



3

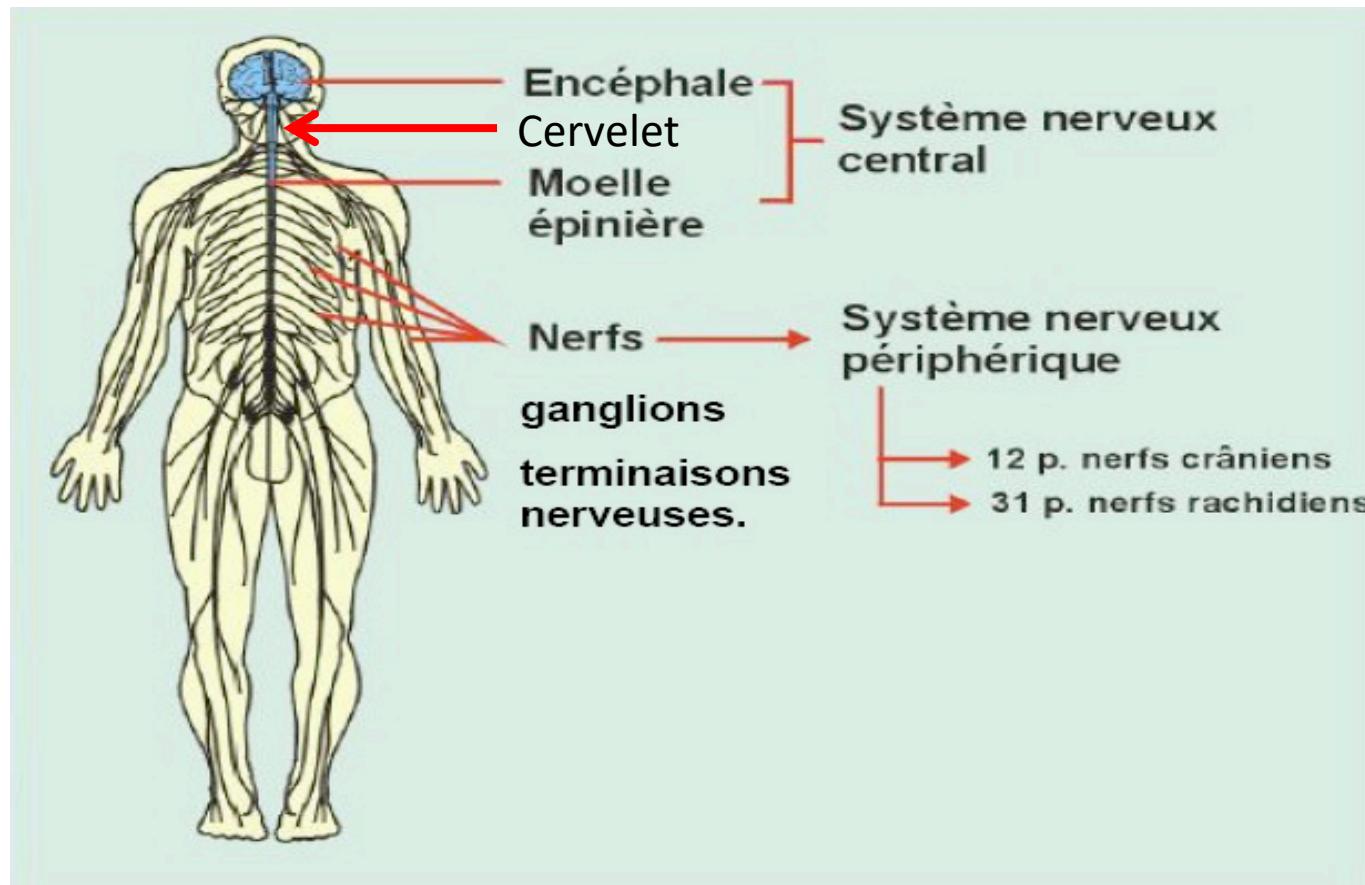
LA MOELLE EPINIÈRE

Dr N- BELAGGOUNE

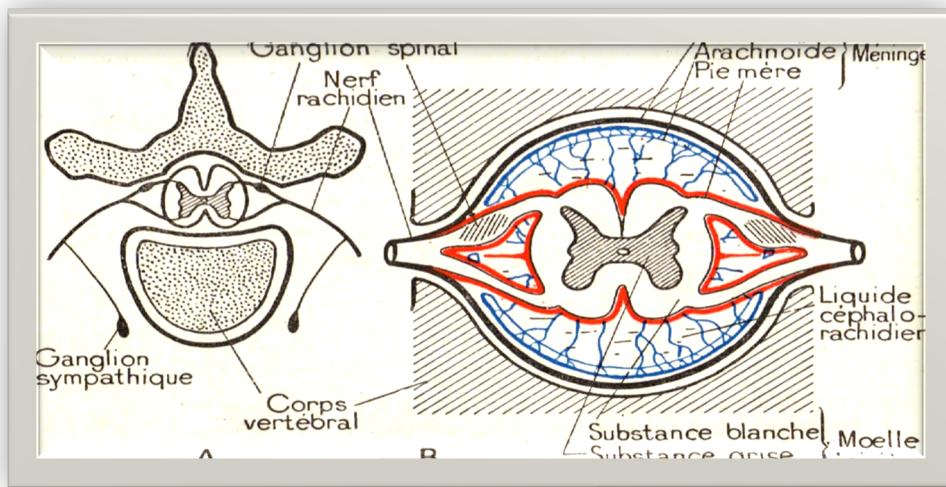
PLAN

1. INTRODUCTION
2. DEVELOPPEMENT EMBRYONNAIRE.
3. STRUCTURE ANATOMOMICROSCOPIQUE.
4. STRUCTURE HISTOLOGIQUE.
5. HISTOPHYSIOLOGIE.

1- INTRODUCTION

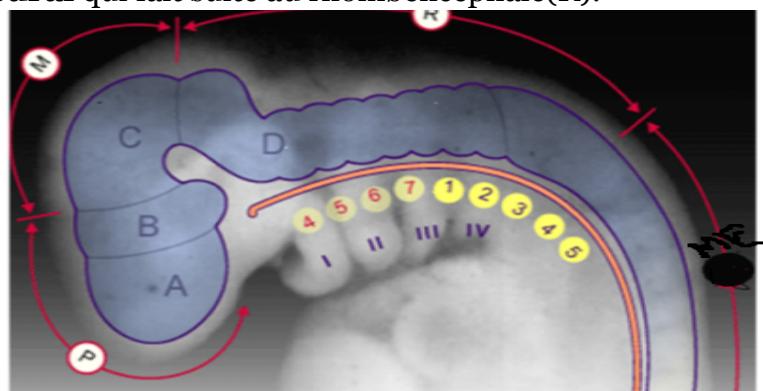


- La ME désigne la partie du SNC qui se prolonge au dessous du bulbe rachidien .
