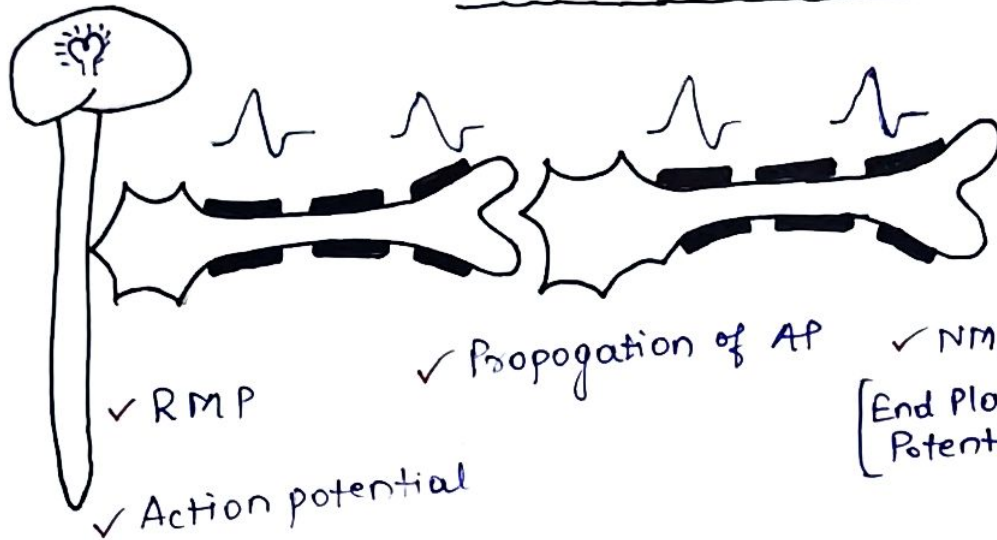


MECHANISM OF MUSCLE CONTRACTION

SLIDING FILAMENT THEORY

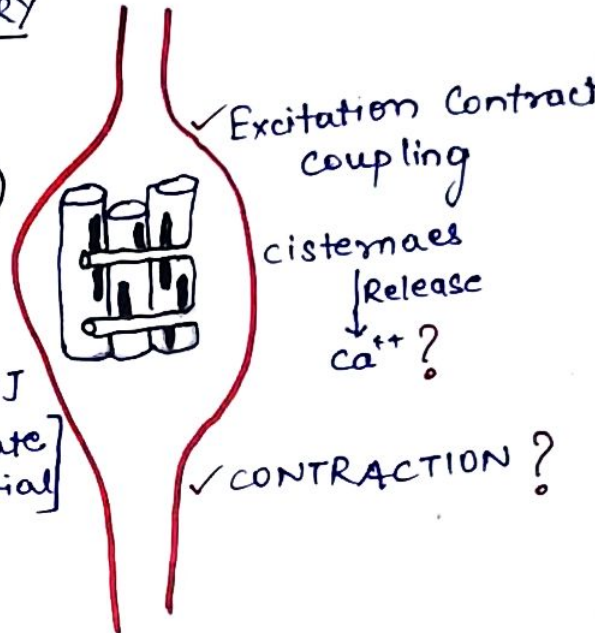


✓ RMP

✓ Action potential

✓ Propagation of AP

✓ NMJ
[End Plate Potential]

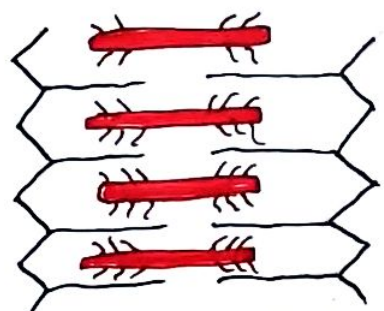


✓ Excitation Contract
coupling

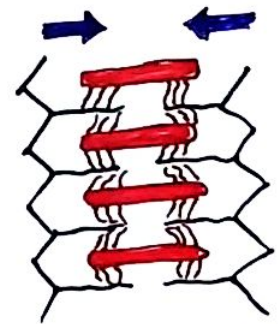
cisternae
↓ Release
Ca⁺⁺?

✓ CONTRACTION?

Structure of
Sarcomere,
Actin, myosin!



