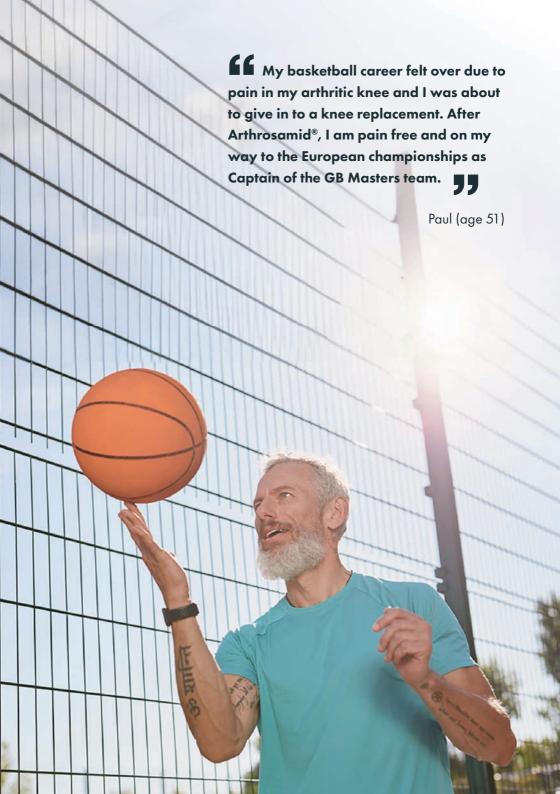
Treatment with
Arthrosamid®
remains safe and
effective 1,2,10,11,13-15 for its
intended use four years
after injection.2

#### What are the benefits?

Unlike with HA injectables — where there is very little evidence to show that the effect is still noticeable at six months <sup>19</sup> — Arthrosamid® provides a significant reduction in your knee OA pain over a longer period with one single treatment.<sup>1,2</sup>

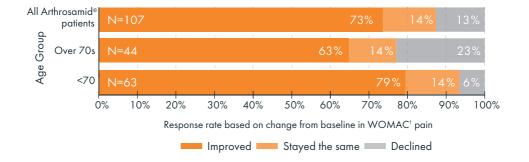
Treatment with Arthrosamid® is a simple, one-step out-patient procedure — which doesn't involve the disruptive recovery period usually associated with surgery.





### What is the response rate of Arthrosamid®?

Patients in the under 70 years group reported close to 80% positive response rate following treatment with Arthrosamid<sup>®</sup>.<sup>7</sup>



#### What are the side effects?

Clinical trials report there were no serious side effects following treatment with Arthrosamid®. The most commonly reported side effects were joint pain and a sensation of joint swelling, which were mostly mild in severity and lasting days to weeks.<sup>10,20</sup>

The overall safety profile of the injectable hydrogel has been established over the last 20 years with its use for various indications in the body.<sup>7</sup>



It is important to bear in mind that there is no cure for osteoarthritis but successful treatment with Arthrosamid® may reduce or relieve your knee pain. You should also bear in mind that your knee osteoarthritis may not improve and, in some cases, may get worse.

