

From where	Common peroneal nerve	Superficial Peroneal nerve (musculocutaneous)
Origin	one of the two terminal branches of the sciatic nerve (Smaller)	<p>** It is the smaller of two terminal branches of common peroneal nerve within substance of peroneus longus.</p> <ul style="list-style-type: none"> - It descends through substance of peroneus longus. - Then between peroneus longus and brevis. - Then, it pierces deep fascia where it becomes subcutaneous. <p>** It divides into medial and lateral terminal branches, descend superficial to extensor retinacula to dorsum of foot</p>
Root	It arises from L. 4, 5, S. 1, 2	-----
Course	<ul style="list-style-type: none"> - It enters the popliteal fossa at its upper angle and descends downwards and laterally close to the medial side of the biceps femoris. - It leaves the fossa through its lateral angle where it crosses plantaris and lateral head of gastrocnemius. 	-----
Ends	it curves on the lateral side of the neck of the fibula (the commonest site of injury) then, divides into deep and superficial peroneal nerves, inside the peroneus longus.	-----
Branches	<p>I- No muscular branches in the popliteal fossa.</p> <p>II- Articular branches to the knee joint.</p> <ol style="list-style-type: none"> 1- Superior lateral genicular nerve. 2- Inferior lateral genicular nerve. 3- Recurrent genicular nerve. <p>III- Cutaneous branches:</p> <ol style="list-style-type: none"> a. Lateral cutaneous nerve of the calf; supplies the skin of the lateral, and anterior surfaces of the upper part of the leg. b- Sural communicating nerve. <p>IV- Terminal branches:</p> <ol style="list-style-type: none"> 1- Deep peroneal (anterior tibial) nerve to the anterior compartment of the leg. 2- Superficial peroneal, (musculocutaneous) nerve to the lateral compartment of the leg. 	<p>A- Muscular branches: two 2 peronei longus and brevis.</p> <p>B- Cutaneous branches 1) The lower part of the lateral side and front of the leg. 2) Intermediate part of the dorsum of the foot.</p> <p>C- Medial terminal division: divides into 2 dorsal digital branches 1- Medial branch to the medial side of the big toe. 2- Lateral branch for adjacent sides of 2nd and 3rd toes.</p> <p>D- Lateral terminal division divides into 2 dorsal digital branches: 1- Medial branch for adjacent sides of 3rd and 4th toes. 2- Lateral branch for adjacent sides of 4th and little toes.</p>
Cutaneous branch	Cutaneous Nerve Supply of Dorsum of Foot: A- Dorsum of the foot. 1- Intermediate part by superficial peroneal nerve. 2- Medial by Saphenous nerve from femoral nerve.	♦ Cutaneous Nerve Supply of Dorsum of Foot : A- Dorsum of the foot. 1- Intermediate part by superficial peroneal nerve.

	<p>3- Lateral part by sural nerve from tibial nerve.</p> <p>B- Dorsum of the toes; - All the dorsum of the toes supplied by the superficial peroneal nerve except 2 areas;</p> <p>1- The adjacent sides between big toe and 2nd toe by the deep peroneal nerve.</p> <p>2- Lateral side of the little toe by the sural nerve.</p>	<p>2- Medial by Saphenous nerve from femoral nerve.</p> <p>3- Lateral part by sural nerve from tibial nerve.</p> <p>B- Dorsum of the toes; - All the dorsum of the toes supplied by the superficial peroneal nerve except 2 areas;</p> <p>1- The adjacent sides between big toe and 2nd toe by the deep peroneal nerve.</p> <p>2- Lateral side of the little toe by the sural nerve.</p>
Injury	<p>** Causes: Fracture of the neck of the fibula (The commonest site & dangerous position).</p> <p>** Effect of injury:</p> <p>1- Motor; Paralysis of muscles of the leg</p> <ul style="list-style-type: none"> - Anterior compartment (deep peroneal N) - Lateral compartment (superficial peroneal) <p>- Deformity: Foot drops (manifested by plantar <i>flexion and Inversion</i>).</p> <p>2- Sensory; Decreased sensation, numbness, or tingling and pain on 1) Anterolateral of lower part of the leg.</p> <p>2) Dorsum of the foot except medial side supplied by saphenous nerve (femoral nerve) and lateral side by sural nerve (tibial nerve)</p> <p>3) Dorsum of toes except lateral side of little toe (sural nerve).</p>	<p>-----</p>

Lateral compartment of the leg

From where	Peroneus Longus	Peroneus Brevis
Origin	From upper 2/3 of lateral surface of fibula.	From lower 2/3 of lateral surface of fibula.
Note	** Peroneus longus passes superficial to peroneus brevis behind lateral malleolus then deep to peroneal retinacula inside synovial sheath	
Insertion	crosses sole of foot from lateral to medial to base of the first metatarsal bone and medial cuneiform bone.	base of 5th metatarsal bone.
Nerve supply	Superficial peroneal nerve.	
Actions	1- Plantar flexion of the foot. 2- Eversion of the foot. 3- Peroneus longus Plays an important role in supporting transverse arch of foot.	

