

this action the os calcis, or heel, is extended, and this is probably what causes some people to refer to this action as extension, hence the flexor tibialis is an extensor of the heel when flexing the ankle. In thinking of flexions or extensions one should think of the joint concerned, not the limb. Then a little thought will establish whether a muscle is acting in its principal capacity, or if as an accessory, so to speak. To extend the ankle, the foot is carried downwards, *i.e.*, the toes farthest from the shin, by the action (contraction) of the gastrocnemius and soleus muscles.

*The toes* are flexed by curling them under the foot, by the flexor communis digitorum; they are extended by the extensor communis digitorum, and hallucis muscles.

*The knee* is flexed by the contraction of the hamstring (semi-tendinosis, biceps, semi-membraneosis), back of thigh. It is extended by the action of the quadriceps (front of thigh).

*The hip joint* is flexed by bringing the thigh towards the abdomen, by the action of the iliacus, psoas, sartorius, &c., and the abdominals. It will be found that the quadriceps (extensor) are also brought into play as accessory.

So with extension of the joint, the glutei (buttock) muscles carry the thigh back, but if you stand on one leg and carry the lower limb straight backwards, then feel the biceps of the thigh, you will feel it strongly tensed. Here a flexor is acting as an extensor. This will be felt more if you lie on a table face down then carry the lower limb upwards, the bicep and glutei become tense. The