



Health Innovation
Yorkshire & Humber

**Transforming Lives
Through Innovation**



Knee Osteoarthritis: Patient Insight and Experience report

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1. Executive Summary

This report provides patient-led insights into the lived experience of knee osteoarthritis across the Yorkshire and Humber region. It explores how osteoarthritis affects quality of life, mental health, and access to treatment, particularly within the NHS musculoskeletal (MSK) care pathway.

Through in-depth interviews with patients at various stages of the total knee replacement (TKR) journey, five key themes emerged:

1. Impact on daily life and independence
2. Emotional and psychological burden
3. Frustrations with the NHS care pathway
4. Hesitancy and barriers around TKR surgery
5. Interest in and limited awareness of AposHealth®, a medical shoe, as a non-surgical alternative.

The findings reveal a strong patient desire for earlier, more holistic, and less invasive interventions. AposHealth®, now included in the [NHS MedTech Funding Mandate](#), was viewed positively by those who had access to it, but awareness and availability of the medical device remain limited.

The report concludes with actionable recommendations to improve patient-centred care, enhance clinician awareness, and support the equitable integration of AposHealth® into NHS pathways.

2. Introduction

Capturing the real-world experiences of individuals living with knee osteoarthritis is key to shaping more responsive and effective NHS care pathways. This report focuses on personal care journeys, treatment standards, and decision-making within the total knee replacement (TKR) pathway. Where relevant, it also explores perceptions of AposHealth® as a non-surgical treatment option.

As of 1 April 2024, AposHealth® has been included in NHS England's MedTech Funding Mandate—a policy designed to accelerate the adoption of clinically effective and cost-saving medical technologies. This inclusion is supported by guidance from the National Institute for Health and Care Excellence (NICE), published in April 2023 ([MTG76](#)).

According to NICE MTG76, approximately 4.8 million adults in England have clinically diagnosed symptomatic osteoarthritis with around 83% (~3.96 million) affected by knee osteoarthritis. AposHealth® is recommended for individuals who:

- Have not experienced sufficient improvement with standard non-surgical care,
- Meet the referral criteria for total knee replacement,
- Prefer to defer or avoid surgery.





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At Health Innovation Yorkshire & Humber, our role is to support healthcare providers, AposHealth® suppliers, commissioners, and patients in adopting this NICE-approved technology. Our goal is to improve equitable access across the region.

However, during our planning and implementation discussions with NHS providers, we identified a key challenge: the number of patients who meet TKR criteria but decline surgery is not routinely recorded in healthcare systems. This gap makes it difficult to estimate the eligible population for AposHealth®.

To address this, we set out to understand:

- Why patients may choose to decline surgery,
- What alternative treatments are available,
- How AposHealth® might support these patients if integrated into care pathways.

By incorporating these insights, we aim to inform and support the wider adoption of AposHealth® across NHS providers in Yorkshire and the Humber, ensuring that patient experience remains central to innovation in care delivery.

3. Desktop review and gap analysis

A wide variety of sources were reviewed to understand what was known about lived experience of knee osteoarthritis. Existing patient insight pieces, online forums were explored to uncover opportunities for patient insights that could support and inform the spread and adoption of AposHealth®. The majority of patient insight came through literature from leading charities such as [Versus Arthritis](#), and their '[the State of MSK report](#)' from November 2024, which included responses from a survey of people with MSK conditions, including osteoarthritis, to understand the factors that impact their lives.

Findings from the gap analysis revealed a wealth of information to how knee osteoarthritis can impact quality of life, common barriers in the patient journey within total knee replacement pathways, and the lack of access and/or knowledge of alternative innovations, particularly where standards of care had been ineffective.

The gap analysis also identified unexplored opportunities for patient and public involvement and engagement, particularly where alternatives could be in place through APOS adoption. TKR pathways were reviewed to develop key lines of questioning, presenting further opportunity to include patients and their experiences.

4. Approach

A qualitative methodology was employed to explore the lived experiences of individuals with knee osteoarthritis.

Participants who had lived experience of knee osteoarthritis were recruited through MSK clinical teams within several Yorkshire and Humber acute trusts, and from wider geographic locations via the charity Versus Arthritis, requesting participants on our behalf within their patient involvement groups.





10 participants were interviewed to ensure a broad range of perspectives and experiences. They were all at different stages in the TKR pathway, with some participants already having knee replacements, on the waiting list for a TKR, or in early stages in the pathway. We also interviewed two participants who were using AposHealth®. The small sample size was intentionally chosen to foster deeper, more intimate conversations that would enable participants to share their stories with authenticity and openness.

