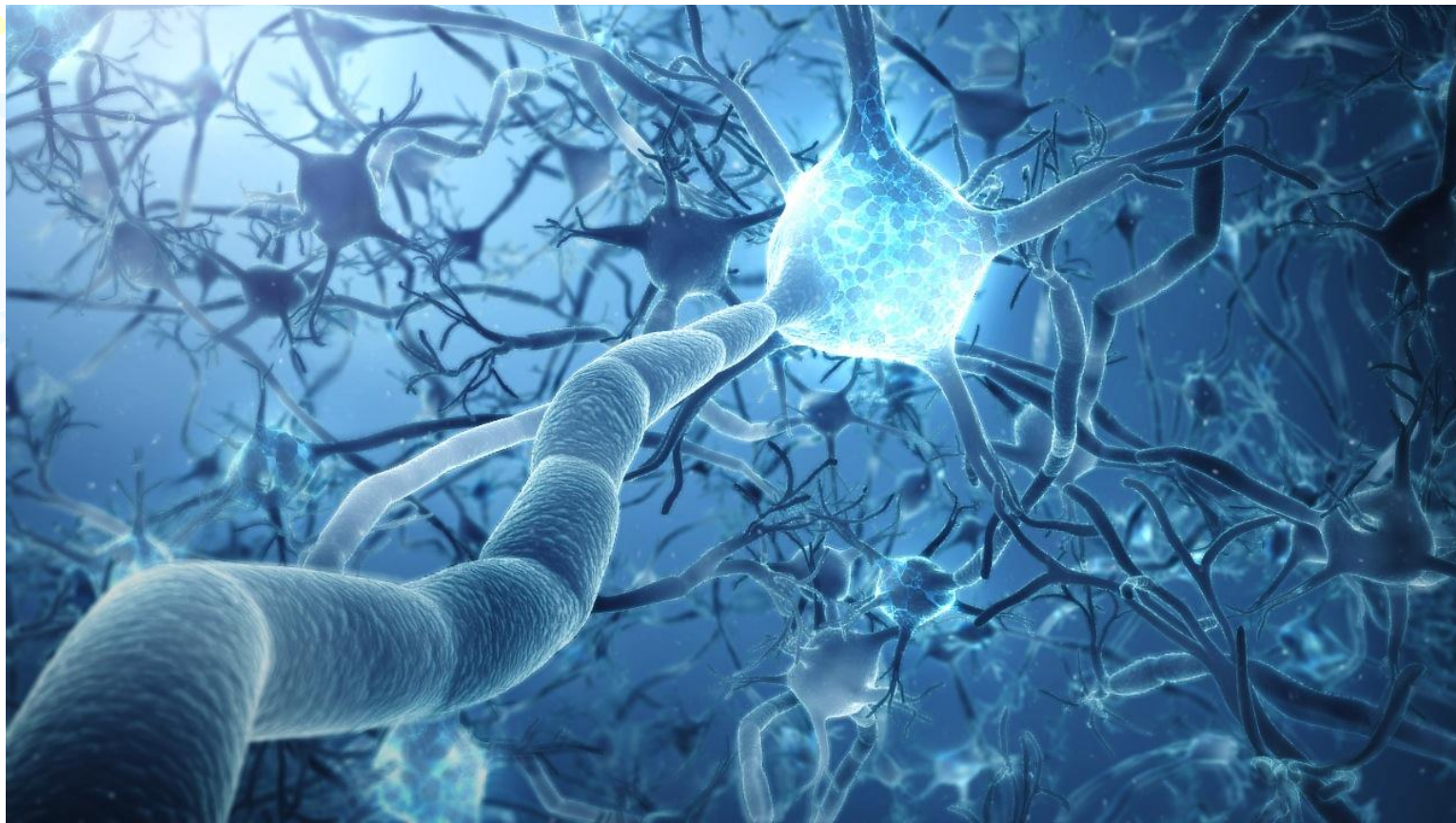
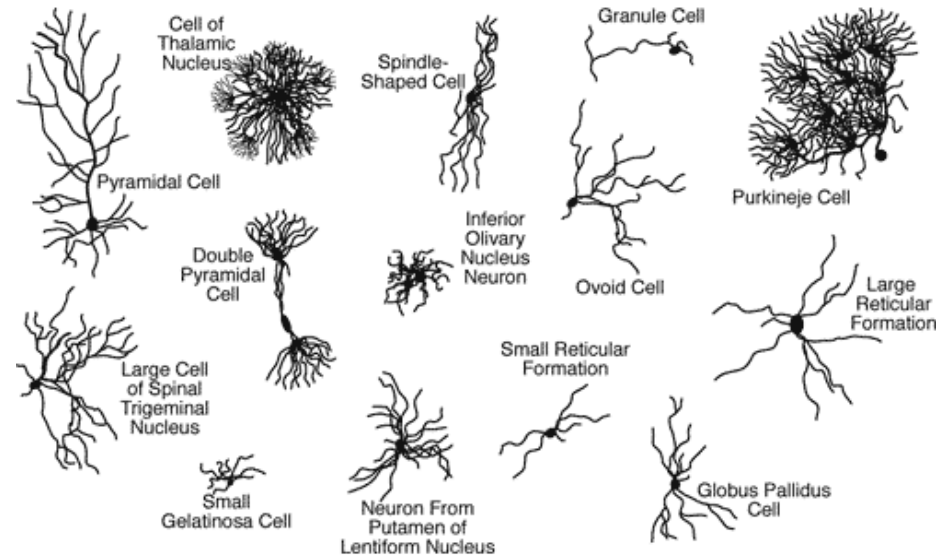
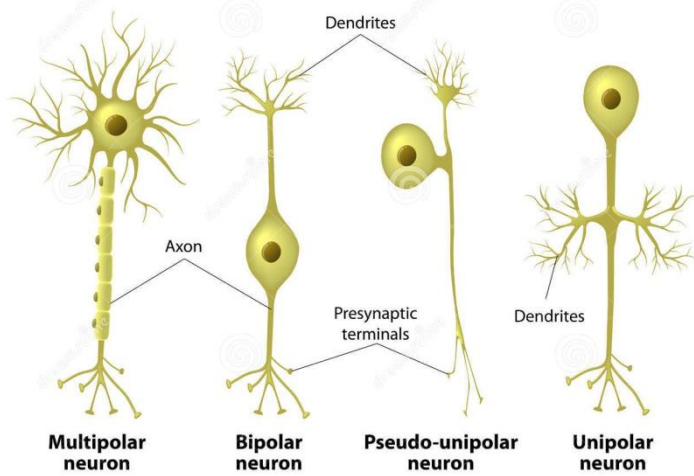