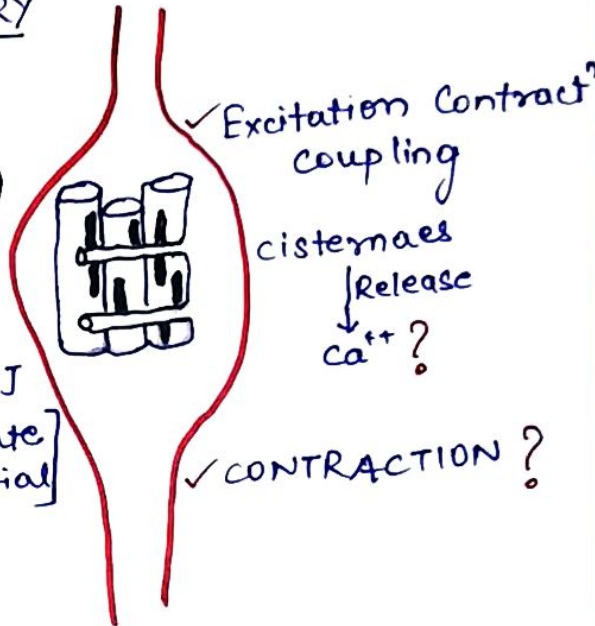
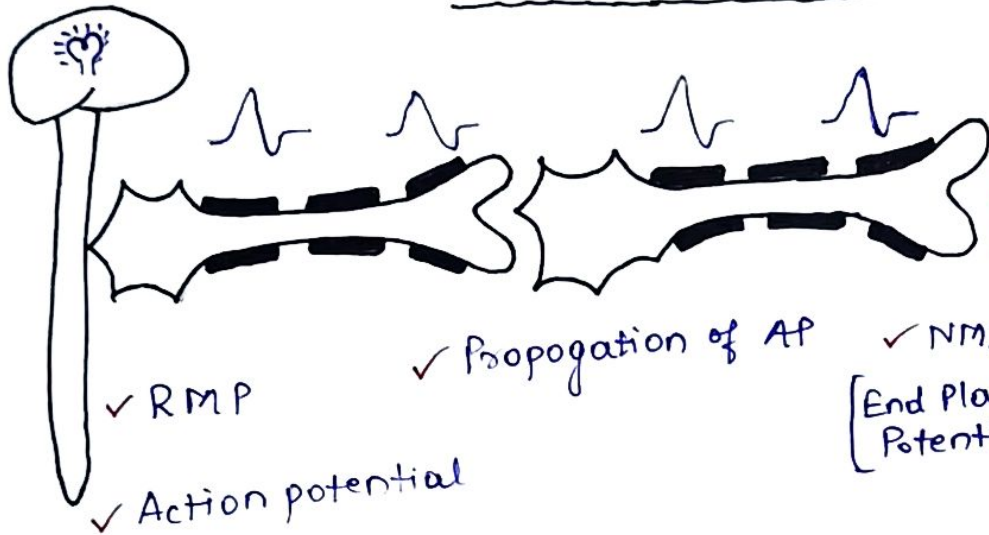
SARCOMERE
'Relaxed'



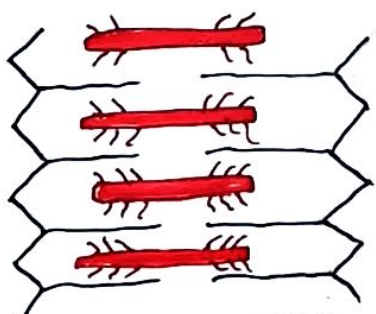
SARCOMERE
'Contracted'

MECHANISM OF MUSCLE CONTRACTION

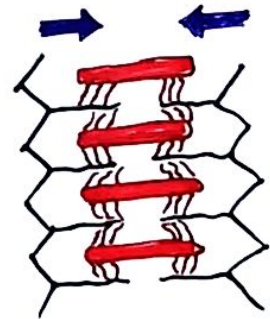
SLIDING FILAMENT THEORY



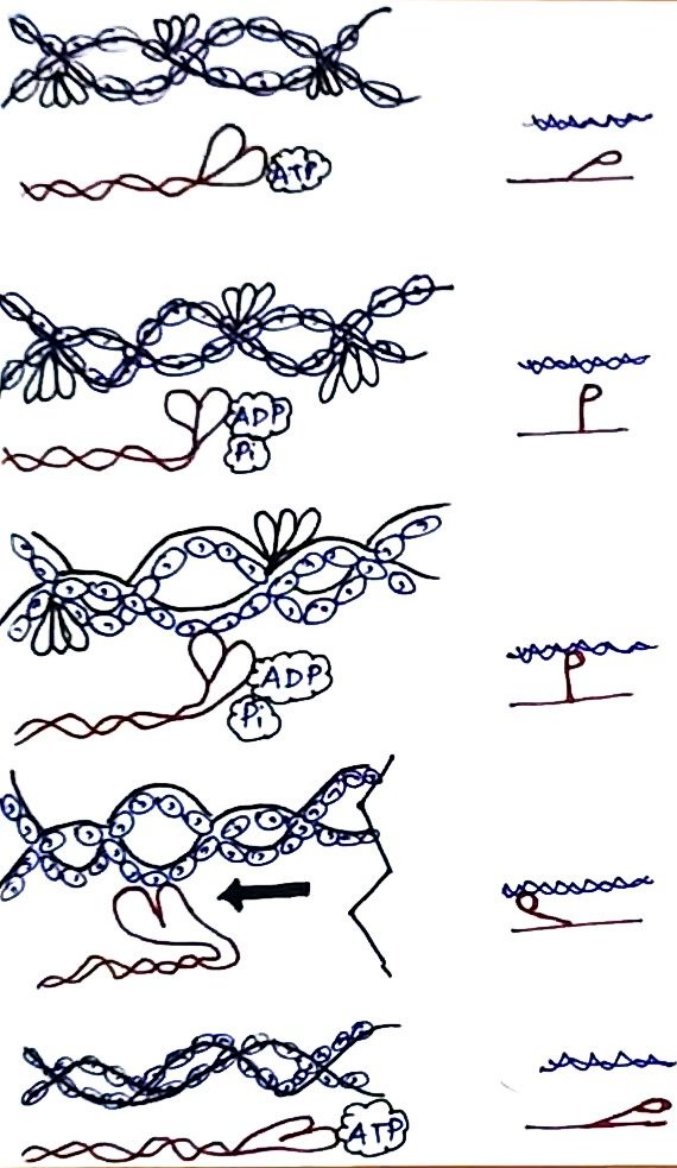
✓ Structure of Sarcomere, Actin, myosin!



SARCOMERE 'Relaxed'



SARCOMERE 'Contracted'



Myosin + ATP

↓ ATPase

Myosin moves perp. towards active site

+ ADP + Pi

← Ca⁺⁺ (C'troponin)

Active site uncover (Help of Troponin-Tropomyosin complex)

↓ ADP + Pi release

Power stroke

↓ New ATP binds

Head detach — NEW CYCLE