- Elle est continue dans le canal rachidien (soutien, protection).
- Elle est constituée de: neurones, fibres nerveuses et des cellules gliales.

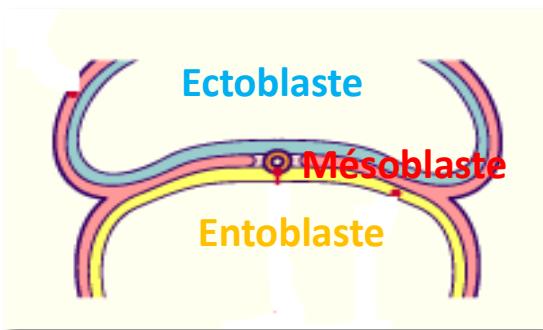


2- DEVELOPPEMENT EMBRYONNAIRE

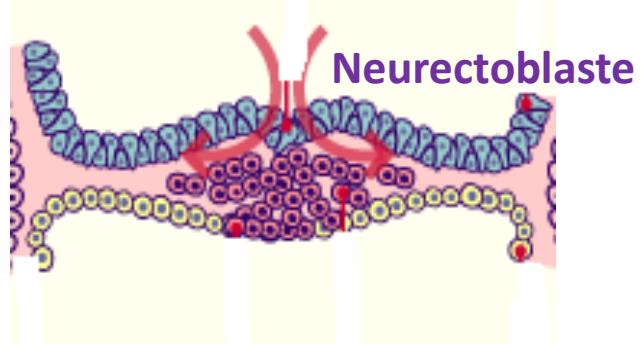
La ME dérive de la partie **caudale du tube neural** qui fait suite au rhombencéphale(R).



