Frido CARE

CLINICAL PROTOCOL

HIP & BUTTOCK · FOR PHYSIOTHERAPISTS AND DOCTORS

Piriformis syndrome (pseudo-sciatica)

Deep gluteal sciatic nerve irritation that mimics L5–S1 radiculopathy. Sustained sitting is the main aggravating load, which makes seating the one part of the plan the patient controls all day. Assessment, differentials, and a phased plan with the seating it needs.

Saiyed Abdal · 14 Oct 2026 · Frido Care Academy

CLINICAL SUMMARY

What it is	Entrapment or irritation of the sciatic nerve by the piriformis in the deep gluteal space. Buttock pain with or without posterior thigh radiation; a diagnosis of exclusion.
How common	An estimated 0.3–6% of low-back-pain and sciatica presentations. More often in middle-aged adults; female to male about 6:1.
Key tests	FAIR, Freiberg, Pace, Beatty; seated piriformis stretch plus active piriformis test (sensitivity 0.91, specificity 0.80 together). Neurological screen usually normal.
Rule out first	Lumbar radiculopathy, SIJ pain, proximal hamstring tendinopathy, ischiofemoral impingement, and the red flags below.
First line	Conservative: load management, soft tissue work, stretching, neural mobilisation, hip abductor and external rotator strengthening. Most improve in 1–3 weeks of regular exercise.
Seating	Cut sustained sitting load: breaks every 30–45 min, no back-pocket wallet, no crossing the symptomatic leg, and a pressure-redistributing cushion.

SEATING ADJUNCT

Frido Cloud Seat Cushion ₹1,899 ~~₹2,899~~

Slim Seat Cushion if 5 cm of lift would upset desk, foot or pedal reach; Portable Travel Seat Cushion added for commuters and frequent flyers. An adjunct that reduces sitting pressure. Not a treatment for sciatica.

Patient view

Scan to open, or send it to your patient: the 1:12 video, home plan and safety-net in plain words.

