

PATIENT INFORMATION BOOKLET

Tibialis Posterior Tenosynovitis

Understanding medial ankle pain, treatment and rehabilitation

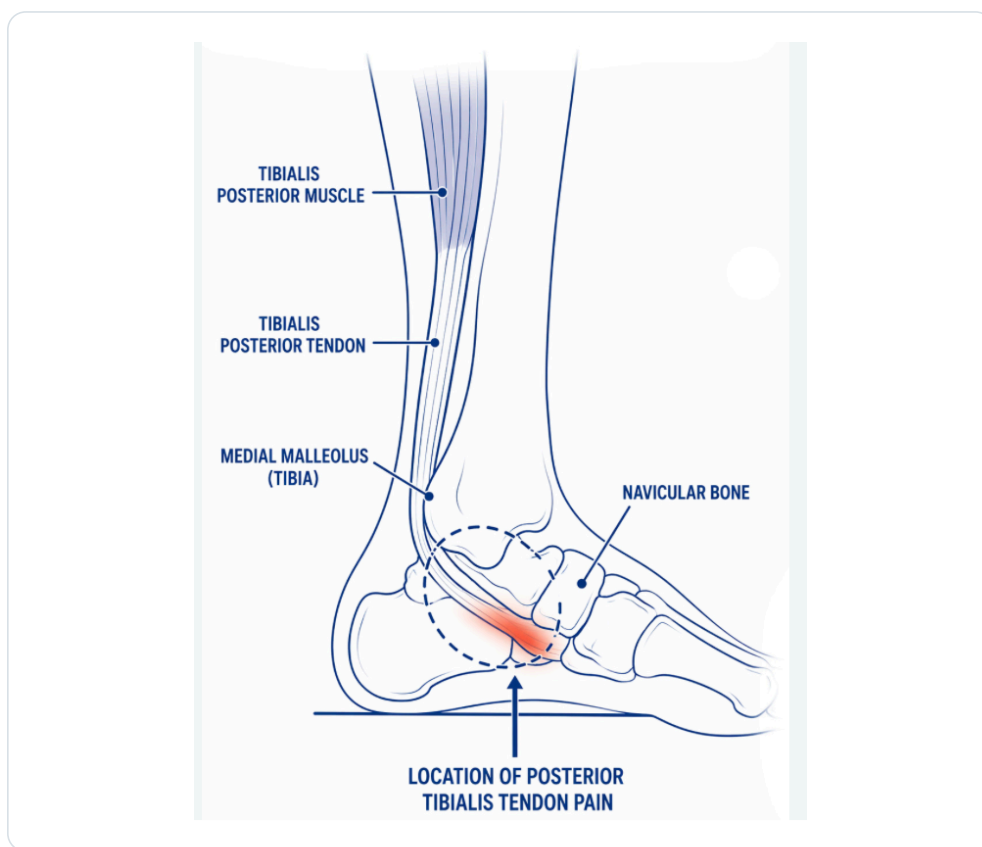


Illustration supplied for patient education; it does not diagnose an individual condition.

About this booklet

This booklet explains **tibialis posterior tenosynovitis**: pain and irritation involving the posterior tibial tendon and its lubricating sheath on the inside of the ankle. It also explains the related terms **posterior tibial tendinopathy**, **posterior tibial tendon dysfunction (PTTD)** and **progressive collapsing foot deformity**.

The guide is for adults who have been assessed, or are considering assessment, for medial ankle or arch pain. The diagnosis and exercise stage must be individualised: a painful tendon without deformity is different from a torn tendon or a foot whose arch is progressively collapsing.

Please read this first

Do not start or progress the exercises if you have a new injury, a red/hot/swollen foot, rapidly changing foot shape, marked weakness, severe pain, altered sensation or uncertainty about the diagnosis. Seek clinical advice first. This booklet supports but does not replace examination, personalised rehabilitation or formal consent.

