

Cerebral pathways = controls the opposite side → cross one time → conscious level → have three neurons

### 1-dorsal column

A) gracilis → شيء لزج فبنحسو بالوسط عشان ما ينتشر ويطلع من الاطراف → وبما انو لزج بينزل لتحت للور سقمنت → medial → received at sacral and lumbar and lower thoracic → name of second neuron is nucleus gracilis

B) cuneatus → lateral → received at upper thoracic and cervical → name of second neuron is nucleus cuneatus

الطريق حقهم اول شيء لاول نيرون يدخلو في الدورسل قناليون بعدين يروحو لنيرون الثانيه كاتبه اسمائهم فوق

Then cross in the medulla as "internal arcuate fiber"

بعدين بترسل لفوق عشان بنوصلها للنيرون الثالث يتغير اسمها ل "medial lemniscus"

بعدين توصل للنيرون الثالث "" posterior nucleus of the thalamus "" somatosensory cortex " آخر شيء يرسلها النيرون الثالث ل "

### 2-anterior-lateral pathway(spinothalamic tract )

#### A) lateral spinothalamic tract

Pain and temperature

1nero "small cell of dorsal root ganglia" → 2nero "substantia gelatinosa in posterior (dorsal) horn" → 3nero "vp nucleus of the thalamus" → primary sensory cortex in opposite side.

#### B) anterior spinothalamic tract

Carries crude touch and pressure

1nero "Medium sized cell in the dorsal root ganglia" → 2nero "nucleus proprius" → 3nero "vp nucleus of the thalamus" → primary sensory cortex in opposite side .

Cerebellum=controls the same side → cross twice or don't cross → subconscious centers → two neuron

### **1-spinocerebellar pathway**

#### A)posterior spinocerebellar

1nero "large cell of dorsal root ganglia" → 2nero "cell of the nucleus dorsalis (clark's nucleus)" → axon of 2nero terminal ipsilaterally (uncrossed) → entering inferior cerebellar peduncle

#### B)anterior spinocerebellar

هي اللي في الامام فهيا المشاغبه الي بتتسوي كروس مرتين

1nero "large cell of dorsal root ganglia" → 2nero "base of dorsal gorn in lumbosacral segment" → axon of 2nero cross in the opposite side → ascend in midbrain and sharp turn caudally (cross second time) → entering superior cerebellar peduncle .

عاتكه کادي  
Done by: