

From where	Semitendinosus	Semimembranosus	Long head of biceps femoris	Short head of biceps femoris
<b>Origin</b>	Lower medial part of Upper area Ischial tuberosity	Upper lateral part of the Upper area Ischial tuberosity	Lower medial part of Upper area Ischial tuberosity	- lower part of the linea aspera and - upper part of the lateral supracondylar line
<b>Insertion</b>	Pes anserinus ("goose foot") refers to the conjoined tendons of three muscles (S.G.S) that <b>insert into</b> {upper part of the medial surface of the tibia} (sartorius, gracilis and semitendinosus from superficial to deep).	- Some fibers are reflected upwards and laterally to form the posterior oblique ligament of knee joint.  - groove on the back of the medial condyle of the tibia.	apex of head ( styloid process of the fibula)	
<b>Nerve supply</b>	sciatic nerve			sciatic nerve through common peroneal nerve.(lateral side)
<b>Action</b>	1- Extension of the hip Joint 2- Flexion of the knee joint.	1- Extension of the hip Joint 2- Flexion of the knee joint. 3- Medial rotator of the semi flexed leg.	1- Extension of the hip Joint ( long head) 2- Flexion of the knee joint. 3- Only Lateral rotator of the semi flexed leg.	

The short head has 3 exception:

1- origin: from lower part of the linea aspera and upper part of the lateral supracondylar line

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2- nerve supply: sciatic nerve through common peroneal nerve.

3- the nerve exposed from the lateral side

From where	Posterior cutaneous nerve of thigh	Sciatic nerve
<b>Roots</b>	from anterior divisions (S.2,3) and posterior divisions (S.1,2) of sacral plexus.	<ul style="list-style-type: none"> <li>• Roots of sacral plexus <ul style="list-style-type: none"> <li>• Lumbosacral trunk ventral rami of L.4,5</li> <li>• Ventral rami S. 1, 2, 3, 4</li> <li>• Each ramus divided into anterior and posterior division</li> </ul> </li> </ul>
<b>Course and Relation</b>	<ul style="list-style-type: none"> <li>- It comes out from the greater sciatic foramen below the piriformis.</li> <li>- It descends under cover of the gluteus maximus then under cover of the deep fascia in the back of the thigh.</li> <li>- It pierces the deep fascia covering the popliteal fossa and terminates by supplying the skin of the upper part of the calf.</li> <li>- It descends on Superior gemellus muscle, Tendon of obturator internus muscle, Inferior gemellus muscle, Quadratus femoris muscle.</li> </ul>	<p><b>** Surface marking of sciatic nerve</b></p> <p>1 - A point at junction of upper 1 /3 and lower 2 /3 of a line between posterior superior iliac spine (PSIS) and ischial tuberosity (Exit from greater sciatic foramen) .</p> <p>2- A point nearly midway between the ischial tuberosity and greater trochanter.</p> <p>3- A point in the back of the thigh at the apex of the popliteal fossa where divided into tibial nerve and common peroneal nerve</p> <p><b>** During an above knee amputation , The nerve is accompanied by an artery called companion artery of sciatic nerve (a branch from inferior gluteal artery). This artery must be ligated to avoid severe bleeding.</b></p>
<b>Branches</b>	<ul style="list-style-type: none"> <li>1- Gluteal branch to skin of lower part of the gluteal region.</li> <li>2- Perineal branch; to the skin of the perineum.</li> <li>3- Cutaneous branches: to the back of the thigh, roof of the popliteal fossa and upper part of the calf.</li> </ul>	<ul style="list-style-type: none"> <li>1- Muscular branches</li> <li>2- Articular branches to the hip joint.</li> <li>3- Terminal branches <ul style="list-style-type: none"> <li>1- Tibial nerve (medial).</li> <li>2- Common peroneal nerve (lateral).</li> </ul> </li> </ul> <p><b>** During operation the nerve exposed from the lateral side because all muscular branches arise from medial side except branch to <b>the short head of the biceps.</b></b></p>

