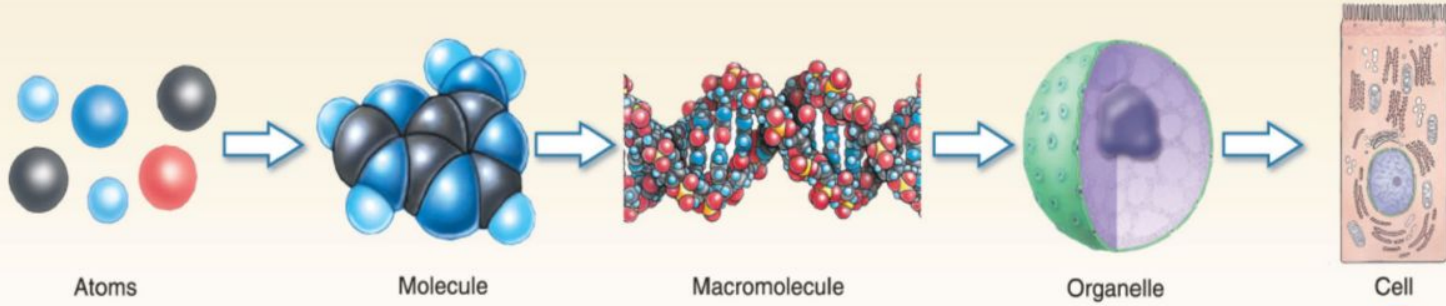


Vävnader, organsystem och homeostasis

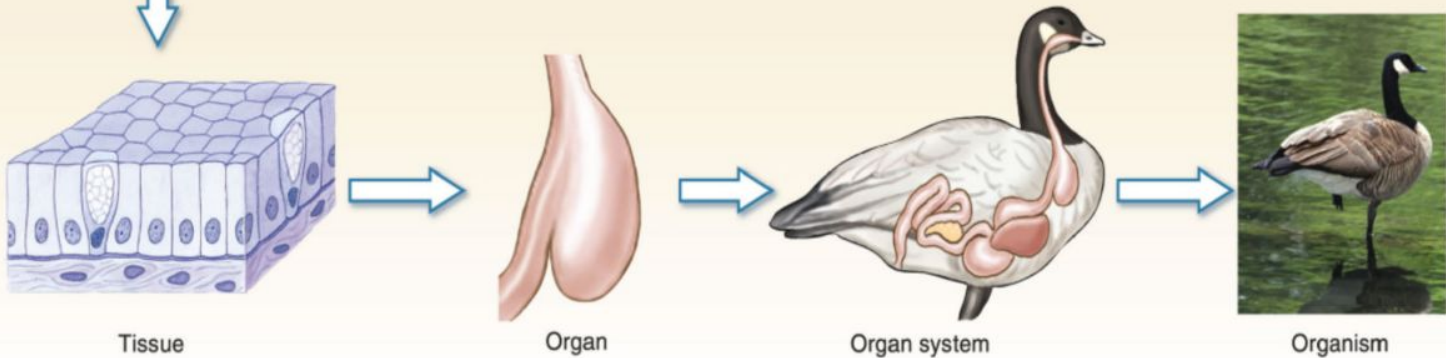
Kråka Larsen VFU 2025

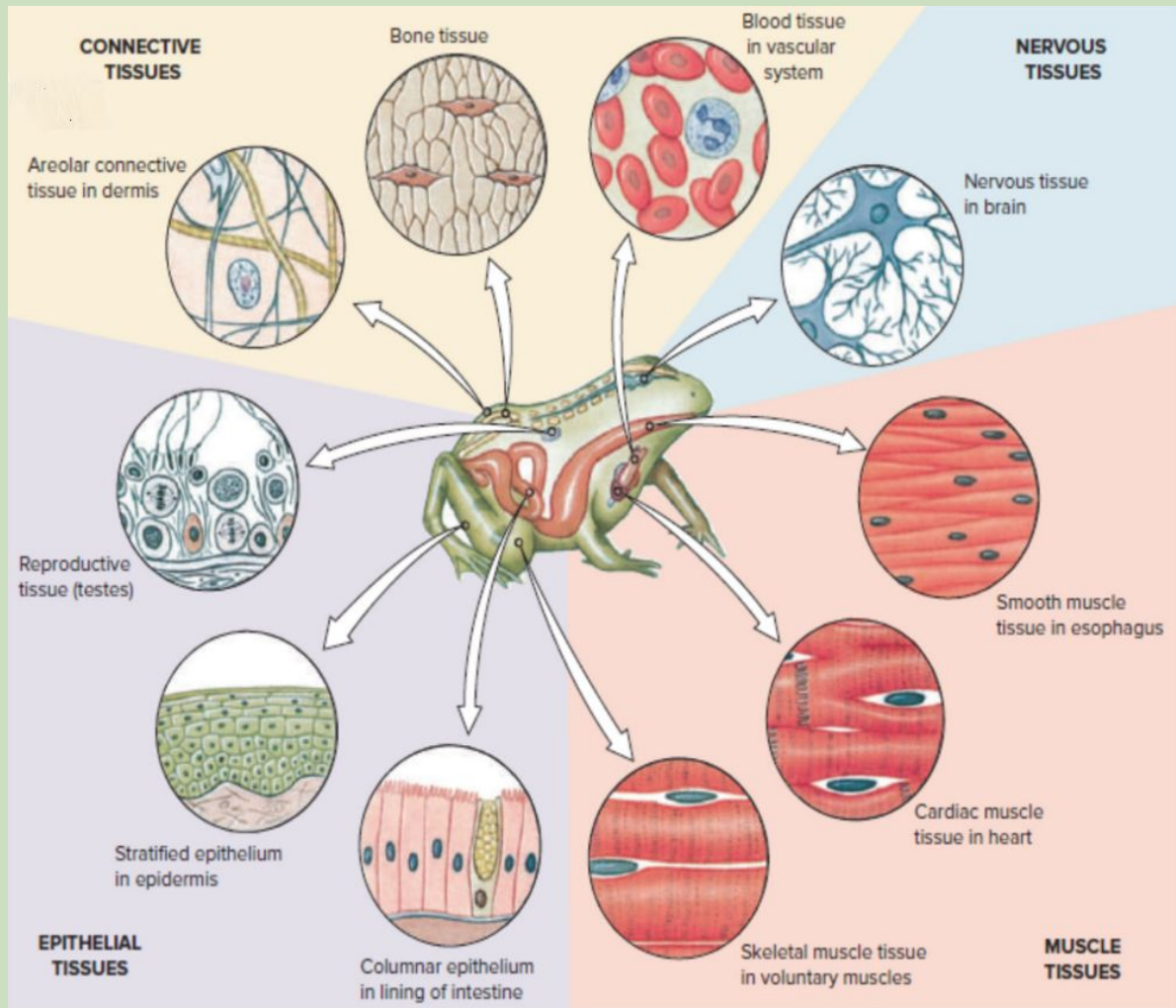


CELLULAR LEVEL



ORGANISMAL LEVEL