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At a glance

Typical site

Inside ankle / arch

Key function

Supports the foot arch

First-line care

Load + support + exercise

Imaging

Only when it changes care

Recovery

Often measured in months

Urgent change

New collapse or hot swollen foot

The tendon and its role

The tibialis posterior muscle lies deep in the calf. Its tendon passes behind the **medial malleolus**—the ankle bone on the inside—then attaches mainly to the navicular and nearby midfoot bones. It helps turn the sole inwards, assists push-off and supports the medial arch when you stand and walk. The tendon works with muscles, ligaments, bones and footwear; arch shape is not controlled by one structure alone.

What does “tenosynovitis” mean?

A tendon sheath is a thin tissue sleeve that helps a tendon glide. **Tenosynovitis** describes irritation and inflammation around this sheath. Persistent symptoms can also involve change within the tendon itself, called **tendinopathy**. If the tendon becomes stretched, torn or unable to support the arch, clinicians may use PTTD or progressive collapsing foot deformity.

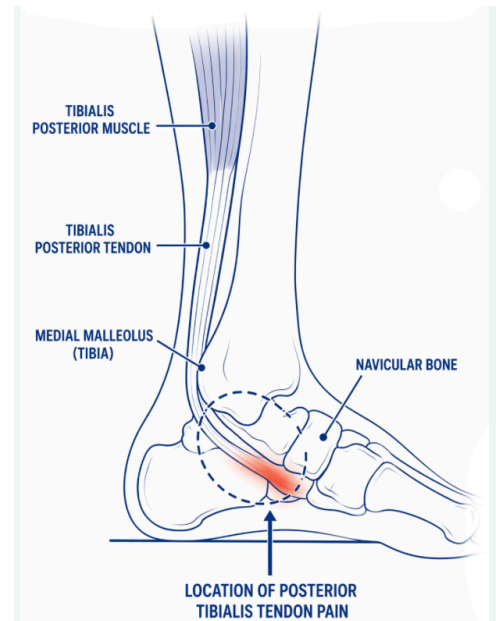


Figure 1: The tendon passes behind the inner ankle and continues towards the arch. Pain often follows this path.

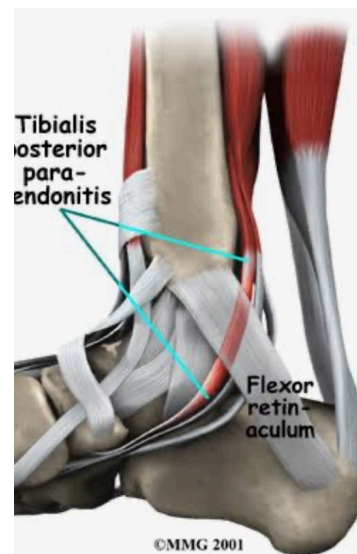


Figure 2: The tendon curves behind the ankle beneath the flexor retinaculum before entering the foot.

One label does not describe every stage

Early tenosynovitis can cause pain and swelling with little or no change in foot shape. Later dysfunction may involve weakness, flattening of the arch and pain on the outer ankle. Assessment determines which description—and which treatment plan—fits you.

Symptoms and how the condition can change

Common symptoms

- Pain or tenderness behind and below the inner ankle bone, sometimes extending into the arch.
- Swelling, warmth or soreness along the tendon.
- Pain with prolonged standing, walking, hills, stairs, running, jumping or carrying loads.
- Morning stiffness or discomfort after rest that eases as the ankle moves.
- Weakness or pain when rising onto tiptoe, especially on one leg.
- A feeling that the foot is tiring, rolling inwards or becoming flatter.
- In more advanced cases, pain on the outer ankle from impingement as the heel shifts.



Figure 3: Typical medial ankle-to-arch pain distribution. Your symptoms may differ.