2 SA :Disque embryo didermique



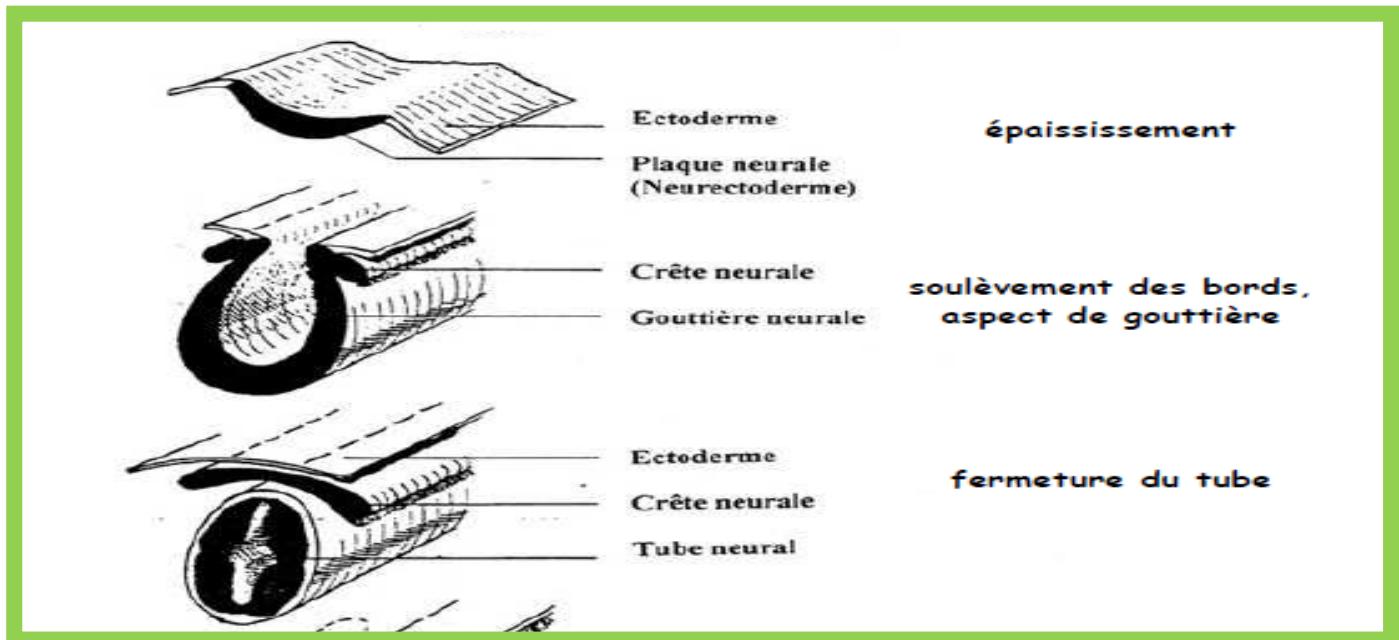
3 SA :Disque embryo tri dermique



J18 :Apparition de la plaque neurale

Apparition à J18 de la plaque neurale

1er événement à l'origine du SNC = Epaississement de neurectoblaste



TN: neurectoblastique = cerveau + ME

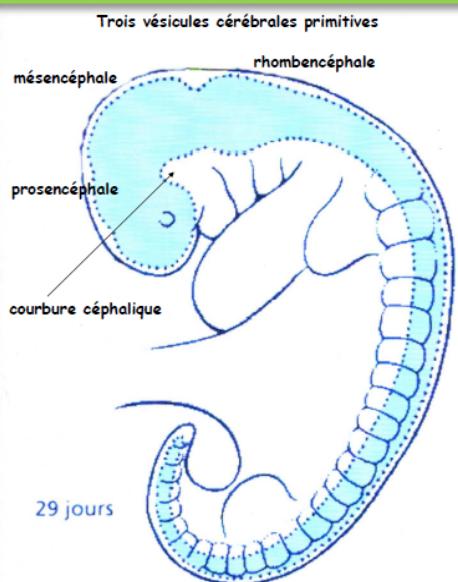
- ✓ Large en crânial: cerveau
- ✓ Effilé en caudal: ME

P : télencéphale

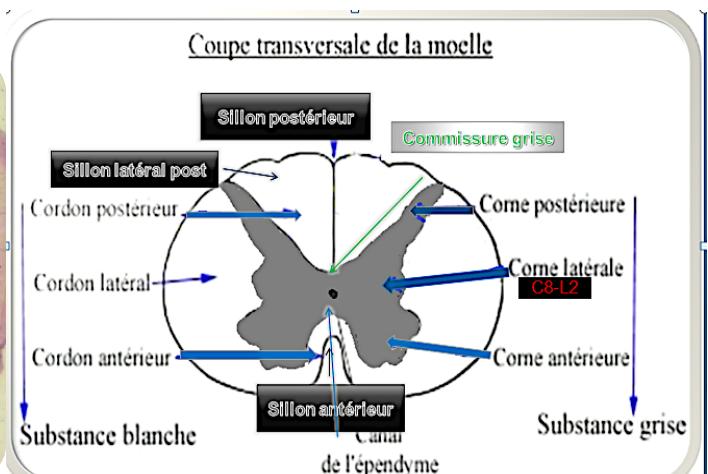
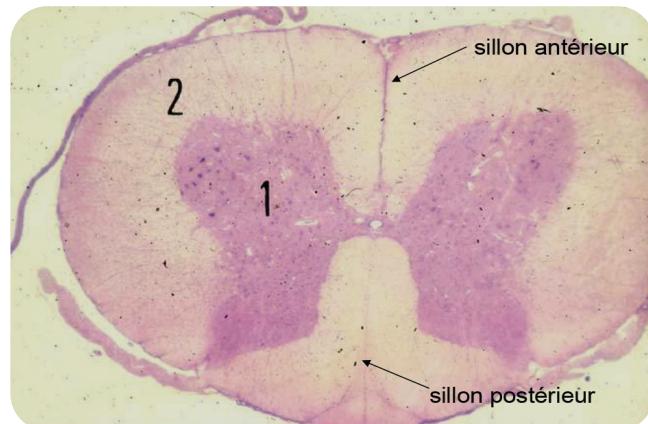
M: tronc cérébral

