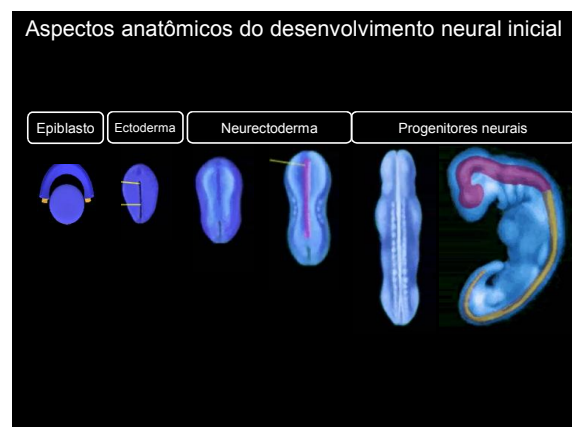
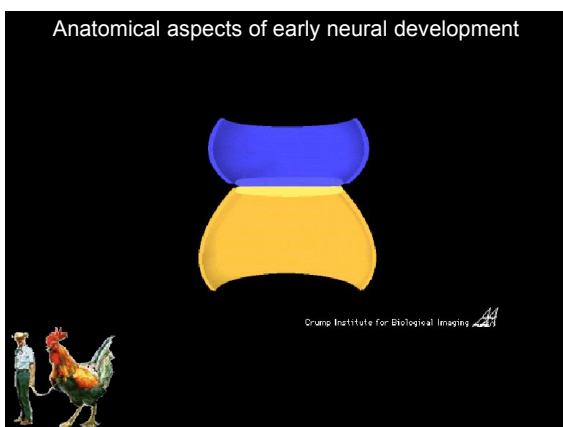
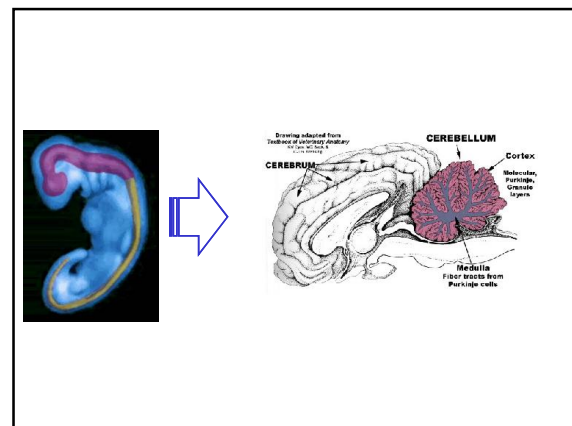
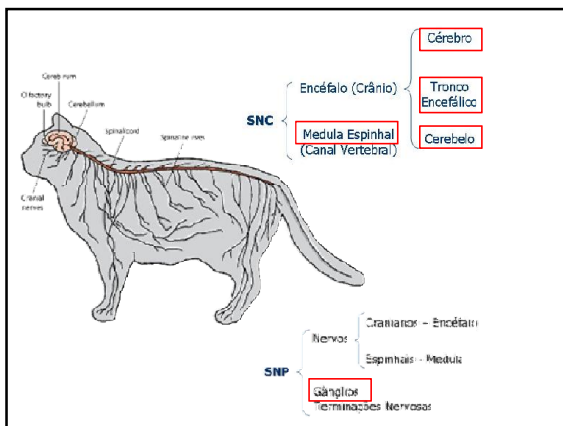
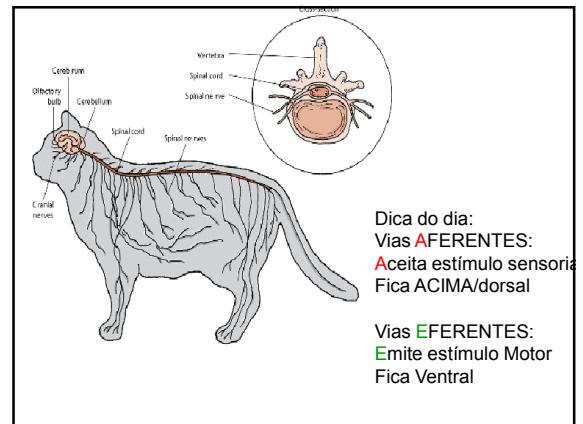
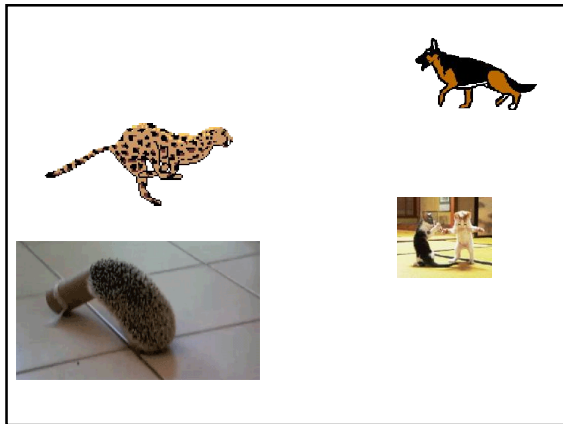
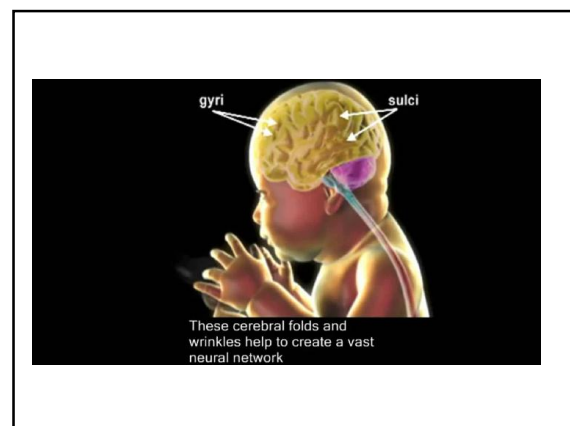
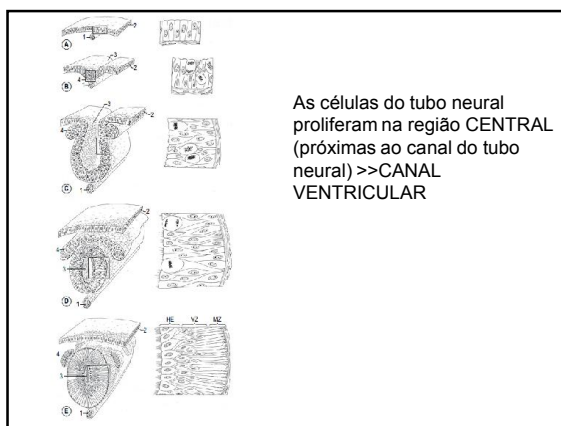
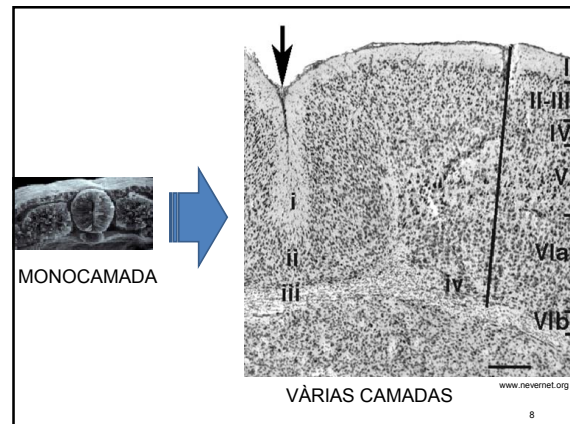


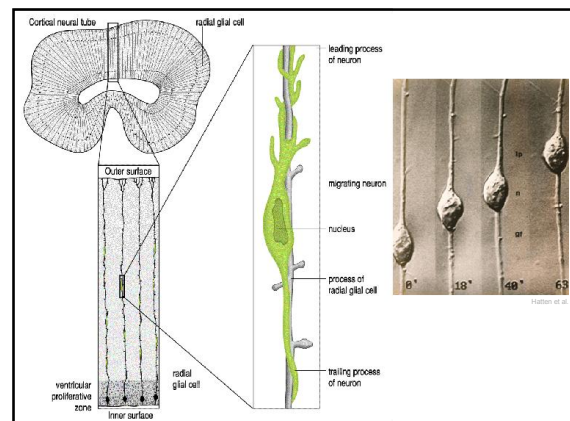
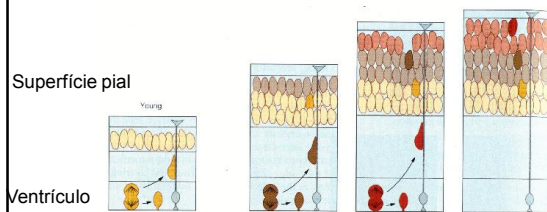


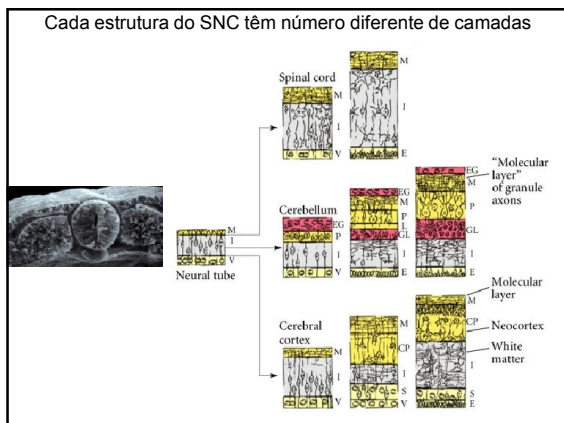
1. Aumento do NÚMERO CELULAR
 1. Proliferação celular
 2. Pressão intraventricular
2. Diferenciação DORSO-VENTRAL
3. Emissão de neuritos e mielinização
4. Dobramento do tubo neural



Os precursores de neurônios migram do ventrículo em direção a superfície.