Нервна интеграција ћелијских функција



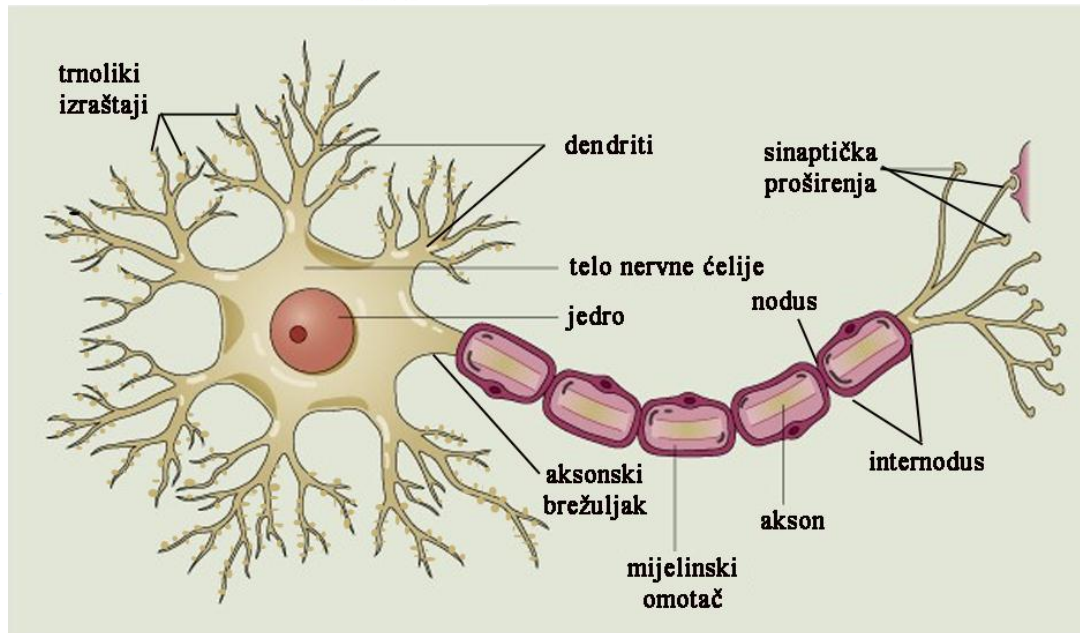
Неурон

Basic Neuron Types

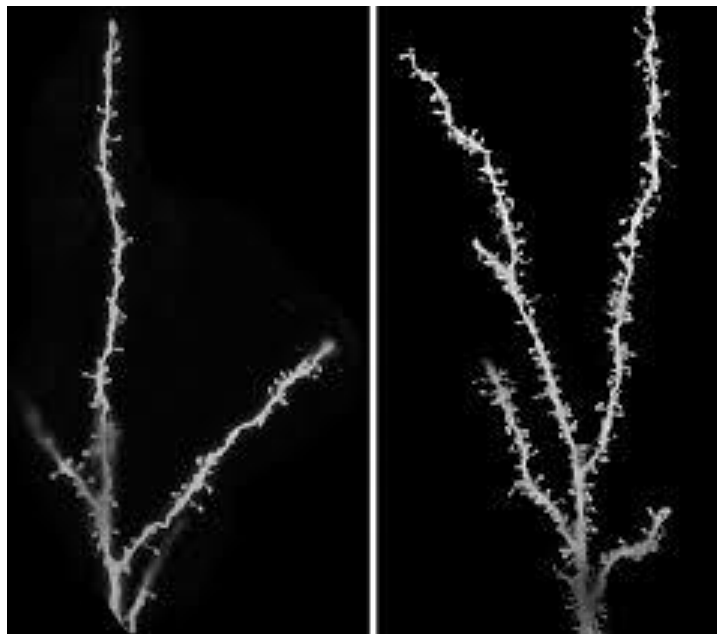


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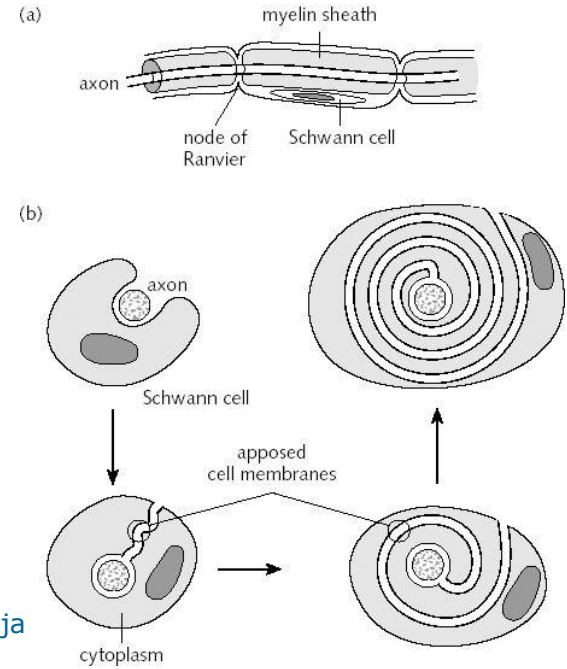
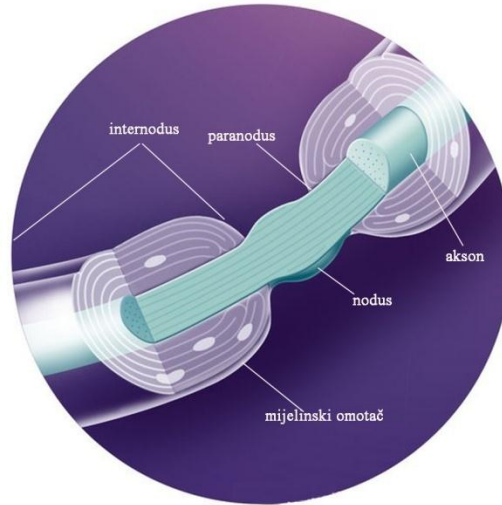