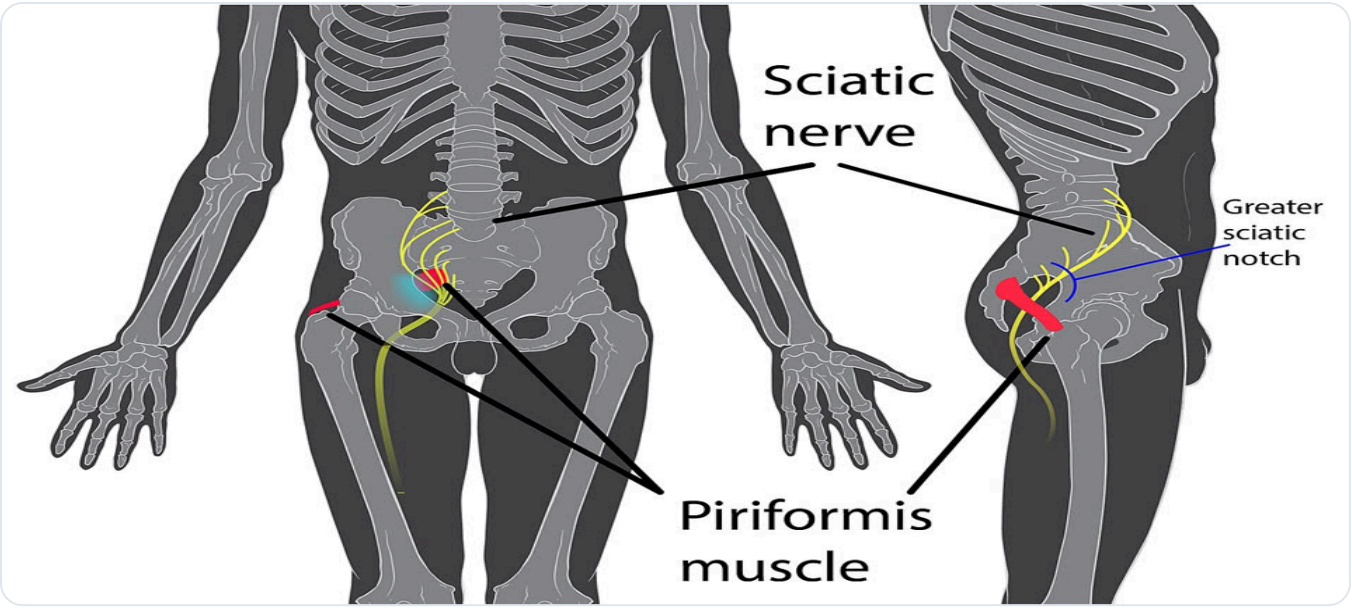
01 Anatomy and pathomechanics

The piriformis arises from the anterior surface of the sacrum (S2–S4), the margin of the greater sciatic foramen and the sacrotuberous ligament, and inserts on the superior border of the greater trochanter. It is supplied by the nerve to piriformis (S1–S2, often with L5). It laterally rotates the extended hip and abducts the flexed hip; past roughly 60–90° of flexion its rotational action reverses towards internal rotation.

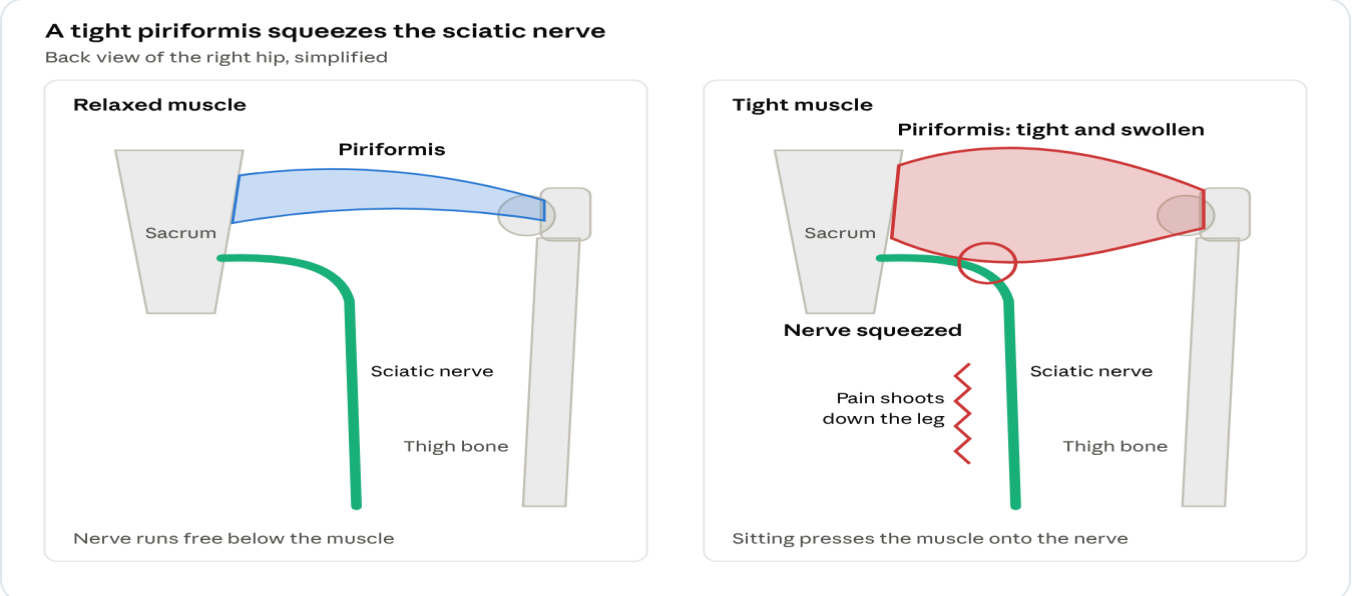
Passing through the greater sciatic foramen, it divides it into supra- and infrapiriform foramina. The sciatic nerve normally leaves through the infrapiriform foramen, deep to the muscle, then runs through the deep gluteal space

between the ischial tuberosity and the greater trochanter. A hypertrophied, shortened or inflamed piriformis can compress or tether the nerve here, producing buttock pain with radiation along the sciatic distribution StatPearls, 2023.

