



Lecture: One
Done By: Haneen Frehat



General Anatomy

Lecture 1: Introduction to Human Anatomy

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Anatomy



وصف الجسم البشري

* **Definition:** anatome = up (ana) + cutting (tome). شرح الجسم البشري

* **Descriptive anatomy:** **Regional** or **Systemic**.

* **Regional Anatomy:** parts of body e.g. head, neck, thorax, abdomen, upper limb & lower limb. أجزاء الجسم

* **Systemic Anatomy:** e.g. cardiovascular system, respiratory system, urinary system, etc. systems
باي جوا المنطقة
بوي

* **Developmental Anatomy (Embryology).** التطو (علم الاجنة)

* **Applied Anatomy (clinical).** تطبيقي (بالعيادة)

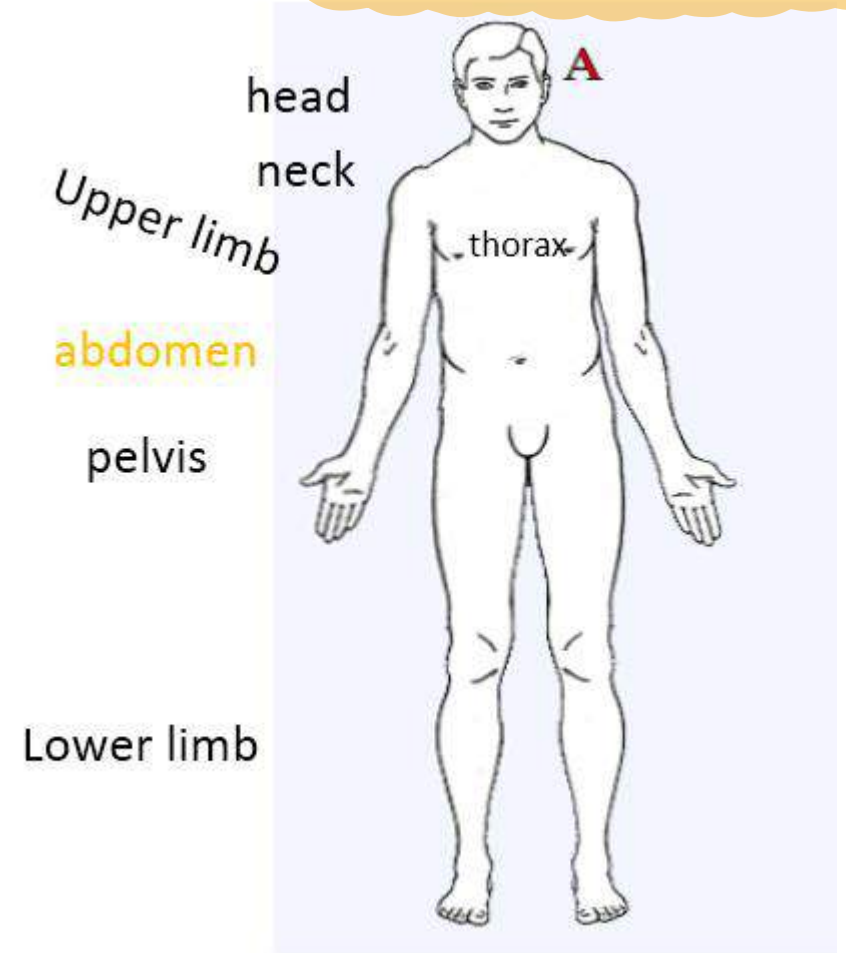
* **Radiological Anatomy.** إشعاعي (نعرف الوضع الطبيعي لشكل عظام معينه فنستطيع تمييز غير الطبيعي)

* **Surface Anatomy.** بالرسم والتخيل
رسم الاشياء

Body Regions

ندرس المكان أما في
systemic ندرس
internal structure

1. Head and Neck. الحوفي
2. Abdomen & Pelvis.
3. Lower limb.
4. Upper limb.
5. Thorax. الصدر
الجبلي الشوكي
6. Brain & spinal cord
(Neuroanatomy).

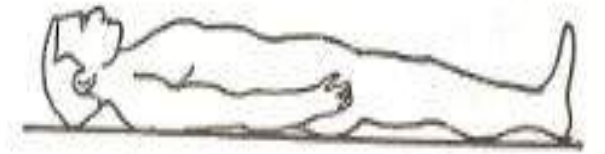
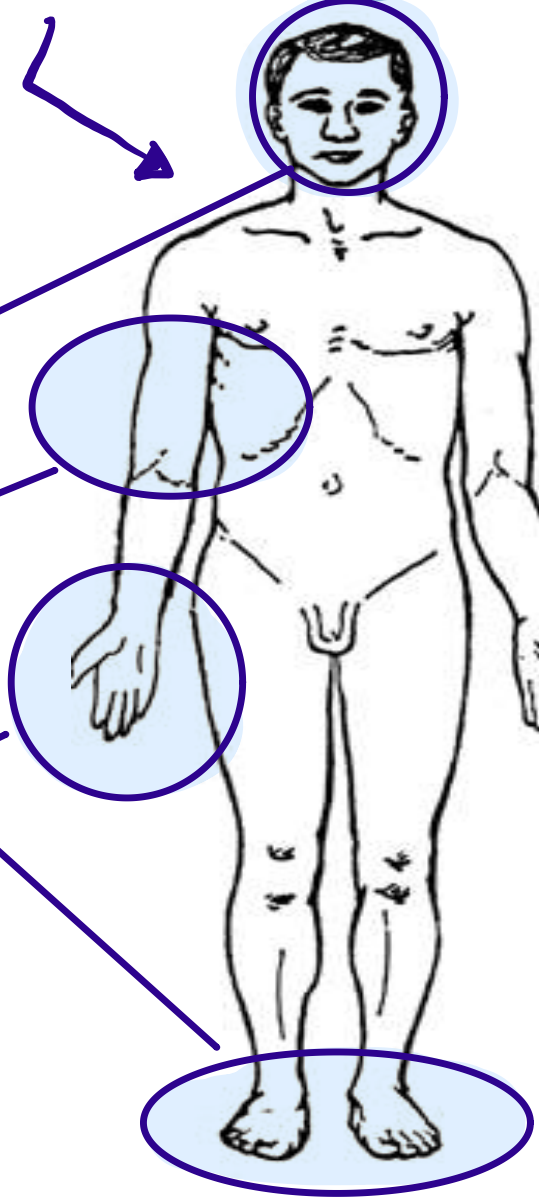


الموضع التشريحي
السليم

Anatomical Position

(Normal
Anatomical
Position)

- **Body erect (person standing).**
- **Face directed forward.**
- **Limbs at sides of body.**
- **Legs & feet close together.**
- **Palms directed forward.**
كف اليد



Supine



prone

Anatomical Planes

علماء الـ Anatomy وبنوا الـ body
بالجمع لـ planes وحصية تكون
في الـ body

* Median (midsagittal)
plane = ^{عمودي} vertical in midline,
divides body into right
& left equal parts.

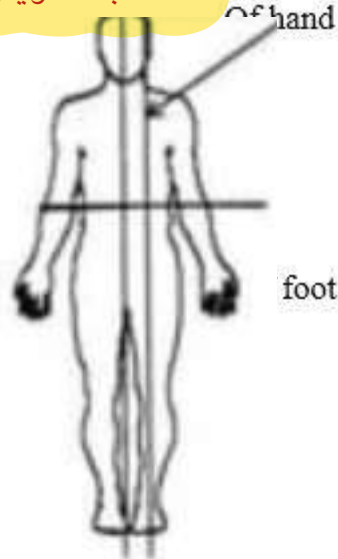
⇒ قسمته بالنص بالتساوي

Median Plane

* * Parasagittal = vertical,
parallel to median.

para median

قسمت بالتساوي واخذت شوي للشمال



Median plane
Of body



Sagittal plane



Anatomical Planes

بينزل نزول (زي التاج)

* **Coronal plane** = vertical, perpendicular to median, divides body into anterior & posterior parts.

* **Horizontal (transverse)** = perpendicular to median & coronal planes divides body into upper & lower parts.