References: 1. Bliddal, H., et al. (2024) 3 year follow-up from a randomized controlled trial of intraarticular polyacrylamide hydrogel injection in subjects with knee osteoarthritis. Poster LB-31, OARSI 2024 World Congress on Osteoarthritis; 2. Bliddal, H., et al. (2024) A Prospective Study of Polyacrylamide Hydrogel Injection for Knee Osteoarthritis: Results From 4 Years After Treatment. Presented at EORS 2024; 3. Neogi, T. (2013) The epidemiology and impact of pain in osteoarthritis. Osteoarthritis and Cartilage. . Vol 21 (9): 1145-53; **4.** Thomson, A., et al. (2021). Synovial Macrophages in Osteoarthritis: The Key to Understanding Pathogenesis? Front. Immunol. Vol 12 :678757; **5.** Mathiessen, A., et al. (2017). Synovitis in osteoarthritis: current understanding with therapeutic implications. Arthritis research & therapy. Vol 19(1):18; 6. Baker, K., et al. (2010). Relation of synovitis to knee pain using contrast-enhanced MRIs. Annals of rheumatic diseases. Vol 69(10):1779-83; **7.** Data on file; 8. Torres, L., et al. (2006). The relationship between specific tissue lesions and pain severity in persons with knee osteoarthritis.". Osteoarthritis and Cartilage. Vol 14(10): 1033-40; **9.** Christensen, L., et al. (2016). Histological Appearance of the Synovial Membrane after Treatment of Knee Osteoarthritis with Polyacrylamide Gel Injections: A Case Report. Journal of Arthritis. Vol 5: 217; 10. Bliddal, H., et al. (2021) Polyacrylamide Hydrogel Injection for Knee Osteoarthritis: A 6 Months Prospective Study. J Orthop Res Ther. Vol 6 (2). 1188. ISSN 2575-8241; 11. Bliddal H., et al. (2024). Polyacrylamide gel versus hyaluronic acid for the treatment of knee osteoarthritis: nyauronic acid for the reatment of knee osteodrinimia a randomised controlled study. Clin Exp Rheumatol. Vol 42(9):1729-1735; 12. Arthrosamid®, Instructions For Use. Release Date March 2022. 10082-003; 13. Bliddal, H., et al. (2022). A Prospective Study of Polyacrylamide Hydrogel Injection for Knee Osteoarthritis: Results From 2 Years After Treatment. Poster presented at OARSI 2022. Osteoarthritis and Cartilage. Vol 30(1): S371-S372; **14.** Bliddal, H., et al. (2024) Effectiveness and safety of polyacrylamide hydrogel injection for knee osteoarthritis: results from a 12-month follow up of an open-label study. J Orthop Surg Res. Vol 19: 274; **15.** Bliddal, H., et al. (2023) A Prospective Study of Polyacrylamide Hydrogel Injection for Knee Osteoarthritis: Results From 3 Years After Treatment. Osteoarthritis and Cartilage. Vol 31 (5): 682-683; 16. Christensen, L., et al. (2016). Synovial incorporation of polyacrylamide hydrogel after injection into normal and osteoarthritic animal joints. Osteoarthritis and Cartilage. Vol 24(11):1999-2002; 17. Grässel, S., et al. (2020). Recent advances in the treatment of osteoarthritis. F1000Res. Vol 9:F1000 Faculty Rev-325; 18. Henriksen, M., et al. (2018). Intra-articular 2.5% polyacrylamide hydrogel for the treatment of knee osteoarthritis: an observational proof-of-concept cohort study. Clin Exp Rheumatol. Vol 36(6):1082-85. Epub 2018 Jul 18. PMID: 30148430; 19. Trigkilidas, D., et al. (2013) The effectiveness of hyaluronic acid intra-articular injections in managing osteoarthritic knee pain Ann R Coll Surg Engl. Vol 95: 545–551; **20.** Overgaard, A., et al. (2019). Safety of intra-articular polyacrylamide hydrogel for the treatment of knee osteoarthritis symptoms: A retrospective case series. Clin Ortho Adv Res. Osteoarthritis and Cartilage. Vol 30(1): S370-71.



More information is available from www.arthrosamid.com

#### INDICATIONS, PATIENT GROUP AND USAGE

Arthrosamid<sup>®</sup> is intended to be used for symptomatic treatment of adult patients with knee osteoarthritis.<sup>12</sup>

#### CONTRAINDICATIONS<sup>12</sup>

Arthrosamid® should not be injected:

- If an active skin disease or infection is present at or near the injection site.
  - If the joint is infected or severely inflamed.
- If the patient has previously received treatment with a different non-absorbable injectable/implant.
- If the patient has received a knee alloplasty or has any foreign material in the knee.
- If the patient has undergone knee arthroscopy within the last six months.
- In haemophilia patients or in patients in uncontrolled anti-coagulant treatment.

Treatment with Arthrosamid® may not be suitable for everyone. Your doctor is the best person to advise you.

