

Lower Limb Mnemonics

Femoral Triangle: Contents

NAVY:

- In order from lateral to medial:
 - Nerve
 - Artery
 - Vein
 - Y of the groin
- Alternatively: Y = Y-fronts [male underwear].

Femoral Triangle: Boundaries

"Femoral triangle is shaped like a SAIL":

Sartorius
Aductor longus
Inguinal Ligament

Inversion vs Eversion Muscles in Leg

Second letter rule for inversion/eversion:

- Eversion muscles:
 - pErineus longus
 - pErineus brevis
 - pErineus terius
- Inversion muscles:
 - tIbialis anterior
 - tIbialis posterior

Fibula vs Tibia: Based on size in the x-ray

People talk of telling just a "little white lie", or a "little white fib":

Therefore, the **fibula** is the **littler** white bone on the x-ray.

- Alternatively: **TIB**ia is the **Thicker Inner Bone**.
- Alternatively: "Little lat FIB, big fat TIB".

Hip: Lateral Rotators

"Play Golf Or Go On Quaaludes":

- From top to bottom:
 - Piriformis
 - Gemellus superior
 - Obturator internus
 - Gemellus inferior
 - Obturator externus
 - Quadratus femoris
- Alternatively: "P-GO-GO-Q"

Tarsal Bones of Ankle

"Tiger Cubs Need MILC":

Superior, then clockwise on right foot:

Talus
Calcaneus
Navicular
Medial cuneiform
Intermediate cuneiform
Lateral cuneiform
Cuboid

Thigh: Lateral Rotators

"Pretty Girls Often Get Off Quickly":

Piriformis
Gemellus superior
Obturator internus
Gemellus inferior
Obturator externus
Quadratus femoris

Adductor Magnus Innervation

"AM SO!":

Adductor Magnus innervated by Sciatic and Obturator.

Femoral Hernia: Epidemiology

FEMoral hernias are more common in FEMales.

Lumbar Plexus

"I, I Get Laid On Fridays":

Iliohypogastric [L1]
Ilioinguinal [L1]
Genitofemoral [L1, L2]
Lateral femoral cutaneous [L2, L3]
Obturator [L2, L3, L4]
Femoral [L2, L3, L4]

· Alternatively: "I twice Get Laid On Fridays".

· Alternatively: "Interested In Getting Laid On Fridays?"

Buttock Quadrant SAFEST for Needle Insertion

"Shut up and butt out":

The Upper Outer quadrant of the Buttock safely avoids hitting sciatic nerve.

Femoral Triangle: Arrangement of Contents

NAVEL:

- From lateral hip towards medial **navel**:
 - Nerve** (directly behind sheath)
 - Artery** (within sheath)
 - Vein** (within sheath)
- Empty space (between vein and lymph)
- Lymphatics (with deep inguinal node)
- Nerve/Artery/Vein are all called Femoral.

Tibia vs Fibula: which is Lateral

The **FibuLA** is **Lateral**

Ankle: Anterior Compartment of Leg Contents

"The Hamptons Are Never Dull Parties":

- From medial malleolus:
 - Tibialis anterior tendon**
 - (Extensor) **Hallacus longus**
 - Artery** (anterior tibial)
 - Nerve** (deep peroneal)
 - (Extensor) **Digitorum**
 - Peroneus tertius**

Femoral Triangle: Boundaries

"So I May Always Love Sally":

- Superiorly: Inguinal ligament
- Medially: **Adductor longus**
- Laterally: **Sartorius**

Medial Malleolus: Order of Tendons, Artery, Nerve behind it

"Tom, Dick, And Nervous Harry":

- From anterior to posterior:
 - Tibialis**
 - Digitorum**
 - Artery**
 - Nerve**
 - Hallicus**
- Full names for these are: Tibialis Posterior, Flexor Digitorum Longus, Posterior Tibial Artery, Posterior Tibial Nerve, Flexor Hallicus Longus.
 - Alternatively: "**Tom, Dick AND Harry**".
 - Alternatively: "**Tom, Dick And Not Harry**".

Cruciate Ligaments: Insertions

PAMS APPLES:

Posterior [passes] Anterior [inserts] Medially.
Anterior [passes] Posteriorly [inserts] Laterally.

Leg: Anterior Muscles of Leg

"The Hospitals Are Not Dirty Places":

T: Tibialis anterior
H: extensor Hallucis longus
A: anterior tibial Artery
N: deep fibular Nerve
D: extensor Digitorum longus
P: Peronius tertius [aka fibularis tertius]

Popliteal Fossa: Medial to Lateral Arrangement

"Serve And Volley Next Ball":

Semimembranosus/ Semitendinosus
Artery
Vein
Nerve
Biceps femoris

· Lateral and medial heads of Gastrocnemius are inferior borders.

Thigh: Innervation by Compartment

"MAP OF Sciatic":

Medial compartment: Obturator
Anterior compartment: Femoral
Posterior compartment: Sciatic

· So all the thigh muscles in that compartment get innervated by that nerve.

Femoral Triangle: Arrangement of Nerve, Artery, Vein

VAN:

· From medial to lateral:

Vein
Artery
Nerve

· Nerve/Artery/Vein are all called Femoral.

Popliteal Fossa: Muscles Arrangement

The two Semi's go together, Semimembranosus and Semitendinosus.