Дендрити

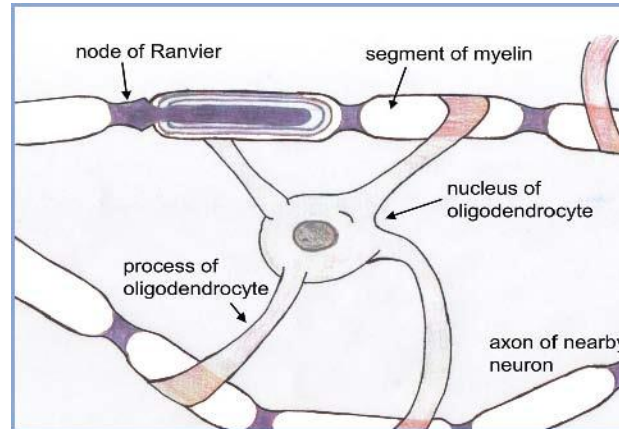
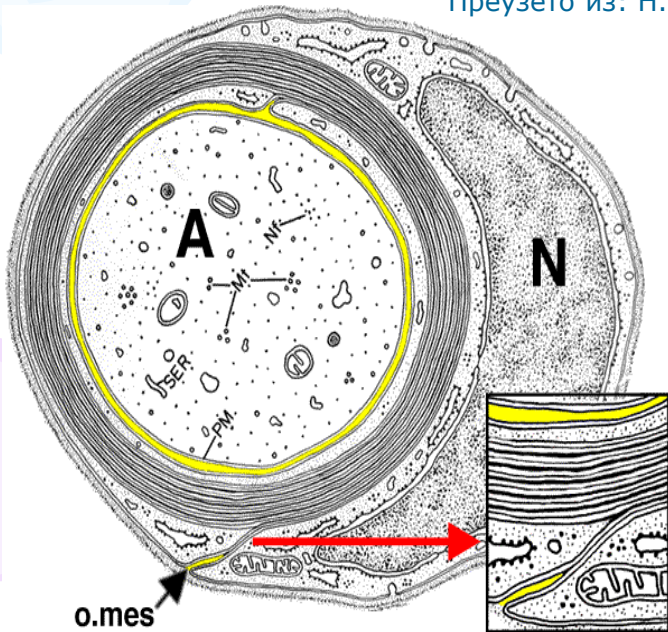


Аксон

- Иницијални сегмент
- Прави аксон
- Синаптичко проширење



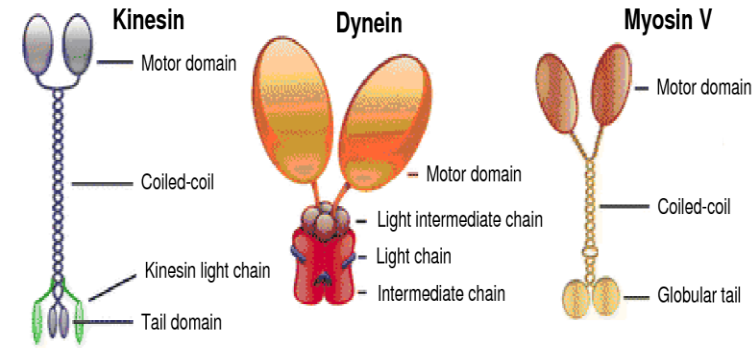
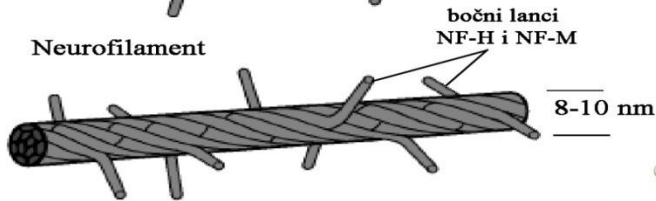
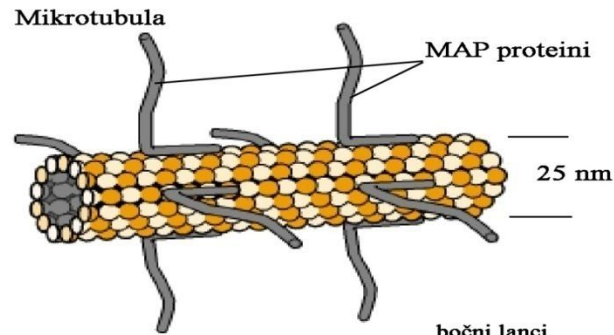
Преузето из: Н. Недељковић (2012) Општа физиологија



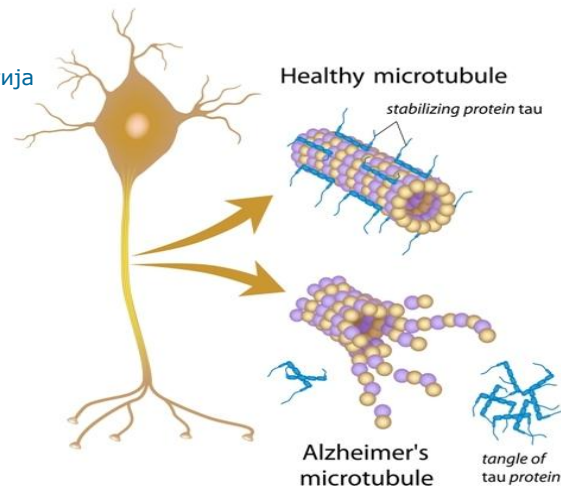
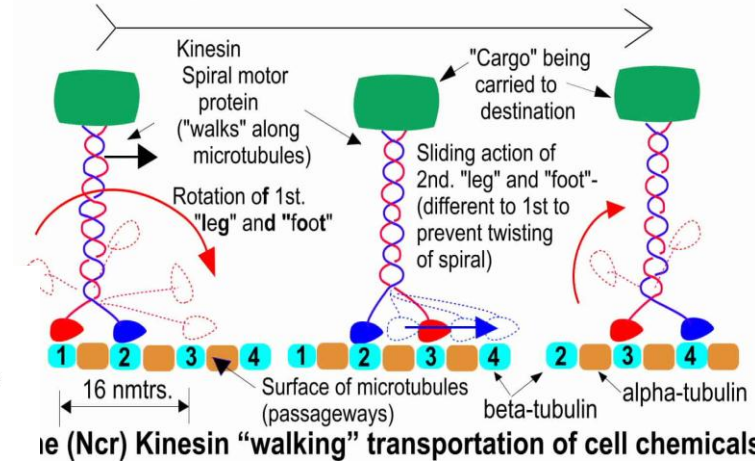
Цитоскелетни елементи

