

This is where the "pain" pathway crosses to the other side of the spinal cord. This is sooner than the DCML pathway, this is one of the differences from it. Here, it starts its second neuron.

The DCML pathway crosses to the opposite side of the spinal cord about over here, it also starts its second neuron when it crosses like the spinothalamic pathway, AKA the pain and temperature pathway.

The thalamus over here acts as a gate, welcoming the third neuron of both systems and sending them to the right location of the cerebral cortex (look above).

Medulla.

Cerebral cortex.

Have you ever wondered why the neurons cross to the opposite side of the spinal cord? Well, this happens because the part of the brain which processes these signals is on the opposite side. To clarify, if I pinch your right hand, the left part of your cerebral cortex will "tell" you that.

Dorsal Column Medial Lemniscus pathway
(DCML Pathway, that detects touch).

Spinothalamic pathway, that detects
pain and temperature.