The hip capsule (capsular ligament) is extremely important to the stability of the joint during abduction and adduction.

Acts as a constraint to prevent dislocation at the extremes of motion.

This capsule is formed in 3 discrete ligaments:
- Iliofemoral
- Femoral arcuate / pubo-femoral
- Ischiofemoral

3 axes of hip joint movements:
- Flexion-extension
- Abduction-adduction
- Internal-external rotation

When the knee is flexed, the hip can be flexed to approximately 120° after this motion is limited by the joint capsule.

When the knee is fully extended, hip flexion is limited to only 90° due to tension in the hamstring.

When the knee is flexed, passive hip flexion reaches 140°.

NEXT SLIDE

Important statistics to note:
- Average diameter of the femoral head: 46mm
- Average angle of the neck shaft: 130°
- Average angle of the femoral antversion: 12°
- Average angle of the acetabular antversion: 15°
  - The amount of forward flexion of the acetabulum
  - Measured from lateral to medial regarding the sagittal plane
- The acetabulum averages 15° of antversion and 45° of abduction
- A normal femoral neck has a diameter of at least 1.2 times the diameter of the neck.
- Natural curve of the femur in the antero posterior direction: 4°

Muscles in the Hip:

- Image shows the muscles are the hip joint.
- Hip extensor muscles:
  - Include the hamstrings, adductor magnus and gluteus maximus.
  - Work from the late midswing phase through the loading response.
- Hip abduction:
  - Involves the action of the gluteus medius, tensor fascia lata and upper gluteus maximus.
- Flexor muscles are important in aiding the function of the hip in normal gait:
  - Muscles involved: adductor longus, rectus femoris, gracilis, pectineus, tensor fasciae latae, iliopsoas, sartorius and iliacus muscles.
- The pelvis motion at the hip includes anteroposterior pelvic tilting, lateral pelvic tilting and pelvic rotation.