## Hip joint

From where	Hip joint					
Туре	Synovial joint, and polyaxial (ball (head of femur) and socket (acetabulum)).					
Articular surface	a- Head of the femur.					
	b- Lunate surface of the acetabulum of hip bone					
Acetabulum of hip bone	- This is a cup-shaped depression on the lateral side of the hip bone.					
	- The inferior margin of the acetabulum shows acetabular notch.					
	<ul> <li>Its floor shows a non-articular area called the acetabular fossa.</li> </ul>					
	<ul> <li>There is a C-shaped articular strip called the lunate surface.</li> </ul>					
	<ul> <li>Acetabular Labrum; ring of fibrocartilage fixed to margin of acetabulum to increase depth of the cavity.</li> </ul>					
Head of the femur	- It forms more than half (about two-thirds) of a sphere.					
	<ul> <li>There is a small depression called fovea that gives attachment to the ligament of the head of the femur.</li> </ul>					
Attachment of the Capsule	I- Hip bone: to the margin of the acetabulum outside the labrum acetabular.					
	2- Femur:					
	a- Anteriorly, to the intertrochanteric line.					
	<ul> <li>Posteriorly, to the neck of the femur one cm medial to intertrochanteric crest.</li> </ul>					
	<ul> <li>Accordingly, the neck is partly intracapsular and partly extracapsular.</li> </ul>					
	- The fibers of the capsule are arranged longitudinally parallel to the neck of the femur					
	<ul> <li>Some of the deep fibers of the capsule are arranged circularly around the neck forming the zona orbicularis.</li> </ul>					
	- Many of the fibers of the capsule are reflected medially to <mark>cover</mark> the intracapsular part of the neck called <mark>retinacula of the neck</mark> . They keep the bony fragments close together in cases of fractures of the neck of the femur.					
	Synovial membrane covers all non-articular surfaces inside the capsule					

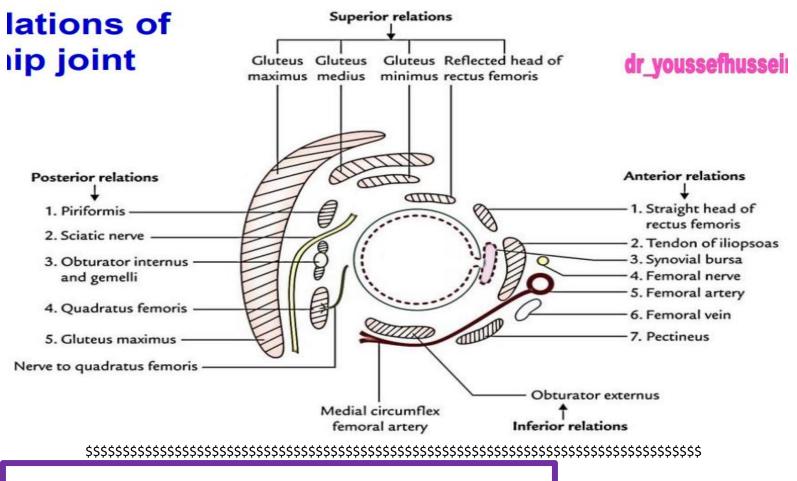
## Ligament of the hip joint



From where	lliofemoral ligament	Pubofemoral ligament	Ischiofemoral ligament	Transverse acetabular ligament	Ligament of head of the femur (ligamentum teres)
Site	anterior to the capsule.	medial to capsule.	on the back of the capsule.		
Shape	Y- shaped.	Triangular	spiral ligament		It is a triangular ligament and covered by a synovial membrane.
Attachment	<ol> <li>Apex attached to the lower part of anterior inferior iliac spine.</li> <li>Two bands are attached to the intertrochanteric line.</li> </ol>	<ol> <li>Hip, iliopectineal eminence and superior pubic ramus.</li> <li>Femur, intertrochanteric line.</li> </ol>	<ol> <li>Hip, the body of the ischium.</li> <li>Femur, to the greater trochanter.</li> </ol>	<ul> <li>margins of acetabular notch.</li> <li>It converts the notch into foramen for passage of nerve &amp; vessel to the joint.</li> </ul>	<ul> <li>Apex: to fovea of head of the femur.</li> <li>Base to transverse acetabular ligament.</li> </ul>
Functions	Prevents hyperextension of the hip joint	Prevents over abduction of the hip joint.			carries blood supply to head of the femur.

- Hip joint is strongest than the shoulder joint - It is the strongest ligament of the body.

## **Relation of hip joint**



## Movement of the hip joint

The	Flexion	Extension	Adduction	Abduction	Medial rotation	Lateral rotation	
movement							
The muscle that mainly	1- psoas major	1- gluteus maximus	1- adductor longus	1- glutei medius	1- the glutei medius	1) Piriformis.	
share to do	2- iliacus.		2- brevis and	2- minimus.	2- minimus.	2) Obtuartor internus.	
this movement			magnus.			3) 2 Gemilli,	
The muscle	1- sartorius	1-hamstrings	1- pectineus	1- tensor fasciae latae	1- tensor fasciae latae.	4) Quadratus femoris.	
that helped	2- rectus		2- gracillis.	latae	latae.	5) Obturator externus.	
to do this	femoris			2- sartorius.			
movement	3- pectineus.						
Note	Flexion and extens transverse axis	Flexion and extension occur around a transverse axis		Abduction and adduction occurs     around anteroposterior axis		Medial and lateral rotation occurs around a vertical axis.	
			• The adductor muscles produce forward movement of the neck of the femur leading to medial rotation of the thigh like a gate on its hinges.		• The rotation of thigh occurs on axis passes from head of femur to medial condyle of the femur.		
	- Circumduction; combination of flexion, abduction, extension and adduction done in succession						