OU SEJA, os neurônios mais novos são mais superficiais





1. Aumento do NÚMERO CELULAR

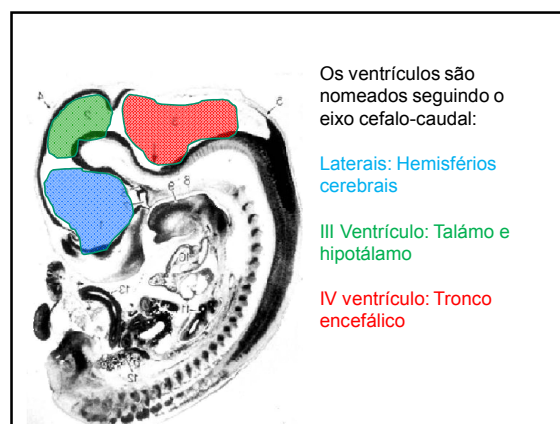
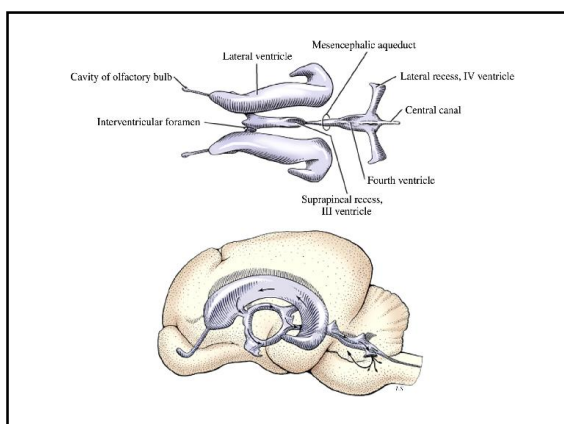
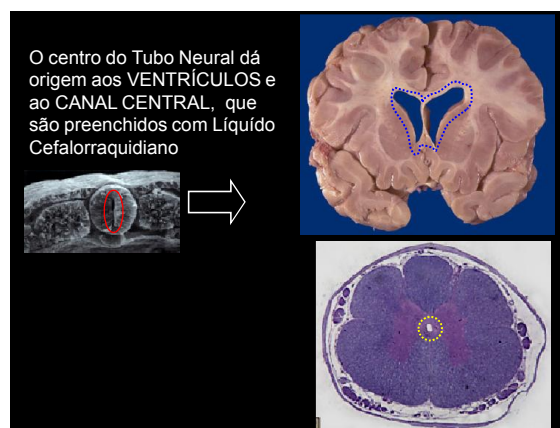
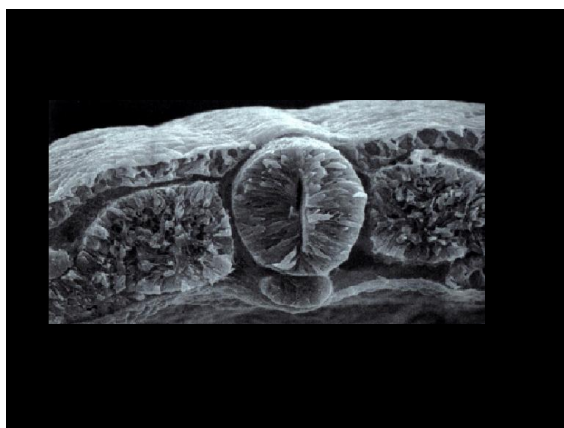
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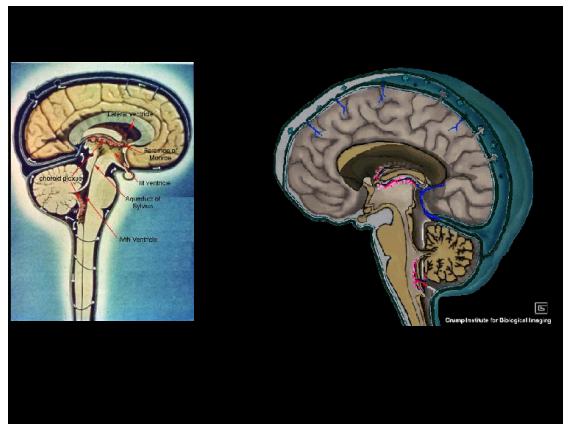
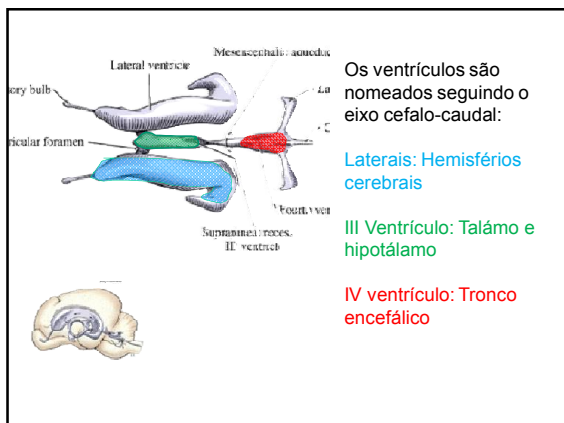
2. Pressão intraventricular

2. Diferenciação DORSO-VENTRAL

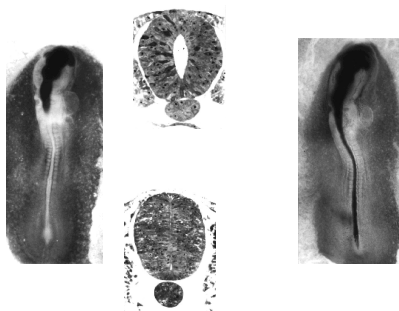
3. Emissão de neuritos e mielinização

4. Dobramento do tubo neural



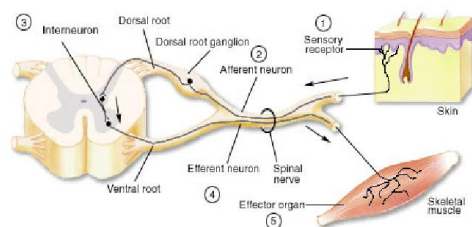


A pressão do líquido cefalorraquidiano contribui para o crescimento da região anterior do tubo neural

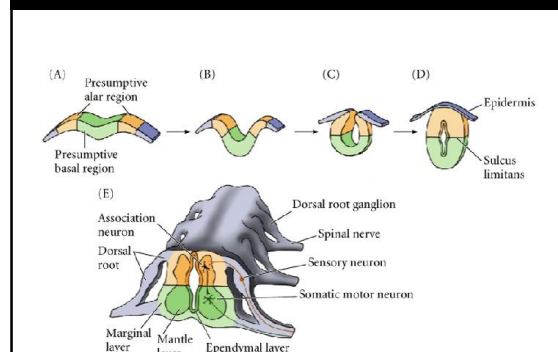


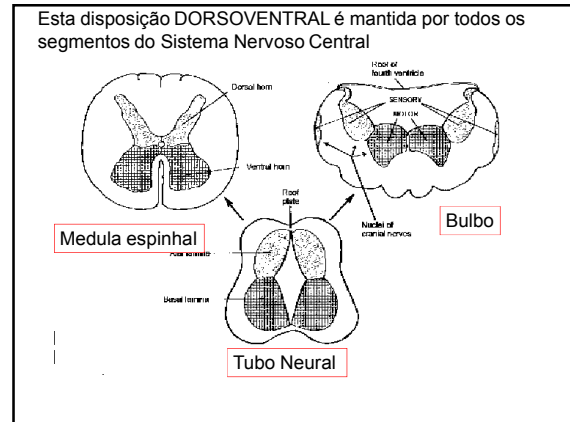
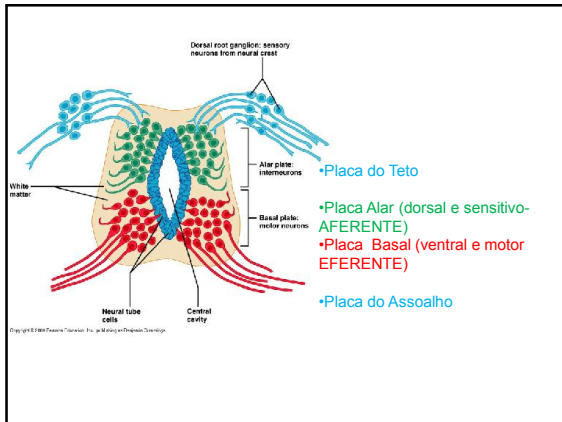
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O sistema nervoso central
ACOLHE informações SENSORIAIS > **A**FERENTE
EMITE informações MOTORAS > **E**FERENTE

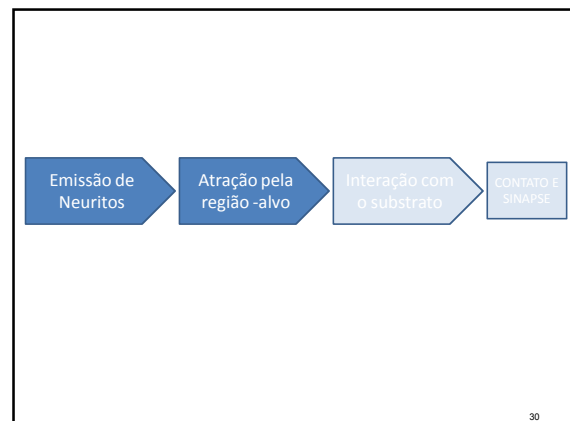
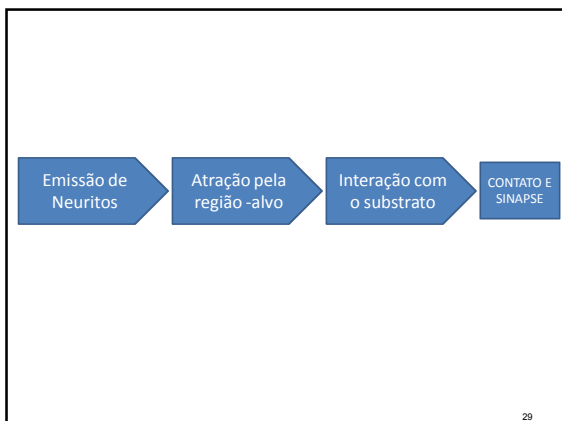
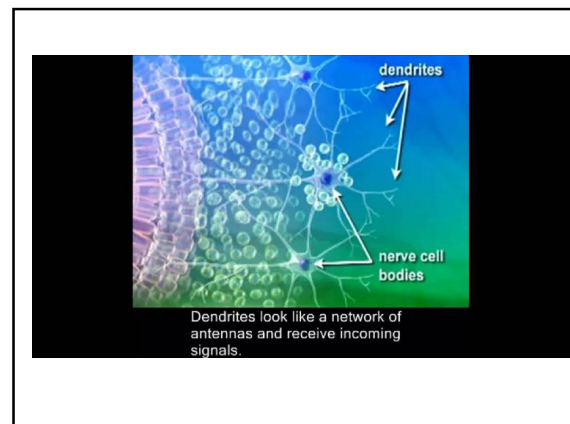