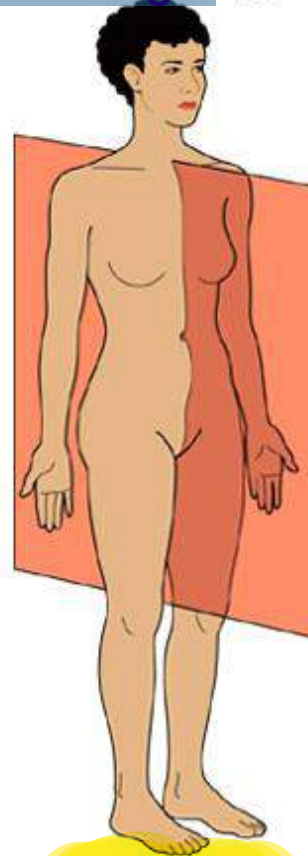
ينام نازل عليه خطوط عرضيه ويصور المنطقة التي نحتاجها

Superior and inferior

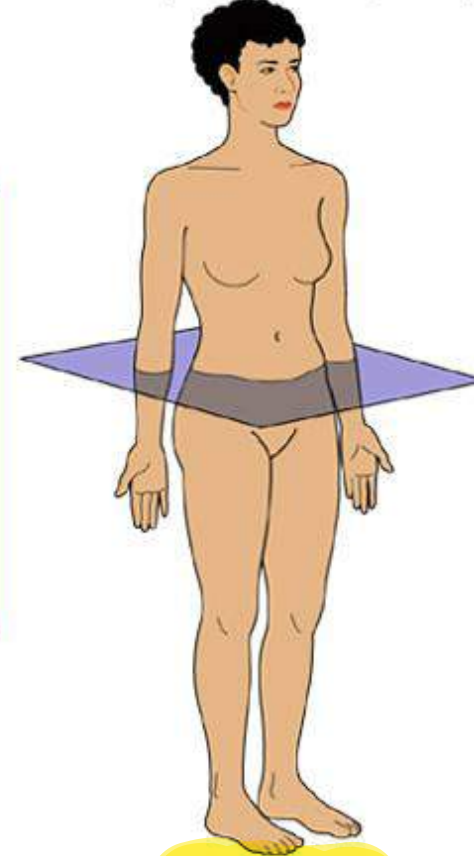
يقسم بالتساوي
Left and Right

يقسملي لأمام وخلف بالتساوي
Anterior and Posterior

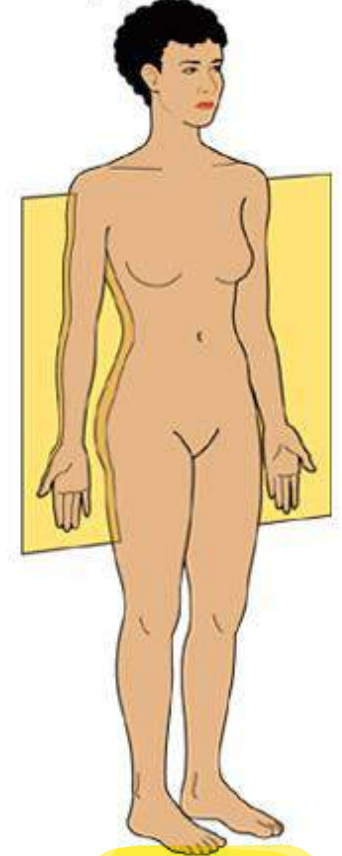
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Sagittal plane (median plane)



Transverse plane (horizontal plane)



Coronal plane (frontal plane)

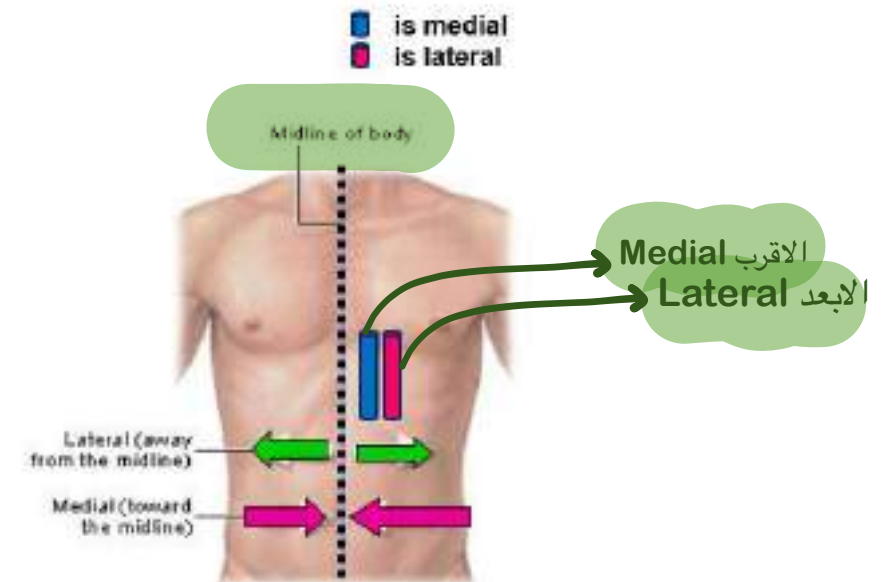
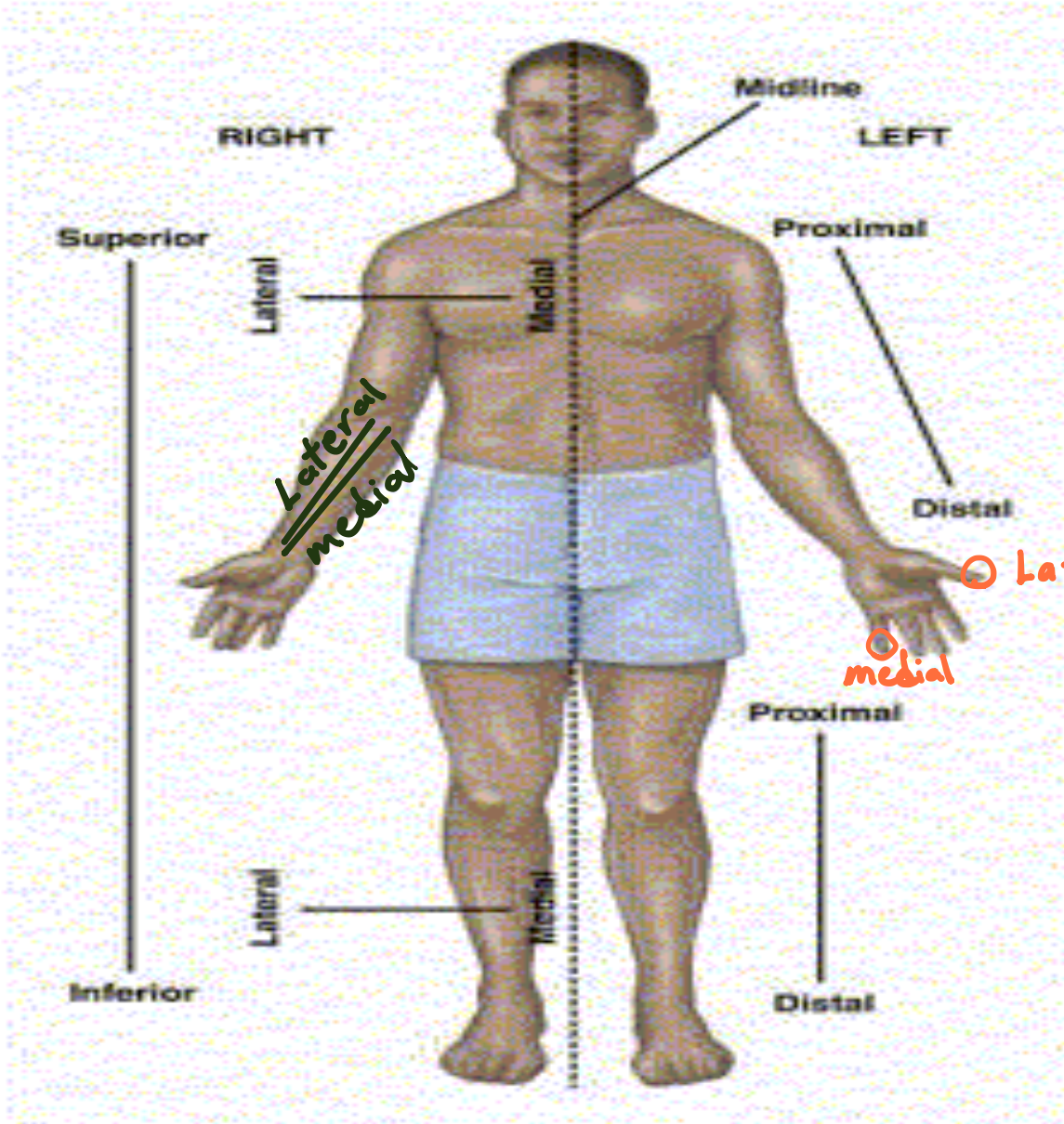
Anatomical Terms

مقارنه تتم بين شيئين من حيث الاقرب والابعد ل Median

1. Medial & Lateral:

* Medial = ^{near} closer to median plane.

* Lateral = away from median plane.



2. Anterior & posterior:

امام

خلف

Forward

- **Anterior or Ventral** → towards the front of the body
- **Posterior or dorsal** → towards the back of the body
- **Anterior surface of hand** → palmar surface
- **Posterior surface of hand** → dorsal surface
- **Upper surface of foot** → dorsal surface
- **Lower surface of foot** → plantar surface

خلفي (خروجي)

باطن

ظهر



Anterior(ventral)



Posterior(back or dorsal)



3. Superior & inferior:

فوق

تحت

•* **Superior**

(**cephalic or cranial**) =

الرأس

الجمجمة

أي شيء ناصية
الـ brain

towards head.

الذنب

•* **Inferior (caudal)**

= towards feet.