In-depth, semi-structured interviews with each participant were conducted to create a flexible environment where participants felt comfortable expressing their thoughts and emotions. This format allowed for spontaneous follow-up questions, which encouraged participants to elaborate on their experiences and provided rich, detailed insights into the impact of knee osteoarthritis on their daily lives.

5. Participant Recruitment

Participants ranged in age from early 30s to late 70s, with a mix of male and female respondents. Socioeconomic backgrounds varied, with participants including retired professionals, healthcare workers, carers, and individuals in administrative or manual roles. This diversity helped uncover how knee osteoarthritis affects people differently depending on their age, occupation, and access to resources.

All participants were notified they would receive £25 following their interviews as a thank you for their time.

6. Data Collection

Data was collected through face-to-face virtual interviews and a telephone call, led by participants' preferences. The interviews were guided by an open-ended question format, with prompts designed to encourage participants to reflect on their personal journey with knee osteoarthritis. Questions were framed to address the physical, emotional, and social challenges that the condition may impose, as well as coping mechanisms and treatment experiences.

7. Data Analysis

Braun and Clarke's 6 step thematic analysis was used to analyse the interview data from approx. 250 pages of transcript. We identified five overarching themes:

1. Impact on quality of life,
2. Mental health and emotional burden,
3. Experiences within the NHS MSK pathway,
4. Attitudes toward total knee replacement, and;
5. Awareness and perceptions of AposHealth®.

These themes were consistently supported by patient narratives and revealed both shared frustrations and individual coping strategies. This approach allowed for the identification of commonalities and differences in how participants experienced and managed knee





osteoarthritis, providing a further understanding of the condition from the perspective of those affected.

8. Findings

The five overarching themes, as outlined above, identified key shared experiences and recommendations, which, while aligning to our key lines of interview questioning, brought out key shared experiences and recommendations.

8.1 Impact on quality of life

Knee osteoarthritis had a profound impact on participants' daily lives, physically, emotionally, and socially. Pain and stiffness gradually limited their ability to perform everyday activities such as walking, climbing stairs, kneeling, and driving. Many had to give up hobbies like gardening or sports, and some experienced a loss of independence.

"It's affected every part of my life, what I wear, where I go, my mental health, relationships—everything."

Initially, participants attempted to manage symptoms through self-care strategies, including over-the-counter painkillers, online resources, and private osteopathy. However, as symptoms progressed, these methods became insufficient.

"I tried to manage it myself for a while—painkillers, exercises I found online—but it just got worse. Eventually, I had no choice but to go back to the GP."

Work life was significantly disrupted. Physically demanding roles became unsustainable, leading to time off, job changes, or early retirement. While some employers were supportive, others failed to provide necessary adjustments, increasing the emotional burden.

"Even though my boss is supportive, KO has significantly impacted my ability to perform at work, leading to time off and reduced productivity."

"I had to give up my job because I just couldn't stand for long periods anymore."

"Some days I couldn't even drive to work. It felt like my independence was slipping away."

Participants also shared how knee osteoarthritis affected their career progression and aspirations. Barriers in education and lack of workplace accommodations forced some into lower-paid or less fulfilling roles.

"Even during PGCE (Postgraduate Certificate in Education) training, I faced barriers in school placements due to accessibility. I had to use a stick, and the pain often took over my day."

"I loved being a midwife... but they wouldn't adjust my shifts. Occupational Health said 'They'll say you're asking too much.' Now I work in an admin job that doesn't reflect my skills. It's meant a huge pay cut."





Despite these challenges, participants expressed a strong desire to maintain independence and stay active. Their experiences highlight the importance of early intervention, workplace support, and holistic care planning.

Actionable Insights

- Provide early access to mobility aids and pain management tools through NHS services.
- Offer occupational support and workplace adjustments to help patients remain in employment.
- Include lifestyle and activity planning in care pathways to maintain independence and quality of life.

8.2 Mental health and emotional burden

Participants described a significant emotional toll from living with knee osteoarthritis, often using words like “disheartened,” “frustrated,” and “put on the scrap heap.” Chronic pain and the loss of physical ability led to low mood and psychological distress, social withdrawal and isolation and a diminished sense of identity and self-worth.

