



# ANATOMY TEAM

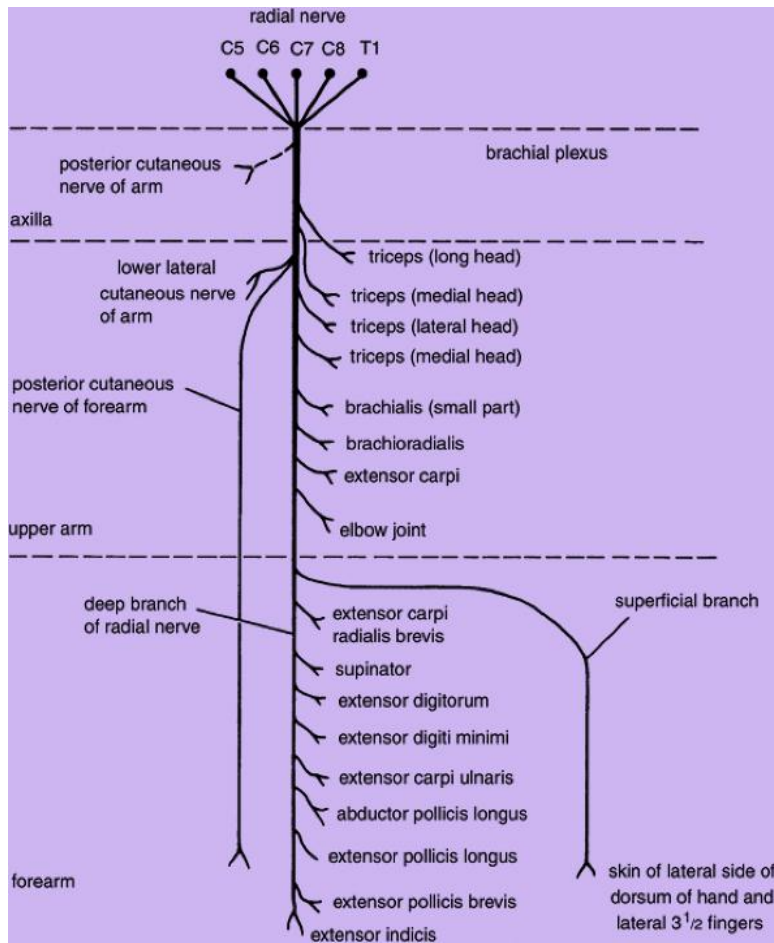
LECTURE (11)

RADIAL AND ULNAR NERVE

**Objectives:**

- Describe the anatomy of the radial & ulnar nerves regarding: origin, course & distribution.
- List the branches of the nerves.
- Describe the causes and manifestations of nerve injury.

تنويه : هذا الملف لا يعتبر مرجع أساسي للمذاكرة وإنما هو للمراجعة فقط ، المرجع الاساسي هو السلايد ولا يوجد أي اختلاف بين سلايد الاولاد والبنات



## Radial nerve

### Important notes:

1\_ there is a different between root value "ارقام السقمت الي دخلت and origin

2-ORIGIN → Posterior cord of the brachial plexus in the axilla (the largest branch)