Deep peroneal nerve (anterior tibial)

From where	Anterior tibial (Deep Peroneal) Nerve	
Origin	one of the two terminal branches of the common peroneal nerve, at the lateral side of the neck of the fibula.	
Course and relations in the leg	<p>1- It passes through the extensor digitorum longus.</p> <p>2- Upper part, between Tibialis anterior (Medial) and extensor digitorum longus.</p> <p>3- Middle part, between Tibialis anterior (Medial) and extensor hallucis longus.</p> <p>4- It is crossed by extensor hallucis longus from lateral to medial</p> <p>5- Lower part, between Extensor hallucis longus (Medial) & extensor digitorum longus.</p> <p>6- Relation of the anterior tibial artery to the nerve,</p> <p style="padding-left: 20px;">a- Upper part of the leg, the nerve is lateral to the artery.</p> <p style="padding-left: 20px;">b- Middle part of the leg, the nerve becomes anterior to the artery.</p> <p style="padding-left: 20px;">c- Lower part of the leg, the nerve returns lateral to the artery.</p>	
Termination	by dividing into medial and lateral terminal branches.	
Branches of deep peroneal nerve	<p>1- Muscular branches to muscles of the anterior compartment</p> <ul style="list-style-type: none"> • Tibialis anterior, Extensor digitorum longus, Extensor hallucis longus and Peroneus tertius muscles <p>2- Articular branches: to the ankle joint.</p> <p>3- Terminal branches in the foot</p> <p>I- Medial terminal branch:</p> <ul style="list-style-type: none"> - Cutaneous to the adjacent sides of the big and 2nd toes. - Articular branches to the joints of the foot. <p>II- Lateral terminal branch: ends by ganglia and gives</p> <p>1- Muscular to the extensor digitorum brevis.</p> <p>2- Articular to the joints of the foot.</p>	
Injury of the deep peroneal nerve	Causes	Fracture neck of the fibula. Stab wound.
	Results of injury	<p>1. Motor affects; paralysis of muscles of anterior compartment leading to</p> <ul style="list-style-type: none"> - Loss of dorsiflexion and extension of toes. - Weakness of inversion of the foot. <p>** Deformity, Foot drop</p> <ul style="list-style-type: none"> • Gait: high steppage gait. <p>2- Sensory affects; Loss of sensation of adjacent sides of the big and 2 nd toe</p>

Extensor retinaculum of foot

From where	Extensor Retinaculum
Def	Thickened band of the deep fascia
Attachment	<p>1- Superior Extensor Retinaculum, ** Attachment; lower part of anterior border of fibula (Lateral) to lower part of anterior border of the tibia (Medial) .</p> <p>2- Inferior, Y shaped band ** Attachment;</p> <ul style="list-style-type: none"> - Laterally, Stem attached to superior surface of the calcaneus. - Medially, a- Upper band medial malleolus. b- Lower band fuses with deep fascia of foot.
Structures passing deep	<ul style="list-style-type: none"> - Tibialis anterior - Extensor Hallucis longus - Anterior tibial Vessel - Anterior tibial (deep peroneal Nerve - Extensor Digitorum longus - Peroneus tertius
Structures passing superficial	<ol style="list-style-type: none"> 1. Superficial peroneal nerve. 2. Great saphenous vein. 3. Saphenous nerve.

Muscles of anterior compartment of leg

From where	Tibialis anterior	Extensor digitorum longus	Extensor hallucis longus	Peroneus tertius	Extensor Digitorum Brevis
Origin	- From the upper 2/3 of the lateral surface of the tibia and interosseous membrane.	- from the upper 3/4 of the anterior surface of the fibula and interosseous membrane.	- From the middle 2 /4 of the anterior surface of the fibula and interosseous membrane.	- From the lower 1 /4 of the anterior surface of the fibula and interosseous membrane.	- anterior surface of the calcaneus and inferior extensor retinaculum.
Insertion	- medial surface of medial cuneiform bone - Adjacent part of base of the first metatarsal bone.	- They join the extensor expansions on the proximal phalanges of the lateral 4 toes, Then divided into a- Middle slip into the dorsal aspect of the middle phalanges. b- 2 collateral slips into the bases of the distal phalanges.	dorsum of the base of the distal phalanx of the big toe.	dorsum of base of the 5th metatarsal bone.	It divides into 4 slips for the medial 4 toes. 1- The medial slip is inserted into dorsum of the base of the proximal phalanx of the big toe (extensor hallucis brevis). 2- The lateral 3 slips are inserted into the extensor expansion of the 2 nd , 3 rd and 4 th toes.
Nerve supply	deep peroneal Nerve (anterior tibial Nerve)				lateral branch of the deep peroneal nerve
Action	1- Dorsiflexion of the foot (ankle joint) 2- Inversion of the foot. 3- Support and maintain the medial longitudinal arch of the foot	1- Dorsiflexion of the foot (ankle joint) 2- Extension of the all joints of the lateral 4 toes.	1- Dorsiflexion of the foot (ankle joint) 2- Extension of all joints of the big toe.	1- Dorsiflexion of the foot (ankle joint) 2- Eversion of the foot.	Extension of the medial 4 toes.
Blood supply	Anterior tibial vessels				-----
Note	• All muscles of anterior group arise from the anterior surface of fibula except tibialis anterior from lateral surface of tibia.				-----

Extensor expansion of the toes

From where	Extensor Expansions of the Toes
Site	on the dorsum of the proximal phalanges of the lateral 4 toes
Formation	<p>1- The 2nd, 3rd and 4th toes, it is formed of</p> <ol style="list-style-type: none">1) Tendons of extensor digitorum longus and brevis.2) One lumbrical muscle.3) Two interossei muscles. <p>2- The little toe is formed by</p> <ol style="list-style-type: none">1) Tendon from the extensor digitorum longus only.2) One lumbrical muscle.3) One interossei muscles.
Insertion	<p>The expansion divides into 3 slips.</p> <ol style="list-style-type: none">1. The middle slip is inserted into the base of the middle phalanx.2. Two collateral slips join together to be inserted into the base of the distal phalanx.
Action	Extension of the inter-phalangeal and metatarso-phalangeal joints of the lateral four toes.