Anatomical variants matter. In cadaver studies about 1 in 6 people (16.9%) have a variant course of the sciatic nerve relative to piriformis Smoll, 2010. The commonest (Beaton and Anson type B) sends the common fibular division through the muscle belly and the tibial division below it, which explains predominantly lateral-leg or dorsum-of-foot symptoms in some patients.



Piriformis (red) and the sciatic nerve (yellow) at the greater sciatic notch. Image: Patrick J. Lynch & KDS4444, Wikimedia Commons, CC BY-SA 2.5.



The patient-facing model, as used in the explainer: relaxed vs tight piriformis, posterior view of the right hip. Use it to explain the mechanism in the session.

02 Aetiology and risk factors

Primary piriformis syndrome comes from an intrinsic cause: anatomical variants of the muscle or nerve, or a split piriformis. **Secondary** piriformis syndrome, the large majority, follows macrotrauma, microtrauma and overuse, local ischaemia or a mass effect in the pelvis StatPearls. Many presentations sit under the wider heading of deep gluteal syndrome, of which piriformis is the best known cause Hernando et al., 2015.

FACTOR	MECHANISM
Prolonged sitting	Sustained compression of the muscle and nerve against the ischium in the deep gluteal space; the most common aggravating load
Hard or uneven seats, a wallet in the back pocket ("wallet neuritis")	High peak pressure on a small area and an asymmetric pelvis, loading one side for hours
Sitting with the symptomatic leg crossed	Hip flexion, adduction and internal rotation: the FAIR position, which tensions piriformis over the nerve
Overuse: running, stair climbing, long walks without warm-up	Repetitive eccentric load as a hip stabiliser; hypertrophy and spasm
Weak hip abductors or external rotators, excessive pronation, leg-length difference	Piriformis overworks to control femoral internal rotation and adduction in stance
Direct trauma (fall on the buttock)	Haematoma, scarring and spasm around the nerve
Anatomical variants	Nerve through or between muscle bellies: little tightness is needed to provoke symptoms

03 Clinical presentation

1. Deep, often unilateral buttock pain, aching or burning, over the line from sacrum to greater trochanter
2. Radiation down the posterior thigh, sometimes to calf and foot, usually not in a clean dermatomal pattern
3. Paraesthesia or numbness in the sciatic distribution
4. Worse with sustained sitting (often unable to sit more than 15–20 min), stairs, squatting and running; eased by walking or standing

Low back pain is typically absent or minor. Dyspareunia is reported in some women. The history often contains a trigger: a new desk job, a long drive or flight, a jump in running volume, or a fall.

04 Assessment

There is no single confirmatory test; the diagnosis rests on a consistent history, provocative tests that reproduce the patient's pain at the piriformis, and exclusion of spinal and other hip causes Chang et al., 2023.

Provocative tests

TEST	HOW	POSITIVE
FAIR (flexion, adduction, internal rotation)	Side-lying on the unaffected side or supine; hip at 60° flexion, knee flexed; examiner adducts and internally rotates the hip	Reproduces buttock or sciatic pain. Sensitivity 0.88, specificity 0.83 against H-reflex delay Fishman et al., 2002
Freiberg sign	Supine; passive forced internal rotation of the extended hip	Buttock pain
Pace sign	Seated; resisted hip abduction and external rotation	Pain or weakness on the affected side
Beatty test	Side-lying on the unaffected side, affected hip flexed, knee resting on the table; patient lifts the knee a few centimetres	Deep buttock pain

