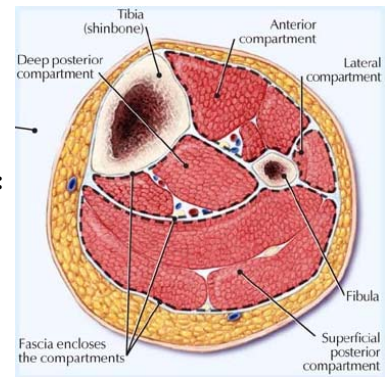


# MUSCLES ACTING ON THE ANKLE AND FOOT

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Martini's 6<sup>th</sup>, pp 367-377, 7<sup>th</sup>: 363-372, 8<sup>th</sup>: 371-383, 9<sup>th</sup>: 367-367, 10<sup>th</sup>:

1Dec81, rvsd 5Dec96, 4Dec97, 2Dec99, 27Nov00, 28Nov01, 4Dec02, 26 Nov 03, 1 Dec 03, 21 Nov 05, 28Nov07, 1 Dec08, 30Nov09, 29Nov10, 30Nov11, 5Nov15



left leg:

## THREE COMPARTMENTS OF THE LEG: (p 375) (Table: 11-17)

### ANTERIOR COMPARTMENT: dorsiflex foot, extends toes.

tendons of insertion are held down by two retinacula at ankle

<b>tibialis anterior</b>	insertn: medial cuneiform, 1st metatarsal dorsiflex, invert (small tears = shin splints)
<b>extensor digitorum longus</b>	insertn: superior surf of phalanges 2-5
<b>extensor hallucis longus</b>	insertn: superior surf dist 1 <sup>st</sup> phalanx

extends toes  
2-5, everts foot  
extends great toe, inverts foot

### LATERAL COMPARTMENT: everts foot. (Very small compartment)

<b>fibularis (peroneus) longus</b>	insertn: 1st metatarsal, med cuneiform (tendon <i>under</i> foot)	evert foot, plantar flex
<b>fibularis (peroneus) brevis</b>	insertn: lateral side of 5th metatarsal	evert foot, plantar flex

### POSTERIOR COMPARTMENT, SUPERFICIAL: all but last plantar flex foot

<b>gastrocnemius</b>	origin: lateral and medial condyles of femur	insertn: Achilles tendon plantar flex
<b>soleus</b>	origin: fibula and tibia	insertn: Achilles tendon plantar flex
<b>plantaris</b>	origin: post. surf femur, above lateral condyle	insertn: posterior calcaneus plantar flex
<b>popliteus</b>	origin: lat. condyle femur	insertn: post tibia pl.flex, med rotates leg

### POSTERIOR, DEEP: These internal muscles have tendons which pass behind medial malleolus, act on foot and toes

<b>flexor hallucis longus</b>	origin: fibula	insertn: <i>distal</i> 1st phalanx	flexes big toe, plantar flex foot, inverts foot
<b>flexor digitorum longus</b>	origin: tibia	insertn: <i>distal</i> phalanges 2-5	plantar flexes toes 2-5
<b>tibialis posterior</b>	origin: tibia, fibula	insertn: medial tarsals, 2nd-4th metatarsals	inversion, dorsiflexion

## INTRINSIC MUSCLES OF FOOT: (p 377) similar to hand, but heavier. (Table: 11-18)

The foot possesses supporting arch. Covered with plantar aponeurosis

### DORSAL (extensors):

<b>extensor hallucis brevis</b>	origin: calcaneus	insertn: 1 <sup>st</sup> prox phalanx
<b>extensor digitorum brevis</b>	origin: calcaneus	insertn: 2, 3, 4th prox phalanx, tendons of ext. dig. longus

### PLANTAR four layers:

**flexor digitorum brevis**  
origin: calcaneus insertn: middle phalanges,

2-5 split tendons for "longus"

Most superficial (step on a stone = "stone bruise")

<b>abductor digiti minimi</b>	superficial
<b>lumbricales</b>	second layer
<b>adductor hallucis</b>	third layer
<b>plantar interossei</b>	deepest layer

## Front View of Foot Muscles