Após o fechamento do Tubo neural, ele se diferencia dorso-ventralmente em:



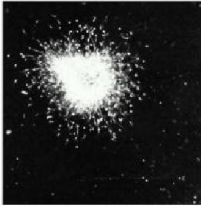


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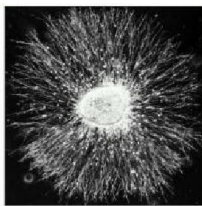


FATORES NEUROTÓFICOS (proteínas secretadas)
estimulam a emissão de neuritos

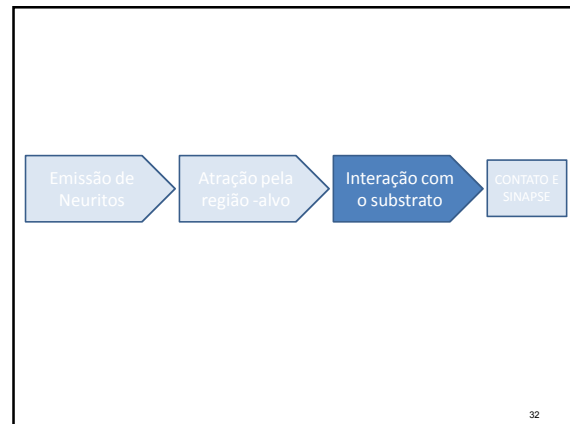
Cultura de neurônios



COM ADIÇÃO DE Fator Neurotórico



Neerit Kleitman Molecular Biology of the Cell, Alberts 4th Ed. 31

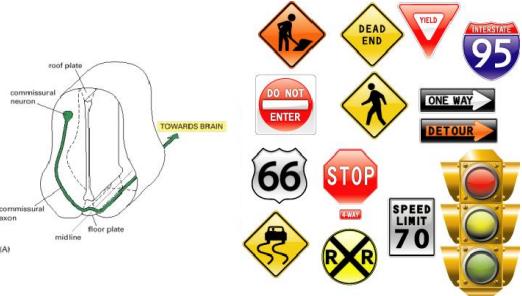


Day 1

4-24 hours
after plating

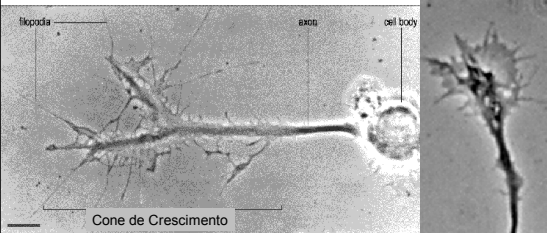
33

O caminho adotado pelo neurito depende da sinalização do microambiente



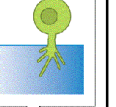
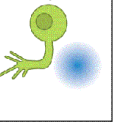
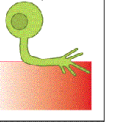
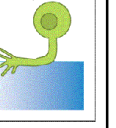
Molecular Biology of the Cell, Alberts 4th Ed. 34

O CONE DE CRESCIMENTO é o “sensor” do neurito que gerencia seu crescimento de acordo com os sinais existentes no microambiente externo

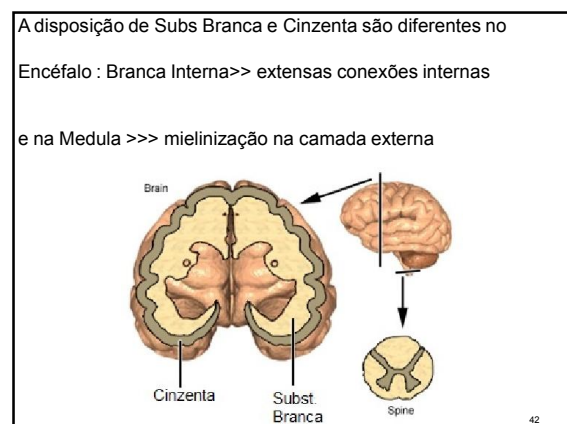
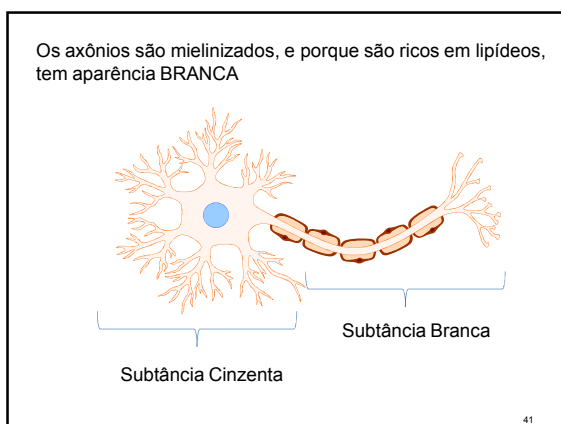
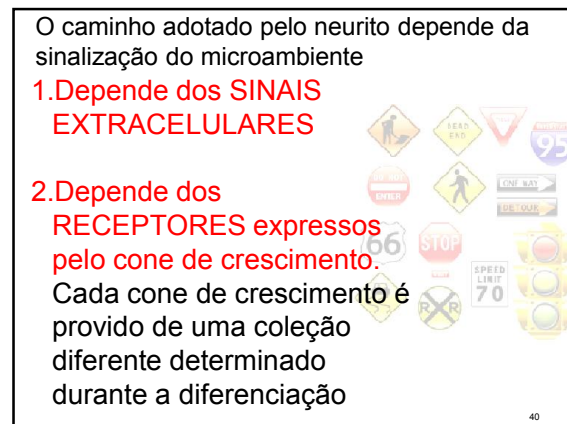
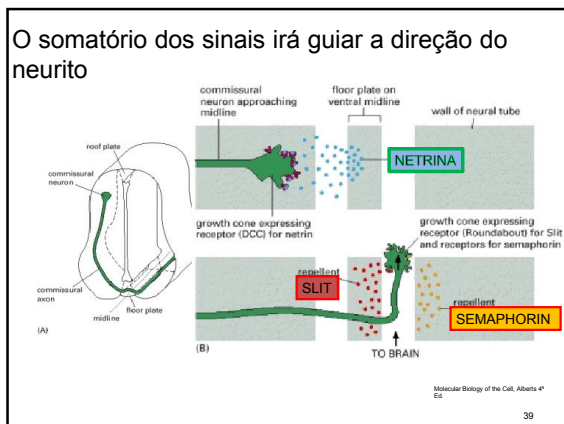
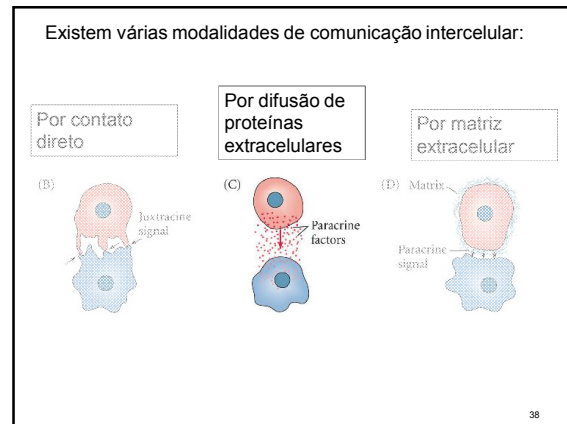
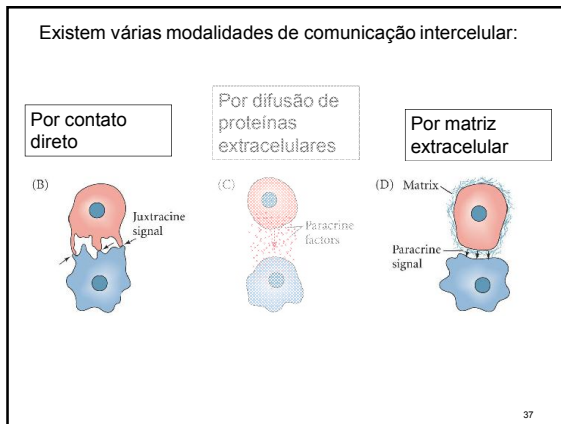


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Direcionamento do crescimento axonal a partir do microambiente

Sinais de longa distância		Sinais de curta distância	
Chemoattraction e.g. Netrins	Chemorepulsion e.g. Semaphorins	Contact attraction e.g. Cadherin	Contact repulsion e.g. Ephrins
			
			

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43

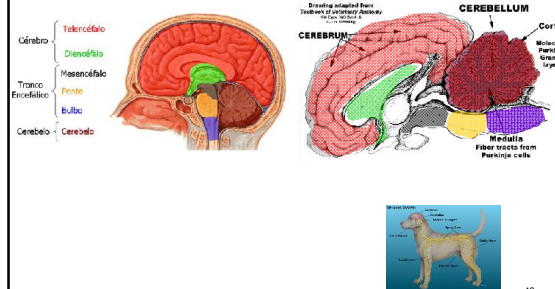


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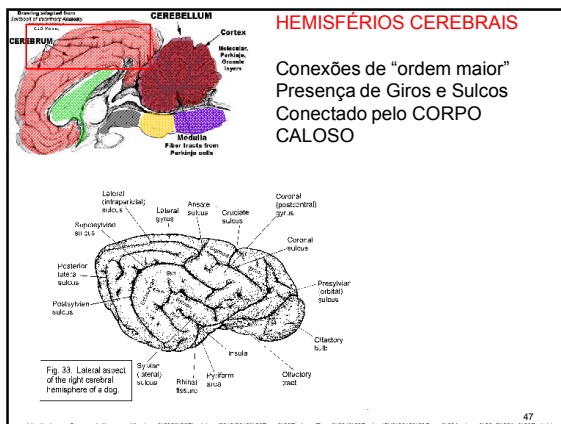