ترتيب

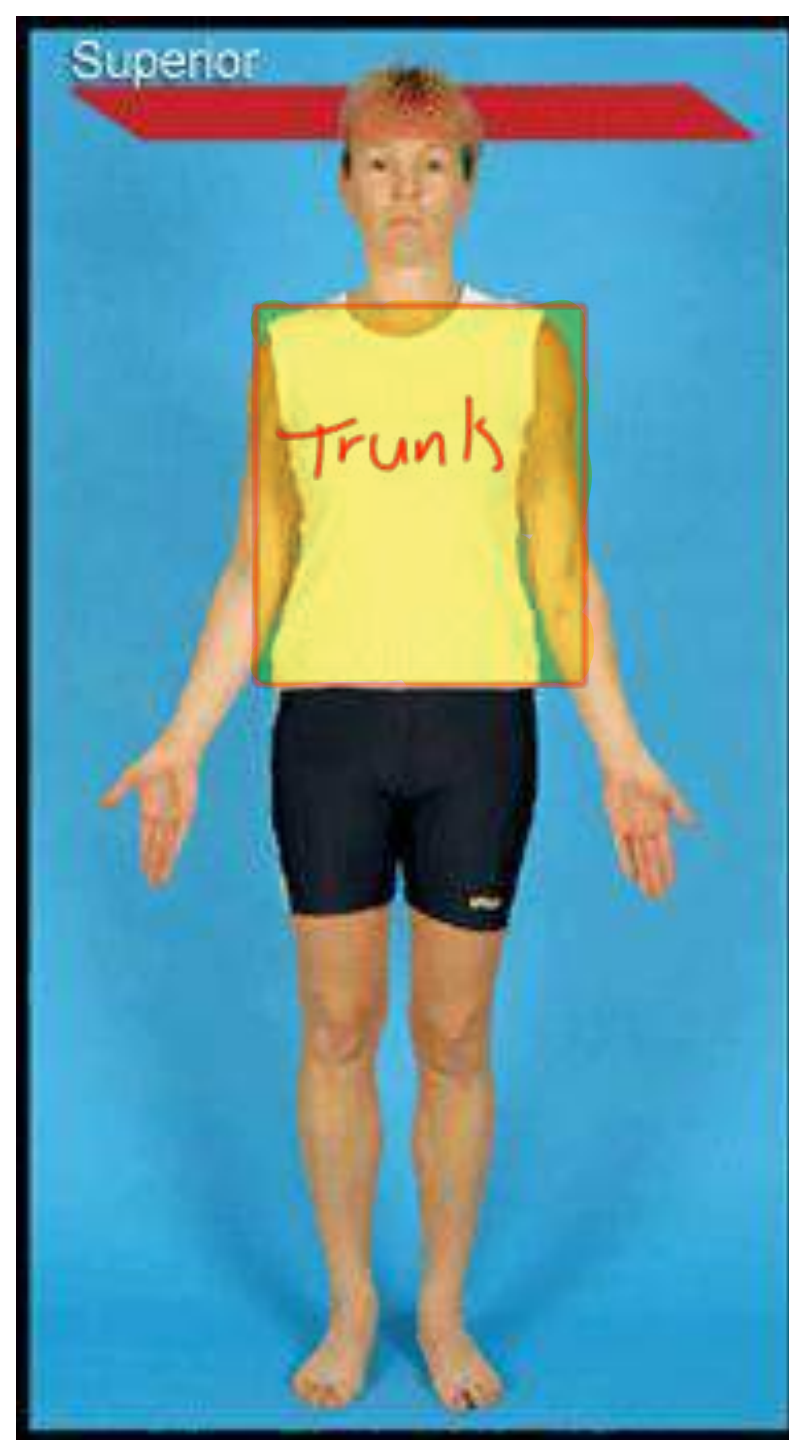
4. Proximal &

بعيد
Distal:

* Proximal →
closer to trunk.

* Distal → away
from trunk.

الجذع او الوسط



في المقارنه بين ال
Shoulder and
wrist
Shoulder is
Proximal and
wrist is Distal

5. Superficial &

لسفوية

Deep:

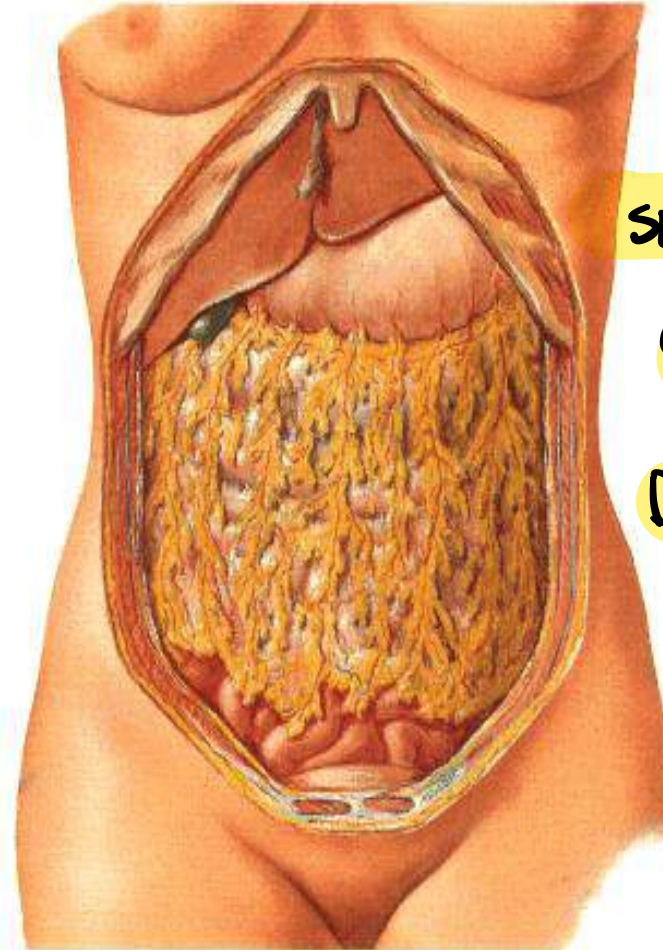
عميقة

الاقرب الى
سطح الجسم

* **Superficial** →
towards **surface of**
body.

شيء دافئ الابعد عن السطح

* **Deep** → **away from**
surface of body.



الكبد والسرّة

↓
superficial ↓
Deep

عظام الصدر واليدين

↓
Deep ↓
superficial

Anatomical Terms

- * **Medial** = closer to median plane.
- * **Lateral** = away from median plane.
- * **Anterior (ventral)** = towards front of body.
- * **Posterior (dorsal)** = towards back of body.
- * **Superior (cephalic or cranial)** = towards head
- * **Inferior (caudal)** = towards feet.
- * **Superficial** = towards surface of body.
- * **Deep** = towards center of body.
- * **Proximal** = nearer origin.
- * **Distal** = further from origin.

البُعيد / الاصل

لفنسى Superficial, Deep لكن فشكذها
* **External (outer)**: means towards the surface and applies to the hollow-out structure. عندما يكون عندى Cavity



دافلى
* **Internal (inner)**: means towards the cavity of a hollow-out structure. تعريف
عندما يكون لدى اوصف شىء نادغ من الداغل (المعدة, المثانة)

in ← bladder Ex ← pelvic bone
* **Central**: means towards the center of the body.

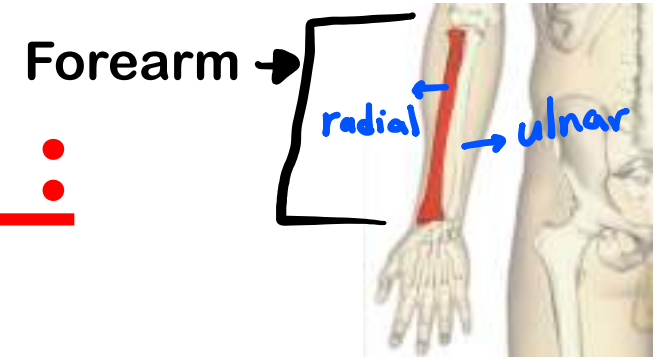
* **Peripheral**: means away from the center of the body. proximal and Distal

لفنسى الا تجاه
* **Ipsilateral**: means of the same side of the body.

الاجاه المعاكس
* **Contralateral**: means of the opposite side of the body. مثلا:

الجزء اليمين من الدماغ يتحكم بالجزء اليسار والجزء اليسار يتحكم باليمين من الجسم 
ف اذا حدثت جلطه على الجزء اليمين سيتضرر الجزء المعاكس من الجسم وهو اليسار 

Specific terms for the limbs :



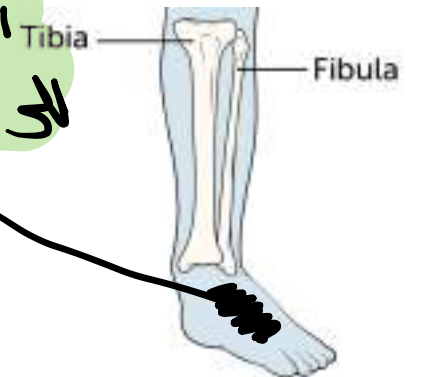
معنى ان يكون →

- **In the forearm :** radial = lateral & ulnar = medial.
- **In the hand :** palmar = anterior & dorsal = posterior.
- **In the leg:** fibular = lateral & tibial = medial.
- **In the foot:** plantar = inferior & dorsal = superior.