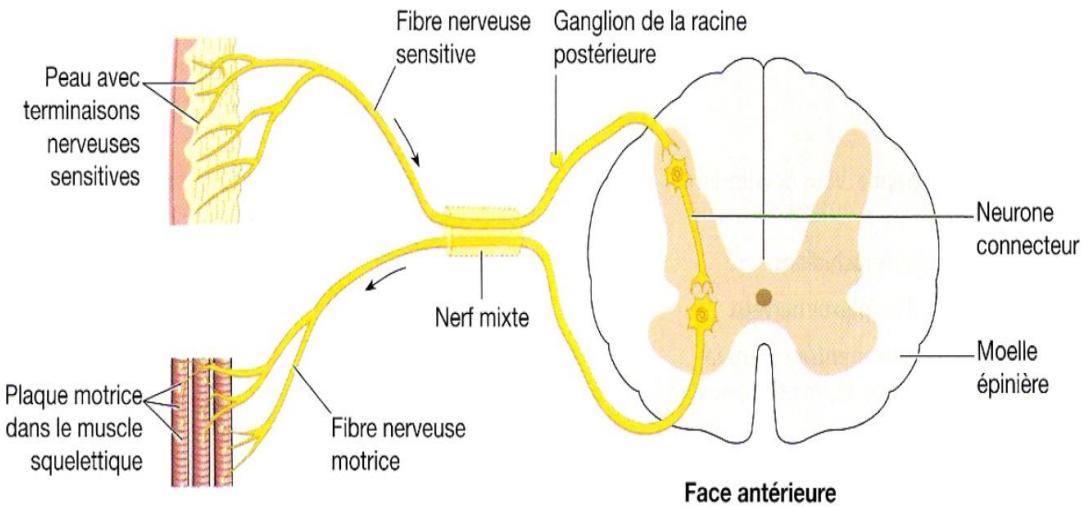
R: Bulbe rachidien

ME: partie **caudale du tube neural** qui fait suite au rhombencéphale(R).

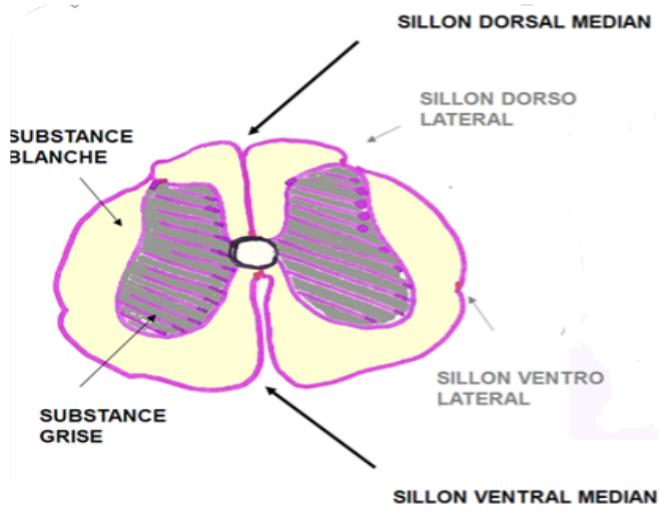


3- STRUCTURE ANATOMOMICROSCOPIQUE





2. La substance blanche

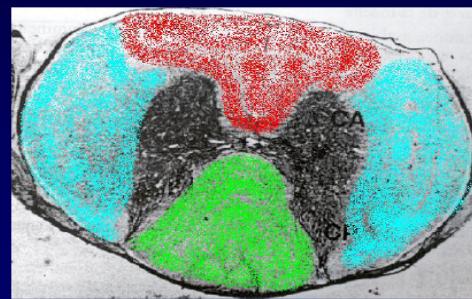


***la substance blanche* trois cordons :**

Antérieur: voies descendantes motrices.

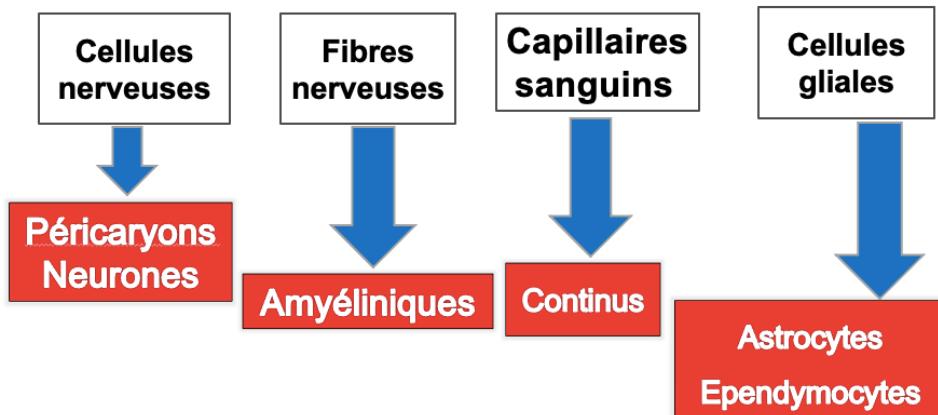
Latéral : voies ascendantes d'association.