<https://www.youtube.com/watch?v=SyJgz4P-Omo>

<https://www.youtube.com/watch?v=y-uuk4Pr2i8>



1 full cycle - uses 2 ATP - moves 16 nanometers



Преузето из: Н. Недељковић (2012) Општа физиологија

Електрична и хемијска сигнализација

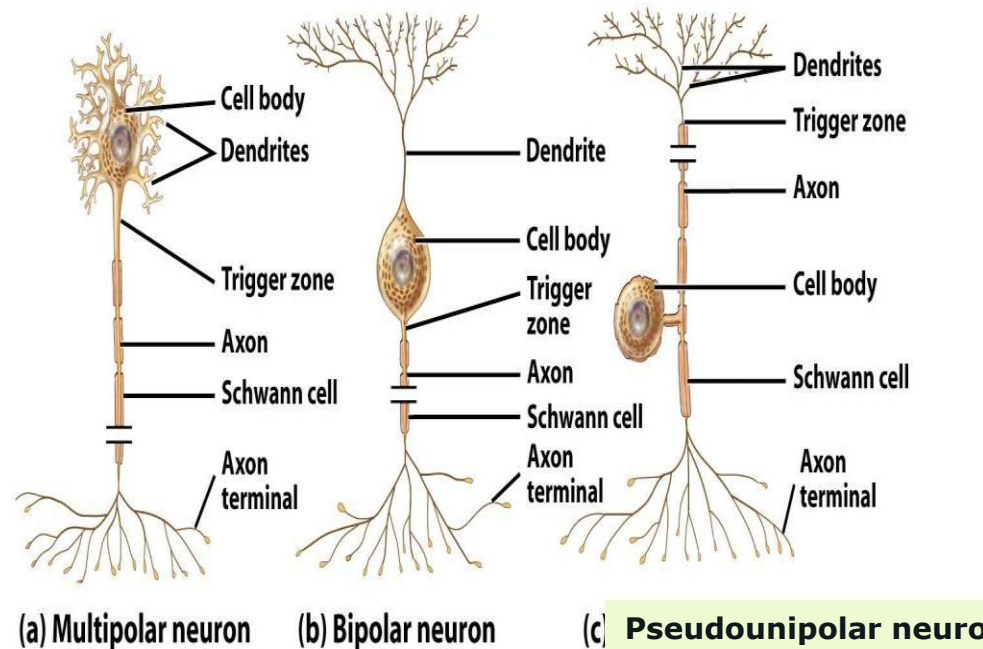
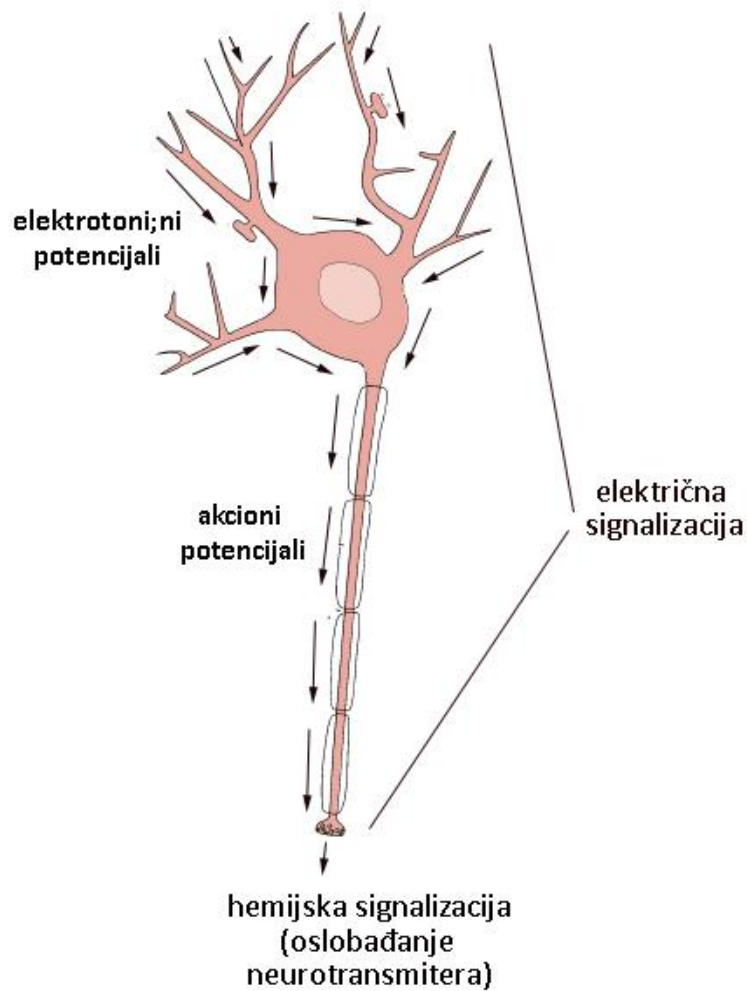
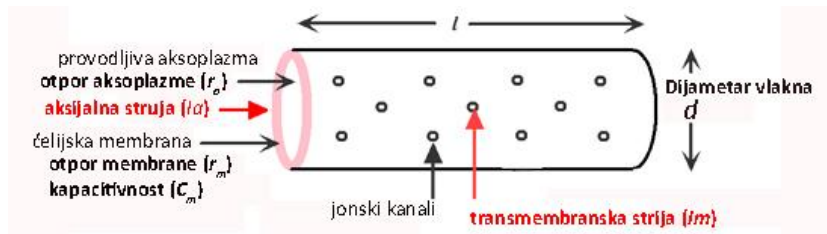
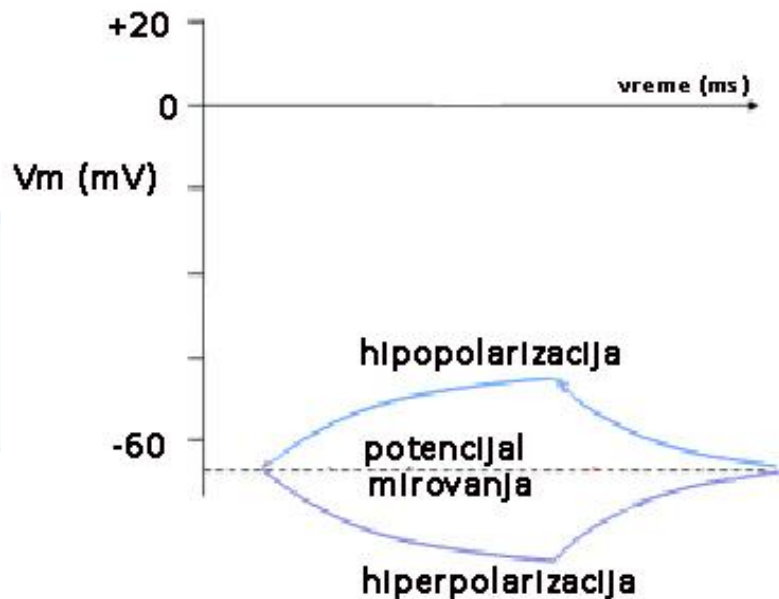


Figure 12-5 Anatomy and Physiology: From Science to Life
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Градусане промене потенцијала-електротонуси