← الباطن
حسب المسميات →

أبعد
للأضراس

أقرب
للأضراس



*اجتهاد شخصي : باطن الكف او باطن القدم دائما inferior 😊😭

Anatomical Terms of Movements

ضم/انقباض

ثني

تقريب

انقباض

Flexion

Extension

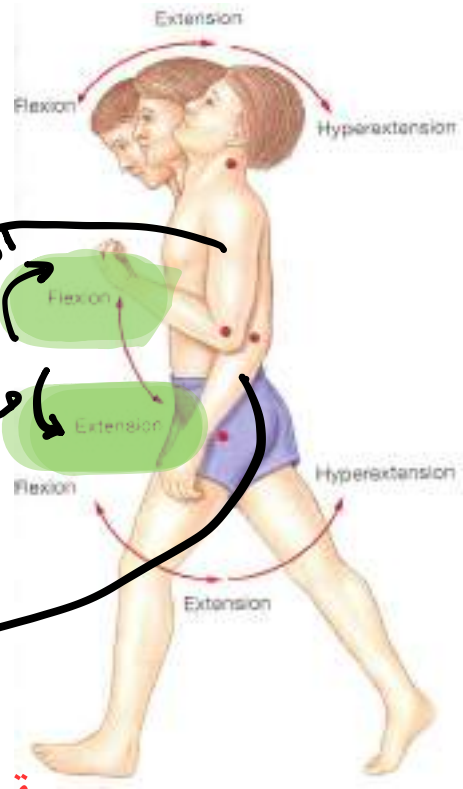
Flexion

Extension

قربت سطحين من بعض

قربت سطحين من بعض

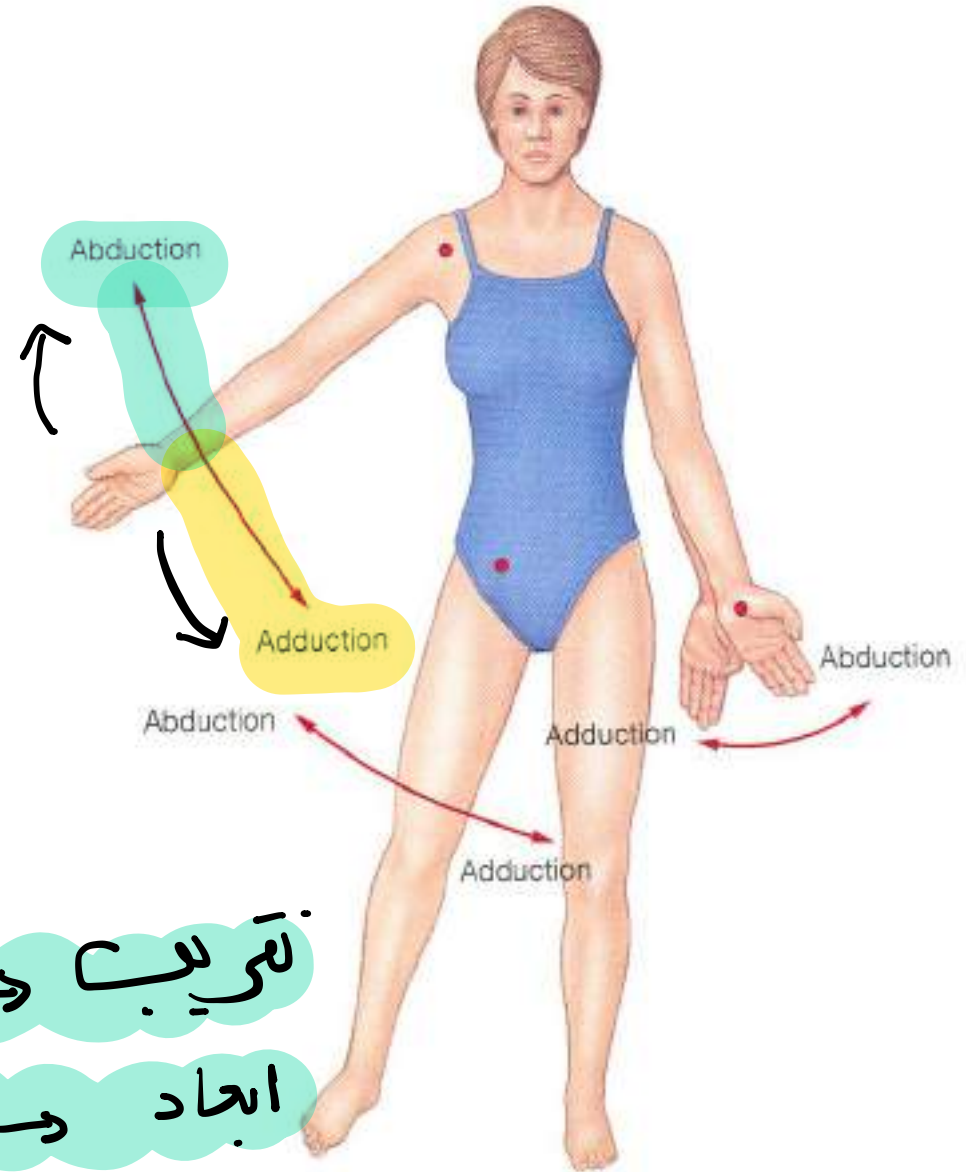
فخره



- **Flexion** → to bend = angle = approximation of 2 ventral surfaces
- **Extension** → to stretch = straighten = approximation of 2 dorsal surfaces.

• **Abduction** →
moving a part
away from
midline.

• **Adduction** →
moving a part
towards the
midline.



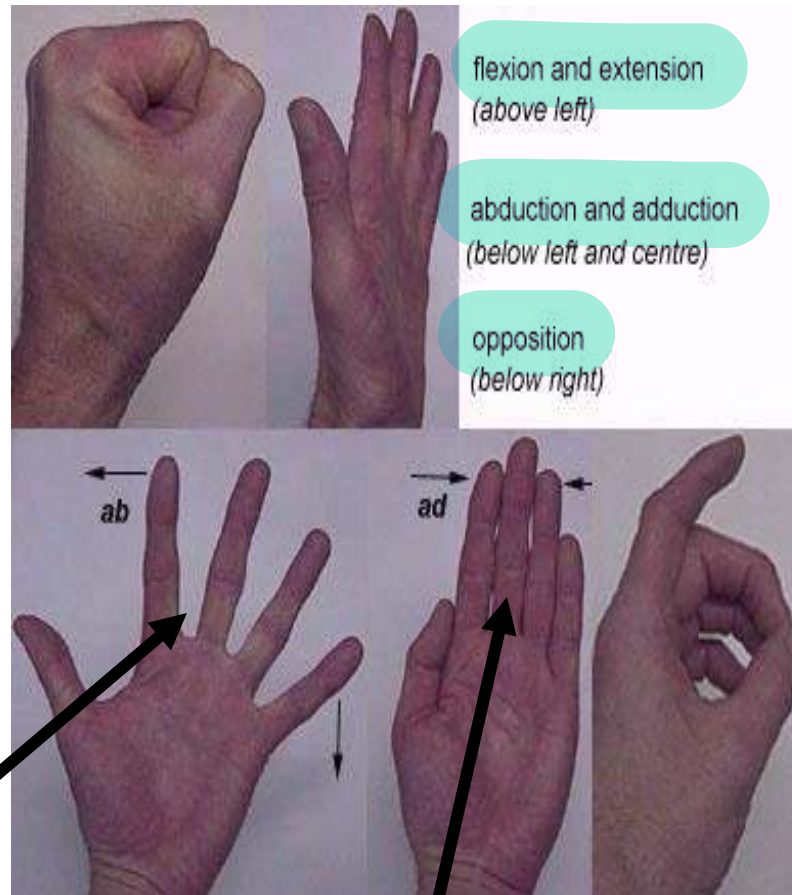
تقريب → Add

ابعاد → Abd

• **Abduction of fingers & toes** → **spreading of fingers or toes apart.**

• **Adduction of fingers & toes** → **drawing or approximating fingers or toes together.**

ابعاد



تسمية الاصلافة

Opposition

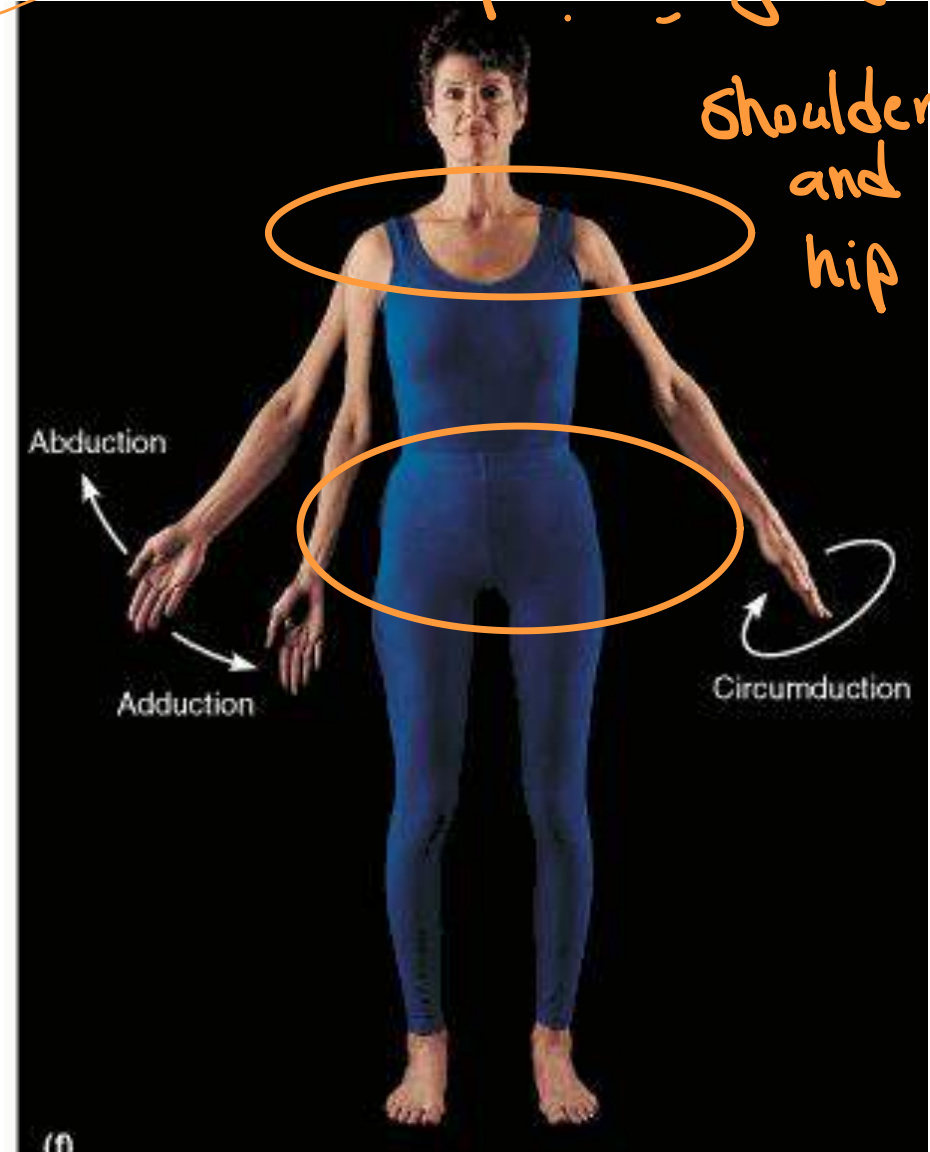
Abduction

Adduction

- **Opposition:**
- **Circumduction** → the combination in sequence of movements of **flexion, abduction, extension & adduction.**

