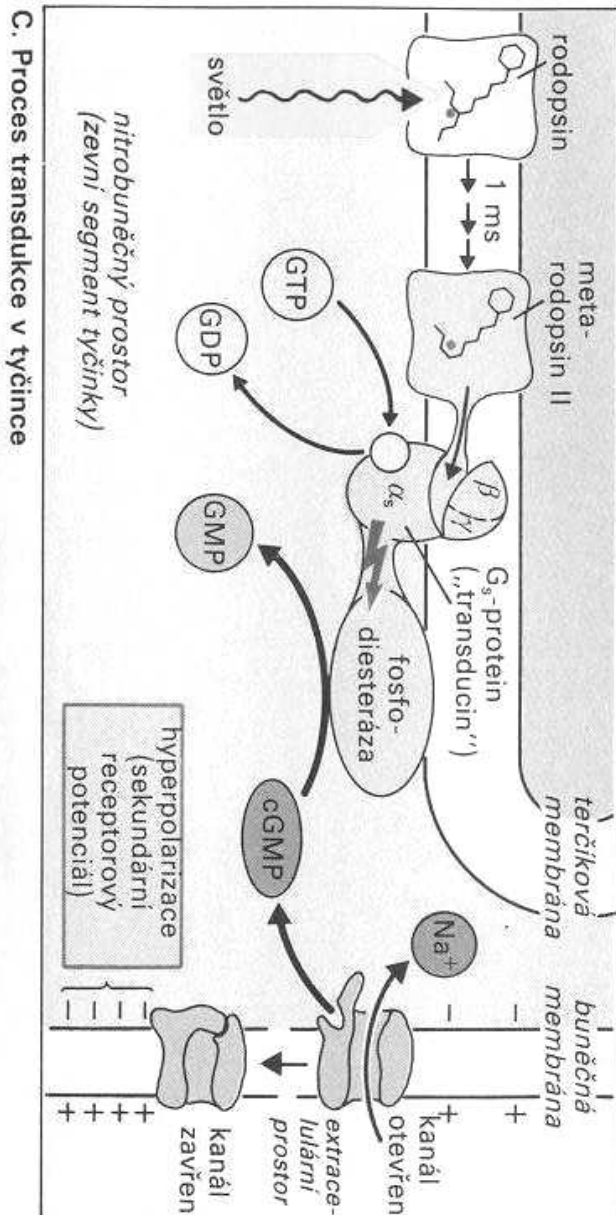


**Figure 16.9** Collision coupling in disc membrane. (A) resting condition. (B) On receipt of a photon of light retinal undergoes a *cis-trans* transformation. (C) and (D) 11-*cis* retinal diffuses out of the 'activated' opsin and the  $\alpha$ -subunit of T-protein is freed to accept GTP. (E)  $T_{\alpha}$ -GTP activates cGMP-PDE and arrestin and rhodopsin kinase inactivate opsin. (F) GTP is dephosphorylated and the action of  $T_{\alpha}$  on cGMP-PDE is terminated. The system returns to rest. Stipple = activated



Choriocapillaris

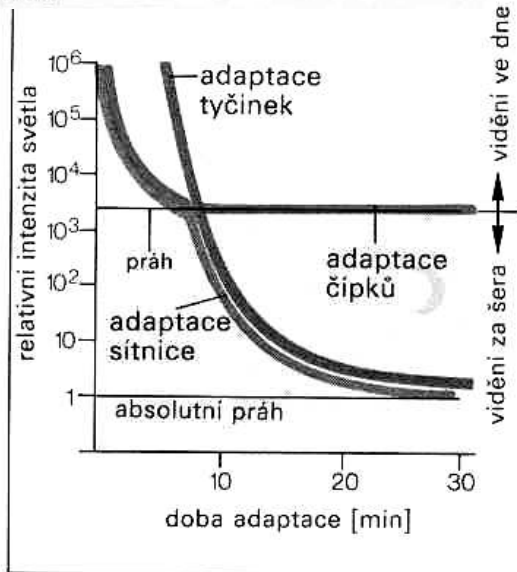
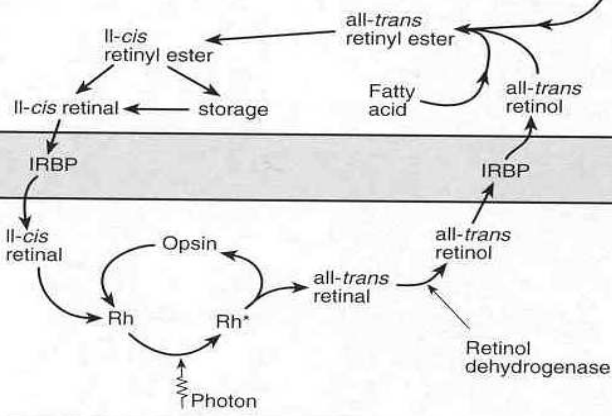
all-trans retinol

# Vitamin A

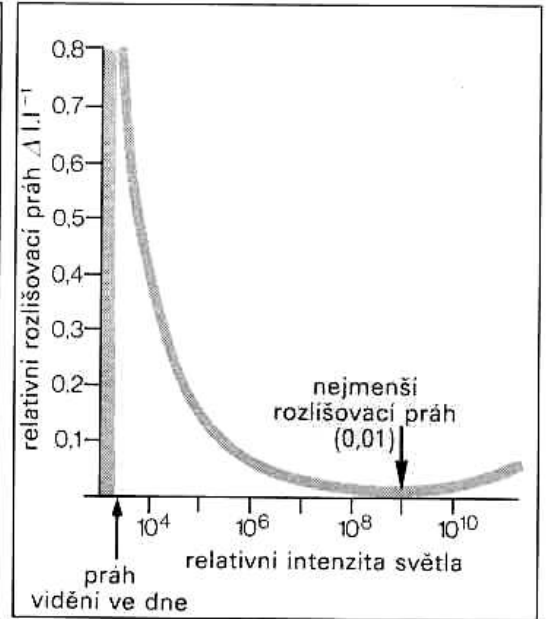
Retinal pigment epithelium

Inter-photoreceptor space

Rod outersegment



A. Průběh adaptace



B. Rozlišovací práh a intenzita světla

málo světla		hodně světla	
1  rozšířená zornice	 zúžená zornice	2  hodně zrak. pigmentu	 málo zrak. pigmentu
3  velká plocha sítnice pro 1 neuron	 malá plocha sítnice pro 1 neuron	4  pro vznik AP nutný dlouhý světelný podnět	 pro vznik AP stačí krátký světelný podnět

C. Mechanismy adaptace