TEST	HOW	POSITIVE
Seated piriformis stretch test	Seated, hip at 90°; examiner extends the knee and passively adducts and internally rotates the hip while palpating the piriformis	Reproduces posterior hip pain at the piriformis. Alone: sensitivity 0.52, specificity 0.90 Martin et al., 2014
Active piriformis test	Side-lying; patient presses the heel into the table and abducts and externally rotates against resistance while the examiner palpates the piriformis	Pain at the piriformis. Alone: sensitivity 0.78, specificity 0.80. **Both positive:** sensitivity 0.91, specificity 0.80, LR+ 4.6, LR− 0.11 Martin et al., 2014
Palpation	Along the line from the lateral sacrum to the greater trochanter; per rectal or per vaginal examination by a doctor where indicated	Focal tenderness reproducing the pain; sometimes a palpable taut band

The Martin et al. figures come from 33 patients at a tertiary hip centre with endoscopy as the reference, so they likely overestimate accuracy in general practice. Use the cluster to raise or lower suspicion, not to confirm.

Neurological screen

Myotomes, dermatomes and reflexes are usually normal. A straight leg raise is rarely positive in gluteal entrapment (sensitivity 0.15 in the same study) and does not separate piriformis from disc pathology. A clear dermatomal deficit, reflex change or progressive weakness points to radiculopathy and needs onward assessment.

Investigations

Not needed for a typical presentation that responds to conservative care. When the picture is unclear or not settling: MRI of the lumbar spine to exclude a disc or stenosis; MR neurography may show sciatic nerve signal change or piriformis asymmetry; electrodiagnostics may show H-reflex prolongation in the FAIR position Fishman et al., 2002; an image-guided local anaesthetic injection into the piriformis can be diagnostic as well as therapeutic.

05 Differential diagnosis and red flags

0.3–6% of low-back-pain and sciatica presentations are estimated to be piriformis syndrome: under-diagnosed as a disc, and over-diagnosed when a disc is missed StatPearls

CONDITION	OVERLAP	WHAT POINTS AWAY FROM PIRIFORMIS
Lumbar radiculopathy (L5–S1 disc)	Shooting leg pain and paraesthesia	Back pain, dermatomal distribution, neurological deficit, centralisation with repeated movements, positive slump with lumbar provocation; MRI correlates
Sacroiliac joint pain	Pain in the same buttock area	Positive SIJ provocation cluster (3 of 5: distraction, thigh thrust, compression, sacral thrust, Gaenslen); pain over the PSIS
Proximal hamstring tendinopathy	Ischial pain, worse sitting	Focal tenderness at the ischial tuberosity, pain on loaded hip flexion (bent-knee stretch, Puranen-Orava), no paraesthesia
Ischiofemoral impingement	Deep buttock pain, can irritate the nerve	Pain on hip extension with adduction; long-stride walking test; quadratus femoris oedema on MRI
Greater trochanteric pain syndrome	Lateral hip and buttock ache	Tenderness over the greater trochanter, pain lying on that side, 30-second single-leg stance
Lumbar stenosis or facet pain	Leg pain with back stiffness	Older patient, neurogenic claudication eased by flexion, pain with lumbar extension; piriformis pain changes with sitting, not spinal position

Red flags: stop and refer the same day. Saddle anaesthesia, new bladder or bowel dysfunction, or sexual dysfunction (cauda equina: emergency). Progressive motor weakness or foot drop. Bilateral leg symptoms. History of cancer, unexplained weight loss, fever, night pain unrelieved by rest, immunosuppression or IV drug use. Significant trauma with suspected fracture.

06 Management protocol

Conservative care is first line. Most patients improve within 1–3 weeks of regular exercise StatPearls. The doses below are starting points; adjust to irritability.

PHASE 1 Settle · weeks 0–2

- **Load management:** break up sitting every 30–45 min; wallet out of the back pocket; no crossing the symptomatic leg; pressure-redistributing cushion on the main chair.
- **Soft tissue:** myofascial release and trigger point work to piriformis and the deep rotators.
- **Stretching** within symptom tolerance: supine figure-4 (ankle over opposite knee, draw the knee to the chest), 3 × 30 s, 2–3 times a day.
- **Neural mobilisation:** sciatic sliders if neural sensitivity is high; avoid tensioners while irritable.
- Analgesia or muscle relaxants as advised by the treating doctor.