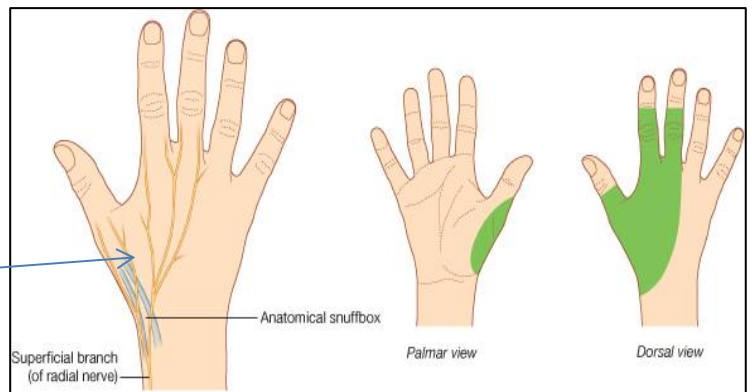
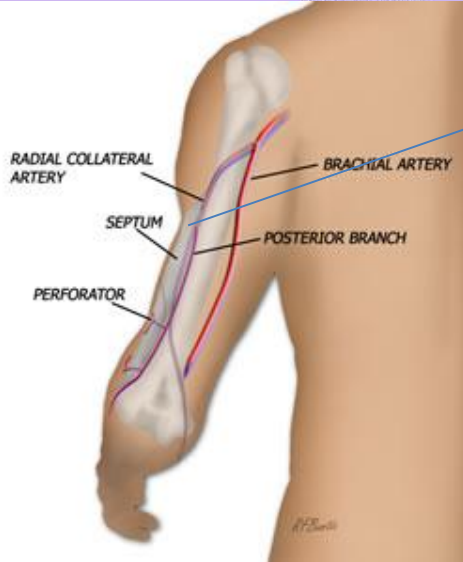
3 Profunda Vessels are "artery and vein"

4-the Profunda Vessels lie directly in contact with the shaft of the humerus (Dangerous Position).

5- Spiral

Groove=radial groove

6-Lateral Intermuscular septum. هنا يلف من ورا لقدام



8-"radial nerve" Termination of Superficial Branch.

9-Deep Branch "neck of the radius + within the supinator muscle" يلف على " يكون مغطيتها

١٠-Deep Branch supplies all the muscles in the posterior surface of "forearm"

11-Any nerve supplies joint=Articular

### Radial injury :

Deffrent between Axilla injury and Injury or fracture of the spiral groove of the humerus is:

\*Axilla = the patient **is unable** to extend the elbow

لان هو و كل الي بعده اللي ممكن  
يسوون "سابلاي" الل triceps  
توقفت عن العمل.

Spiral groove= **weak** to extend the elbow

"Axilla to Medial & long head of triceps "  
هنا فيه سابلاي من  
"spiral groove" لان للي فوق ماتاثر بكسر  
"Lateral & Medial" ولكن نقص لان اللي يسوي سابلاي لل

الاكتشاف كان في اوروبا يسكرون السبب وينامون باي وضعيه يصحون يلقي يده نازله لتحت بسبب"  
كل البرانشيز اللي طالعة منه ماراح تشتغل اللي طالعة منه ماراح تشتغل  
compression of radial nerve in the axilla

Saturday injury =  
In the Axilla:

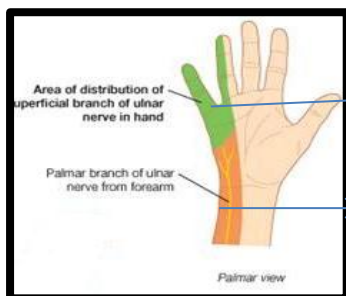
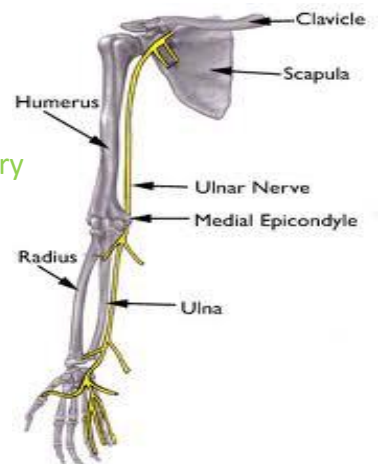
### Ulnar nerve :

طريقه اللي يمشي فيه :

١-Medial Intermuscular Septum, هنا يلف من قدام للورا, That's why any injury to the epicondyle it will affect ulnar nerve!