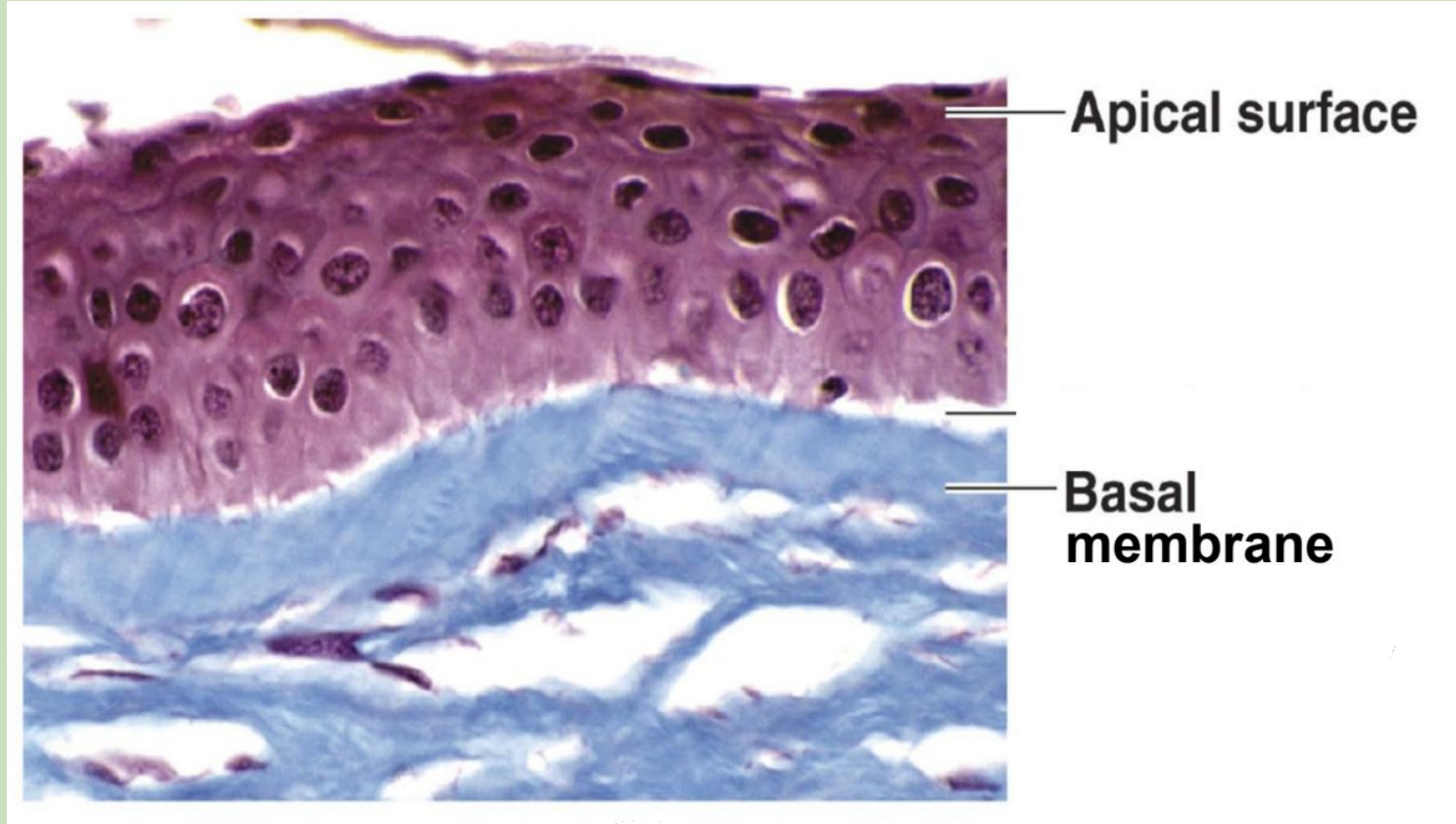


De Fyra grundvävnaderna

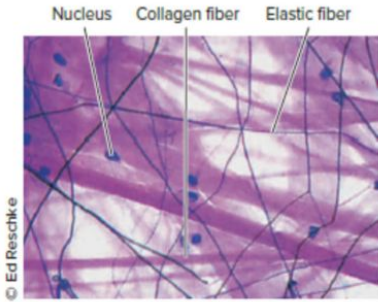
1. Epitel
2. Bindväv (inkl. derivat)
3. Nervvävnad
4. Muskelvävnad



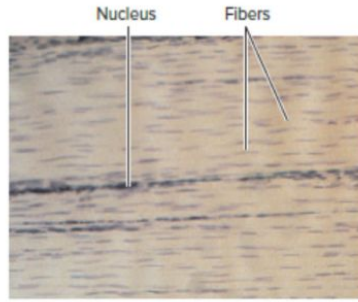
1. Epitel (skydd och sekretion)