A useful clinical continuum

Pattern	Possible findings	Usual emphasis
Early	Pain and sheath/tendon irritation; arch flexible; heel raise possible but sore or mildly weak.	Reduce overload, support the foot and begin graded rehabilitation.
Progressing	Increasing weakness, difficulty with a single-leg heel raise, flexible flattening or the forefoot turning out.	More substantial orthotic or brace support and specialist review.
Advanced	Rigid flatfoot, outer-ankle pain, arthritis, rest/night pain or major walking limitation.	Foot-and-ankle specialist assessment; surgery may be discussed.

Assessment and diagnosis

There is no single self-test that confirms the diagnosis. A clinician combines the history, examination and, when it would change management, imaging.

History

Where and when pain occurs; changes in walking, work, sport or footwear; previous injury or surgery; symptom duration; medical conditions; medicines; and whether the foot shape is changing.

Examination

Tenderness and swelling; arch and heel alignment while standing; flexibility; walking pattern; calf tightness; power; pulses and sensation; and the ability to perform a controlled heel raise.

Imaging

Weight-bearing X-rays help assess alignment and arthritis when deformity or surgery is considered. Ultrasound can assess the tendon and sheath dynamically. MRI may be used for a suspected tear, other soft-tissue problem or joint disease.

Other diagnoses

An ankle sprain, navicular stress injury, accessory navicular, spring-ligament problem, inflammatory arthritis, nerve irritation, infection, gout and Charcot neuroarthropathy can cause overlapping symptoms.

The single-leg heel raise

A clinician may ask you to rise slowly onto the toes of one foot while holding a support. Pain, weakness, inability to lift the heel, or failure of the heel to turn slightly inwards can be informative. This is an assessment tool as well as a later exercise. **Do not repeatedly force it through marked pain or weakness.**

Arrange prompt or urgent assessment

Seek prompt advice after a sudden injury or “pop”, a sudden loss of push-off strength, rapidly increasing flattening, marked rest/night pain, or inability to bear weight. A person with diabetes or reduced sensation who develops a red, hot or swollen foot needs urgent medical assessment to exclude Charcot foot or infection.

Building an individual treatment plan

Most early and flexible presentations are treated without surgery. The aim is to calm an irritable tendon, reduce unhelpful load, support the arch, rebuild capacity and address the activities that matter to you.

Treatment	Potential role	Important qualification
Education and load management	Reduce or adapt the activity that repeatedly provokes symptoms while keeping generally active.	Complete rest can lead to stiffness and weakness; aim for tolerable, progressive loading.
Supportive footwear	A stable trainer, walking shoe or boot with a comfortable sole can reduce demand on the tendon.	Very flexible, flat or unsupportive footwear may aggravate symptoms.
Arch support / orthosis	An off-the-shelf or custom device may support alignment and reduce tendon load.	Fit and effect should be reviewed; an orthosis complements rather than replaces rehabilitation.
Brace or ankle-foot orthosis	Provides more control when weakness or deformity is greater.	Choice depends on flexibility, skin health, footwear and goals.
Short-term boot or cast	May settle severe pain or protect an acute flare or tear.	Prolonged immobilisation causes weakness; use only with a clear plan for review and rehabilitation.
Physiotherapy	Progressive tendon, calf, foot, balance and whole-leg rehabilitation.	The best programme depends on stage and irritability; evidence supports exercise but does not identify one universal protocol.
Pain relief	May help maintain sleep, movement and participation in rehabilitation.	Check suitability with a pharmacist or clinician, especially with stomach, kidney, heart or blood-thinning concerns.

Expected timescale

Tendons adapt slowly. Some people notice improvement within 6–12 weeks, while a fuller return can take 6–9 months or longer. Progress is rarely perfectly linear. A flare is information to adjust load—not automatic evidence of new damage.

Footwear, orthoses, injections and lifestyle

Footwear checklist

Look for

A secure fastening, stable heel counter, comfortable cushioning, enough width and depth for the foot and any orthosis, and a sole that does not twist excessively.