تتم على
actions

تتم على على آلي
⇒ joints في الجسم

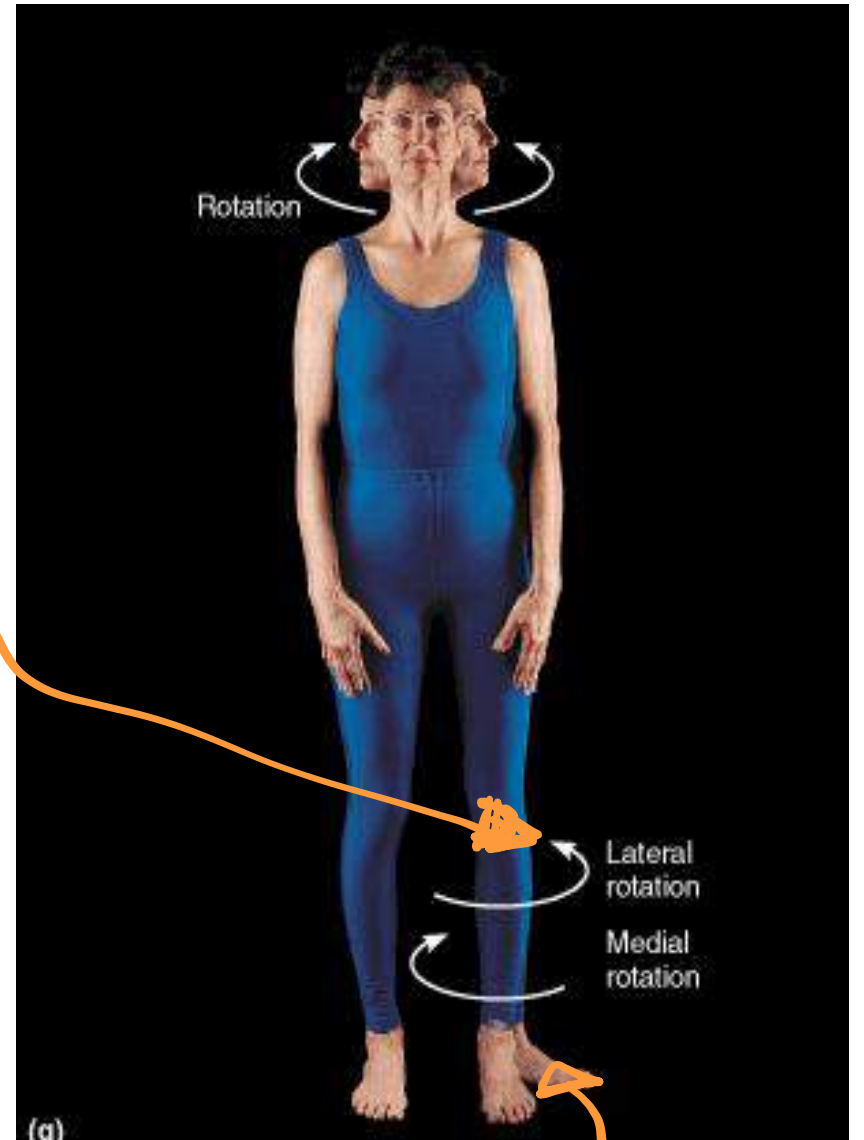


• **Medial rotation** →
brings anterior surface
to face medially

⇒ اما هي

• **Lateral rotation** →
brings anterior surface
to face laterally

⇒ اقبى



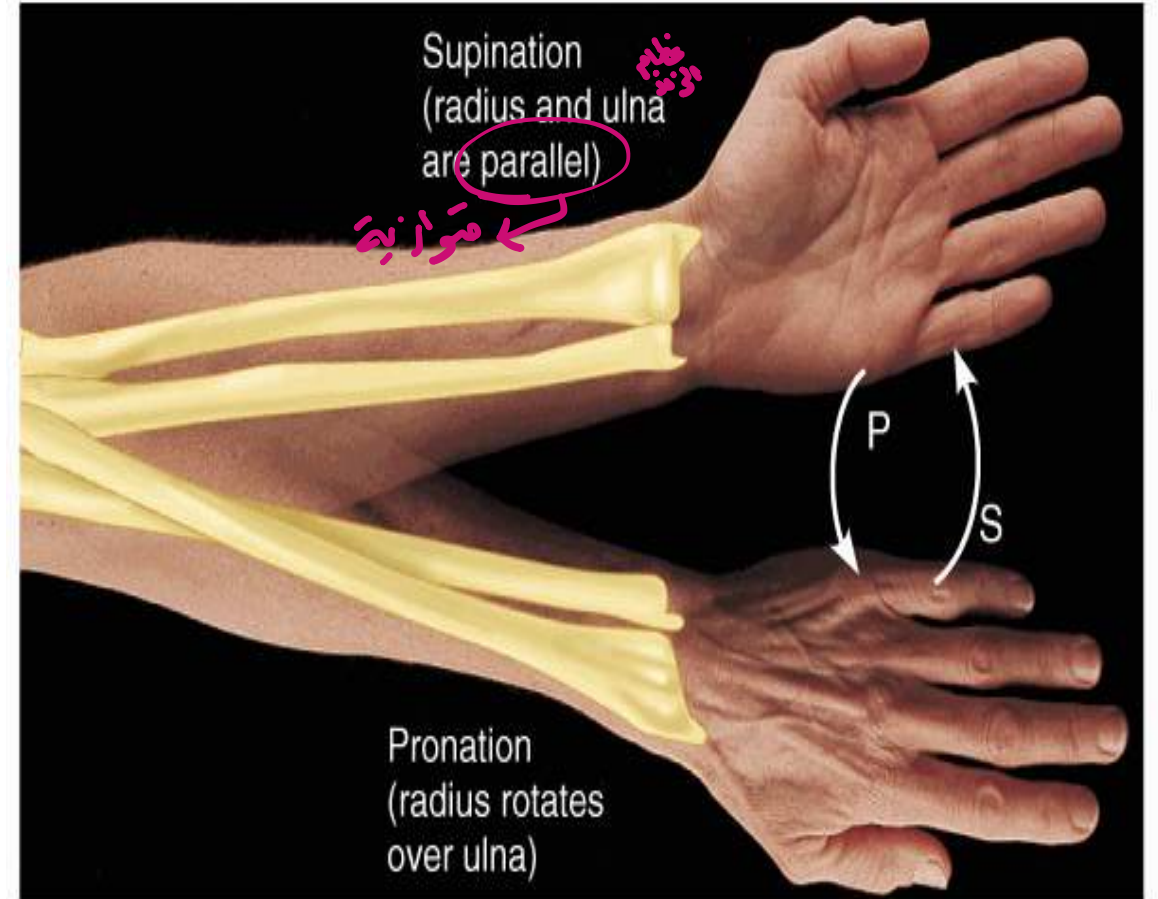
• **Pronation** → **medial** rotation of forearm which brings palm of hand to face posteriorly

• **Supination** → **lateral** rotation of forearm which brings palm of hand to face anteriorly

الإمام

توازني

كف اليد



(a) Supination (S) and pronation (P)

لو نايم وراسي نحو السقف
Pronposition لما انا م وظهري نحو السقف

Medial rotation
Palm للخلف



Dorsal نحو الارض



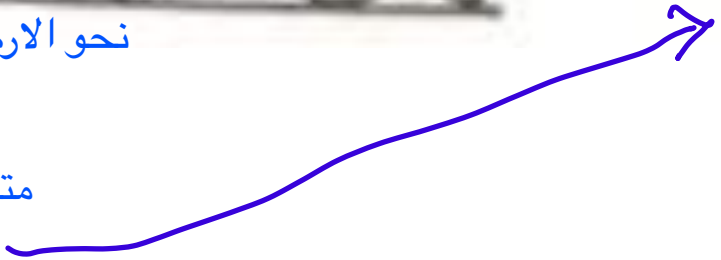
Dorsal نحو السقف

متى يكون ال dorsal لل hand

Anterior?

Pronposition

Palm facing anterior ?



• **Protraction** →
moving the jaw
forwards.

