

Pavlodar state pedagogical institute  
Chair of General Biology

# Primary meristems

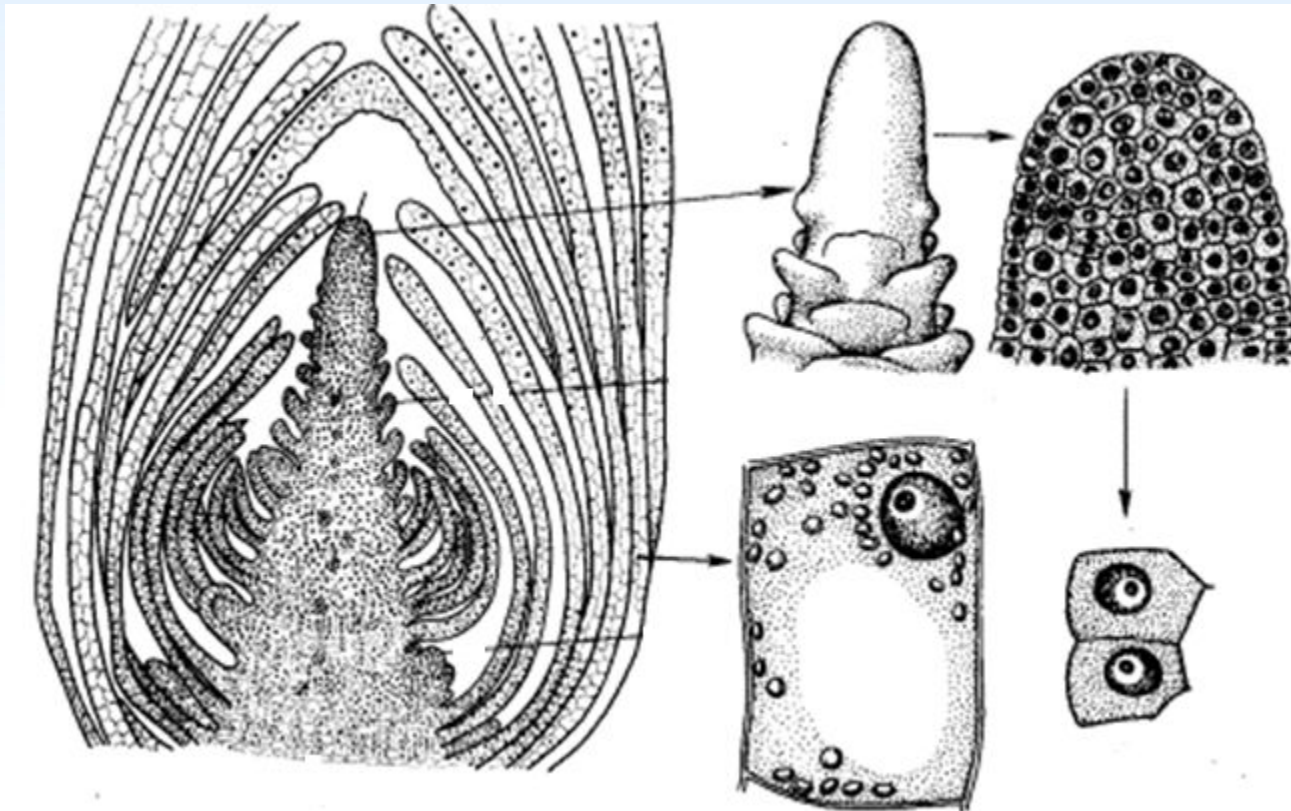
Fulfil: Markaich Zhanna

Nikitin Akim BSch-12

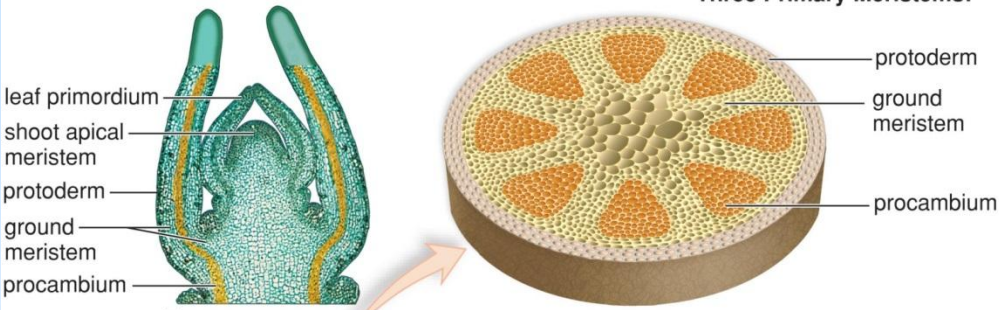
Check: Korogod N.P.