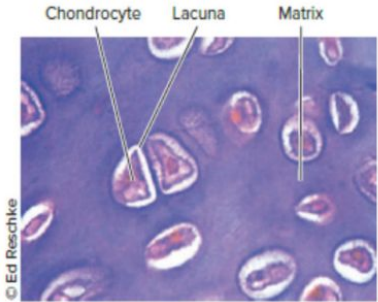
2. Bindväv (stöd och sammanhållning)



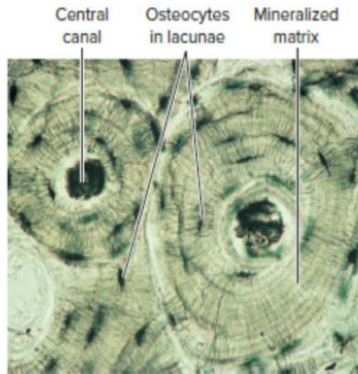
A Loose connective tissue
Lucker bindväv



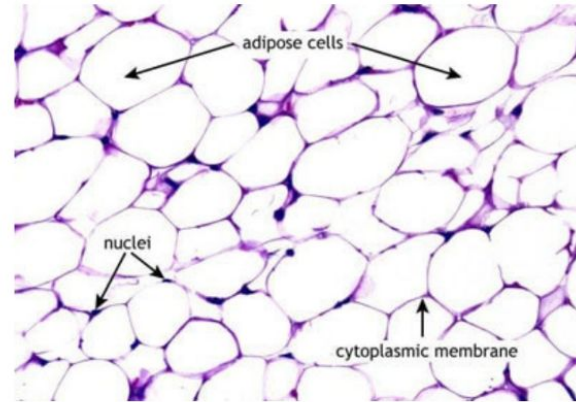
B Dense connective tissue
Tät paralleltrådig bindväv