Временски ток промена потенцијала мембране

$$V = V_{\max} \cdot (1 - e^{-\frac{t}{\tau}})$$

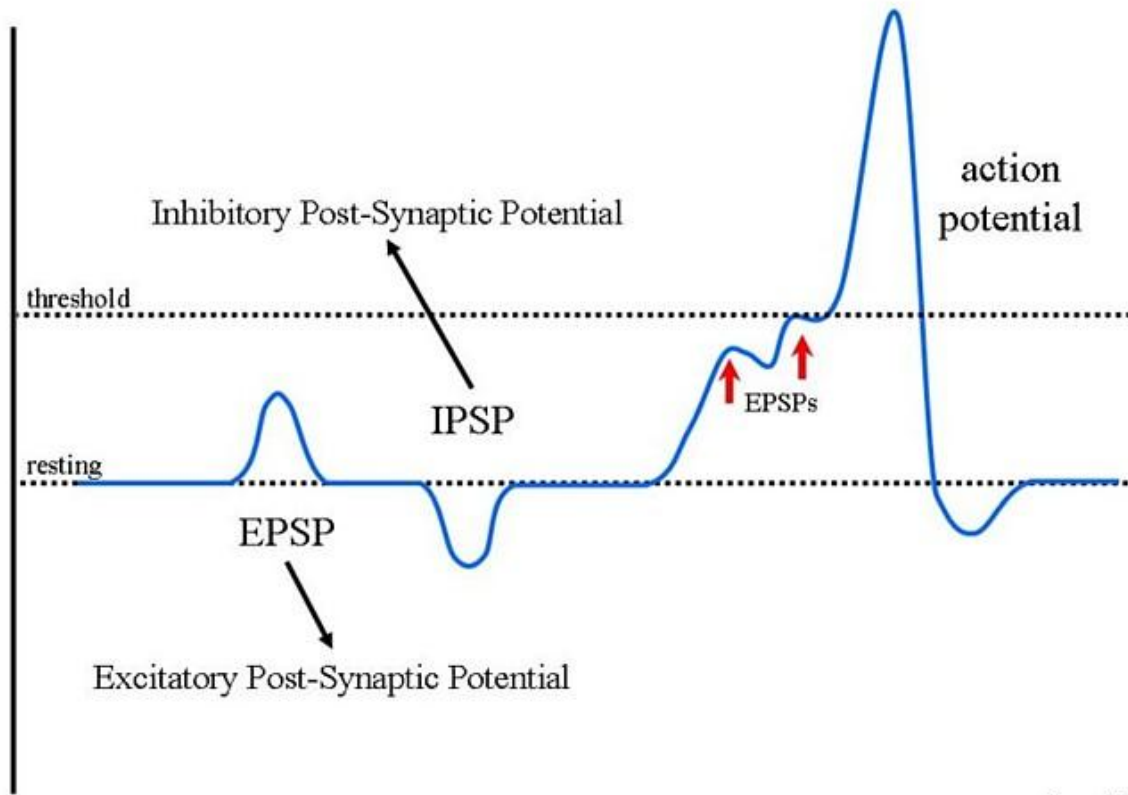
$$\tau = r_m C_m$$

Просторне промене потенцијала мембране

$$V_x = V_o \cdot e^{-\frac{x}{\lambda}}$$

$$\lambda = \sqrt{\frac{r_m}{r_a}}$$

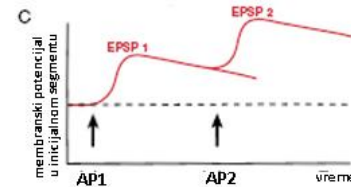
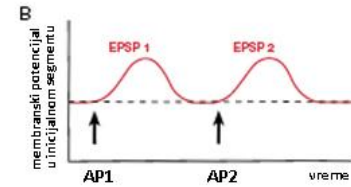
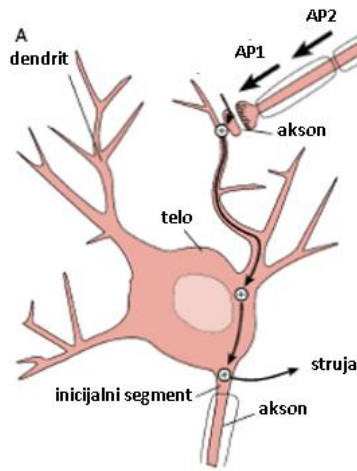
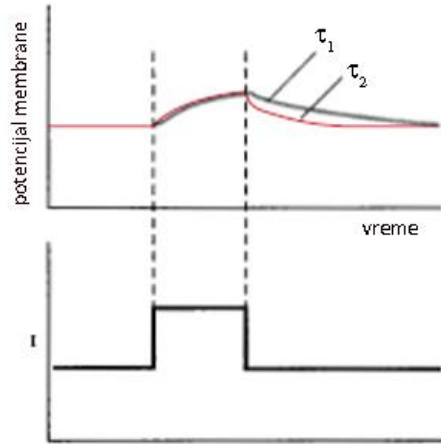
Преузето из: Н. Недељковић (2012) Општа физиологија



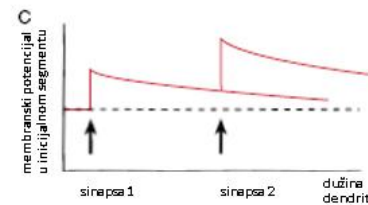
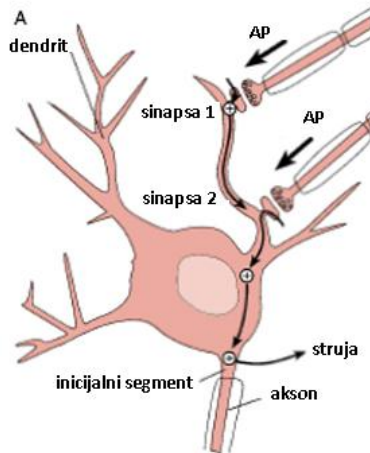
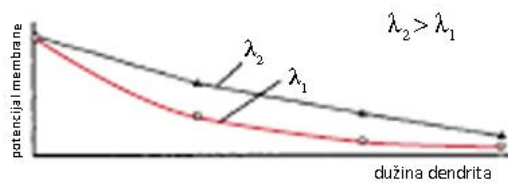
see fig. 48.12

