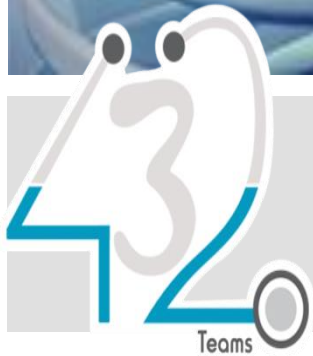


Orthopedics

OSCE - Peripheral Nerves Examination



Done By: Ahlam AlMutairi (F1)
Eman AlBadaie (F1)

Team Leader: Khulood AlRaddadi (F1)
Khulood.ALraddadi@gmail.com

جامعة
الملك سعود
King Saud University



Color Code:

Slides

431 team work

Sessions' Notes

Arabic Words

Team Notes

Books' notes

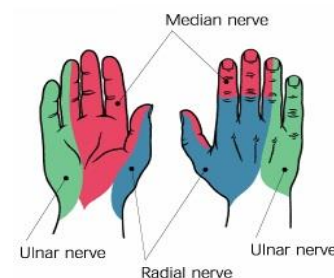
Important

Other Sources

Peripheral Nerves Examination

- (Upper Limb):**

Quick anatomy review: (for your knowledge and to help you better understand the examination 😊)



Muscles innervated

Primary action

Median nerve (C5-T1)	<p>A) Forearm: - Anterior compartment except 1.5 muscles by ulnar n (flexor carpi ulnaris and ulnar half of the flexor digitorum profundus)</p> <p>B) Hand: - Thenar muscles: (Opponens pollicis) - Lumbricals digits (2 & 3)</p>	<p>- Flex wrist and all digits - Pronation</p> <p>- Opposition of thumb - Flex MP and extend PIP and DIP of digits 2 & 3</p>
Ulnar nerve (C8-T1)	<p>A) Forearm: - Flexor carpi ulnaris and ulnar half of the flexor digitorum profundus</p> <p>B) Hand: - Hypothenar muscles - 8 Interossei muscles (palmar & dorsal) - Lumbricals (digits 4 & 5) - Adductor pollicis</p>	<p>- Flex wrist (weak) and digits 4 & 5 - Opposition of little finger - Abduction and adduction of the fingers+ flex MP+ extend IP. Flex MP and extend PIP and DIP of digits 4 & 5 - adduct the thumb</p>
Radial nerve (C5-T1)	<p>Posterior compartment muscles of the arm and forearm</p>	<p>- Extend MP, wrist and elbow</p>

❖ Median nerve

- 1- Look:**
- Redness, scars
 - Muscles wasting: **Thenar muscle**
 - Deformity: **Ape hand** deformity

2- Feel: (test sensory)
Ask the patient to close his eyes and tell you if he felt your fine touch (**with cotton ball**) in: **The volar aspect of index finger** and ask if it is the same sensation on both hands
(comment e.g. bilateral symmetrical sensation on both sides)

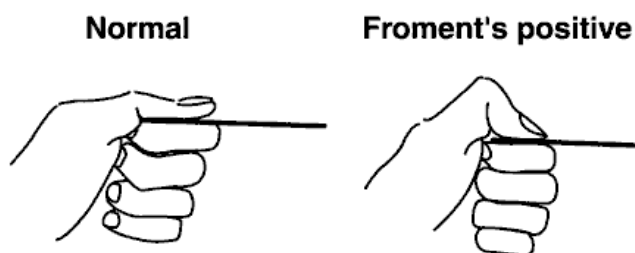
3-Move: (test motor)
Ask the patient to do the following: **Thumb abduction or Thumb opposition to little finger** (**not** to index for OK sign)

4- Power
Test the power of opposition by asking him to resist your attempt to break the opposition circle. (comment e.g. bilateral symmetrical power)

❖ Ulnar nerve

	Redness, scars
1- Look:	Muscles wasting: <u>hypothener muscle</u> Deformity: claw hand .
2- Feel: (test sensory)	Ask the patient to close his eyes and tell you if he felt your fine touch in: <u>The volar aspect of little finger.</u>
3- Move: (test motor)	Fingers abduction.
4- Power	Test the power of abduction by asking him to resist your attempt to adduct his fingers.

5- Special test	<p>Froment's sign Ask the patient to hold a paper firmly between their thumb and index then you try to pull the paper, normally he will be able to maintain a hold on the paper without having to flex his thumb. However, with ulnar nerve palsy, the patient will experience difficulty maintaining a hold and will compensate by flexing the (flexor pollicis longus) of the thumb to maintain grip pressure causing a pinching effect</p>
------------------------	--



❖ Radial nerve:

1- Look:	<ul style="list-style-type: none"> - Redness, scars - Muscles wasting - Drop rest sign
2- Feel: (test sensory)	Ask the patient to close his eyes and tell you if he felt your fine touch in: <u>Dorsal aspect of the first web-space.</u>
3-Move: (test motor)	Wrist extension + metacarpal joint extension.
4- Power	Test the power of extension by asking him to resist your attempt to flex his wrist.

- ✓ **To complete the examination mention that you will test capillary refill and take radial pulses.**

- (lower limb)

❖ Femoral nerve

1- Look: - Redness, scars
- Muscles wasting: quadriceps muscles. (Don't forget to expose the thighs)

2- Feel: Ask the patient to close his eyes and tell you if he felt your fine touch in: the medial side of leg and foot = femoral (saphenous nerve)
(test sensory)

3-Move: Ask the patient to do: **knee extension**
(test motor)

4- Power Test the power of extension by asking him to resist your attempt to flex the knee.

❖ Common peroneal nerve

1- Look: - Redness, scars
- Muscles wasting: **Anterior leg muscles** (observe from side and front)
- Deformities: **Drop foot**

2- Feel: Ask the patient to close his eyes and tell you if he felt your fine touch in: the dorsal aspect of foot.
(test sensory)

3-Move: Ask the patient to do: **Ankle dorsiflexion**
(test motor)

4- Power Test the power of dorsiflexion by asking him to resist your attempt to push his ankle down (bring it back to neutral position)

❖ Tibial nerve

1- Look: - Redness, scars
- Muscles wasting: **Calf muscles** (observe from side and back)
- Deformities

2- Feel: Ask the patient to close his eyes and tell you if he felt your fine touch in:
(test sensory) the plantar aspect of foot.

3-Move: Ask the patient to do: Ankle **plantar flexion** (or walking on
(test motor) **toes**)



4- Power Test the power of flexion by asking him to resist your attempt to push his ankle up, bring it back to neutral position.

- ✓ To complete the examination mention that you will test **capillary refill and take pulses "D.P - P.T"**.

Vascular exam:

Look: Thin, shiny, hairless skin. Ulcers. Pallor.

Feel: temperature

Special tests:

- Capillary refill (normal is <2 seconds).
- Pulses.