Limit while irritable

Flip-flops, loose sandals, very soft or worn-down shoes, prolonged barefoot walking, and a sudden change to minimal or high-impact footwear.

An arch support can be useful, particularly if pain is linked to a flexible flatfoot. A podiatrist, orthotist or physiotherapist can assess whether a simple insole, custom orthosis, ankle brace or ankle-foot orthosis is most appropriate. Check the skin regularly and seek advice if the device causes rubbing, numbness or worsening pain.

Medication

Paracetamol or a non-steroidal anti-inflammatory drug may be appropriate for some people, but neither rebuilds tendon capacity. Ask a pharmacist or clinician about dose, interactions and contraindications; do not use another person's medication.

Injection treatment requires caution

Do not inject corticosteroid into the tendon

BOFAS guidance warns that injections on the medial side for the posterior tibial tendon itself carry a major risk of acute rupture. Corticosteroid must not be injected into tendon substance. In selected situations, a specialist may discuss a carefully targeted image-guided injection for a different pain source or tendon sheath, but evidence is limited and injection does not correct weakness or deformity.

Whole-person recovery

If appropriate, gradual weight management can reduce load across the foot. Smoking or nicotine use can impair tissue and surgical healing; NHS stop-smoking support is available. Diabetes, inflammatory arthritis and circulation or nerve problems should be managed alongside the tendon condition.

Exercise: safety and progression

Exercise aims to restore movement, foot control, calf and tibialis posterior strength, balance and confidence. The programme below is a general framework drawn from NHS rehabilitation leaflets and the available research. Your clinician may change the starting point, dose or exercise selection.

The 24-hour response rule

Mild, tolerable discomfort during exercise may be acceptable. If pain is clearly worse later that day or the following morning, or swelling and function deteriorate, reduce the range, resistance, repetitions or frequency. Stop for severe, sharp or rapidly increasing pain and seek advice.

Before you begin

- Use a stable support such as a worktop or rail for standing exercises.
- Wear supportive footwear if barefoot exercise is painful or your balance is uncertain.
- Move slowly and maintain the foot arch; do not let the ankle collapse inwards.
- Start below your maximum. Progress one variable at a time—range, repetitions, resistance, then task difficulty.
- Do not use the later single-leg exercises as your starting point if you cannot perform a controlled heel raise.

A simple progression test

Before moving to the next phase, symptoms should be settling, your walking should not be worsening, and you should be able to complete the current dose with controlled alignment and no problematic next-day reaction. A physiotherapist should guide progression if the foot is changing shape, you use a brace, or symptoms are persistent.

How often?

Mobility and low-load control exercises may be used up to three times daily. Strength exercises are commonly performed every other day to allow recovery. The exact dose should be adjusted to your response.

Phase 1 exercises: settle and reconnect

Use this phase when symptoms are irritable or after a period of reduced activity. The goal is comfortable movement and low-load muscle activation—not fatigue.

1

Ankle pumps

Start: Lie or sit with the leg supported. Keep the knee straight only if comfortable.

Move: Move the foot slowly up towards you and then point it away. Do not force the end range.

Dose: Hold each end position for about 5 seconds. Repeat up to 10 times, up to 3 times daily.

2

Gentle foot in-and-out control

Start: Sit with the foot supported on the floor, or the leg supported on a bed.

Move: Raise the inner border of the foot gently, then the outer border. Keep the knee relaxed and avoid a large twisting movement.

Dose: Hold each direction for about 5 seconds. Repeat up to 10 times, up to 3 times daily.

3

Short-foot / arch set

Start: Sit with the whole foot on the floor and the toes relaxed and straight.

Move: Gently draw the ball of the big toe towards the heel to lift the arch slightly. Do not curl or claw the toes.

Dose: Hold 5 seconds. Repeat up to 10 times.

Progress: Repeat in standing with equal weight through the heel, base of the big toe and base of the little toe.

4

Gentle calf stretch

Start: Stand facing a wall with the affected leg behind and the heel down.

