TAPE-it feasibility study results [for patients]

Where we're up to

The TAPE-it study has now been completed. We fully recruited thirty patients to the 'intervention' arm of the study with participants using the tape on their knees for 12 weeks. Thirteen of these participants also did an interview post-intervention. Below is a summary of what we have learnt.

Summary of active 'taping' results.

This part of our study tested a sports-taping method for people with arthritis knee-cap pain. It ran from December 2024 to February 2026 and included 30 participants, most of whom were around 60 years old. Only one person dropped out of the study. Two people had problems that were not related to the taping, so they were able to continue using the tape.

Most people (73%) in the study said their knee pain improved after 12 weeks, and almost all (92%) said they would use the tape again. The participants used the tape regularly as instructed. On average, over the 12-week course of the study, their knee pain got better, the pain score dropped from 5cm to 4 cm (on the 0-10cm scale whereby 0 = no pain), and their knee function improved from 31.5 baseline to 44 (on the scale: whereby 100 points= perfect knee health and 0 points = extreme knee problems and maximum disability)

In summary, the study showed that this taping method is safe, people are willing to use it, and it helps reduce knee pain and improve knee function.

Summary of 'interview' results

1. Perceived effectiveness

Looking at how acceptable and your feelings about the tape.

- The majority of the participants felt the tape was **effective to some degree**, this ranged from being extremely positive (one described it as "life-changing"), some were more ambivalent; one felt no benefit at all.
- A main factor described was **feeling greater stability and confidence** in the knee, more so than direct pain relief. Feeling "more supported" and "secure" reduced fears about the knee giving way.
- **Pain reduction varied**: some experienced major relief (one participant could sleep through the night for the first time), others felt modest benefit ("taking the edge off"), one experienced no change.
- **Mood and wellbeing impacts** such as feeling more optimistic were notable secondary benefits; some participants described feeling "liberated," less fearful, and more able to sleep better and engage in daily activities.
- The tape was not effective for everyone.
- **Comparison to other knee care options**
    - **Tape + physiotherapy**: Several participants felt the tape made it easier or possible to do their physio exercises, suggesting an important interaction between the two.
    - Some felt the tape was only effective when combined with physiotherapy
    - Tape compared favourably to other interventions: braces (bulky, restrictive, hot), medications (fewer side effects), injections (perceived diminished returns) and surgery (non-invasive, low risk, future surgery needs).

2. Usability & adherence

Looks at how easily the intervention could be integrated into the lives of patients.

- **Ease of use**: Generally easy after initial training, though could be "fiddly" at first. Face-to-face training was considered essential. Everyone applied tape independently; no one needed ongoing help.
- **Comfort**: Tape was comfortable enough that often people forgot they were wearing it. There were no major skin reactions but there was some discomfort around removal.
- **Routine**: Most people suggested it was easy to add taping into daily routines. Some left tape on 2-3 days between changes.
- **Problems with tape**: Tape occasionally peeled at corners or caught on clothing; some discomfort on removal (particularly for men who hadn't shaved the area); these were not considered 'deal-breakers'.
- **Experimentation**: Some participants tried different placements and timings; most returned to the original position or a slightly steeper X. Not everyone was confident about experimenting preferring to stick with the way they were shown.
- **Training and therapist input:** Face-to-face training with a physiotherapist was considered essential. Physical demonstration to understand correct tension and positioning was seen as important.

3. Barriers, facilitators & considerations

Despite high acceptability, several factors could hinder long-term use.

- **Cost**: The single most commonly cited barrier to long-term use. Participants on fixed or lower incomes were most concerned. Some planned to extend usage by leaving tape on longer to reduce cost. One intended to vary use, using a leg brace on occasions. Several hoped for NHS adoption.
- **Shaving**: A potential deterrent for male participants.
- **Aesthetics**: Minimal concern overall; tape is discreet under clothing. A small number avoided it on special occasions or holidays. Coloured tape alternatives were suggested.
- **Sustainability**: One participant raised concerns about single-use waste.

4. Considerations for a larger study (RCT)

A main goal of this study was to see how do-able a larger study might be; you helped us identify several considerations to think about.

- Participants were positive about study delivery: good communication, friendly staff, well-timed follow-up.
- **Randomisation concerns**: This is where people are randomly put into groups, some receiving the tape plus standard care, other receiving standard care (control group). Although many thought people would join to support learning and research, several participants felt they would decline to join a larger study if there was a chance of being in a control group. Concern that control group participants would feel disappointed and drop out.
- A **delayed intervention design** was the most commonly suggested solution offering tape to the control group after a period of time.
- **Other considerations**: Payment delays caused distress; the instructional video used different tape which caused confusion; pain outcome measures were felt to lack nuance; expectations need to be supported and managed as the tape may not work for everyone
- **Training / learning needs of patients and therapists:** Confidence in the therapist is a factor. A larger trial will involve several locations and therapists who will need training to feel confident in showing patients how to use the tape correctly.

Key points

- **Stability over pain relief:** The primary perceived benefit was an increase in knee stability and confidence rather than totally removing pain.
- **Tape with exercise / physiotherapy:** Increased confidence allowed participants to resume daily activities and adhere more strictly to physiotherapy.
- **Perceived effectiveness varied:** the tape didn't work for everyone.
- **High usability:** Participants found the tape easy to apply independently following initial professional training. The intervention was described as comfortable, with many participants "forgetting" they were wearing it.
- **Main barriers:** Cost is the most significant barrier to long-term adoption. While aesthetics and the need for leg shaving (for men) were noted, they were generally viewed as acceptable "pay-offs" for improved function.
- **RCT considerations:** Participants expressed altruistic motivations for future trials but highlighted potential issues around which group they may be in. Many suggested a "delayed intervention" design to prevent dropout among those assigned to a control group.

What happens next

We look at what you told us and some of the measures we took to see what impact, if any, the tape had. This will help us decide whether a larger study comparing the tape with standard care is do-able and, if so, how we go about that study.