Many participants expressed that their mental health was neglected in clinical care, despite its clear connection to their physical condition. The inability to engage in meaningful activities, such as walking with a partner or enjoying retirement, was particularly disheartening. One participant shared, *“Since I’ve given up nursing I feel like I’ve been put on the scrap heap... I felt old before my time.”*

There was also frustration with the unpredictable nature of pain, which could flare up during simple tasks like walking. This unpredictability added to the emotional burden and sense of loss.

While some found resilience through family support and staying active, with activities like swimming or paddleboarding, these coping strategies were not universally accessible. One participant noted, *“I’ve got a great family and I try to stay active with things like paddleboarding and swimming.”*

A recurring theme was the perceived lack of urgency or empathy from clinicians, leaving patients feeling “fobbed off.” Participants strongly advocated for better integration of mental health support within osteoarthritis care pathways.

Actionable Insights:

- Integrate mental health screening and support into MSK pathways.
- Provide access to counselling or peer support groups for patients with chronic pain.
- Train clinicians to recognise and address the emotional impact of osteoarthritis during consultations.





8.3 Experiences within the NHS & MSK pathway

Participants described their experiences with the NHS musculoskeletal (MSK) pathway as fragmented, slow, and overly reliant on physiotherapy and weight loss advice, often without adequate support or follow-up. Many felt dismissed due to their age or weight, and several turned to private care for faster, more empathetic treatment.

There was a strong sense of disempowerment, with patients feeling they had to “fight” to be taken seriously. One participant shared, *“Even recently, a GP leaned back and said, ‘What makes you think you have osteoarthritis? You’re very young.’”*

Patients reported inconsistent communication and mixed messages between clinicians, with some consultations described as unproductive or misdirected. Delays, incorrect referrals, and frequent changes in care providers led to frustration and a lack of trust in the system. One participant recalled, *“It felt like they just tended to kick the ball into the long grass and hoped that it would go away.”*

While some had positive experiences, such as same-day physiotherapy referrals or clear communication about treatment options, these were exceptions. The standard NHS pathway was seen as linear and limited, with few alternatives offered beyond physiotherapy, painkillers, or eventual surgery.

There was also concern about over-reliance on cortisone injections, with diminishing effectiveness over time and warnings about long-term tissue damage. Patients expressed a desire for more diverse treatment options, better education about osteoarthritis, and earlier access to interventions.

Actionable Insights

- Introduce shared decision-making tools and provide early access to a broader range of interventions.
- Improve continuity of care by streamlining referrals and reducing delays in follow-ups.
- Educate clinicians to recognise and address unconscious bias, particularly around age and weight.
- Enhance patient education and provide clear, consistent information about osteoarthritis and available treatment options.

8.4 Attitudes towards Total Knee Replacement (TKR) surgery

Total Knee Replacement (TKR) was widely viewed by participants as a last resort, often approached with reluctance and anxiety. Concerns centred around post-operative pain, recovery challenges, and uncertain outcomes. Many participants delayed surgery due to caregiving responsibilities, employment pressures, or fear of complications.

“I’m not sure if I want a knee replacement. I have spoken to acquaintances who have had mixed experiences.”

“I would prefer to avoid knee surgery as I’m worried about adverse effects such as infections.”





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"I can't afford the time off work to recover."

Some participants had already undergone TKR or other major surgeries and were hesitant to repeat the experience. The recovery process, rather than the surgery itself, was often the most daunting aspect.

"I'm trying to put off surgery as I can't bear the thought of going through another big surgery. It's not the op, it's the recovery afterwards."

"It's not the surgery that worries me, it's afterwards. The pain, getting on and off the bed, getting dressed, the injections, the stockings... it's enough to test anybody's relationship."

Living alone added another layer of concern, particularly for those without immediate support during recovery.

"I'm worried about the recovery as I live on my own since my spouse passed away."

For others, the deterioration in quality of life, increased pain, reduced mobility, and loss of independence, eventually outweighed their fears, prompting them to consider or accept surgery.

"I don't really want another knee replacement but I looked at the MRI scan with my nurse's head on and am thinking, how can I walk on this?"

"I was told there's nothing physio can do – it's bone on bone. I'm now on the waiting list, but it's 18 months unless I pay. I've considered going private."

Some participants felt pressured to decide without fully understanding their options, while others expressed a desire to explore non-surgical alternatives like AposHealth® therapy or injections before committing to surgery.

Actionable Insights:

- Provide pre-operative counselling and peer support to help patients make informed decisions.
- Offer flexible recovery planning, especially for those living alone or in employment.
- Ensure patients understand the full range of options before surgery becomes the only pathway option.