Move: Keep the back knee straight and lean forward until a gentle calf stretch is felt. Keep the foot pointing forwards and do not force the arch flat.

Dose: Hold 20–30 seconds. Repeat 2–3 times if comfortable.

Move on only when ready

If Phase 1 increases pain beyond the 24-hour rule, reduce the dose. If walking remains very painful, the arch is changing, or weakness is marked, arrange review rather than simply adding more exercise.

Phase 2 exercises: rebuild strength and balance

Begin when daily pain is improving and Phase 1 is well tolerated. NHS leaflets commonly introduce these exercises after approximately 2–3 weeks, but the right time depends on your symptoms and diagnosis.

5

Resisted inversion

Start: Sit with a resistance band around the inside of the forefoot and anchored securely to the outer side.

Move: Keeping the knee still, point the foot slightly down and turn the sole inwards against the band. Return slowly; control both directions.

Dose: Start with 1–2 sets of 10. Build towards 3 sets of 15 every other day.

Progress: Increase resistance only after the full dose is controlled without a troublesome next-day reaction.

6

Double-leg calf raise

Start: Stand facing a wall or worktop, feet hip-width apart, hands resting for balance.

Move: Rise straight up onto both toes without rocking forward or letting the ankles roll in. Lower slowly.

Dose: Start with 1–2 sets of 10. Build towards 3 sets of 15 every other day.

Progress: Shift a little more weight to the affected side, then progress to a step only when comfortable.

7

Supported single-leg balance

Start: Stand beside a stable support in supportive footwear.

Move: Balance on the affected leg with a soft knee and the arch gently controlled. Touch the support whenever needed.

Dose: Hold 10–30 seconds. Repeat 3 times.

Progress: Build towards 60 seconds, then use less hand support. Do not use an unstable cushion unless advised.

Why the slow lowering matters

The tibialis posterior and calf work as you rise and as you control the return. Preliminary research suggests eccentric—controlled lengthening—exercise combined with stretching and orthoses may reduce pain and disability, but studies are few and small.

Phase 3 exercises: capacity and function

Use this phase when you can complete Phase 2 with good control, walking is improving and your clinician is satisfied that the tendon and foot shape can tolerate greater load.

8

Step calf raise

Start: Stand on the bottom step holding a rail, with the heels just beyond the edge. Begin on both legs.

Move: Rise onto the toes, then lower the heels slowly only as far as comfort and control allow. Keep the heel and arch aligned.

Dose: Build towards 3 sets of 15 every other day.

Progress: Move from two legs to more load on the affected leg, then to a controlled single-leg version.

9

Single-leg heel raise

Start: Stand at a wall or rail. Use the affected leg only when a two-leg raise is easy and controlled.

Move: Rise vertically onto the toes. Aim for the heel to stay controlled rather than rolling out. Lower over 2–3 seconds.

Dose: Begin with the number you can perform well. Build gradually towards 3 sets of 15.

Progress: Add a small load in a rucksack only after full pain-free sets and with clinician approval.

10

Toe-walking and functional loading

Start: Stand in supportive shoes in a clear space with a stable surface.

Move: Walk slowly on the toes with short, controlled steps. Stop if the arch collapses or pain rises sharply.

Dose: Begin with 10–20 seconds; build towards 30–60 seconds.

Progress: Progress walking distance, stairs, slopes, carrying and sport-specific drills one demand at a time.

Returning to walking, work and sport

Increase only one major demand at a time—duration, speed, incline, load or impact. Maintain a rest or easier day between demanding tendon sessions initially. A successful return is based on symptoms, strength, control and the following-day response, not on a fixed calendar date.

Running and jumping

Do not return to high-impact exercise solely because pain has eased. You should be able to walk briskly, perform repeated controlled heel raises and tolerate lower-impact training without a next-day flare. A physiotherapist can provide task-specific testing.