Postérieur : voies ascendantes sensitives.

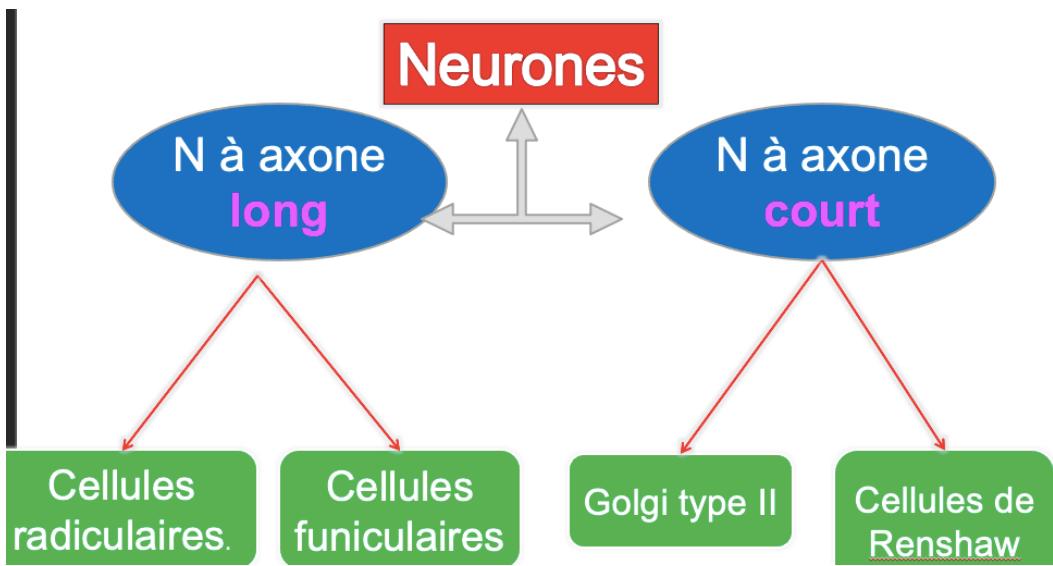


4- STRUCTURE HISTOLOGIQUE

substance grise



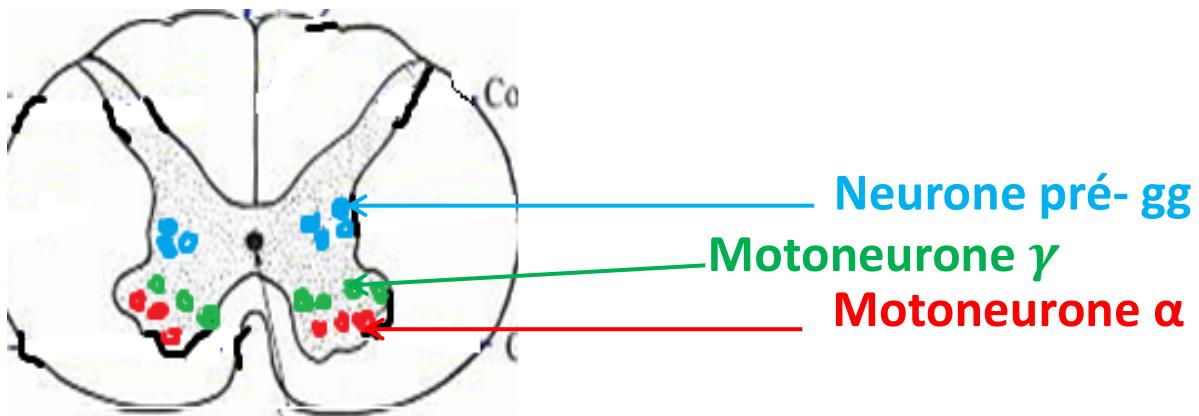
4.1. La substance grise



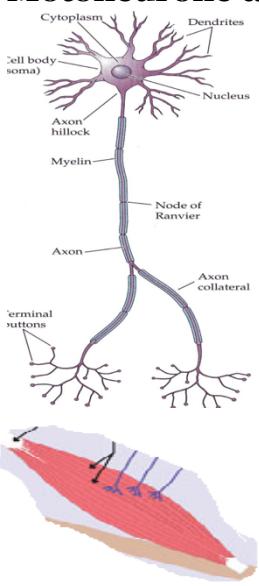
1. Les neurones radiculaires

Neurones à axone long

quitte la ME

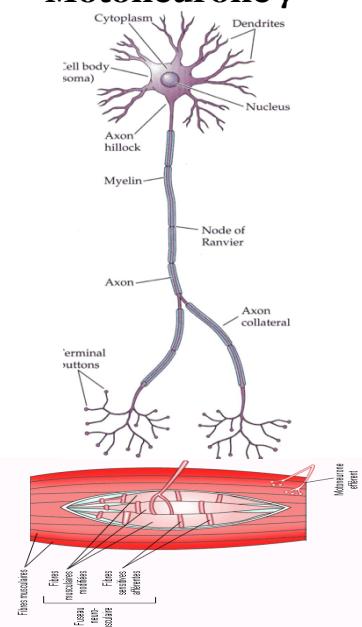


Motoneurone α



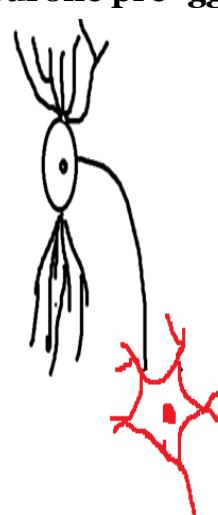
Plaque motrice

Motoneurone γ



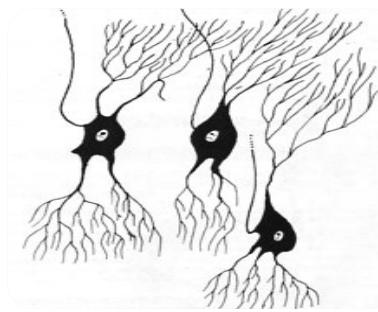