8.5 AposHealth® and TKR alternatives

There was strong interest among participants in AposHealth® as a non-invasive, wearable intervention particularly for those hoping to delay or avoid total knee replacement (TKR) surgery. However, awareness of APOS was low, and many had not heard of it until prompted during the interview.

"I would have considered Apos as an alternative if it had been offered."

"I'd be interested in Apos if it were available on the NHS."





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Those who had tried AposHealth® reported reduced pain, improved mobility, and better posture, with some experiencing residual relief even after removing the device.

"I found Apos did reduce pain during wear and provides residual relief post-wear."

"It looks very easy. Low invasiveness. Just wearing them indoors while you do chores... I'd definitely be interested. At this point, I'm willing to try anything."

Despite this interest, limited access and cost were significant barriers. Patients expressed a desire for AposHealth® to be available through the NHS, noting that private access was not feasible for many. Some were even willing to travel outside their region to access it, especially if it meant maintaining independence and avoiding surgery.

"A non-surgical alternative like Apos would be a better option if it is going to help your knee, save money and reduce pain."

There was also scepticism and confusion about how AposHealth® works, particularly in cases involving bone-on-bone osteoarthritis. A lack of clear, accessible information reduced confidence in the treatment.

"More evidence and information on how AposHealth® works would be useful."

"I think speaking to another patient who has used it would be helpful."

Some participants noted that GPs and clinicians were unaware of AposHealth®, which limited its presentation as a viable option earlier in the care pathway. Several believed that earlier access to AposHealth® could have reduced the number of appointments and delayed the need for surgery.

"It would have saved me at least 20 wasted visits."

Actionable Insights

- Develop and distribute patient-facing materials that explain AposHealth® clearly and accessibly.
- Train GPs and MSK clinicians to introduce AposHealth® earlier in the care pathway.
- Ensure equitable access by integrating AposHealth® into NHS offerings and reducing reliance on private care.

9. Conclusion

This analysis of lived experiences with knee osteoarthritis and the current NHS TKR pathway reveals deep-seated frustrations and unmet needs, particularly among patients seeking earlier, less invasive alternatives to surgery. The evidence highlights that while the NHS MSK pathway offers essential interventions like physiotherapy and surgery, the patient journey between these points is often marked by delays, limited treatment options, inconsistent communication, and insufficient support, especially for younger patients or those not yet "eligible" for TKR.

Crucially, many patients expressed a strong desire to explore alternative treatments like AposHealth® earlier in their care journey. These individuals frequently reported feeling





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dismissed or "fobbed off," with their pain minimised or attributed to weight, despite real limitations on quality of life. Participants consistently called for clearer communication, more holistic care (including mental health support), and increased autonomy in managing their condition.

There is considerable interest in AposHealth®, both as a pain management solution and as a non-surgical means of delaying or avoiding TKR. However, knowledge gaps among both clinicians and patients hinder its adoption. Patients were unclear about how AposHealth® works, its long-term outcomes, and how to access it, even after its inclusion in NHSE's MedTech Funding Mandate. These insights point to a critical need for better clinician awareness, patient education, and integration into standard MSK pathways.

10. Summary of Actionable Insights

To support the spread and adoption of AposHealth® and improve the overall patient experience in knee osteoarthritis care, we recommend and can support:

Enhanced Mental Health Integration

Incorporate mental health support into MSK and pain management pathways to address the emotional burden of chronic pain.

Earlier and Broader Access to Alternatives

Introduce AposHealth® and other non-surgical options earlier in the care pathway, especially for patients not yet eligible or ready for surgery.

Improved Patient Education

Develop clear, accessible, and patient-facing materials explaining how AposHealth® works, including real-life success stories to build trust and understanding.

Clinician Awareness and Training

Ensure GPs and MSK clinicians are informed about AposHealth® and other innovations so they can offer a wider range of options to patients.

Equity of Access

Address financial barriers by ensuring AposHealth® is available through the NHS and not limited to those who can afford private care.

Pathway Redesign

Consider redesigning the MSK pathway to be more flexible, responsive, and patient-led, reducing unnecessary appointments and delays.

The team at Health Innovation Yorkshire & Humber extends our sincere thanks to Versus Arthritis and the individuals within our NHS acute trusts who supported participant recruitment, and most importantly, to the participants themselves. We are deeply grateful for their openness and honesty in sharing their experiences and insights, which were invaluable in shaping this report and its findings.