From where	Sciatic nerve
<b>** Variation of the sciatic nerve:</b>	<ul style="list-style-type: none"> <li>- The nerve may leave the pelvis as two separate parts: <ul style="list-style-type: none"> <li>a- Tibial nerve passes below the piriformis muscle and takes course of the sciatic nerve.</li> <li>b- Common peroneal nerve passes either <ul style="list-style-type: none"> <li>1- Above the piriformis muscle.</li> <li>2- Through the piriformis muscle.</li> <li>3- Below the piriformis muscle..</li> </ul> </li> </ul> </li> </ul>
<b>** Intramuscular Injections</b>	in the upper lateral quadrant of the gluteal region to avoid Injection in sciatic nerve.
<b>◆ Sciatica</b>	<ul style="list-style-type: none"> <li>• sciatica wound</li> <li>• Sudden and severe pain in low back (lumbar)</li> <li>• Pain radiates to buttock, down to back of leg and foot (along the nerve pathway)</li> <li>• The pain vary widely, from a mild to sharp, burning sensation or severe pain.</li> <li>• Sometimes it can feel like an electric shock.</li> <li>• Numbness and tingling sensation along the nerve pathway</li> <li>• Muscle weakness</li> </ul>
<b>◆ Injury of the sciatic nerve</b>	<ul style="list-style-type: none"> <li>1- Motor; foot drop (resulting from the effect of gravity) <ul style="list-style-type: none"> <li>a- Paralysis of the hamstring muscles.</li> <li>b- Complete paralysis of all muscles of the leg and foot.</li> </ul> </li> <li>2- Sensory; Loss of cutaneous sensations of the leg and foot except <ul style="list-style-type: none"> <li>a- Medial side of leg and foot supplied by saphenous nerve (femoral N).</li> <li>b- Upper part of calf supplied by posterior cutaneous nerve of the thigh.</li> </ul> </li> </ul>

<b>From where</b>	<b>Popliteal fossa</b>
<b>Boundaries</b>	<ul style="list-style-type: none"> <li>- Upper medial: <ul style="list-style-type: none"> <li>1. Semimembranosus</li> <li>2- Semitendinosus</li> </ul> </li> <li>- Lower media: <ul style="list-style-type: none"> <li>1- Medial head of gastrocnemius</li> </ul> </li> <li>- Upper lateral: <ul style="list-style-type: none"> <li>1- Biceps femoris</li> </ul> </li> <li>- Lower lateral: <ul style="list-style-type: none"> <li>1- Plantaris</li> <li>2- Lateral head of gastrocnemius</li> </ul> </li> </ul>
<b>Roof</b>	<ul style="list-style-type: none"> <li>1- skin</li> <li>2- superficial fascia and deep fascia.</li> <li>- It is pierced by posterior cutaneous nerve of thigh</li> </ul>
<b>Site</b>	intermuscular space in the back of the lower part of the thigh, knee and upper part of the leg
<b>Shape</b>	diamond-shape
<b>Floor of popliteal fossa</b>	<ul style="list-style-type: none"> <li>- Upper part is formed by the popliteal surface of the femur.</li> <li>- Middle part is formed by the back of the capsule of knee joint.</li> <li>- Lower part is formed by the fascia covering the popliteus muscle.</li> <li>• The distal border of the popliteus forms the lower limit of the fossa.</li> <li>• When the knee is flexed: the fossa will form a hollow because the tendons of the upper boundaries stand away from the femur.</li> <li>• When the knee is extended : the fossa bulge backward as the tendons lie close to the femur .</li> </ul>
<b>Contents</b>	<ul style="list-style-type: none"> <li>1- Tibial nerve and its branches.</li> <li>2- Common peroneal nerve and its branches.</li> <li>3- Popliteal artery and its branches (the deepest structures).</li> <li>4- Popliteal vein and its tributaries (it lies superficial to the artery).</li> <li>5- Popliteal lymph nodes .</li> <li>6 - Popliteal fat.</li> <li>7 - Posterior cutaneous nerve of the thigh .</li> <li>8 - Small saphenous vein .</li> </ul>