Синаптичка интеграција

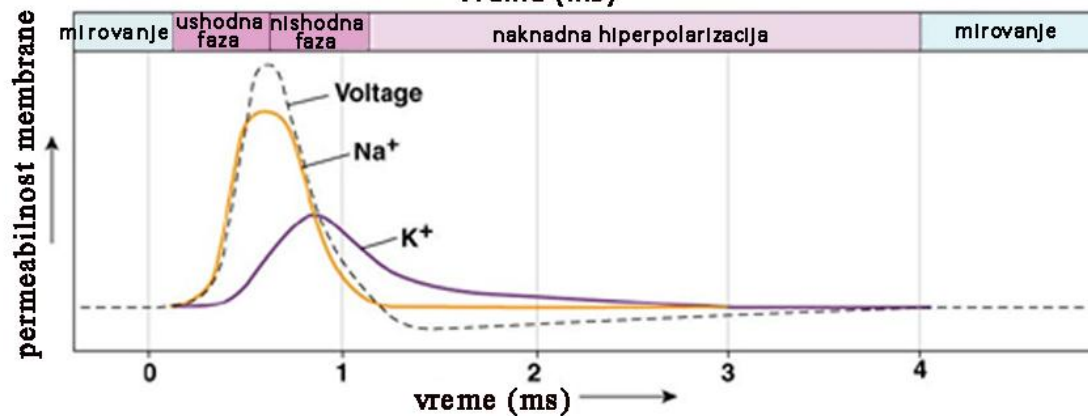
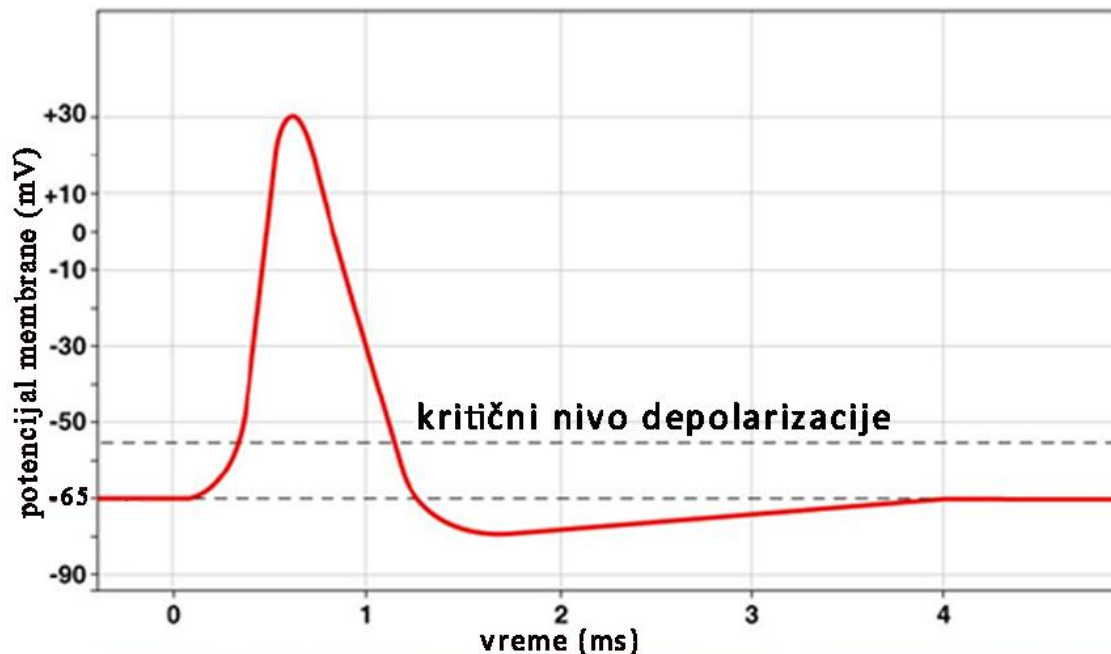
Временска сумација



Просторна сумација

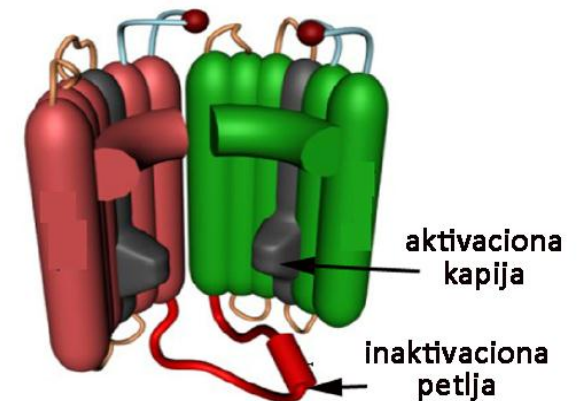
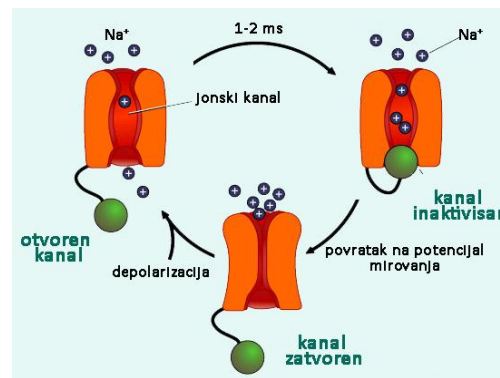
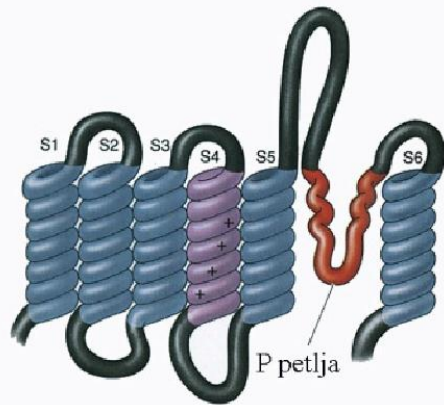
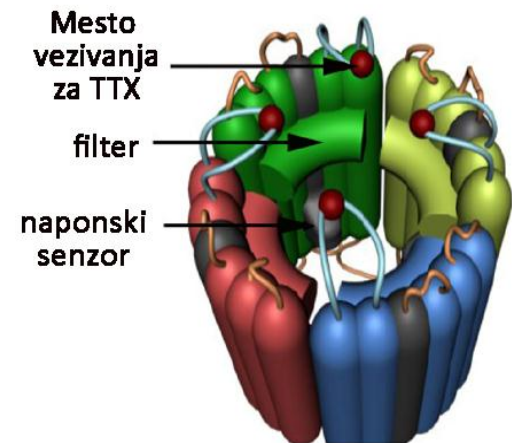
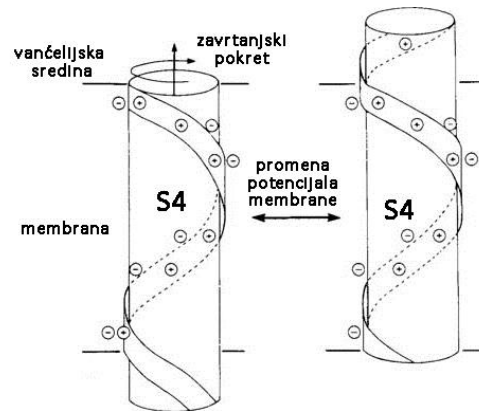
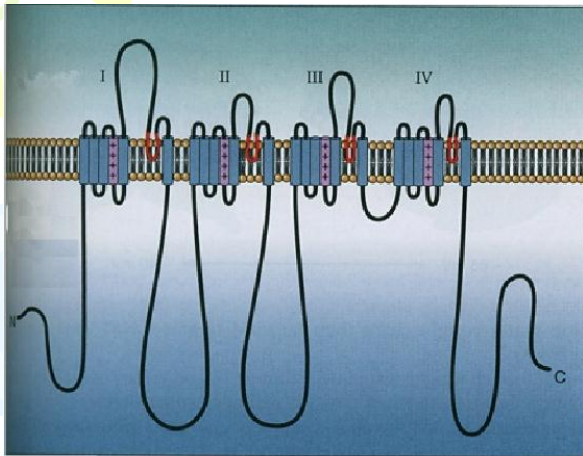