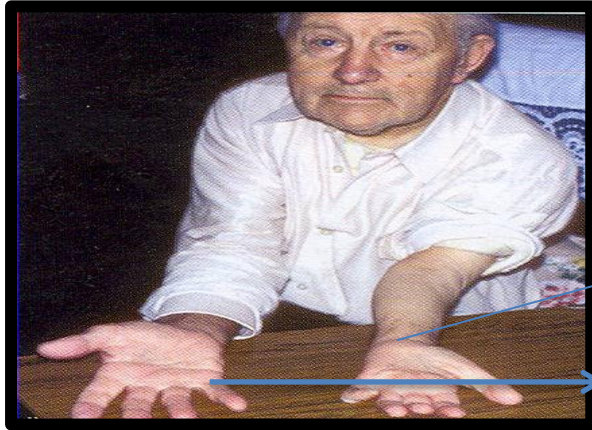
٢-Flexor Carpi Ulnaris" -يرجع ثاني من ورا لقدام عن طريق-

\*Don't forget " ردا للجميل لانها نقلته " it is going to supply it



hand تقسمت لما وصلت لل Superficial Branches of

from the forearm branch



**\*ulnar nerve injury**

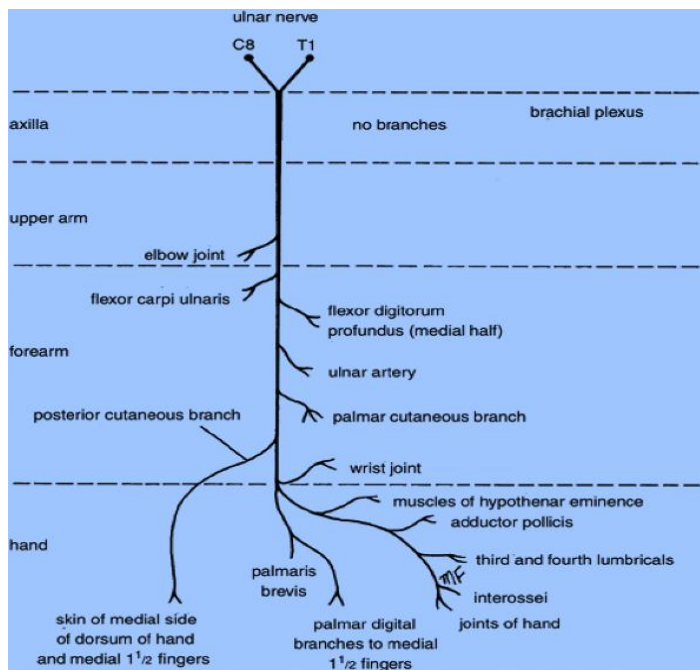
Atrophy of Ulnar side of forearm.

Flexion of the wrist with Abduction.



\*Claw hand.

[http://www.surgical-tutor.org.uk/default-home.htm?specialities/orthopaedic/nerve\\_injuries.htm~right](http://www.surgical-tutor.org.uk/default-home.htm?specialities/orthopaedic/nerve_injuries.htm~right)



**Quiz:**

**1-What is the origin of the radial nerve?**

**Posterior cord of the brachial plexus.**

**2-What are the branches that arise from the radial nerve at the axilla region?**

**Cutaneous: Posterior cutaneous nerve of arm.**

**Muscular to: Long & Medial Heads of Triceps**

**3-What is the joint that articulates with the lateral epicondyle branch of radial nerve?**

**Elbow joint.**

**4- The superficial branch goes down under cover of?**

**Brachioradialis muscle**

**5-What is the type of the deep branch of radial nerve?**

**Motor nerve 100%**

**6-How the ulnar nerve passes FR at the wrist?**

**Anteriorly**

**7- Name the bone which locates latterly to the ulnar nerve in the wrist?**

**Pisiform**

**8- How many branches of ulnar nerve in the arm?**

**It has No branches**

**9-ulnar nerve injury at the elbow can leads to?**

**Claw hand ans wasting of hypothenar eminence**

**10-What is the name of the nerve which is medially located to the ulnar artery in the forearm?**

**Ulnar nerve**

**Quiz:**

**1-"RADIAL NERVE "the branch Arising Close to Lateral Epicondyle Muscular to :**

1-Brachialis.