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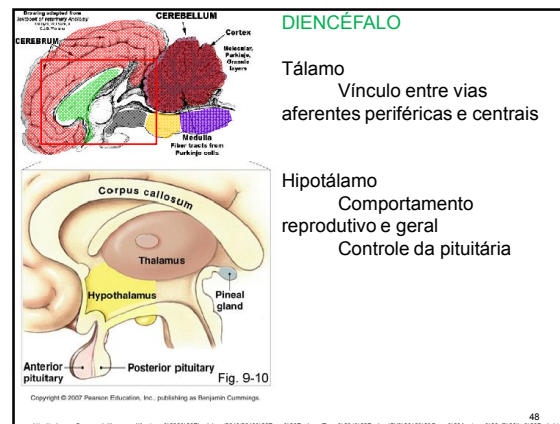
As estruturas do Sistema Nervoso Central de Primatas e outros mamíferos são similares



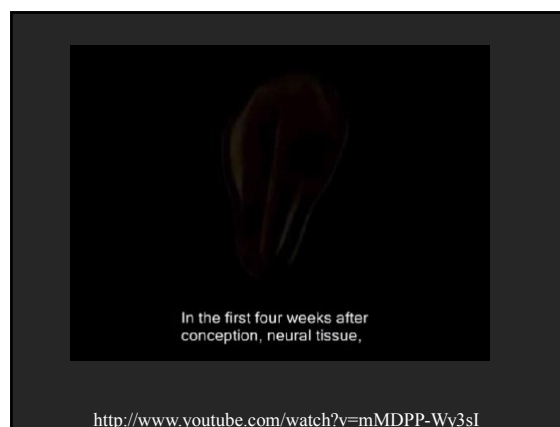
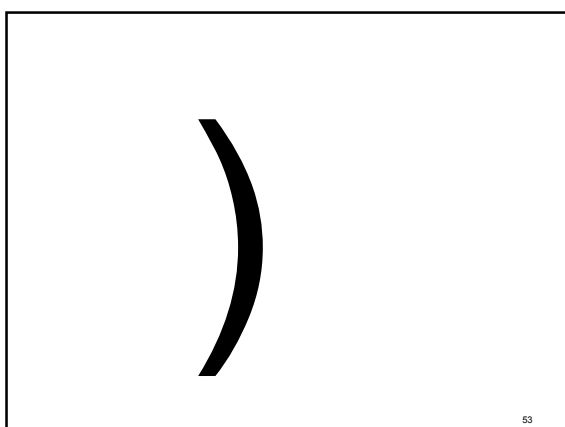
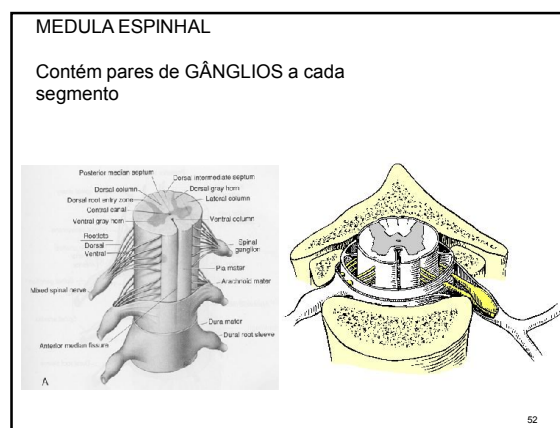
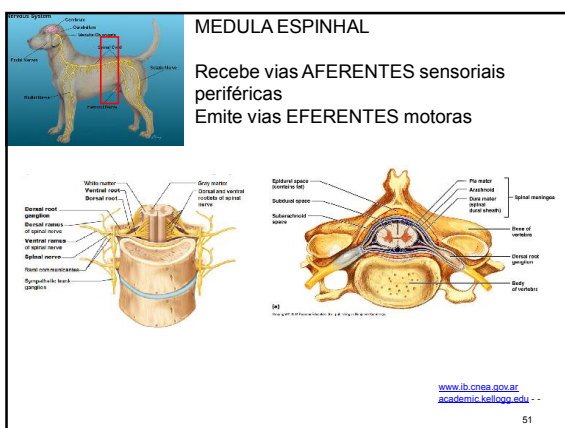
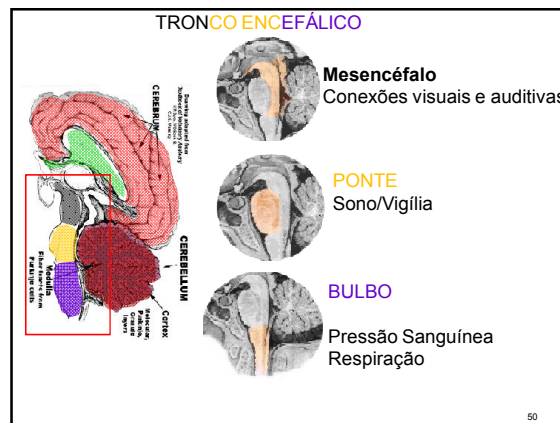
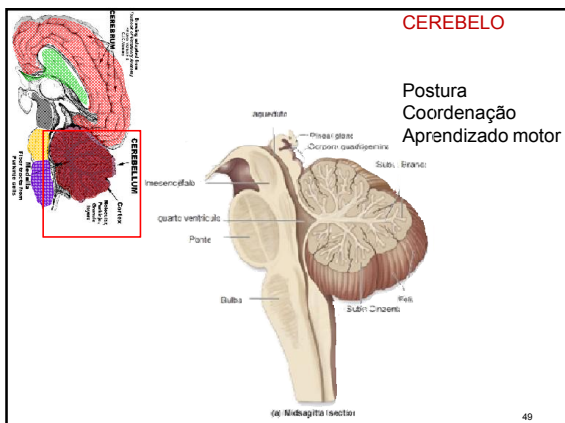
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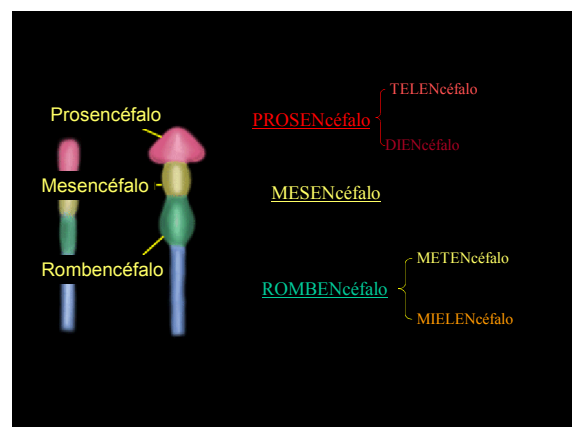
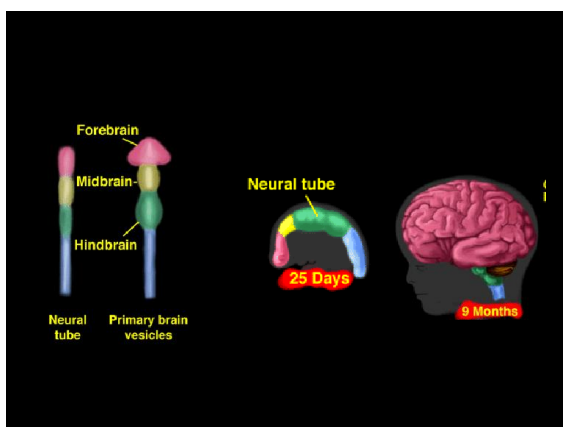
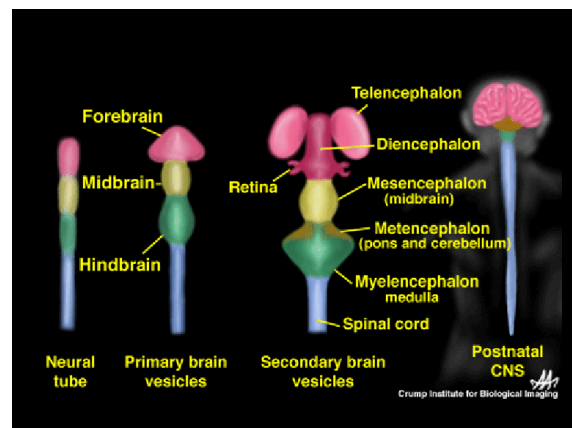
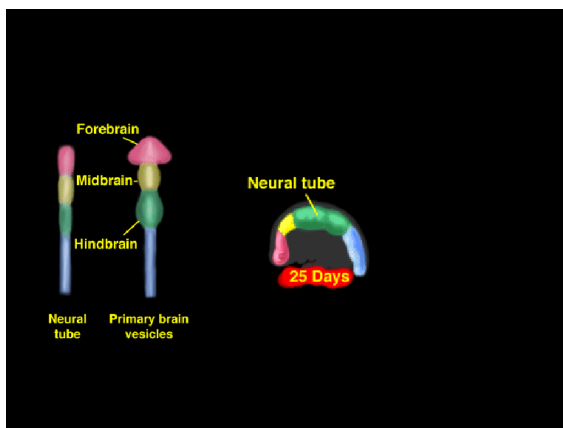