Flares, monitoring and when to seek help

If symptoms flare

Reduce the aggravating activity temporarily rather than stopping all movement. Return to the last well-tolerated exercise level, use supportive footwear, and spread essential walking across the day. A cool pack wrapped in a damp towel may be used for 10–15 minutes if sensation and circulation are normal; never apply ice directly to the skin.

Keep a simple weekly record of walking tolerance, morning stiffness, swelling, exercise level and heel-raise control. Review is appropriate if symptoms are not beginning to improve after 6–12 weeks of well-followed advice, or sooner if function or foot shape deteriorates.

Contact JointClinics, your GP, NHS 111 or urgent care

A sudden pop or injury; rapidly worsening pain or swelling; new inability to push off or stand on tiptoe; a noticeably flatter or changing foot; spreading redness or fever; persistent numbness; rest/night pain; or inability to bear weight.

Seek emergency help

Call 999 for chest pain, severe breathlessness, collapse, a cold or blue foot, or another severe or rapidly worsening symptom. A red, hot, swollen foot in someone with diabetes or reduced sensation needs same-day urgent assessment.

What to bring to review

Bring the shoes, insoles or brace you use most; your medicine list; details of previous injury or surgery; and a record of which exercises or activities provoke symptoms. Mention diabetes, inflammatory arthritis, circulation or nerve problems, recent antibiotics, corticosteroid use and any rapid change in foot shape.

Do not self-diagnose a tendon rupture

A sudden improvement in pain does not always mean recovery if it is accompanied by new weakness or arch collapse. Arrange assessment.

When might surgery be considered?

Surgery is not the first treatment for most early tenosynovitis or flexible PTTD. A referral to an orthopaedic foot-and-ankle surgeon may be appropriate when substantial symptoms persist despite a well-delivered non-operative programme, the foot shape is deteriorating, the deformity is rigid, arthritis is present, or walking is severely limited.

The operation depends on the problem

Situation	Possible procedure	Purpose
Isolated early sheath/tendon disease	Debridement or tenosynovectomy may occasionally be discussed.	Remove inflamed or damaged tissue when symptoms persist and the foot remains well aligned.
Flexible deformity	A combination may include tendon transfer, heel-bone osteotomy, spring-ligament work and calf-lengthening.	Restore support and improve alignment while preserving useful joint movement.
Rigid or arthritic deformity	Fusion of selected hindfoot or midfoot joints may be required.	Correct a fixed deformity and treat painful arthritis, accepting loss of movement in fused joints.

These are major reconstructive decisions, not a standard operation for every patient. BOFAS guidance notes that surgery should be performed by an orthopaedic foot-and-ankle surgeon and planned from weight-bearing assessment and appropriate imaging.

Recovery principles

Recovery depends on the exact procedures. A period of non-weight-bearing—often at least six weeks for reconstruction or fusion—may be required, followed by protected weight-bearing, swelling control, progressive movement and rehabilitation. Functional recovery is measured in months and maximum benefit can take a year or longer. Your surgeon's operation-specific instructions take priority.

Questions for a surgical consultation

Which structures are failing? Is the deformity flexible or rigid? What happens without surgery? Which procedures are proposed and why? How long will I be non-weight-bearing? What help will I need at home? What are the risks of wound problems, infection, blood clots, nerve symptoms, non-union, persistent pain, stiffness and further surgery?

Frequently asked questions

Is this the same as “posterior tibial tendonitis”?

The terms overlap. “Tendonitis” and “tenosynovitis” emphasise inflammation, while “tendinopathy” recognises that persistent tendon pain may include structural and load-related change. PTTD or progressive collapsing foot deformity describes loss of function and possible change in foot shape.

Do I need a scan?

Not always. Clinical assessment often guides initial treatment. Ultrasound, weight-bearing X-rays or MRI are used when the diagnosis is uncertain, symptoms are severe, deformity is present, a tear is suspected, or imaging would change treatment.

Should I rest completely?