Акциони потенцијал

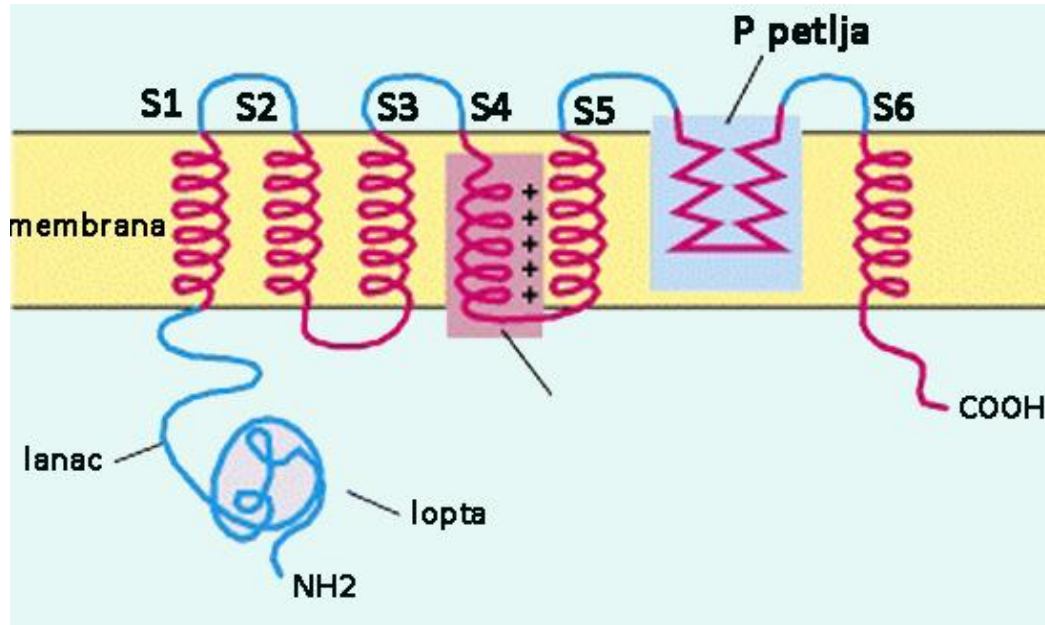


Преузето из: Н. Недељковић (2012) Општа физиологија

Волтажно-зависни канали

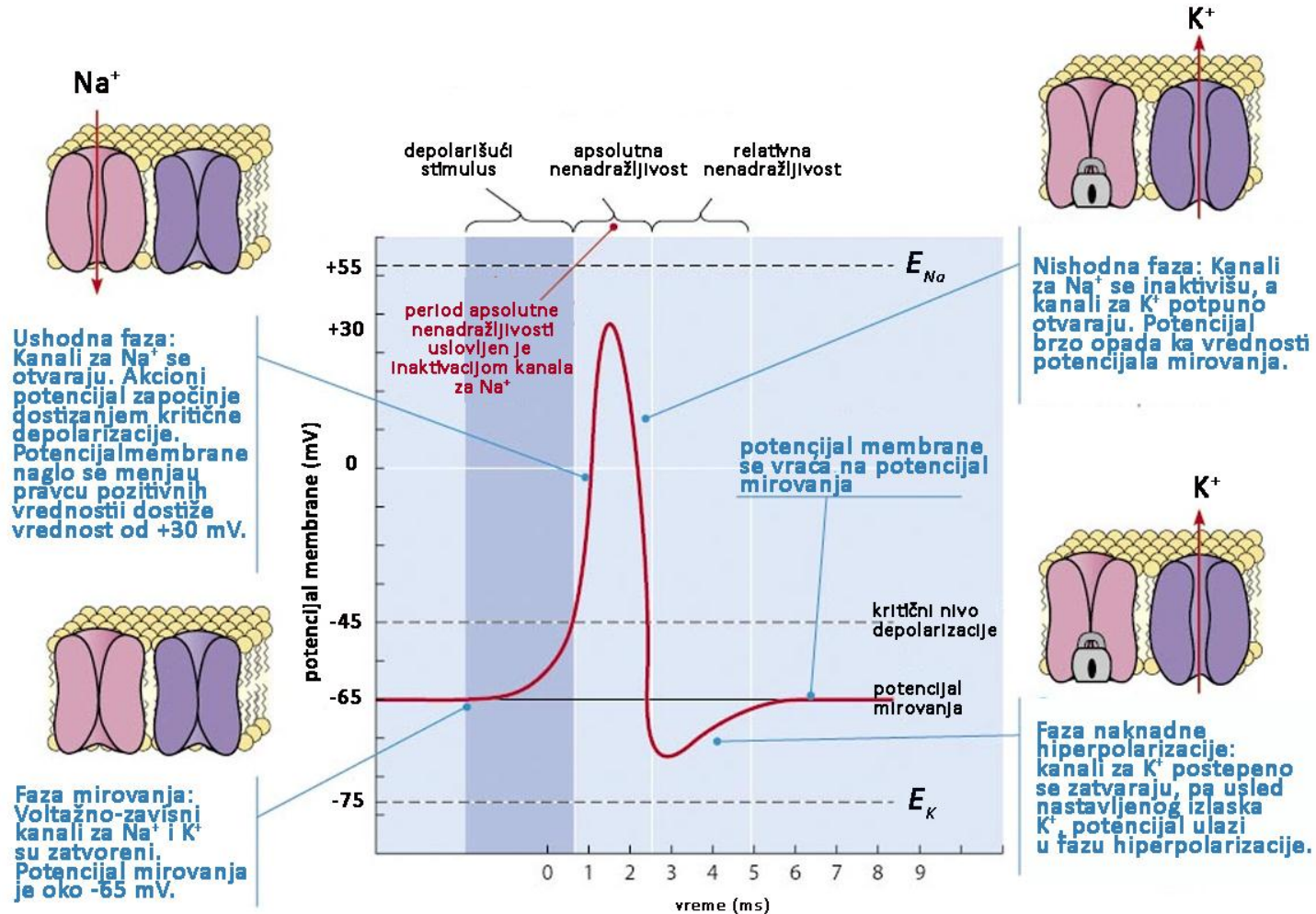


Волтажно-зависни канал за K^+