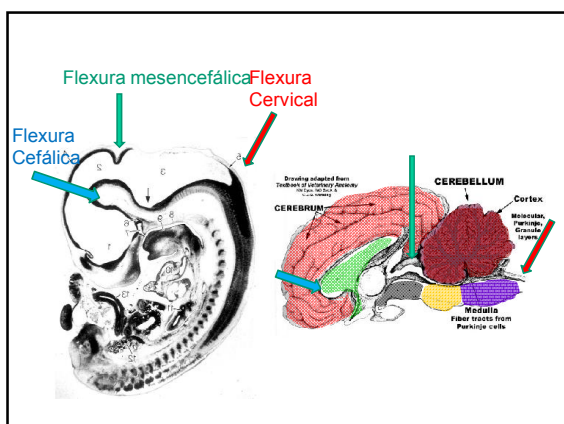
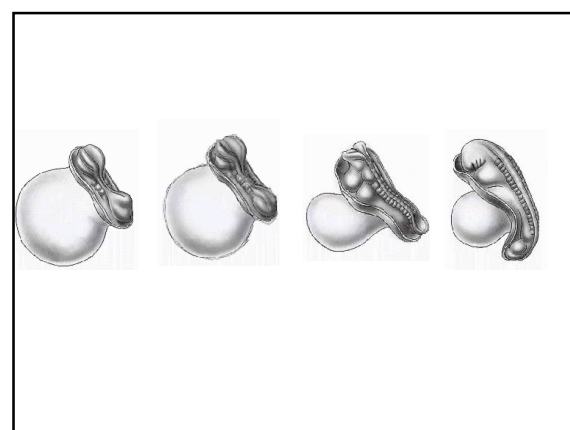
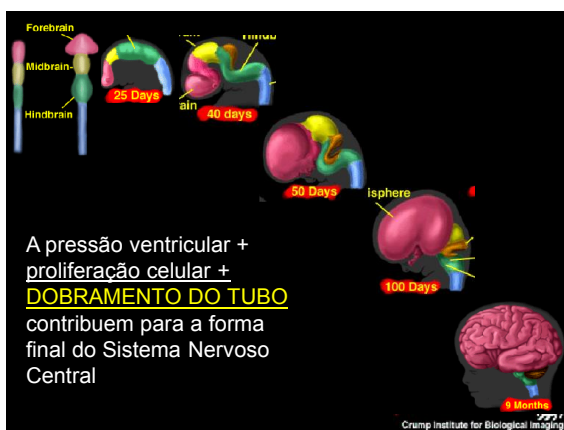
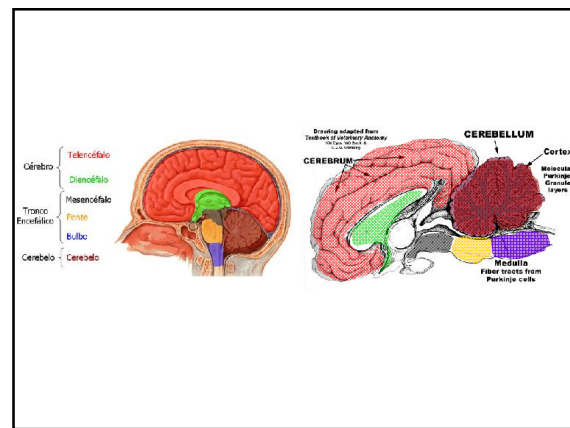
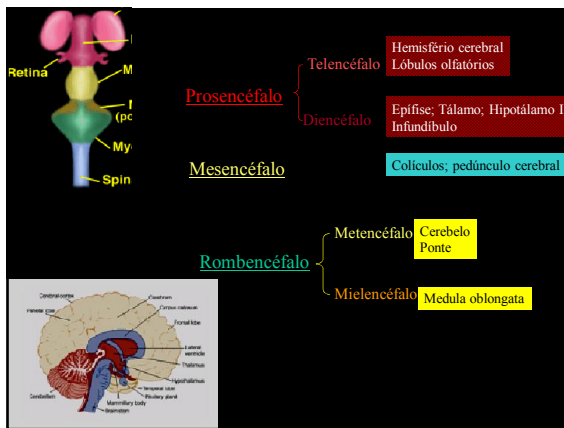
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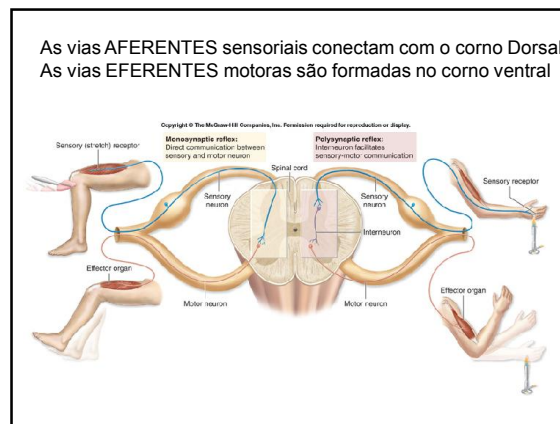
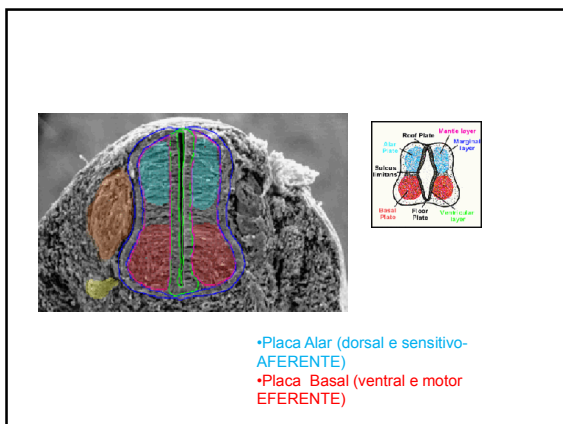
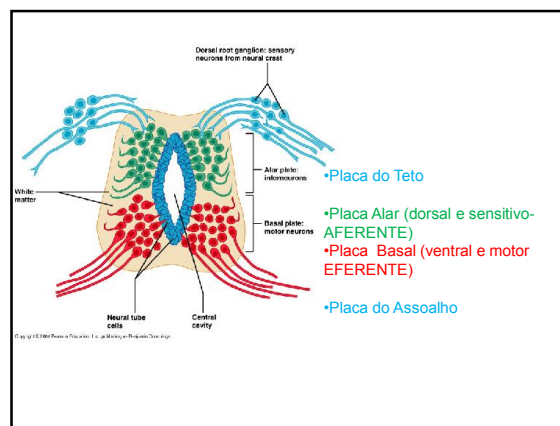
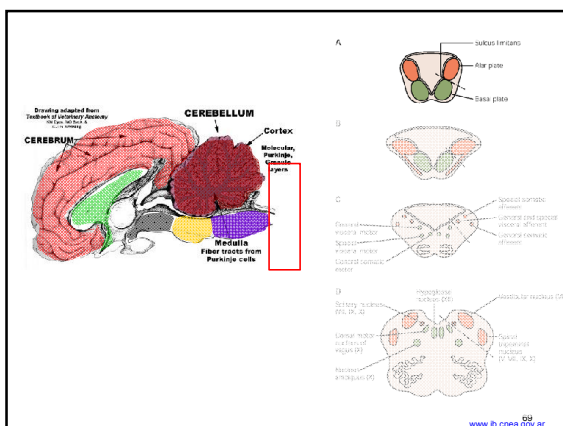
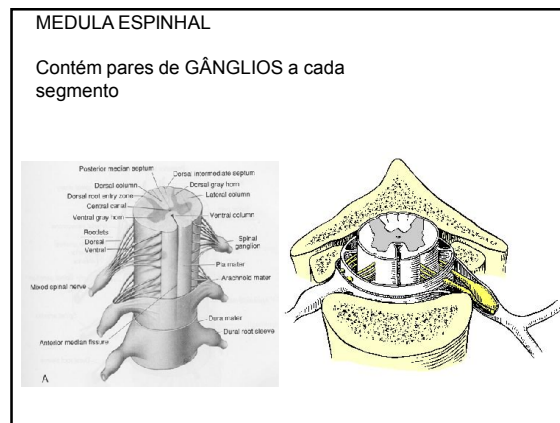
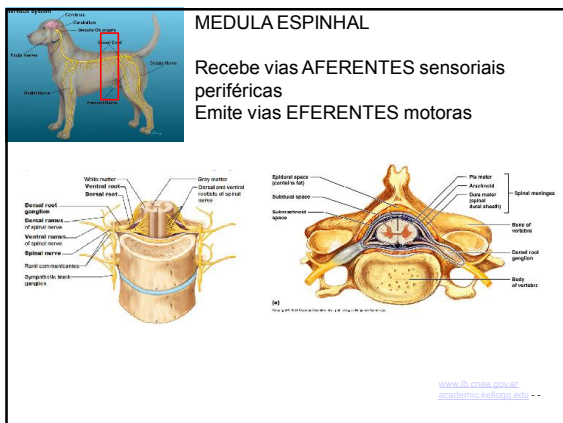