The **Membranosus is Medial** and since the two semis go together, Semitendinosus is also medial.

Therefore, Biceps Femoris has to be lateral.

Of the semi's, to remember which one is superficial: **the Tendinosus is on Top.**

Soleus vs Gastrocnemius Muscle Function

"Stand on your Soles. Explosive gas":

You **stand** on soles of your shoes, so **Soleus** is for posture.

Gasoline is explosive, so **Gastrocnemius** is for **explosive** movement.

Tarsal Bones

"Tall Californian Navy Medical Interns Lay Cuties":

· In order (right foot, superior to inferior, medial to lateral):

Talus

Calcaneus

Navicular

Medial cuneiform

Intermediate cuneiform

Lateral cuneiform

Cuboid

Lumbar Plexus Roots

"2 from 1, 2 from 2, 2 from 3":

2 nerves from **1** root: Iliohypogastric (L1), Ilioinguinal (L1).

2 nerves from **2** roots: Genitofemoral (L1,L2), Lateral Femoral (L2,L3).

2 nerves from **3** roots: Obturator (L2,L3,L4), Femoral (L2,L3,L4).

Lower Limb Peripheral Nerve Injuries

"Drop into a DEEP PIT and shuffle your way out":

Foot **Drop** results from **Dorsiflexors** and **Evertors** paralysis, due to common **Peroneal** nerve lesion.

Plantarflexion and **Inversion** impairment due to **Tibial** nerve lesion, results in a **shuffling** gait.

Hip Posterior Dislocation: Most Likely Arrangement for One

"Hitting the brake pedal before the accident":

You are sitting, so hip is flexed, and adducted and medially rotated so can move your foot away from the gas pedal over to the brake pedal.

· Note: car accidents are most likely cause of posterior dislocation because in this position.

Hip: Lateral Rotators

"Piece Goods Often Go On Quilts":

Piriformis
Gemellus superior
Obturator internus
Gemellus inferior
Obturator externus
Quadratus femoris

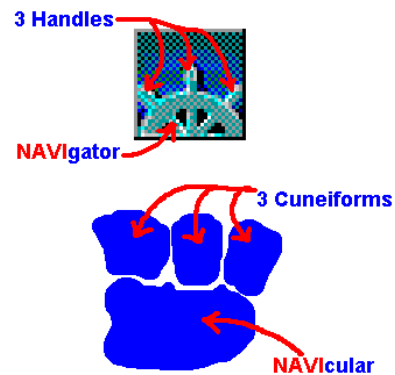
Navicular Contacts 3 of 5 Cuneiform Bones

"Navicular is like the Navigator logo":

There are 3 things coming off each.

· See diagram.

Therefore, cuboid has to contact 2 of the 5.



Tarsal Tunnel: Contents

"Tiny Dogs Are Not Hunters":

· From superior to inferior:

T: Tibialis posterior

F: flexor Digitorum longus

A: posterior tibial Artery

N: tibial Nerve

H: flexor Hallucis longus

Tarsal Bones

"Traverse City (is) Noted (for) Michigan's Lovely Cherries":

Talus

Calcaneus

(new row)

Navicular

(new row)

Medial Intermediate cuneiforms

Lateral cuneiform

Cuboid

Psoas Major: Innervation

If you hit **L2, 3, 4**
Psoas gets sore!

Genu Valgum vs Genu Vargum

Genu val**GUM** (knock-knee): knees are **GUM**med together.

· Varum (bowleg) is the other by default, or **Far** rhymes with **Var**, so knees are **far** apart.

Tibia vs Fibula: Sizes

The Fibula is **thin** like a **Flute**.

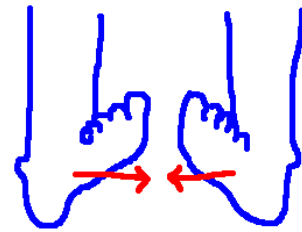
The Tibia is **thick** like a **Tuba**.

Inversion vs Eversion Direction in the Foot

Little **INTroVERT**ed boys **roll their feet in** when talking to girls.

Also, can just watch which way the sole of the foot goes: does it face in or out?

· See diagram.



INversion:
INtroverted child rolling feet when talking to someone.
Soles of feet point **IN**

Sacral Plexus: Posterior Components

"Common Gluttons For Punishment":

Common fibular

Gluteals (superior and inferior)

Femoral cutaneous (Posterior)

Piriformis nerve

Saphenous Veins: Path of Great vs Small at Malleolus

"MAGdelaine has varicose veins"

[The saphenous veins are important for varicose veins]:

Medial maleolus, **A**nterior to maleolus, and **G**reat saphenous go together.

Then the opposites of these go together: **S**mall saphenous is **posterior** to the **lateral** maleolus.

Plantarflexion vs. Dorsiflexion

Plantar flexion occurs when you squish a **Plant** with your foot.

Lower limb: Muscles between Upper Legs

"There's a **GAP** between upper legs when you sit without closing your knees":

Gastrocnemius
Adductors
Pectinious

Menisci Attachments in Knee

"Each meniscus has something attached to it":
The medial meniscus has the medial collateral ligament.
The lateral meniscus is attached to the popliteal muscle.

Femoral Artery Deep Branches

"Put My Leg Down Please":

Profundus femoris (deep femoral artery)
Medial circumflex femoral artery
Lateral circumflex femoral artery
Descending genicular arteries
Perforating arteries