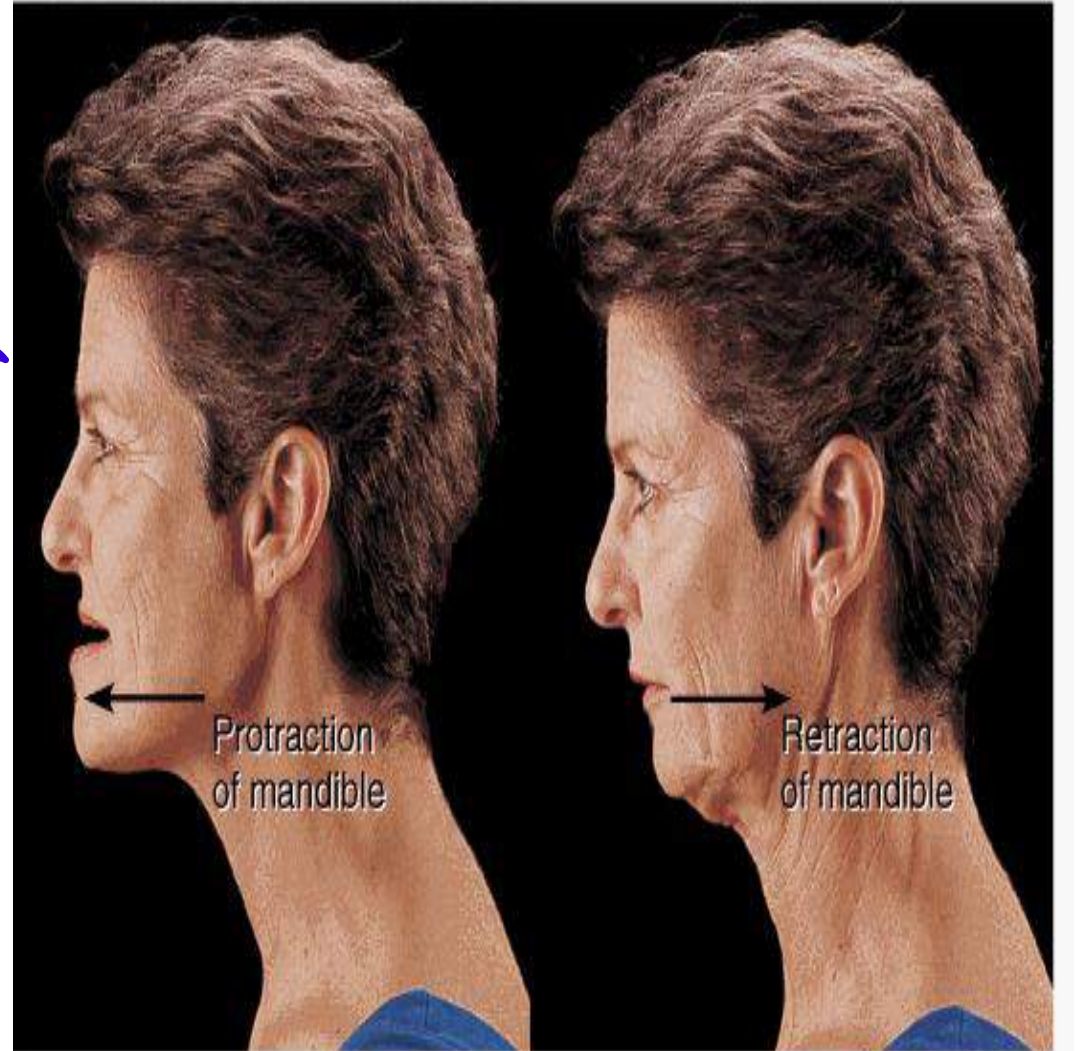
للإمام

• **Retraction** → moving
the jaw backwards.

للخلف

• **Protraction &
retraction can also
occur at the
shoulders.**

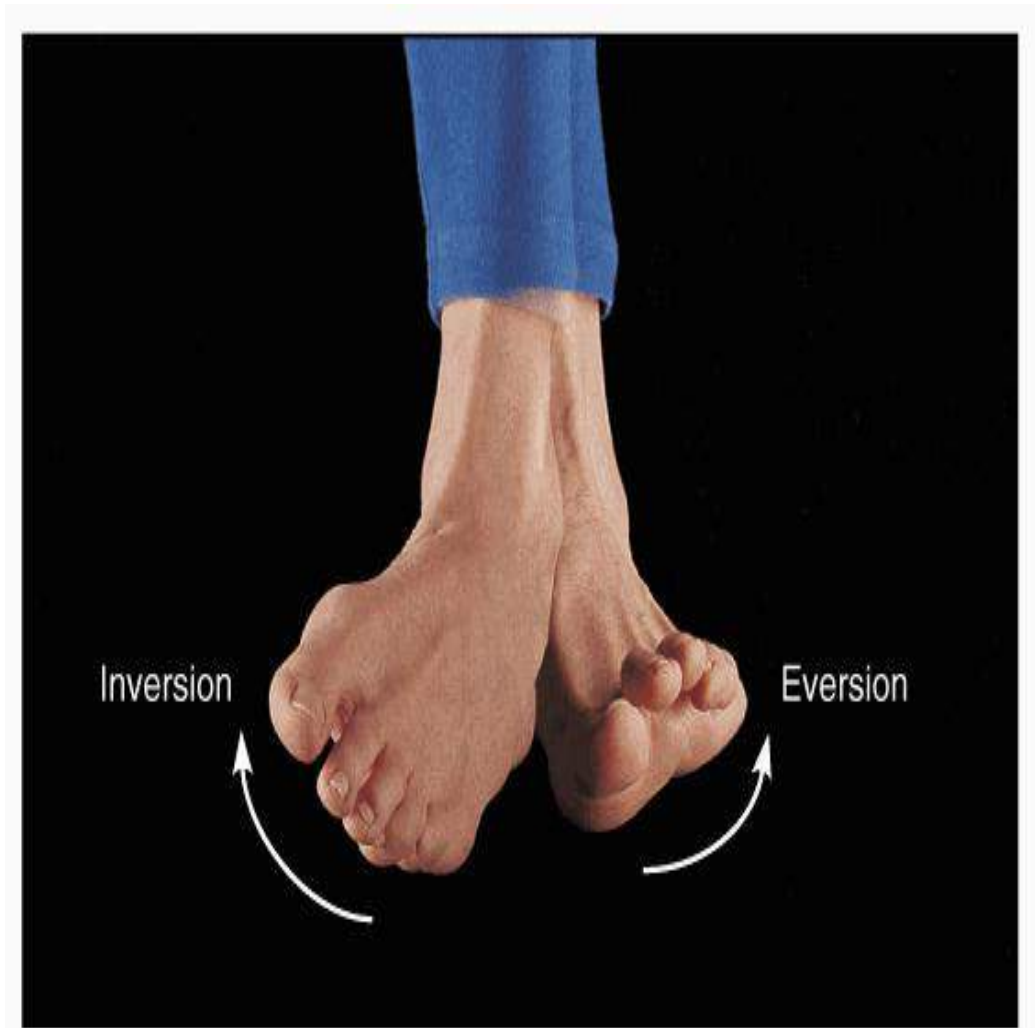
يطبق ايضا هذا
الكلام على الكتف



(c) Protraction and retraction

• **Inversion** → <sup>دخول من فوقاً لجوا
عكس</sup>
moving foot so that
sole faces **medially**.

• **Eversion** → moving
foot so that sole
faces **laterally**.