Fuseau neuromusculaire

Neurone pré-gg



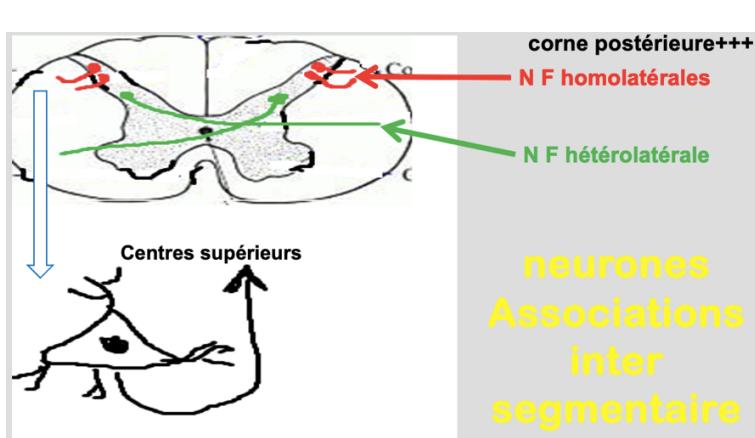
N « gg végétatif »

- ✓ situés dans la corne latérale.
- ✓ Axone gagne un ganglion végétatif « Post gg »
- ✓ neurones viscéro-moteurs

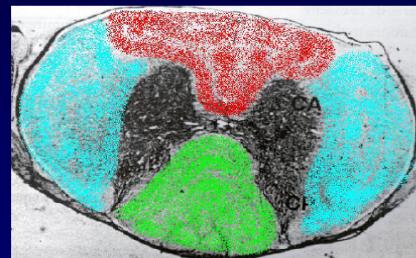


2. Neurones funiculaires fasciculaires : cordonales

Neurones à axone long



la substance blanche trois cordons :
Antérieur: voies descendantes motrices.
Latéral : voies ascendantes d'association.
Postérieur : voies ascendantes sensitives.