2-Extensor carpi radialis longus

3-All above

**2-"Atrophy of medial side of forearm and Abduction "occrues due to .....injury :**

1-Radial nerve

2-Ulnar nerve

3-Both

**3-Radial nerve Supplies?**

1-Muscles of the posterior compartment of the arm.

2-All Muscles of the posterior compartment of the fore arm.

3-All Muscles of the posterior compartment of the arm & fore arm

**4-Ulnar nerve comes from?**

1-L4

2- C8&T1

3-L4&L3

**5-We have ..... Branch(es)in the arm "ulnar nerve" :**

1-0

2-1

3-2

**6-Ulnar nerve will supply?**

1-Medial 1/4 of Flexor Digitorum Profundus

2-Medial 1/2 of Flexor Digitorum Profundus

3-Medial 1/3 of Flexor Digitorum Profundus

**7-Palmar cutaneous “ulnar nerve” Supplies?**

- 1-All the Fingers
- 2-Medial 1+1/2 fingers
- 3-Only the skin over the Medial part of the palm.

**8-The only muscle which supplied by Branches of Superficial “ulnar nerve”is?**

- 1-Palmaris Brevis
- 2-Brachialis.
- 3-Brachioradialis.

**9-It descends under cover of Brachioradialis?**

- 1-Superficial Branch “radial nerve”
- 2-Intermediate branch “radial nerve”
- 3-Deep branch “radial nerve”

**10-Course & Distribution In the Arm “radial nerve”?**

- 1 It winds around the back of the arm in the Spiral Groove
- 2 It winds around the back of the arm in the greater tubercle
- 3 It winds around the back of the arm in the lesser tubercle

**11-Ridial Divides into Superficial & Deep branches in the:**

- 1- lesser tubercle
- 2-spiral groove
- 3- Cubital Fossa

**12-Which branch of the radial nerve supplies “ Muscular to Lateral & Medial heads of triceps”:**

- 1- the one which Arise In the Axilla
- 2- the one which Arise In the spiral groove
- 3-the one which Arise Close to Lateral Epicondyle:



**13-Medial heads of triceps supplied by ?**

- 1- Radial nerve from one branch
- 2- Radial nerve from two branches
- 3-Radial nerve from three branches

**14-Which branch of the radial nerve supply "Anconeus" ?**

- 1-the one which Arise In the Axilla
- 2-the one which Arise In the spiral groove
- 3-the one which Arise Close to Lateral Epicondyle:

**15-No sensory loss if the injury occurs in the .....of the "radial nerve ":**

- 1-Superficial Branch
- 2-Deep Branch
- 3-Intermediate branch

**16-The area of skin supplied by the Superficial Branch of radial nerve on the dorsum of the hand is:**

- 1-Variable
- 2-balanced.
- 3-Constant

**17-It winds around the neck of the radius, within the supinator muscle:**

- 1-Superficial Branch
- 2-Intermediate branch
- 3-Deep branch

**18-If We don't have ( wrist Drop)and " No sensory loss " that mean the injury occurs in the..... Of the radial nerve :**

- 1-Deep Branch
- 2-Superficial Branch
- 3-Intermediate branch

<b>Q</b>	<b>A</b>
<b>1</b>	<b>3</b>
<b>2</b>	<b>2</b>
<b>3</b>	<b>3</b>
<b>4</b>	<b>2</b>
<b>5</b>	<b>1</b>
<b>6</b>	<b>2</b>
<b>7</b>	<b>3</b>
<b>8</b>	<b>1</b>
<b>9</b>	<b>1</b>
<b>10</b>	<b>1</b>
<b>11</b>	<b>3</b>
<b>12</b>	<b>2</b>
<b>13</b>	<b>2</b>
<b>14</b>	<b>2</b>
<b>15</b>	<b>2</b>
<b>16</b>	<b>1</b>
<b>17</b>	<b>3</b>
<b>18</b>	<b>1</b>

GOOD LUCK ;)