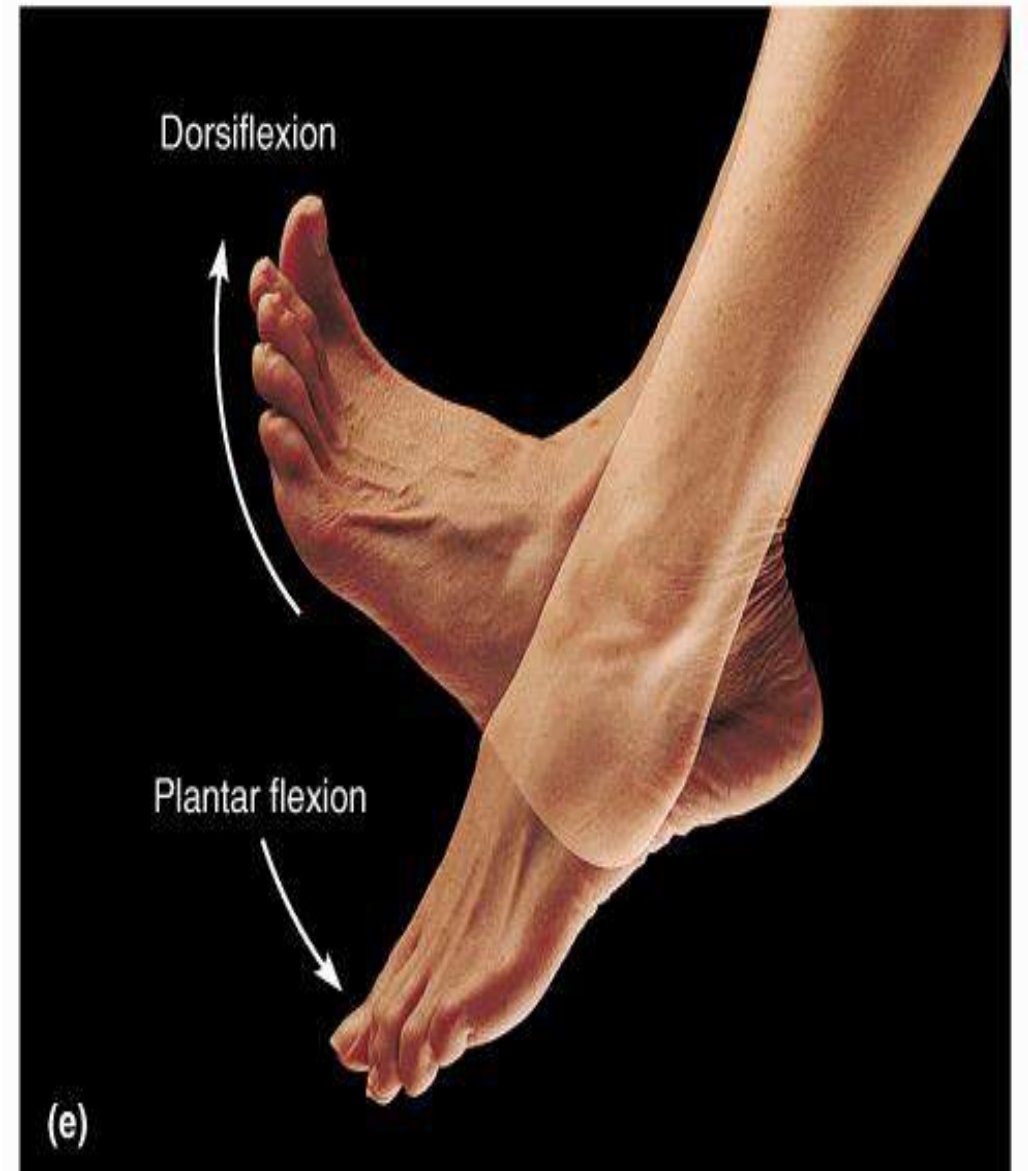
(b) Inversion and eversion

• **Dorsiflexion** → تصريفه نحو الراس

bending foot or ankle upwards.

• **Plantar flexion** → بحدته

bending foot or ankle downwards.



Body Cavities

1. Cranial Cavity^{الجمجمة}

اي reigin في

الجسم يجب ان

يكون داخل

cavity

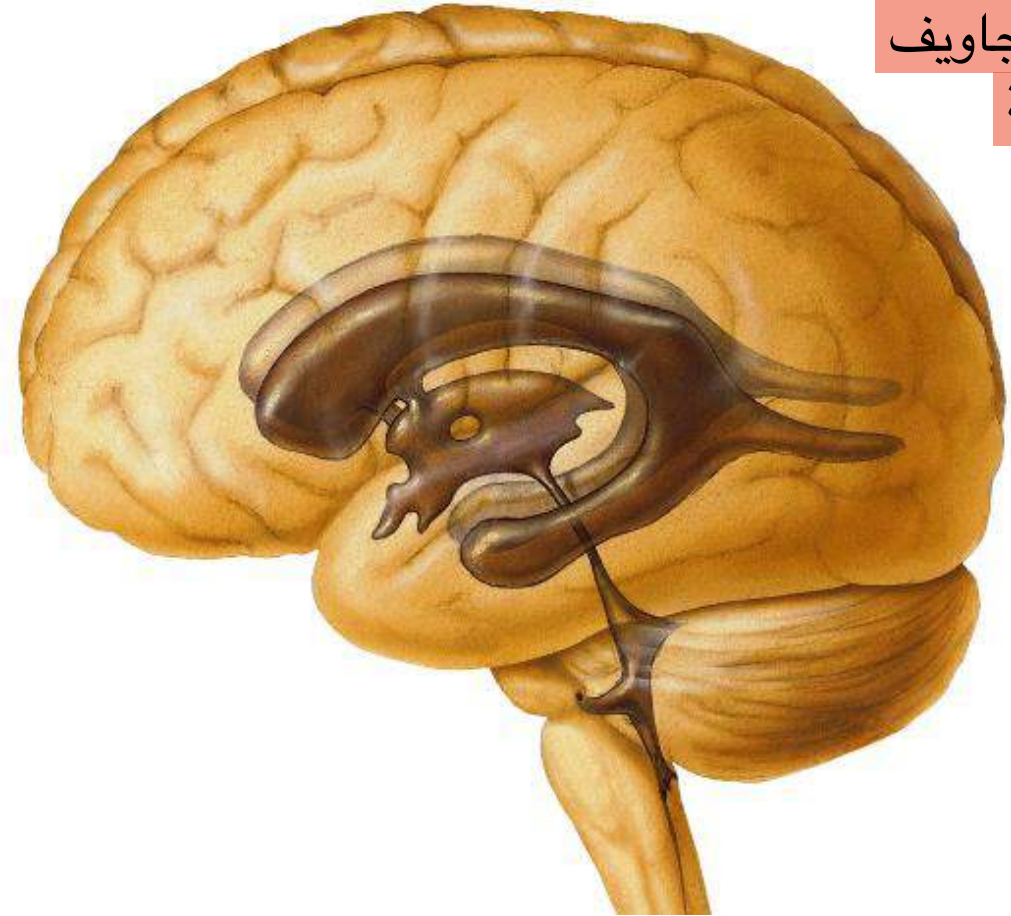
مثلا الدماغ هو

بداخل تجاويف

الجمجمة

* The cavity^{الجمجمة}
inside the skull.

* Contains the
brain.



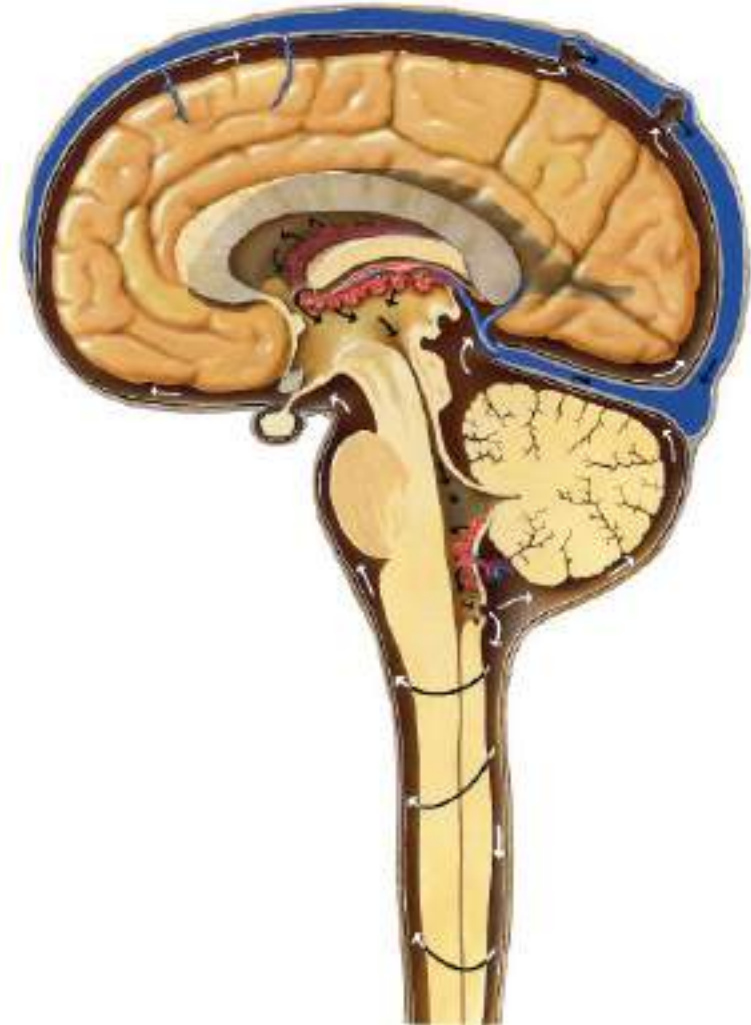
2. Vertebral Cavity ^{فقري} or Spinal Cavity

* The cavity of the vertebral column.

⇒ ^{تجويف} العمود الفقري

* Contains the spinal cord.

^{← عمود} ^{العمود الفقري}

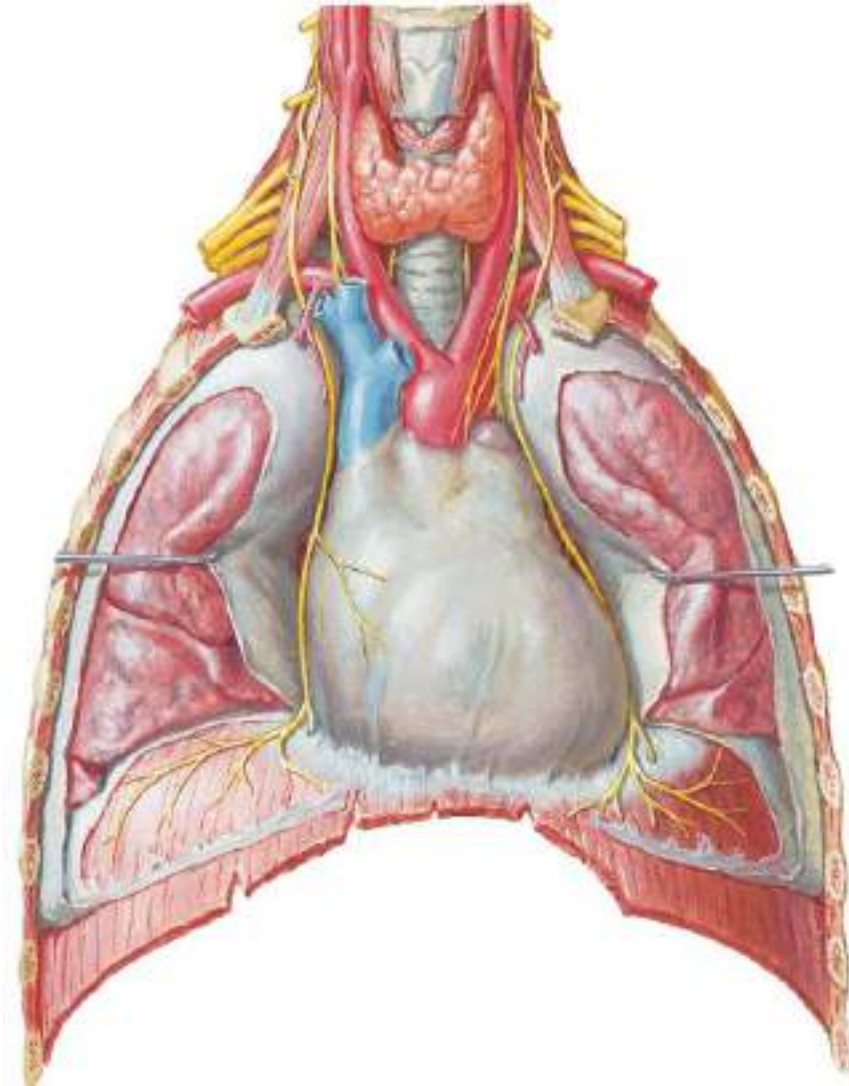


قفسه صدری

3. Thoracic Cavity

* Contains the **heart** inside the **pericardial cavity**.