Usually no. Relative rest means reducing the most provocative loading while maintaining tolerable movement and gradually rebuilding capacity. A boot may be appropriate for selected severe presentations, but it should have a review and rehabilitation plan.

Will an insole cure the tendon?

An insole can reduce load and improve comfort but does not restore tendon capacity by itself. It is usually combined with footwear, exercise and activity modification.

Can I have a steroid injection?

Steroid must not be injected into the posterior tibial tendon because of rupture risk. A specialist may occasionally discuss image-guided injection for another confirmed pain source or, cautiously, the tendon sheath. The target, evidence, alternatives and risks must be clear.

How long should I exercise?

NHS programmes commonly use a 12-week strengthening period, with continued progression beyond this when needed. Recovery can take several months. Use the 24-hour response rule and your clinician’s milestones rather than a fixed deadline.

How do I arrange an assessment?

Visit jointclinics.co.uk/book/quick-assessment, telephone 07553 209288, or email info@jointclinics.co.uk.

Your rehabilitation record

Use this page with your clinician. Record only the exercises that have been agreed for you.

Diagnosis / stage	
Current footwear	
Insole / brace	
Current exercise phase	
Sets / repetitions	
Activity to reduce temporarily	
Activity goal	
Review date	
Clinician	

Questions to ask

- Is my pain isolated tenosynovitis/tendinopathy, or is the tendon weak or torn?
- Is my arch changing, and is the deformity flexible?
- Which footwear, orthosis or brace is appropriate for me?
- Which exercise phase should I start, and what is an acceptable symptom response?
- Would imaging change my treatment?
- When should I be referred to a specialist foot-and-ankle surgeon?

JointClinics contact

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References and medical information notice

1. NHS Lanarkshire. **Posterior Tibialis Tendinopathy**. Patient advice on symptoms, load management, footwear, timescales and rehabilitation. [NHS Lanarkshire guidance](#)
2. University Hospitals of Leicester NHS Trust. **Exercises for pain in the tibialis posterior muscle and tendon in your leg**. Leaflet 955, version 2; reviewed January 2024. [Exercise leaflet](#)
3. Calderdale and Huddersfield NHS Foundation Trust. **Posterior Tibial Tendon Dysfunction (PTTD)**. Leaflet csph0162, version 1; review date July 2028. [PTTD leaflet](#)
4. British Orthopaedic Foot & Ankle Society. **Evidence Based Commissioning Guidelines: Acquired Adult Flatfoot Deformity**. [BOFAS guideline](#)
5. Royal Orthopaedic Hospital NHS Foundation Trust. **Adult Acquired Flat Foot (Posterior Tibial Tendon Dysfunction)**. [ROH patient information](#)
6. Ross MH, Smith MD, Mellor R, Vicenzino B. **Exercise for posterior tibial tendon dysfunction: a systematic review of randomised clinical trials and clinical guidelines**. BMJ Open Sport & Exercise Medicine. 2018;4:e000430. [Full text](#)
7. Miller A, Smith T, Backhouse MR. **Non-surgical management of posterior tibial tendon dysfunction—a UK survey**. Journal of Foot and Ankle Research. 2024;17:e12033. [Full text](#)

Evidence context

Research into non-surgical treatment is limited. Exercise, education, supportive footwear and orthoses are widely used, and preliminary evidence suggests benefit, but no single protocol is proven best for every stage. The exercise doses in this booklet are a general framework adapted from NHS leaflets and must be individualised.

Medical information notice

This booklet provides general educational information. It does not establish a diagnosis, replace personalised medical advice or physiotherapy, or provide formal consent for injection or surgery. Follow the instructions from your treating team. In an emergency, call 999.

Image and document control

The three anatomical and symptom-location figures were supplied by the booklet requester for patient education and remain illustrative rather than diagnostic. Prepared for JointClinics patient education. Version 1.0 — September 2026. Clinical review recommended before publication. Review date: September 2028, or earlier if guidance or the JointClinics pathway changes.