Objectives:

- To define rectus sheath.
- To describe anatomy of inguinal canal.
- To relates types of inguinal hernia to the region.
- To explore spermatic cord.
It contains:

Lower six intercostal nerves

Sup. & inf. epigastric Vv.
1- Above costal margin

2- Between costal margin & ASIS

3- Between ASIS & Symphysis Pubis
I.O. Aponeurosis **Splits** to enclose RA

All the 3 aponeuroses pass anterior to RA

Between costal margin & ASIS

Skin → Superficial fascia → E.O. → I.O. Transversus → Transversalis fascia → R.A. → R.A.

Below ASIS

Skin → Superficial fascia → E.O. → I.O. Transversus → Transversalis fascia → R.A. → R.A.
Fascia transversalis (opened)

Continuous above with diaphragmatic Fascia

Fascia transversalis (opened)

Arcuate line

Inferior epigastric Vv.

External iliac Vv.

Iliacus Muscle

Peritoneum

Deep Inguinal Ring
Femoral sheath

- Downward protrusion of fascial lining of abd. wall
- Occupy med. part of the gap beneath Ing. Lig.
- Composed of 3 compartments

ASIS

Fascia transversalis

Deep inguinal ring

Spermatic cord

Inguinal ligament

Pubic tubercle

Femoral Vv. in femoral sheath
Inguinal triangle

Arcuate Line

Inferior epigastric Vv.

Deep ring

Fascia iliaca

Fascia transversalis

External Iliac Vv.

Inguinal Ligament

Femoral ring
Deep inguinal ring

Fascia Transversalis

Superficial inguinal ring

Inguinal canal:

Oblique canal

Extends from deep to superficial ring

Permits passage of spermatic cord
Roof: Arching lowest fibers of I.O. & T.A.

Posterior wall

Transversalis fascia

Conjoint tendon

I.O.

E.O. aponeurosis

Floor: Inguinal lig.

Anterior wall
Shuttering Mechanisms of The Inguinal Canal
Fascia Transversalis
Conjoint Tendon
Reflected Part

Peritoneum

Viscera

Ext. Spermatic Fascia

Internal Oblique

Cremasteric muscle and Fascia

External Oblique Apponeurosis

1- Obliquity of The Canal
2- The Weak Walls Are Supported
3- Contraction of Conjoint Tendon
4- Contraction of Cremastric Muscle
5- Contraction of Inter crural Fibers
Spermatic cord

Traverses inguinal canal from DIR to upper pole of testis

Composed of: Vas & its art., testicular art. & lymphatics, pampiniform, autonomic nerves, processus, cremasteric art & genital branch

Covered with three concentric layers of fascia
Hernia

Hernia is protrusion of abdominal contents through a weak point in the abdominal wall.
Types of Hernia

I- Inguinal Hernia
   a- Direct
   b- Indirect

II- Femoral hernia
What is The Cause of Formation of a Hernial Peritoneal Sac?
We Need to Know a Quick Hint About The Development of The Testis In Order To Understand
External Oblique Apponeurosis
Internal Oblique
Transversus Abdominis
Transversalis Fascia
Peritoneum
Superficial Inguinal Ring
Deep Inguinal Ring
Vestige of Processus Vaginalis
Tunica Vaginalis
The Testis
Processus Vaginalis
Vestige of Processus Vaginalis
Tunica Vaginalis
(Parietal Layer)
Tunica Vaginalis
(Visceral Layer)

Peritoneum

Deep Inguinal Ring
Superficial Inguinal Ring
Vestige of Processus Vaginalis

Testis

Tunica Vaginalis
(Parietal Layer)
Tunica Vaginalis
(Visceral Layer)
Normal obliterated Processus Vaginalis

Completely patent processus Vaginalis

Indirect Inguinal Hernia
Features of Indirect Inguinal Hernia
Course of Indirect Inguinal Hernia

1- The Neck is Usually Narrow

2- Neck is lateral to inferior epigastric Vv.

3- Body & fundus of hernial sac may be in canal or scrotum

4- Contents of Hernia is normally in front of the cord contents
Direct Inguinal Hernia
Inguinal and Femoral Hernias
(Comparison)
Summary:

Rectus sheath is formed by the aponeuroses of the three anterolateral muscles of the abdominal wall.

Inguinal canal is an oblique passage in the lower part of the anterior abdominal wall that permits passage of spermatic cord to the testis.

Hernia is protrusion of abdominal contents through a weak point in the abdominal wall.
Thank you