* Contains the **lungs** inside the **pleural cavities**.



تجويف البطن

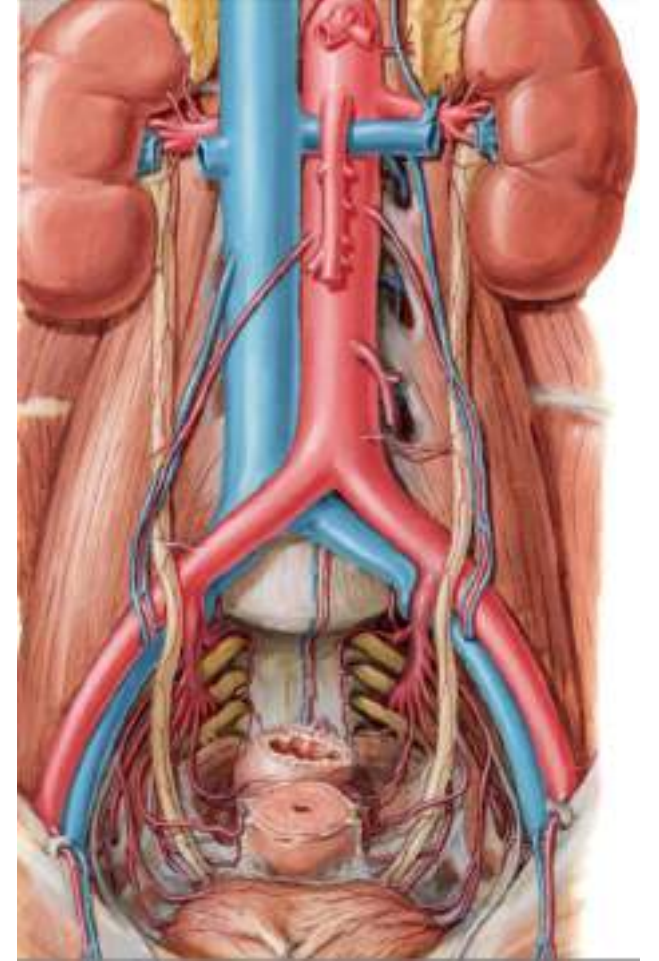
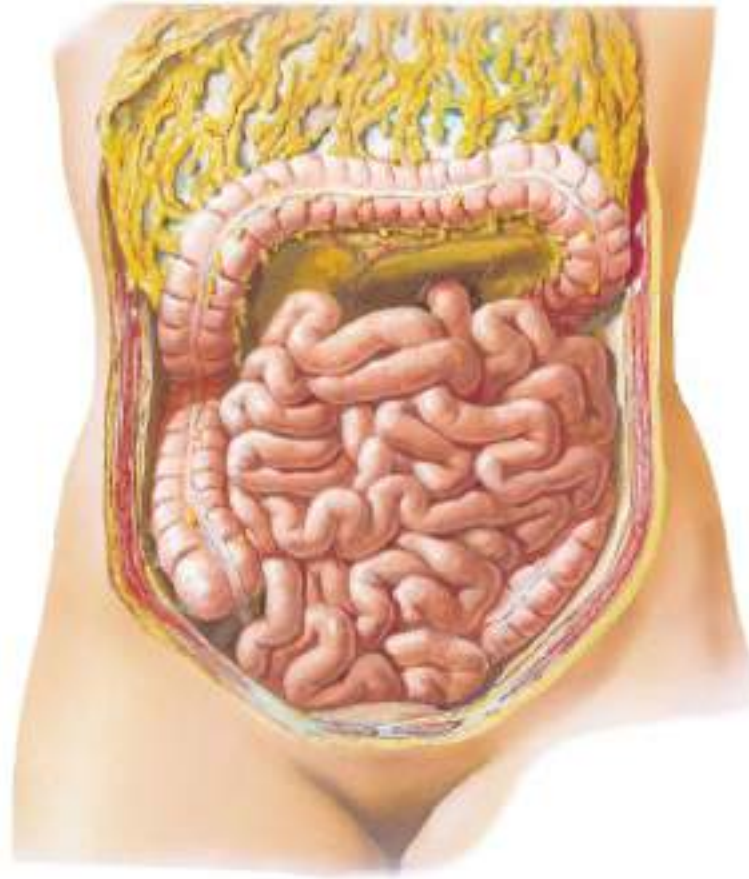
4. Abdominal Cavity

* Contains abdominal organs such as organs of **gastro-intestinal tract** & **kidneys**.

المعدة

جهاز
الهضم

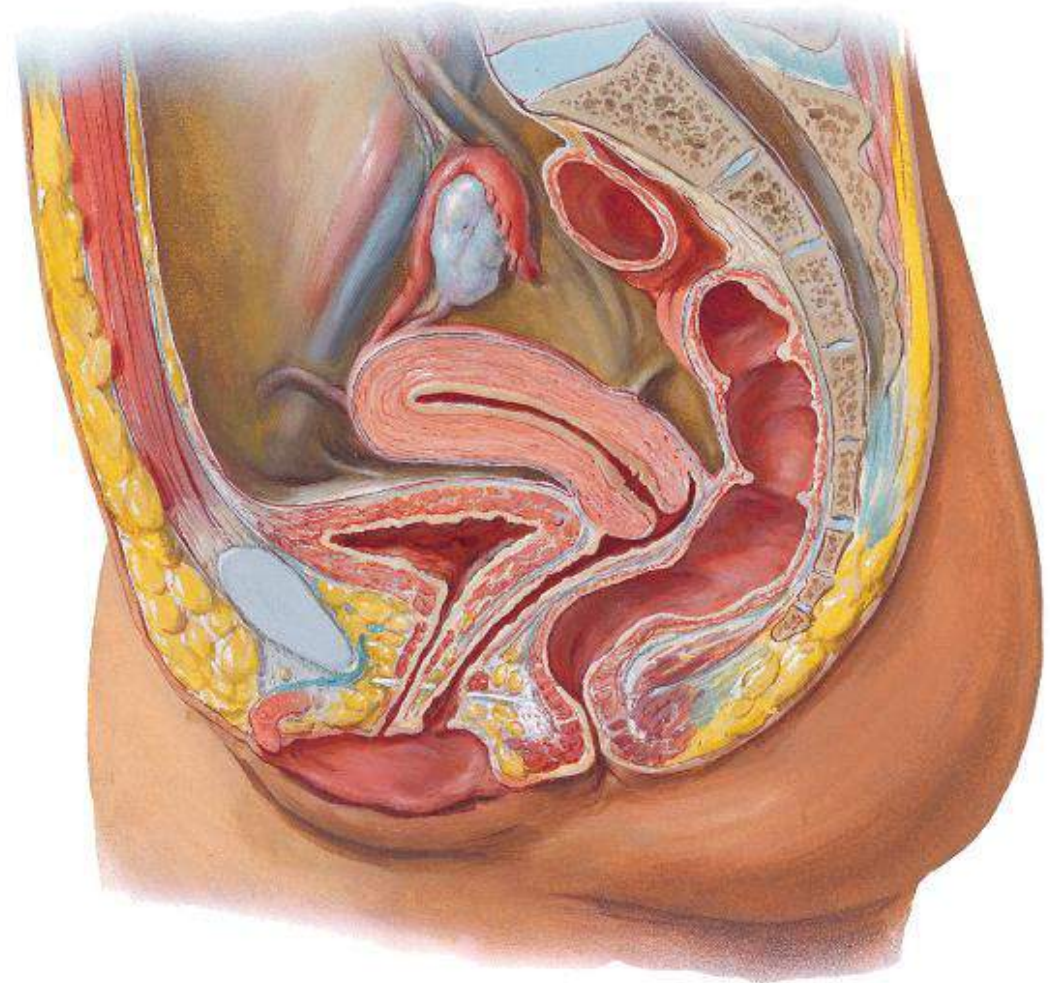
الكلى



المخوف

5. Pelvic Cavity

* Contains pelvic organs such as urinary bladder, ^{المثانة} rectum & uterus ^{المستقيم} & ovaries ^{مبايض} (in females).





Thank You
Thank You
Thank You!!!!