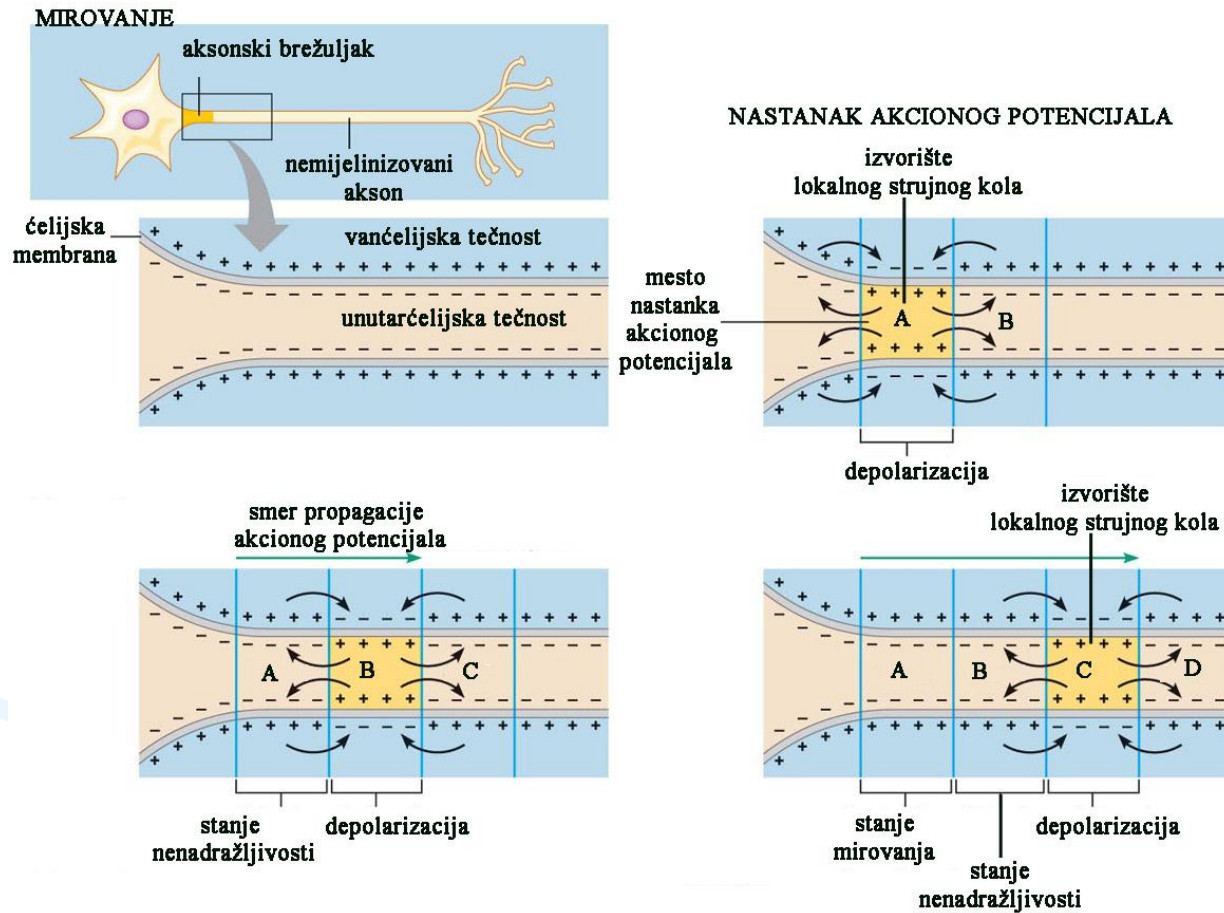


Преузето из: Н. Недељковић (2012) Општа физиологија

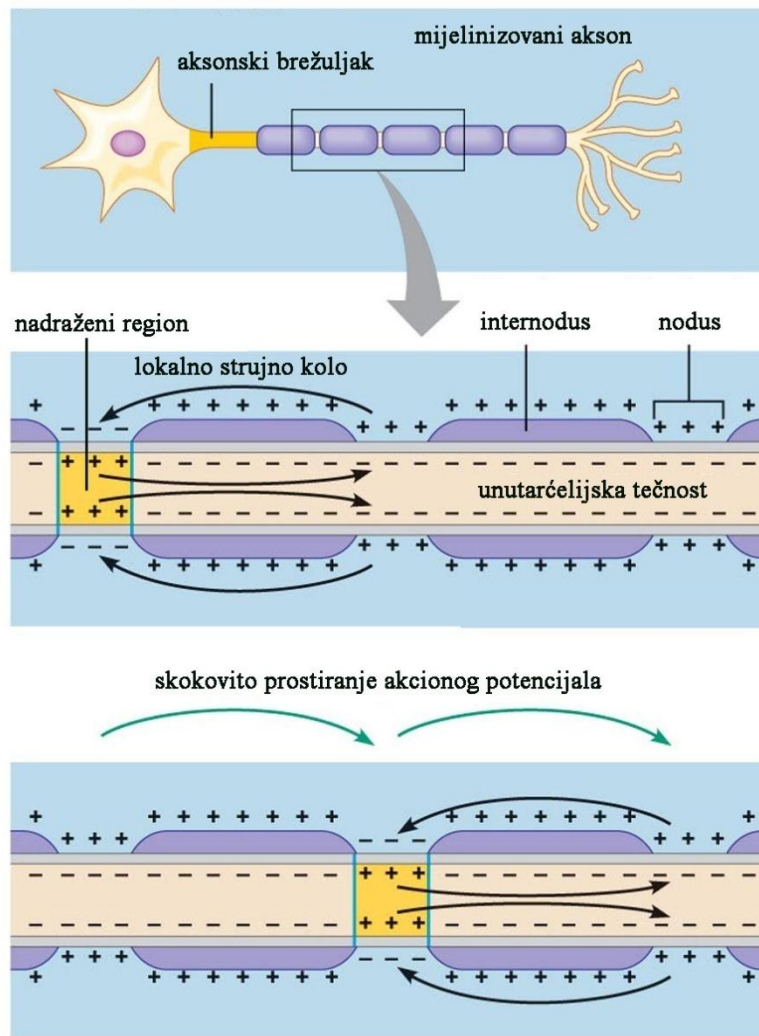
Јонска основа акционог потенцијала



Простирање акционог потенцијала



Скоковито простирање



$$v = k \cdot d$$