PHASE 2 Restore · weeks 2–6

- **Progress stretching:** cross-body piriformis stretch, seated figure-4.
- **Neural mobilisation:** progress sliders to tensioners as tolerated.
- **Strength:** hip abductors and external rotators (clamshell, side-lying abduction, bridge, side plank progressions), 2–3 sets of 10–15, 3 times a week; lumbopelvic control.
- **Drivers:** address pronation, leg-length difference, running gait and training load.

PHASE 3 Return · week 6 on

- Graded return to running, stairs and sport.
- Workstation and car seat review so the sitting load stays down.
- Keep a maintenance stretch and strength routine.

Escalate to a doctor if there is no meaningful change after 3–4 weeks of adherent conservative care, if a neurological deficit appears, or if the diagnosis is in doubt. Options there include imaging, an image-guided local anaesthetic or corticosteroid injection, botulinum toxin, and, rarely, surgical release.

07 Why seating matters, and how a cushion helps

Sitting is the load these patients cannot avoid: often 6–10 hours a day at a desk, in a car or on transport. On a hard seat the body weight concentrates on a small contact area under the ischial tuberosities, right beside the sciatic nerve in the deep gluteal space. Hours of that sustained compression keep the tissue irritable between sessions.

Viscoelastic memory foam lets the pelvis sink in, increasing the contact area and lowering peak interface pressure: the same principle of pressure redistribution used in seating for pressure-injury prevention. For this patient it means less compression over the piriformis and nerve through the day, which supports what you do in the clinic.

The patient-facing model: where sitting pressure lands on a hard seat and on a Frido Cloud cushion.

> **Evidence, honestly:** the rationale is mechanical. No trial has tested Frido cushions, or seat cushions in general, as a treatment for piriformis syndrome. Recommend one as an adjunct to load management when sustained sitting is a clear aggravating factor in your findings, not on its own.

08 Choosing the cushion

Default: the Frido Cloud Seat Cushion. It has the thickest memory foam (2 in), the widest pressure spread and a sloped front edge that offloads the posterior thigh along the nerve's course. Put it on the chair the patient sits on longest.

PATIENT PROFILE	RECOMMEND
Desk worker or driver sitting 4+ hours a day	Cloud on the main chair
Fixed-height desk, short stature with feet losing floor contact, low-roof car	Slim: less lift, same geometry
Daily commute, frequent flights or train travel	Cloud at the desk, plus Portable for travel
Coccydynia or ischial bursitis is the main problem	None of the three has a coccyx cut-out; these are not the right products

	DEFAULT **Cloud Seat Cushion**	**Slim Seat Cushion**	**Portable Travel Seat Cushion**
Price (MRP)	**₹1,899** ~~₹2,899~~	**₹1,299** ~~₹2,499~~	**₹1,299** ~~₹1,500~~
Foam	High-density memory foam	Hi-Per memory foam	High-density PU foam, Lycra top
Thickness	2 in (~5 cm)	30 mm	Not listed
Size	18 × 18 in	46 × 46 cm	Foldable
Shape	Contoured, sloped front edge	Flat	Flat, folds with a handle
Weight	Not listed	380 g	~360 g

	DEFAULT **Cloud Seat Cushion**	**Slim Seat Cushion**	**Portable Travel Seat Cushion**
Use it on	Office chair, car, home: the chair the patient sits on longest	Fixed-height desks, dining chairs, low-roof cars	Flights, trains, cabs, stadium seats
Clinical rationale	Most sink and the largest contact area, so the lowest peak pressure under the ischial tuberosities. The sloped front edge offloads the posterior thigh, along the course of the sciatic nerve.	Good pressure redistribution with less lift, so workstation and pedal geometry barely change.	Takes the edge off hard travel seats so offloading continues away from the main chair.
Watch for	Raises the seat about 5 cm: recheck desk height, foot support, and for drivers pedal reach and headroom.	Less sink than the Cloud; no thigh offloading edge.	Firmer PU foam spreads load less than memory foam: an add-on, not the main cushion.