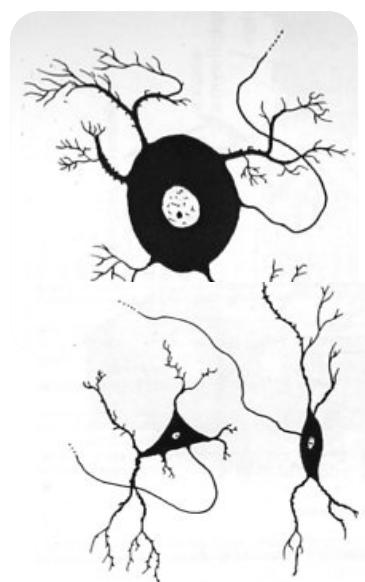


N F homolatérale

Cytone :rond v3

Dendrites courtes et ramifiées

Axone épais long: Faisceaux spino-cérébelleux directs



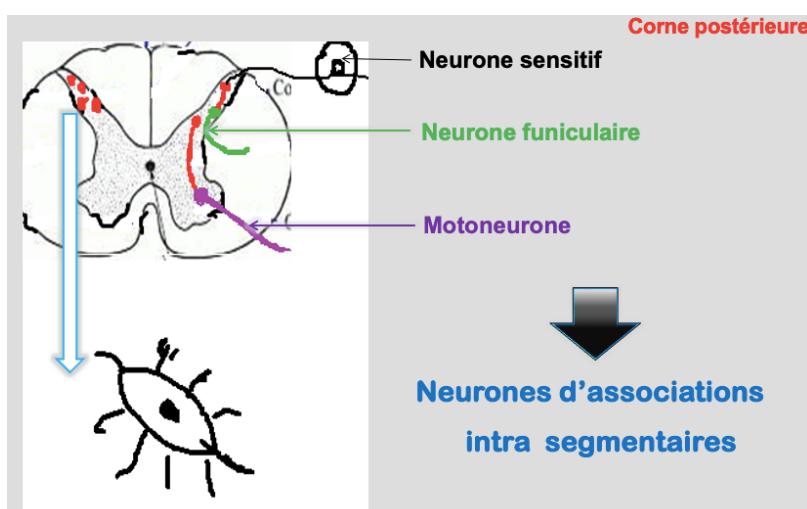
N F hétérolatérale

Cytone pt triangulaire

Dendrites :peu développées

Axone mince : faisceaux spino-cérébelleux croisé

3. Les cellules de Golgi type II

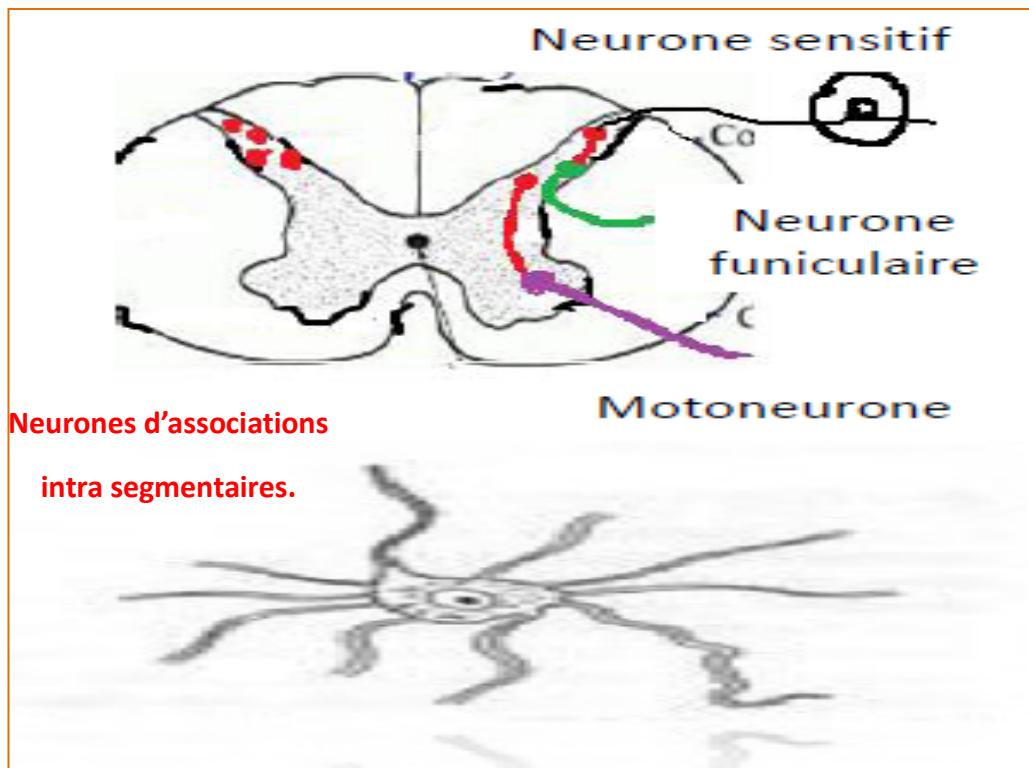


Neurones à axone court

Corne post ++++

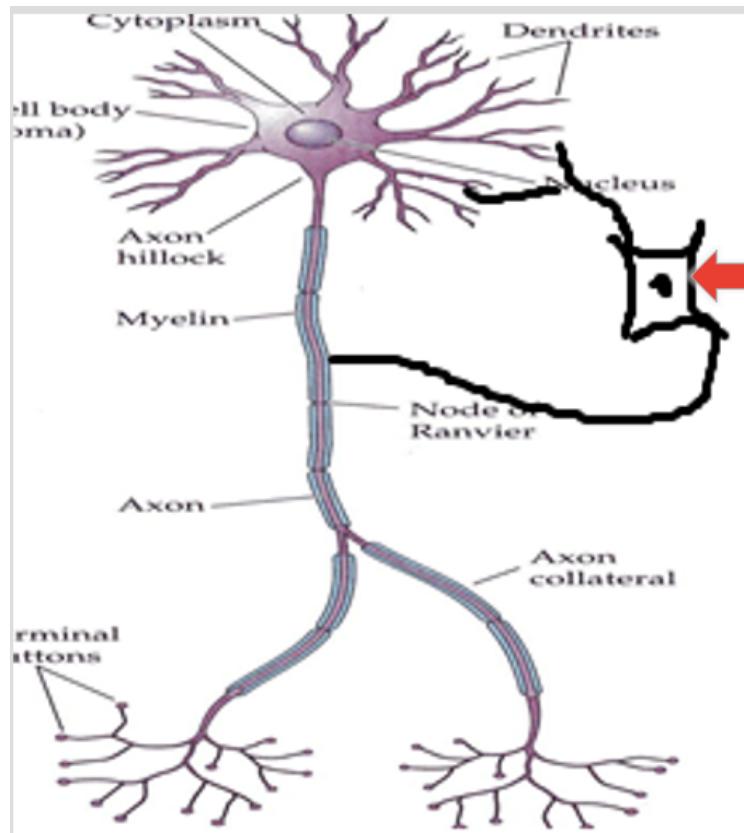
Axone court amyélinique

Dendrites nombreuses reçoivent des influx des neurones sensitifs



4. Les cellules de Renshaw

Neurones à axone court