# Definition

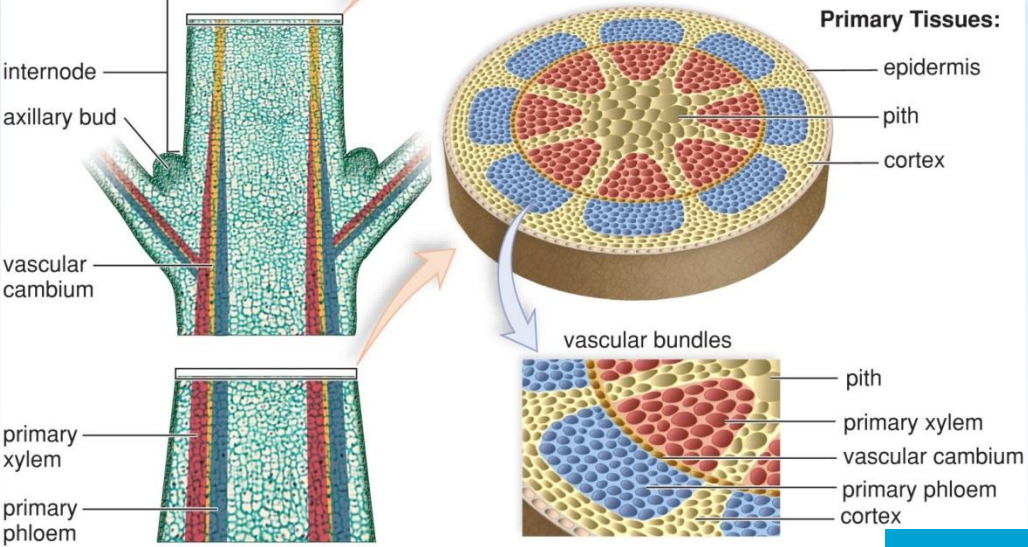
- A primary meristem arises in the tissue of the **embryo** and continues to exist in the plant organ in which it rose. The primary meristem found at the tips of stems or roots is called the *apical meristem* which is responsible for increase in length as it gives rise to the first or *primary permanent tissues*.



**Three Primary Meristems:**

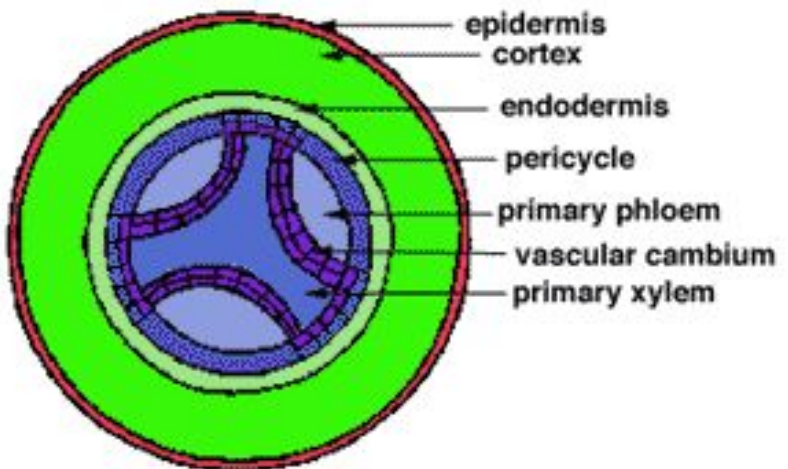


**Primary Tissues:**



a. Shoot tip

b. Fate of primary meristems



# Location in meristem

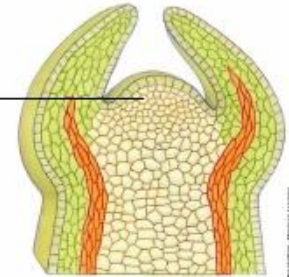
**MERISTEMS AND TISSUE FORMATION IN THE STEM**

	Primary meristems	Primary tissues	Lateral meristem	Secondary tissues
Apical meristem	Protoderm	Epidermis		
	Procambium	Primary phloem Primary xylem	Vascular cambium	Secondary phloem Secondary xylem
	Ground meristem	Ground tissue		
			Cork cambium	Cork
			Periderm	