Prices as listed on myfrido.com on 14 Oct 2026; check the product page for today's price.

Setting it up with the patient

- Sit fully back so the pelvis is on the cushion, not perched on the front edge. On the Cloud, the sloped edge faces forward.
- Recheck after adding it: hips level with or slightly above the knees, feet flat (add a footrest if needed), elbows at desk height, screen at eye level.
- Drivers: recheck pedal reach, headroom and mirrors before driving.
- The cushion does not replace breaks: keep standing every 30–45 minutes.

> In the Frido Care app, add a cushion to the plan only when your findings show sitting load is a driver; you accept, edit or drop every suggestion. Frido ships it to the patient directly, or they collect it at a Frido store.

09 Talking to the patient

Explain it in plain words

"Your pain isn't coming from your spine. There's a small muscle deep in your buttock, and the main nerve to your leg runs right beside it. When the muscle gets tight, it squeezes the nerve, and you feel it down the leg. Sitting for hours presses on that spot, so we'll take the pressure off while we loosen and strengthen the muscle."

What to say about the cushion, and what not to

SAY	DON'T SAY
"It spreads your weight so there is less pressure on the muscle and nerve while you sit."	"It treats sciatica" or "it will cure the pain"
"It works alongside your exercises and breaks."	"You won't need the exercises with this"

Frido does not claim any of these cushions treats sciatica or piriformis syndrome. None has a tailbone cut-out.

Exercise demos to send

Every exercise in the plan above, with a short demonstration video and written steps. Send the ones you prescribe, with your own dose.

EXERCISE	PHASE	STARTING DOSE	DEMO
Supine figure-4 piriformis stretch	1	3 × 30 s, 2–3 times a day	Watch
Sciatic nerve slider (slump sitting, head lifts as the knee straightens)	1–2	10–15 smooth reps, short of symptoms	Watch
Cross-body piriformis stretch, supine	2	3 × 30 s, 2–3 times a day	Watch
Seated figure-4 piriformis stretch	2	3 × 30 s; useful at the desk	Watch
Sciatic nerve tensioner (slump sitting, chin down, knee straightens)	2	5–10 reps, only once sliders are symptom-free	Watch
Clamshell	2	2–3 × 10–15, 3 times a week	Watch
Side-lying hip abduction	2	2–3 × 10–15, 3 times a week	Watch
Glute bridge	2	2–3 × 10–15, 3 times a week	Watch
Side plank on knees	2–3	3 × 15–30 s hold, progress to full side plank	Watch

Demonstrations: Physitrack home exercise videos.

Send the patient view

The patient view of this protocol has the explainer, the home plan from Phase 1 and the safety-net in plain words, and leaves out everything clinical. Send it with **Send patient view** at the top of this page, or switch to it with the toggle to go through it together in the session.

Safety-net every patient, out loud as well as in writing: leg weakness, numbness around the groin or back passage, or loss of bladder or bowel control means emergency care the same day; pain not easing in 3 weeks means coming back.

Sources

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5. Diagnostic accuracy of clinical tests for sciatic nerve entrapment in the gluteal region, Martin HD et al. Knee Surgery, Sports Traumatology, Arthroscopy, 2014; 22(4): 882–888 (n = 33, endoscopy as reference)
6. Deep gluteal syndrome: anatomy, imaging, and management of sciatic nerve entrapments in the subgluteal space, Hernando MF et al. Skeletal Radiology, 2015; 44(7): 919–934
7. Exercise demonstrations, Physitrack home exercise videos
8. Frido Cloud Seat Cushion, myfrido.com
9. Frido Slim Seat Cushion, myfrido.com
10. Frido Portable Travel Seat Cushion, myfrido.com

Frido Care Academy is written for physiotherapists and doctors. This guide summarises published evidence to support, not replace, clinical judgement. Online version with the patient explainer and exercise demos: https://care.myfrido.com/academy/piriformis-pseudo-sciatica/