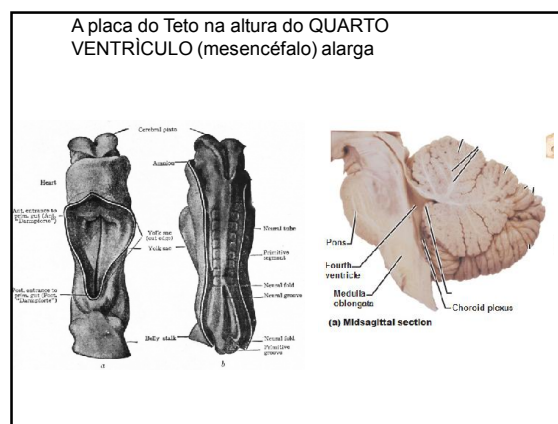
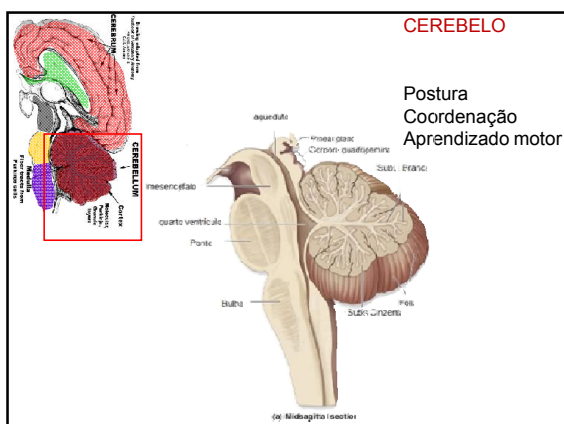
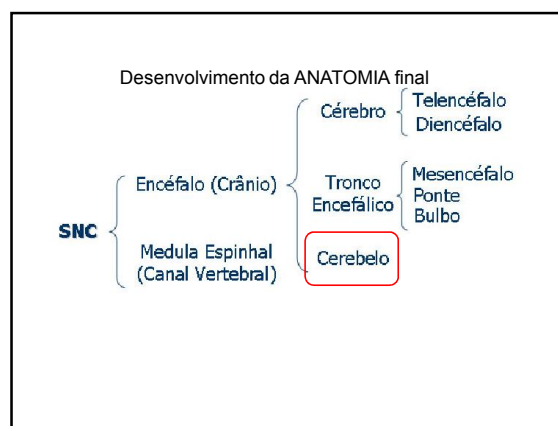
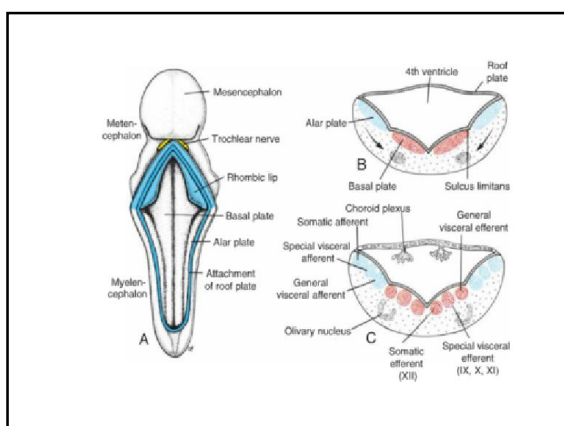
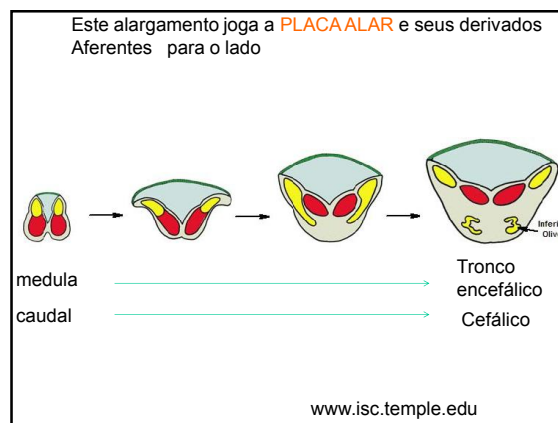
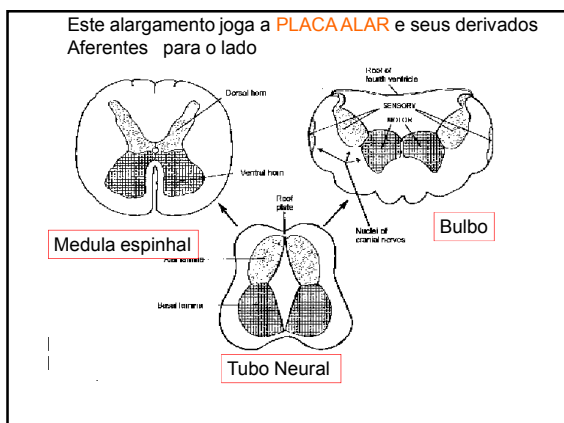
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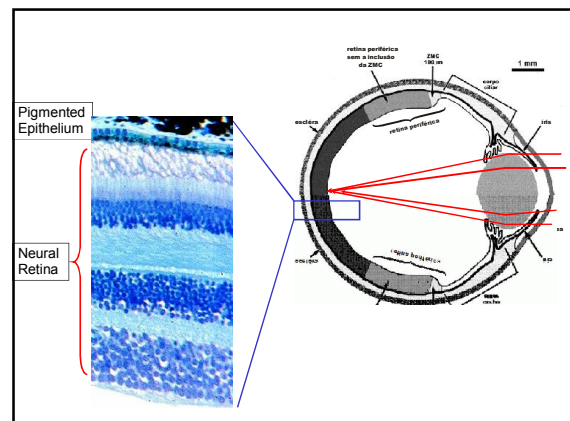
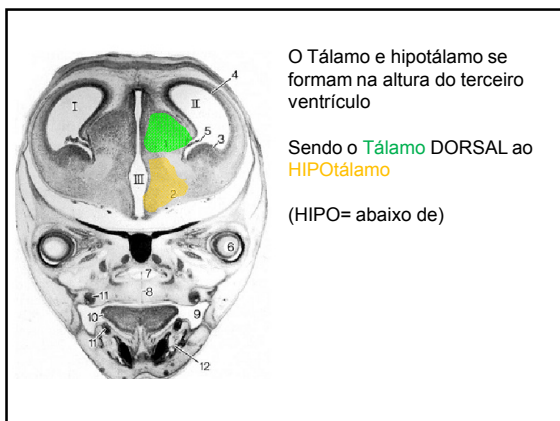
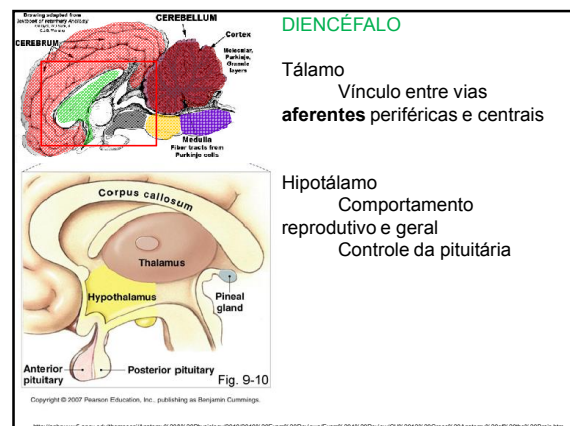
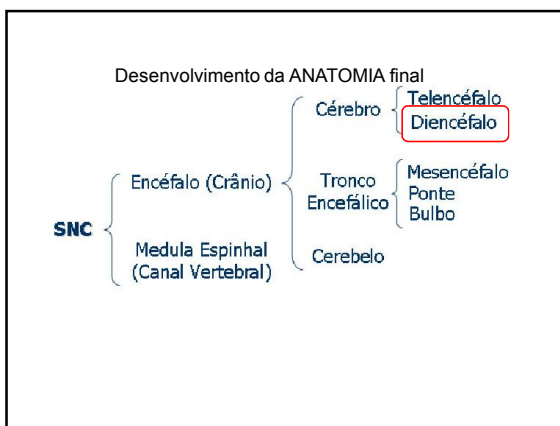
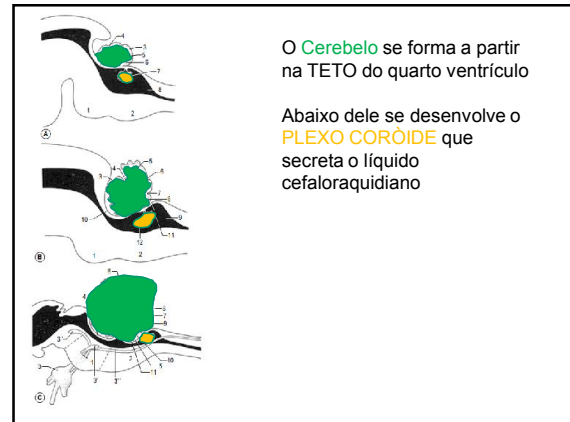
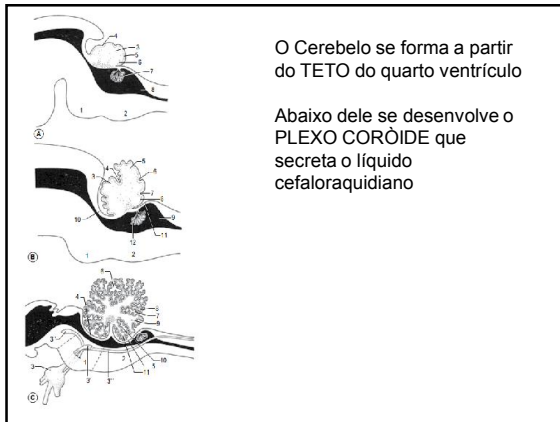
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ESTÃO SUBDIVIDIDOS EM
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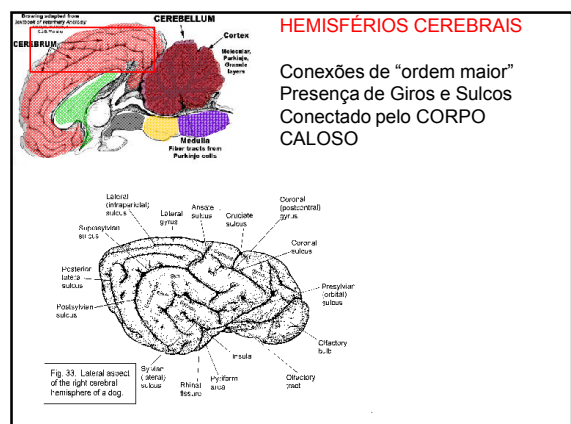
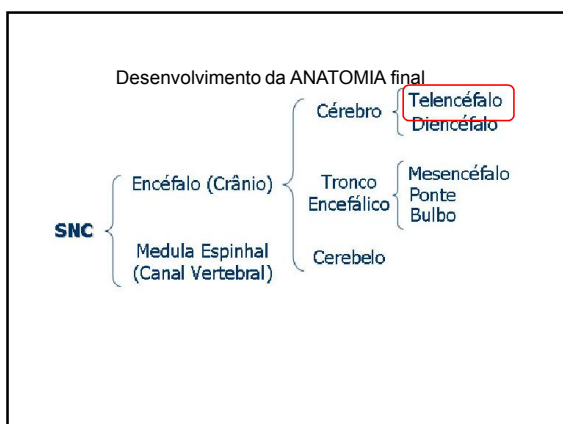
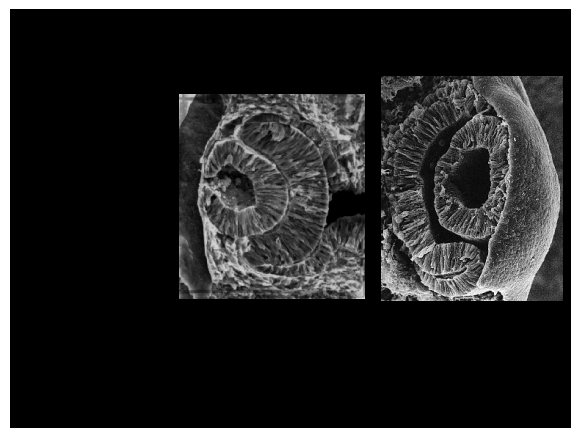
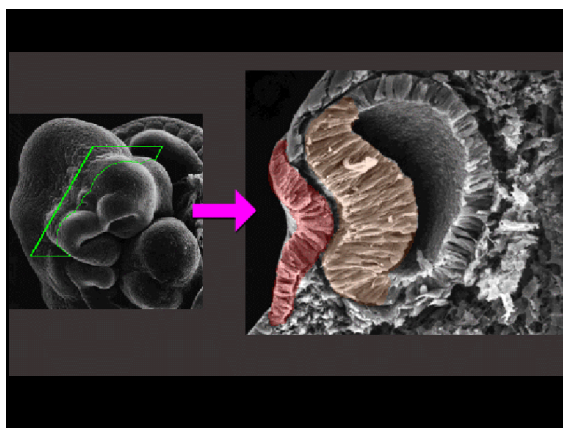
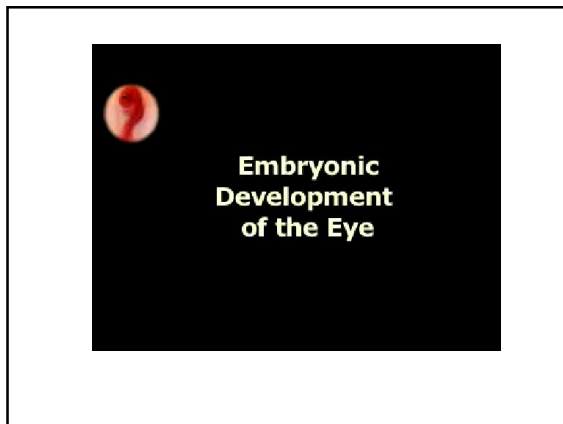