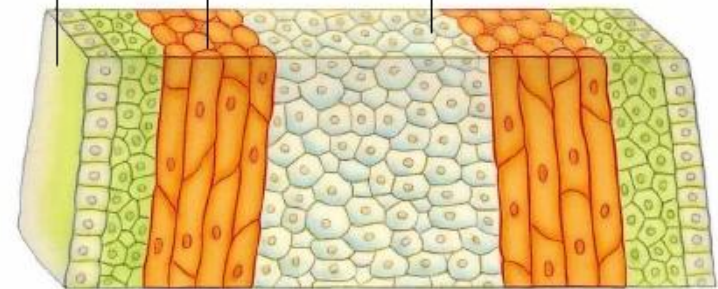


# Shoot Development

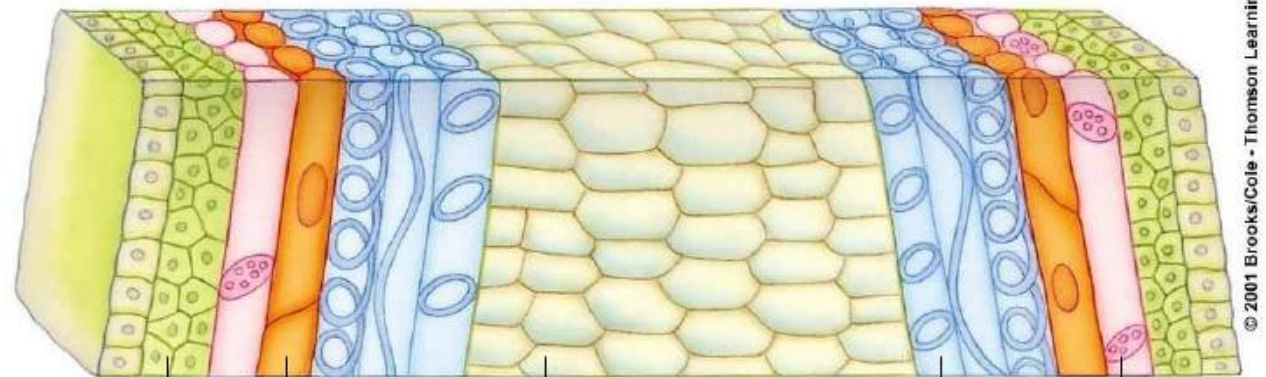
shoot apical meristem



protoderm procambrium ground meristem



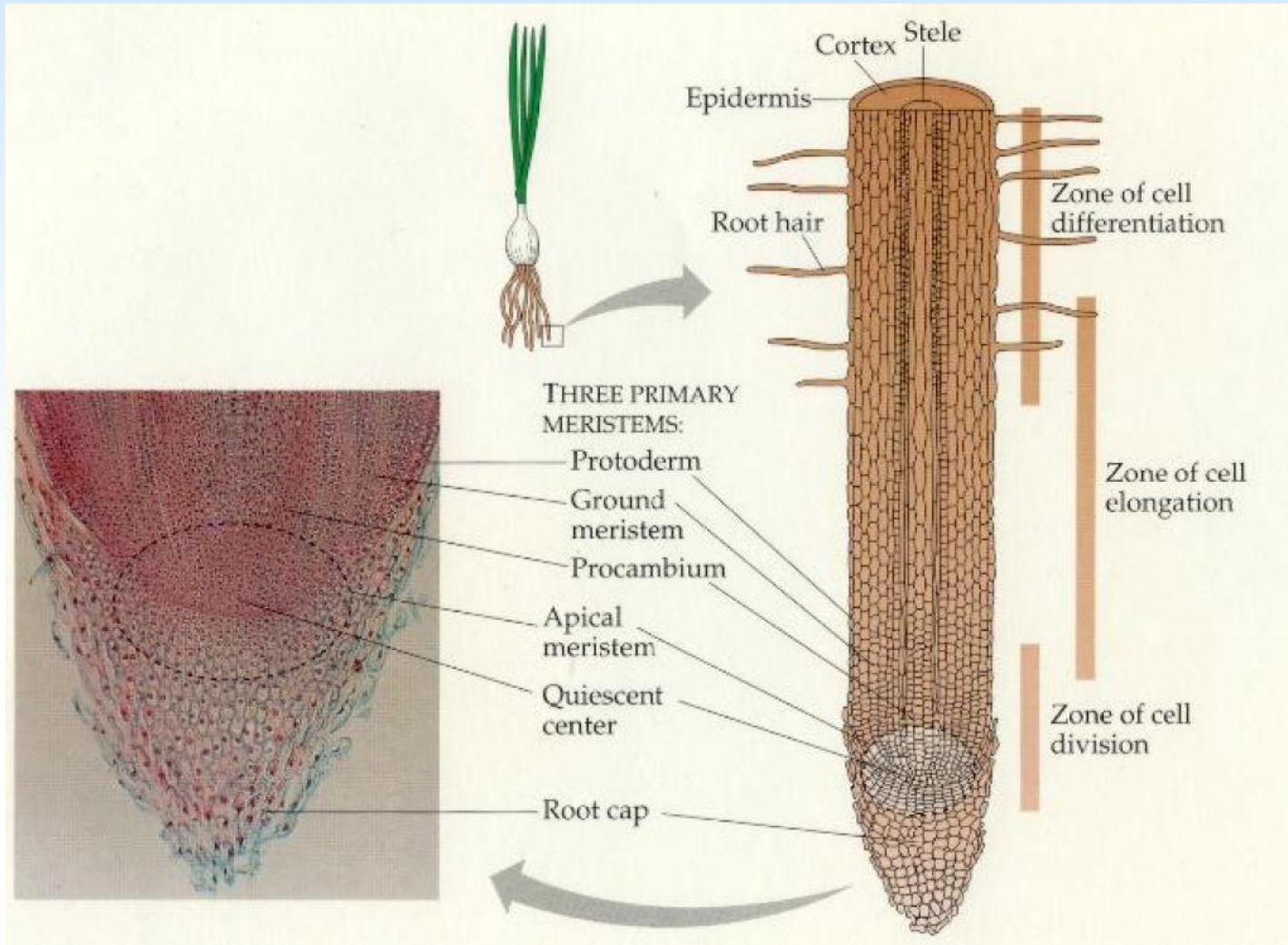
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cortex procambrium pith primary xylem primary phloem

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# Location in root apical meristem



Thank you for  
attention