УВРЕДИ НА СТРУКТУРИТЕ В НЕРВНАТА СИСТЕМА, ВОДЕЩИ ДО КЛИНИЧНИ СИМПТОМИ И СИНДРОМИ
Фиг. 3.2.1. Схематично представяне на homunculus на кръвоносната система на връзката между мозъка и осъзнаването на тялото.
Pain and temperature sensation in the left leg

**Tetrad sensory neuron:**
- Cell body in thalamus
- Axon travels to sensory cortex

**Second sensory neuron:**
- Cell body in lumbar spinal cord on the left
- Axon crosses to the right and ascends to thalamus in lateral column of spinal cord

**Dorsal root ganglion cell:**
- Dorsal axon from the left leg, via peripheral nerve, lumbosacral plexus and spinal nerve
- Proximal axon enters cord via dorsal root of spinal nerve, and relays with second sensory neuron

Position sense in the left leg

**Tertad sensory neuron:**
- Cell body in thalamus
- Axon travels to sensory cortex

**Second sensory neuron:**
- Cell body in gracile or cuneate nucleus on left side of medulla, axon crosses to the right side of medulla and ascends to thalamus on the right

**Dorsal root ganglion cell:**
- Dorsal axon from left leg, via peripheral nerve, lumbosacral plexus and spinal nerve
- Proximal axon enters cord, ascends in posterior column on the left to reach the second sensory neuron in left lower medulla
Fig. 3.18 Spinal cord hemisection syndrome (Brown–Séquard syndrome)
Cerebrospinal fluid is collected from the thecal sac that surrounds the spinal cord.
Spinal needle is inserted between 3rd and 4th lumbar vertebrae.