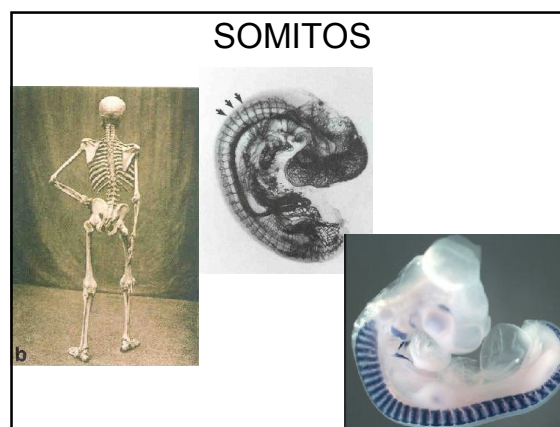
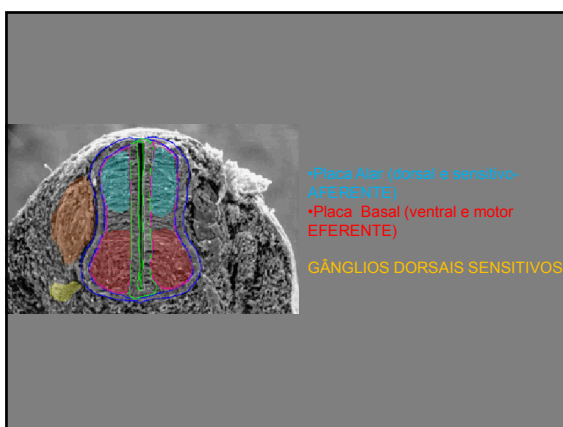
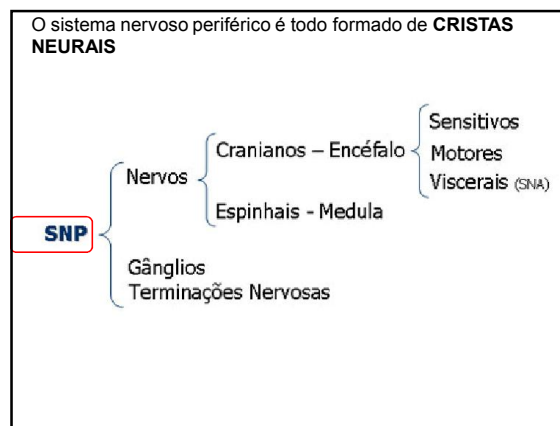
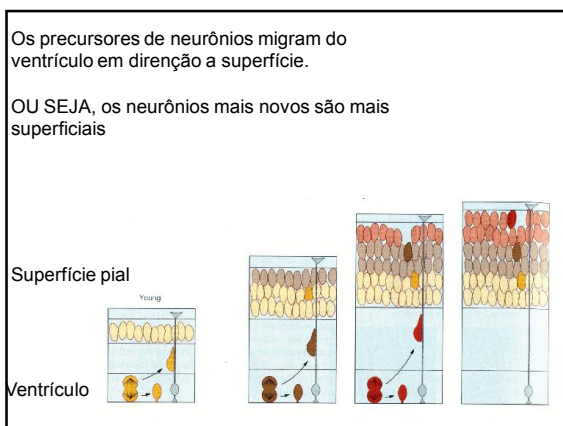
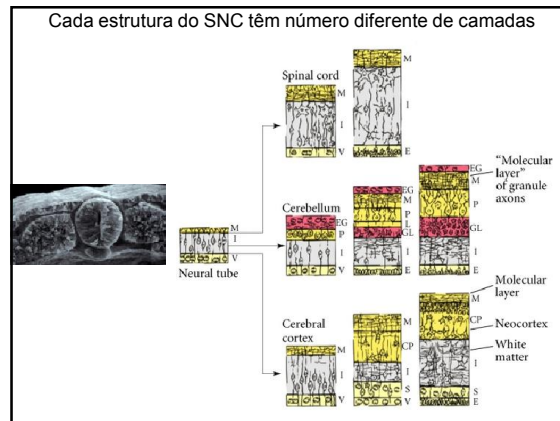
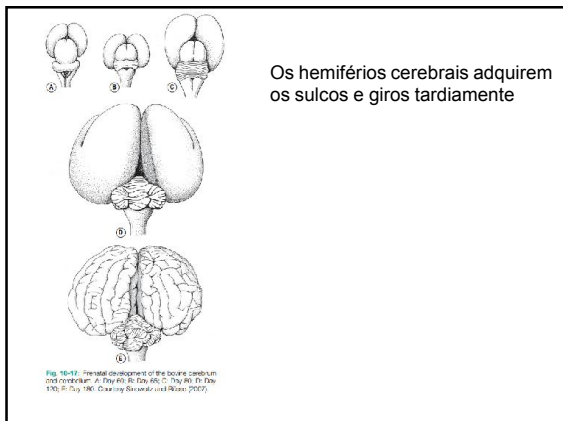


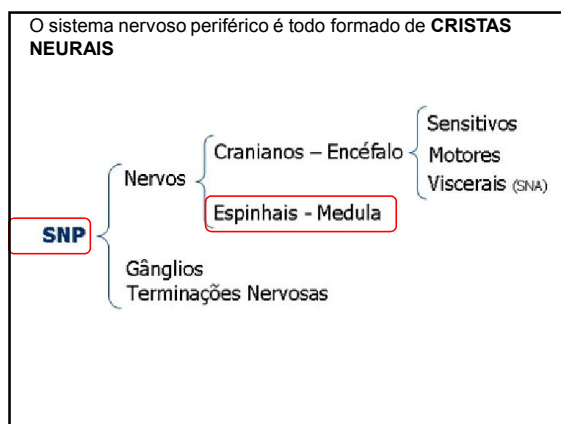
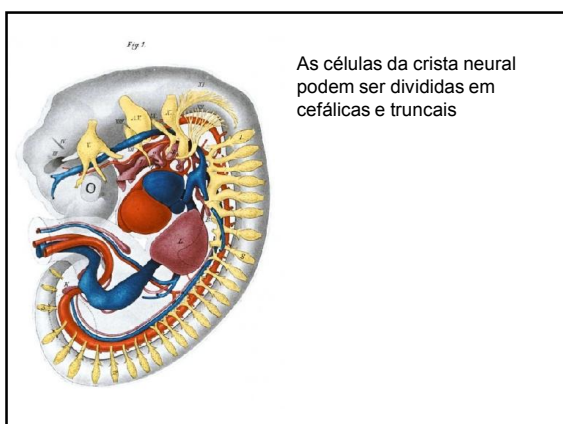
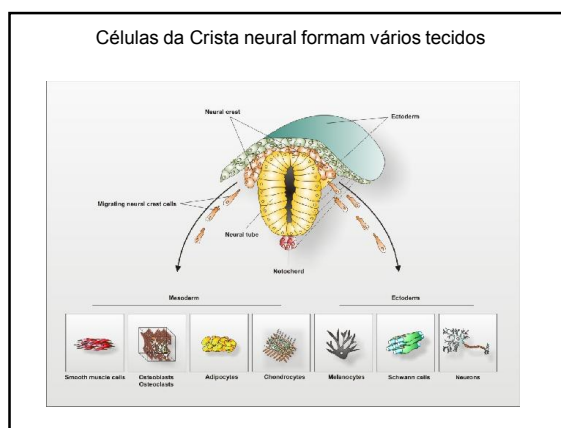
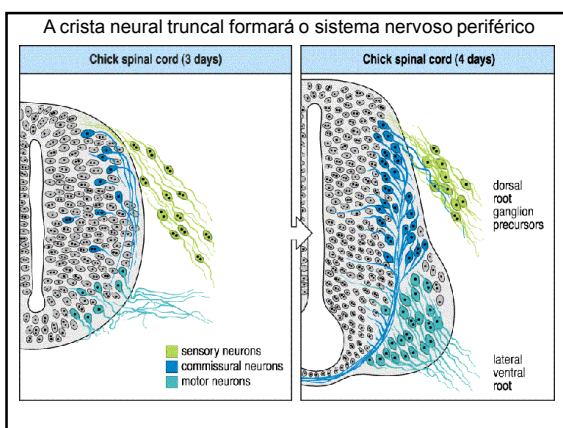
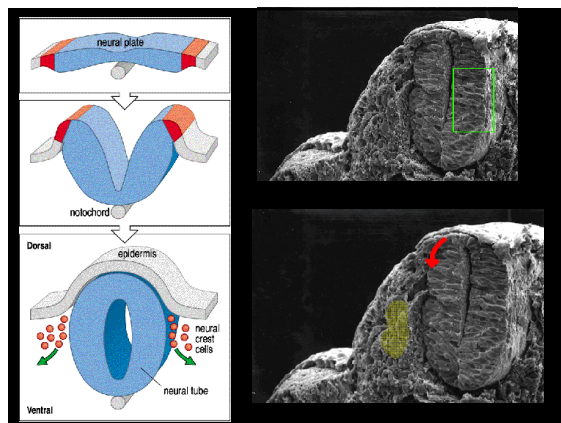
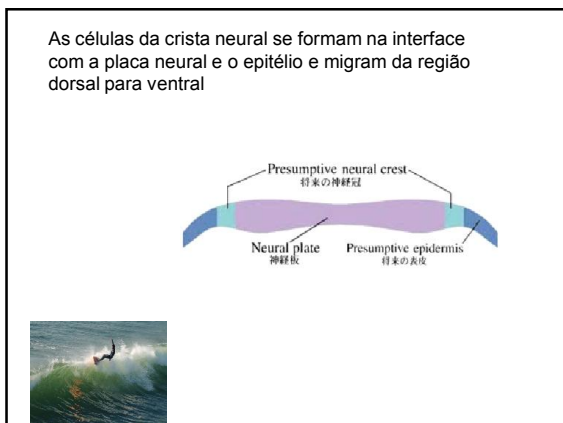


