

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered on the slide.

GTPS

HOW DO WE TREAT?

JENS ERIK JØRGENSEN. MSCPT



P.Piriformis
Med: glut med
Min: glut min
TA: Trochanter anterior
TP: Trochanter posterior
VT: Vastus tubercle

[Click on a separate picture](#)

Schematic drawings of the measured parameters (Ta, Tp, BA, Min, Med: medius teston, P: piriformis and VT).

[Images in this article](#)

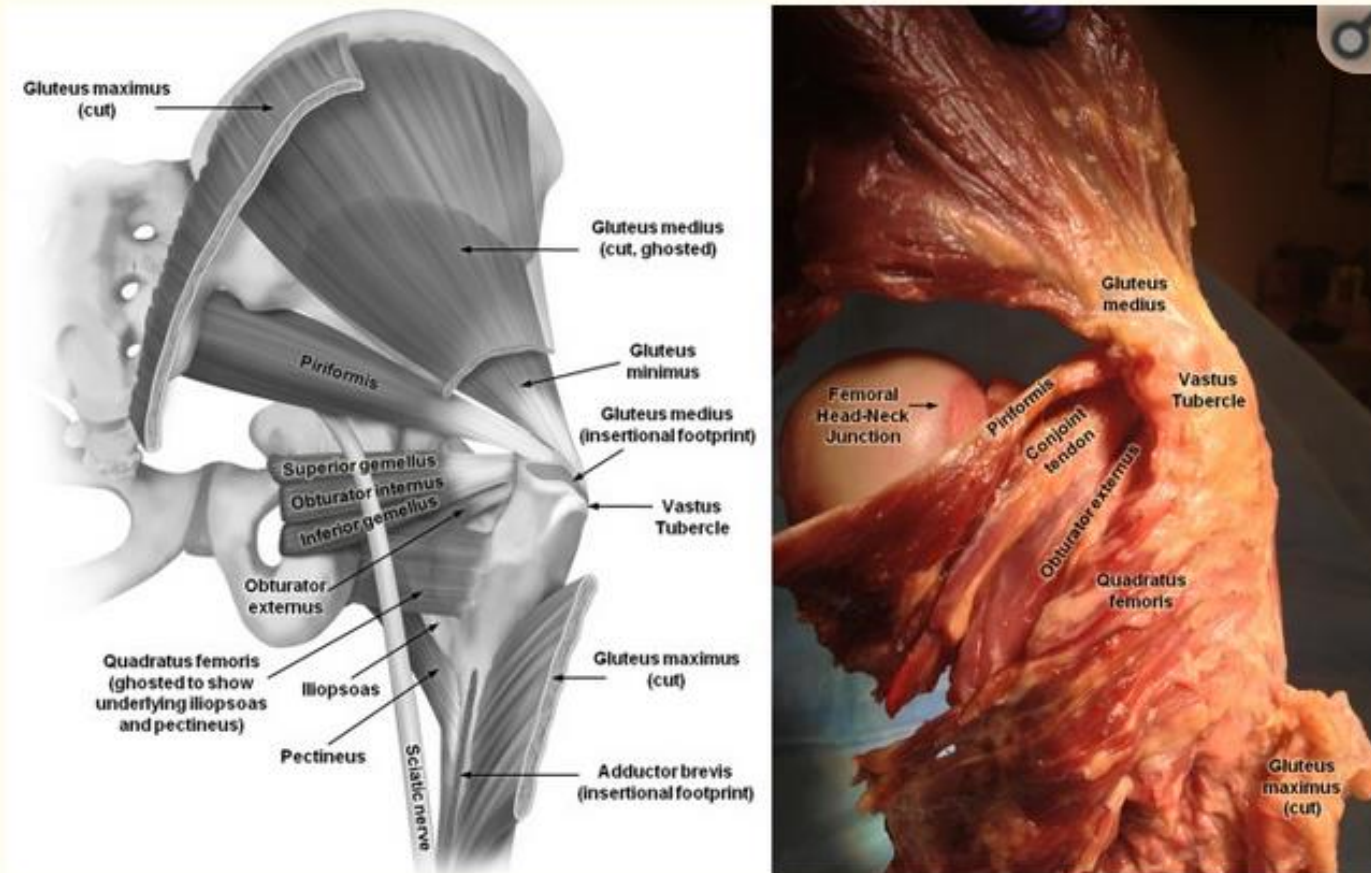


Figure 1.

(Left) Illustration and (right) photograph of posterior view of right hemipelvis with muscles intact on the femur.