corne antérieure

Cellules satellites

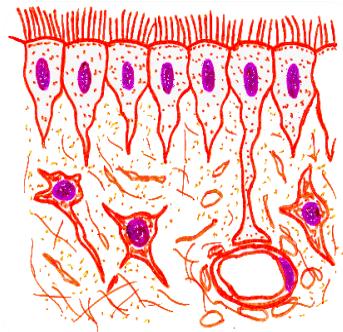


Inter neurones

Inhibiteur des motoneurones

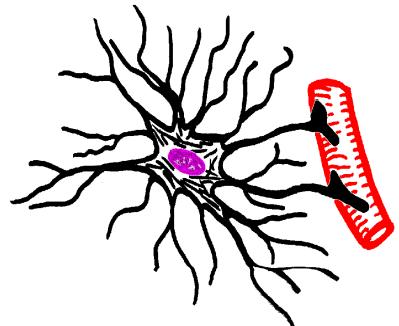
CELLULE ÉPENDYMAIRE

- EPENDYMOCYTE.
- Cellule prismatique
- 1 seule assise
- Cils .

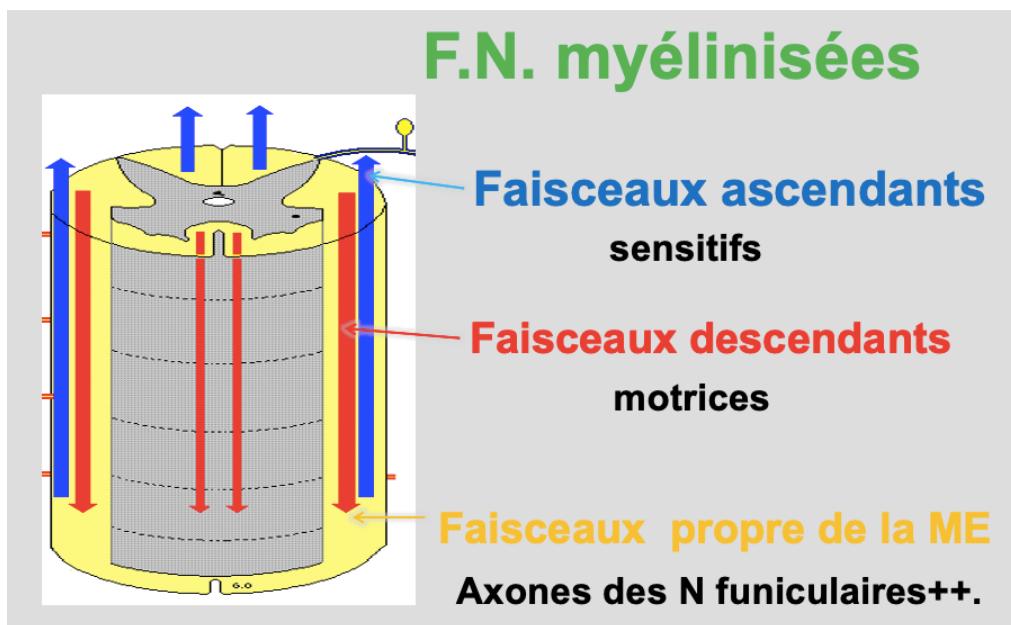


ASTROCYTE FIBREUX

- Il se rencontre dans la substance blanche
- Prolongement lisse
- Pied vasculaire
- Capillaire sanguin



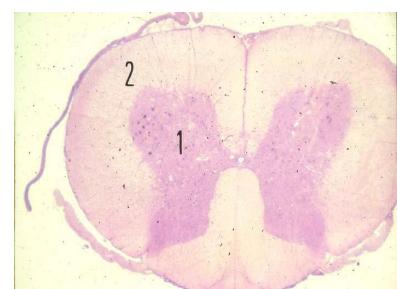
4.2. La substance blanche



5. HISTOPHYSIOLOGIE

2 rôles :

Dans l'activité dite reflexe : **la substance grise**



Conduction faisceaux ascendants et descendants : **substance blanche**

