

Bases of Neuropathology

**Sensitivity & its disorders.
Part IV**

PAIN

occurs when receptors, sensitive conductors or centers are irritated.

Pain is characteristic of peripheral nerve damage, the posterior roots of the spinal cord, and the sensory roots of the cranial nerves, the thalamus, and the meninges

TYPES OF PAIN

- **local**
- **radiating**
- **phantom**
- **reflected**

LOCAL PAIN

**occurs in the area of pain stimulation.
Common causes are diseases of the
bones, joints, sinuses of the nose**

RADIATING PAIN

occurs during nerve irritation and are projected into the corresponding skin zone.
Example: pain in the forearm and palm in case of elbow nerve injury in the area of elbow joint

PHANTOM PAIN

is unpleasant sensations of burning, itching after amputation, localized in the “amputated” limb segment

REFLECTED PAIN

pain in certain areas of the skin (Zakharyin-Head's zones) for diseases of internals.

Example:

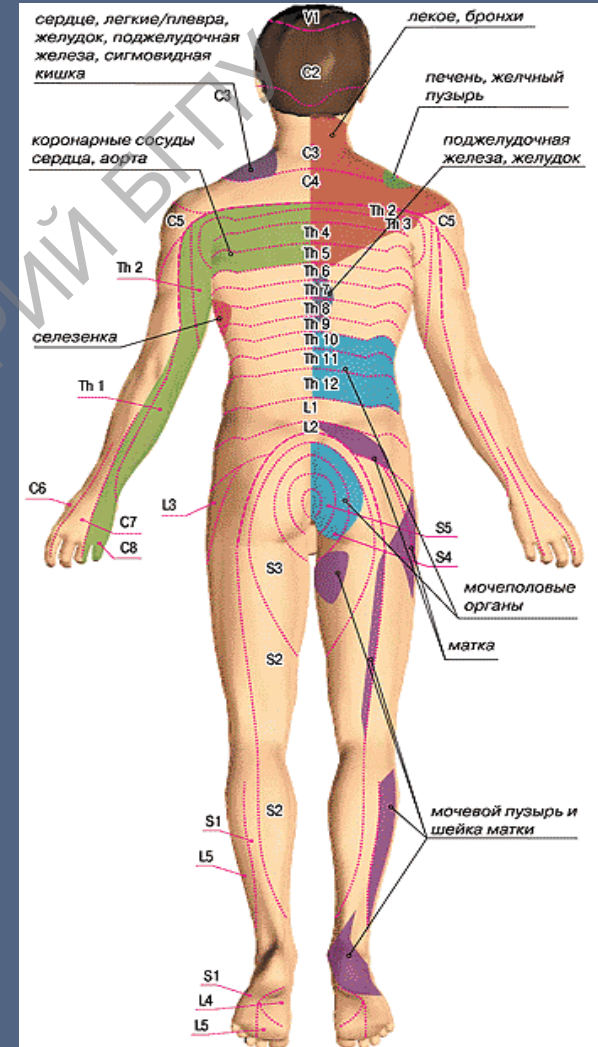
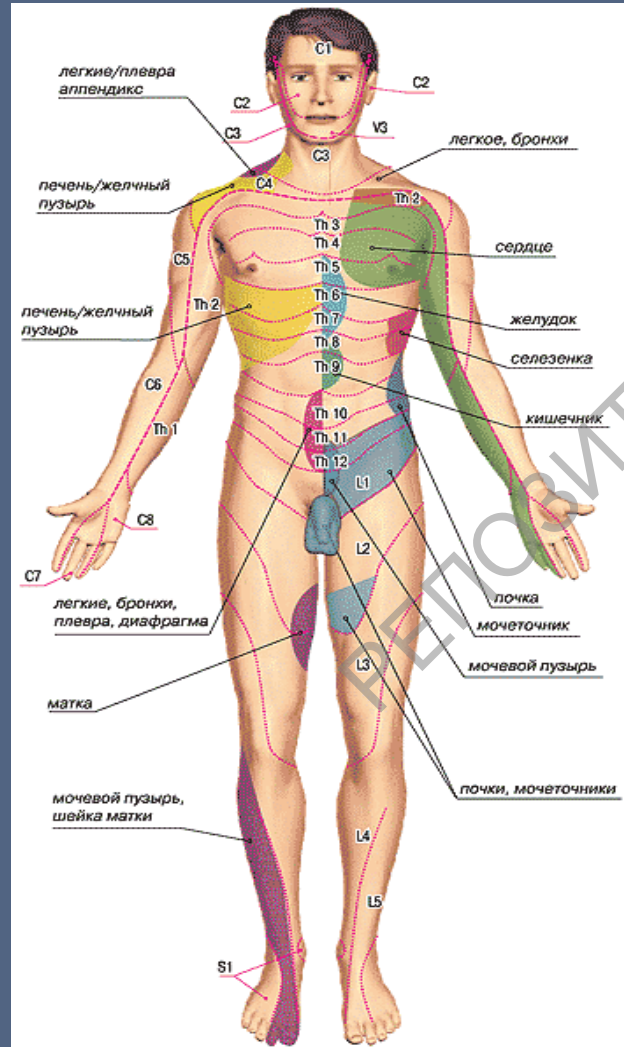
the heart corresponds to the segments C_3-C_4 & Th_1-Th_6 ,

the stomach - C_3-C_4 & Th_6-Th_9 ,

the intestine - $Th_{11}-Th_{12}$,

the bladder - $Th_{11}-L_2$ & S_3-S_4

ZAKHARYIN-HEAD'S ZONES



SYNDROMES OF SENSITIVE PATH LESION

- **peripheral**
- **segmental**
- **conductor**

PERIPHERAL SYNDROM OF SENSITIVE PATH LEISON

- occurs when peripheral nerves and plexuses are affected
- total hypesthesia or anesthesia
- multiple sensitive paths lesion causes symmetric hypesthesia patterned after "gloves" and "socks"

SEGMENTAL SYNDROM OF SENSITIVE PATH LEISON

- occurs when the posterior roots, horns or sensitive nuclei of the cranial nerves are affected
- all kinds of sensitivity are violated, pain along the spinal root (radicular pain)
- In case of the defeat of the posterior horns - dissociated sensitivity disorder (violated surface sensitivity with intact deep sensitivity)

CONDUCTOR SYNDROM OF SENSITIVE PATH LEISON

- occurs below the sensitivity path lesion in the spinal cord
- deep sensitivity is disturbed on the side of the pathological nidus, and the surface sensitivity is on the opposite side