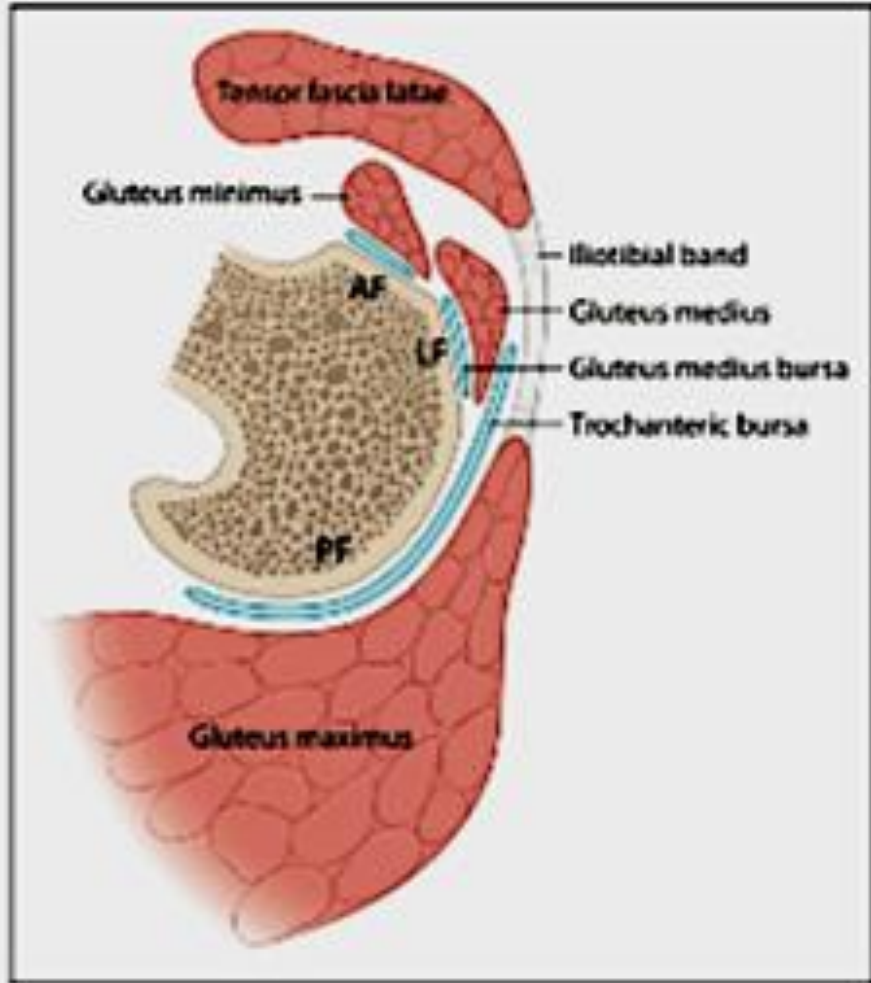


Figure 10: Transverse imaging of the lateral hip at the greater trochanter, probe position (a) and corresponding ultrasound image (b) show the gluteus minimus (Min) attachment on the anterior facet (anterior) and gluteus medius (Med) attachment at the lateral facet (lateral).



Original Article

 **CLINICAL
REHABILITATION**

Focused extracorporeal shock wave therapy for greater trochanteric pain syndrome with gluteal tendinopathy: a randomized controlled trial

**Ettore Carlisi¹ , Miriam Cecini^{1,4},
Giuseppe Di Natali¹ , Federica Manzoni^{2,3},
Carmine Tinelli² and Claudio Lisi¹**

Clinical Rehabilitation

1–11

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 SAGE

- PATIENTS LYING IN LATERAL DECUBITUS POSITION,
- THE ENTHESIS OF THE GLUTEUS MEDIUS ON THE ANTERIOR PART OF THE GREATER TROCHANTER'S LATERAL FACET WAS TARGETED THROUGH A NON-INLINE SONOGRAPHIC FOCUSING
- ALL PATIENTS RECEIVED 1800 PULSES (FREQUENCY=4HZ) OF AN ENERGY FLUX DENSITY OF 0.15 MJ/MM² WITH A PERPENDICULAR TECHNIQUE.
- AT THE FIRST TREATMENT SESSION, THE ENERGY FLUX DENSITY WAS GRADUALLY INCREASED FROM 0.05 TO 0.15MJ/MM² DURING THE FIRST 300 PULSES.



A commentary by Mengnai Li, MD, PhD, is linked to the online version of this article at jbjs.org.

Focused Shockwave Treatment for Greater Trochanteric Pain Syndrome

A Multicenter, Randomized, Controlled Clinical Trial

- AN F-ESWT DEVICE (DUOLITH SD1 ULTRA; STORZ MEDICAL) WAS USED.
- PATIENTS WERE TREATED IN THE LATERAL DECUBITUS POSITION
- ULTRASONIC GUIDE TO CONCENTRATE THE SHOCKWAVES ON THE GREATER TROCHANTER AREA OF THE GLUTEUS TENDONS ENTESIS.
- BOTH GROUPS WERE TREATED WITH 3 WEEKLY SESSIONS.
- AT EACH SESSION, 2,000 IMPULSES WERE APPLIED WITH A FREQUENCY OF 5.0 HZ.
- THE F-ESWT GROUP RECEIVED AN ENERGY FLUX DENSITY (EFD) OF 0.20 MJ/MM²
- THE CONTROL GROUP RECEIVED 0.01 MJ/MM² (THE LOWEST EFD OF THE DEVICE).

A Study Protocol for a Pragmatic Clinical Trial Evaluating Clinical Predictors of Extracorporeal Shockwave Therapy Efficacy in Patients Presenting with Lateral Hip Pain.

Jens Erik Jorgensen¹, Angela Fearon², Jane Andreasen^{4,5}, Jens Kristinsson³, Carsten M Mølgaard^{3,4},

- The patient will be treated in the **lateral decubitus position**.
- **3 weekly sessions**.
- The shock wave focuses on the **area of maximal tenderness**, and treated in a circumferential pattern.
- The point of maximum tenderness over the greater trochanter with **active myofascial trigger points**, which in this region may include piriformis, gluteus max (GMax), GMed, GMin and tensor fascia lata (TFL)).
- **The point of maximum tenderness over the greater trochanter will be included** in the treatment regime, as this is a criterion for the diagnosis of GTPS.

- Treatment will commence with an energy density of 0.05 mJ/mm^2 , which will increase in a progressive incremental manner.
- The physiotherapist will adjust the energy density to the subject's maximal tolerable level after every 200 impulse application, based on pain feedback from the patient.
- Energy flux density (EFD) of vary from 0.05 mJ/mm^2 - 0.40 mJ/mm^2
- Impulses vary from 2000 – 7000 per treatment, depending on pain levels and number of triggerpoints treated
- Fewer triggerpoints during treatment period, and higher energy flux levels during treatment period except for “sensitive” patients