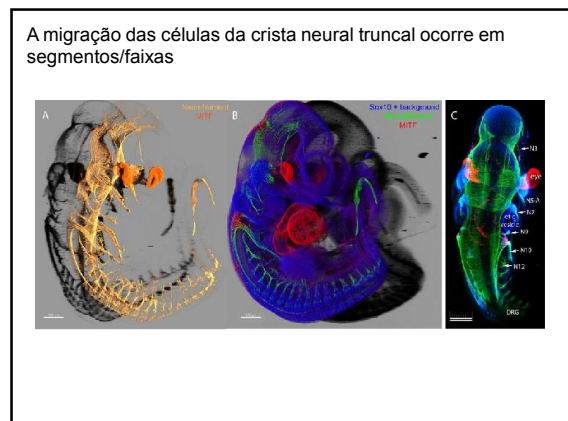
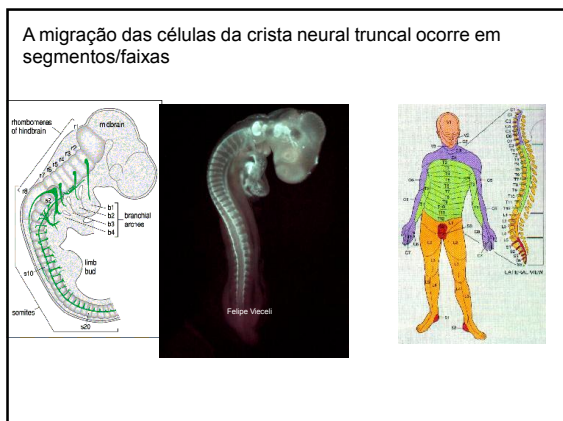
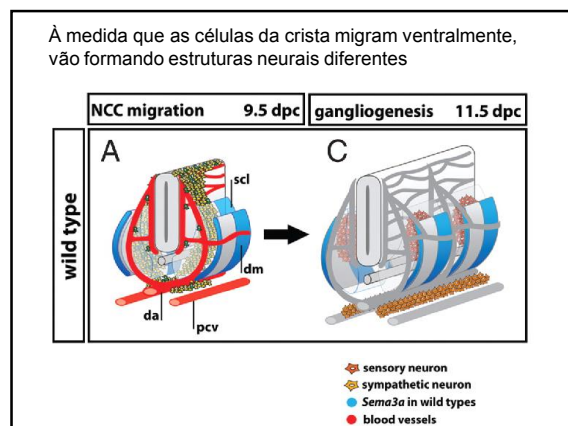
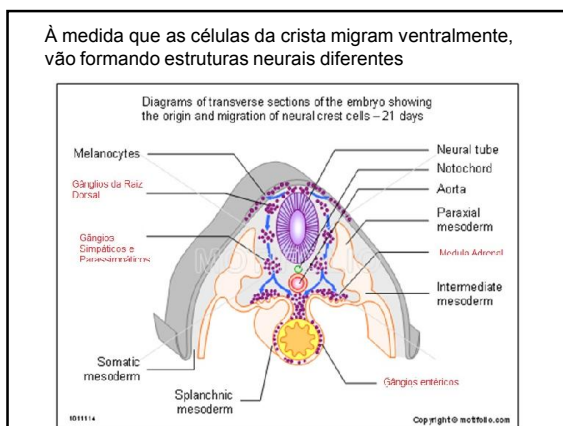
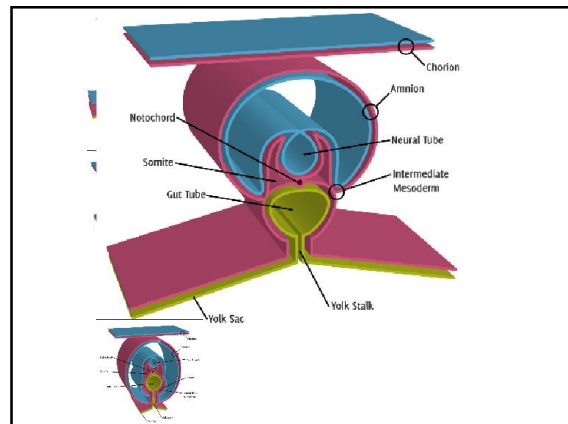
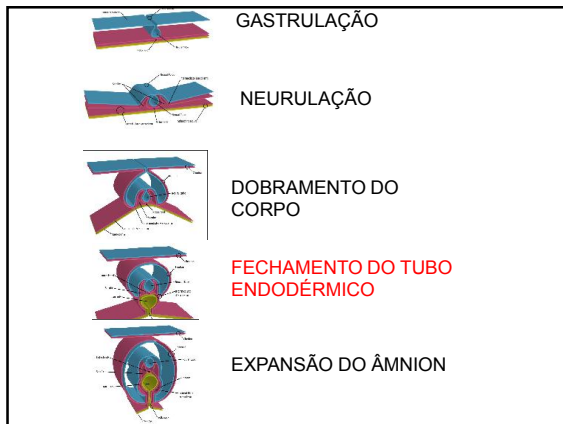




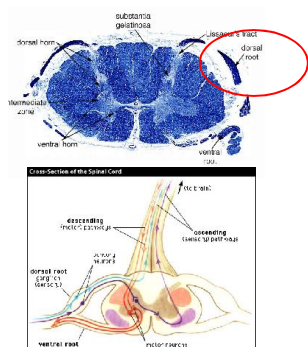




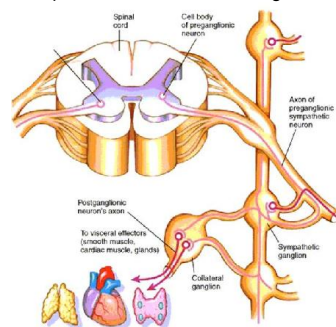




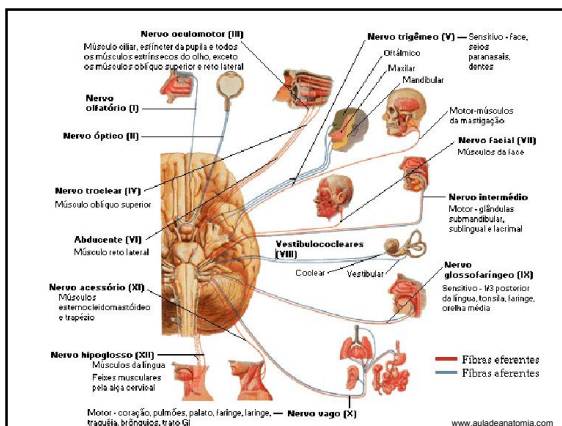
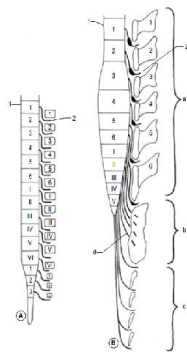
Os gânglios da raiz dorsal têm origem na crista neural



Os gânglios simpáticos e entéricos tem origem da crista neural



As vértebras crescem cefalo-caudalmente mais rápido que a medula espinhal, resultando num deslocamento caudal dos nervos espinhais



FRASES UTILIZADAS PARA MEMORIZAÇÃO DOS NERVOS CRANIANOS (EM PORTUGUÊS):

- 1- "Olhar O Ótico Fracô Trabalho Muito, Faz A Grande Pensar Em Hipócrates." (Ofrativo, Ótico, Motor Ocular Comum, Patético, Trigêmeo, Motor Ocular Externo, Facial, Auditivo, Glosso-Faríngeo, Pneumogástrico, Espinal, Hipoglosso). [Alguns pares cranianos empregam nomenclatura anatómica e norma ortográfica antigas.]
- 2- "Ô O Meu Pateta, Tu Me Fazes Esta Guerra Porque És Grande Hipócrata." (Nervos com as mesmas denominações acima, exceto o VIII par: 'n. Estato-acústico'; e o XII par: 'n. Grande hipoglosso').
- 3- "Olha, Ô Meu Pateta, Tu Mandas Fazer A Guerra Porque És Grande Hipócrata!" (Utiliza a denominação 'n. Auditivo' ou 'Acústico para o VIII par.)

<http://historyofmedicine.blogspot.com.br/2012/07/tecnicas-mnemonicas-para-estudantes-os.html>