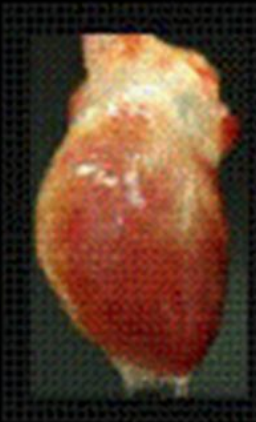
C Cartilage
Broskvävnad



D Bone
Benvävnad



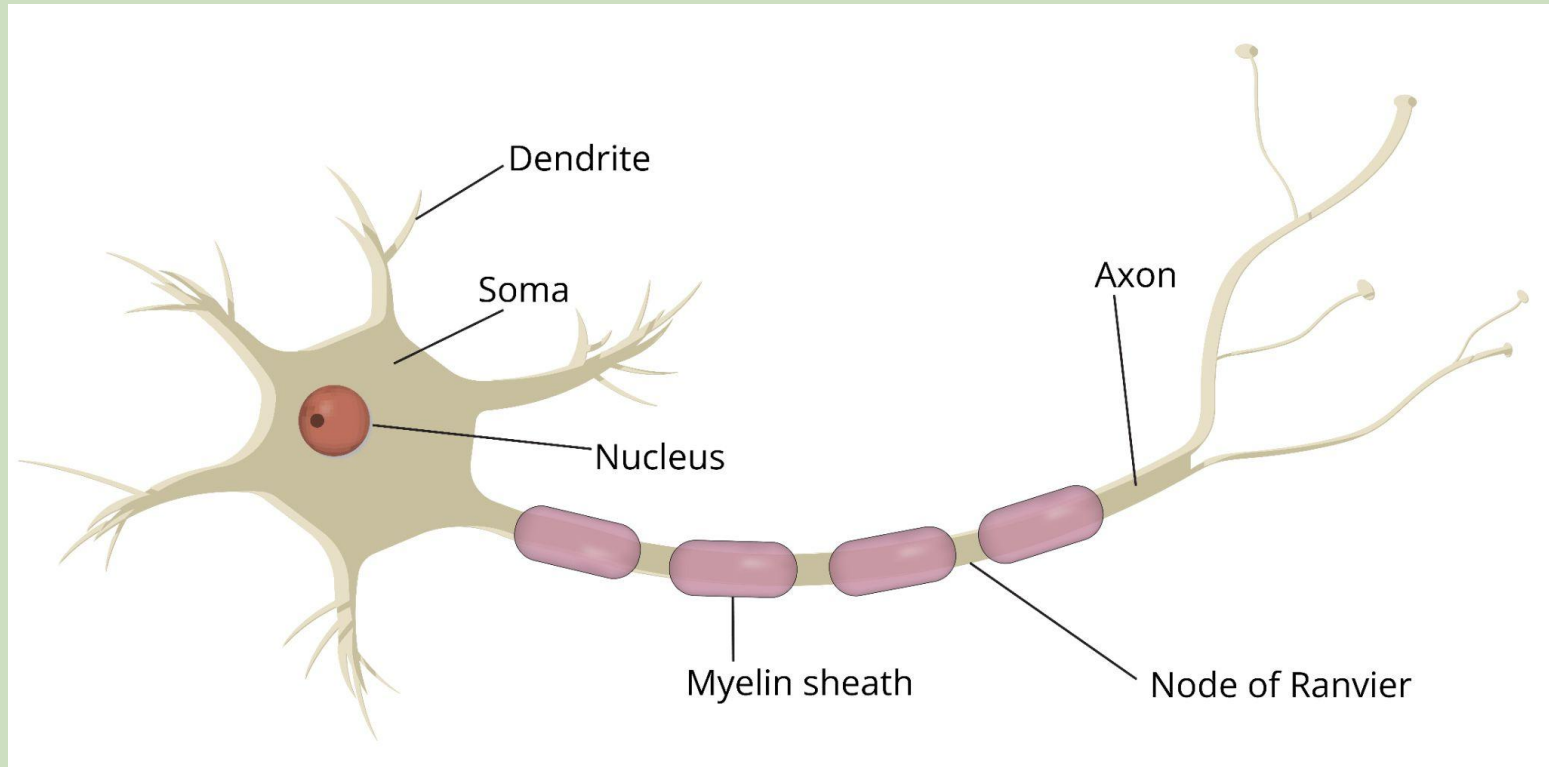
Fettväv

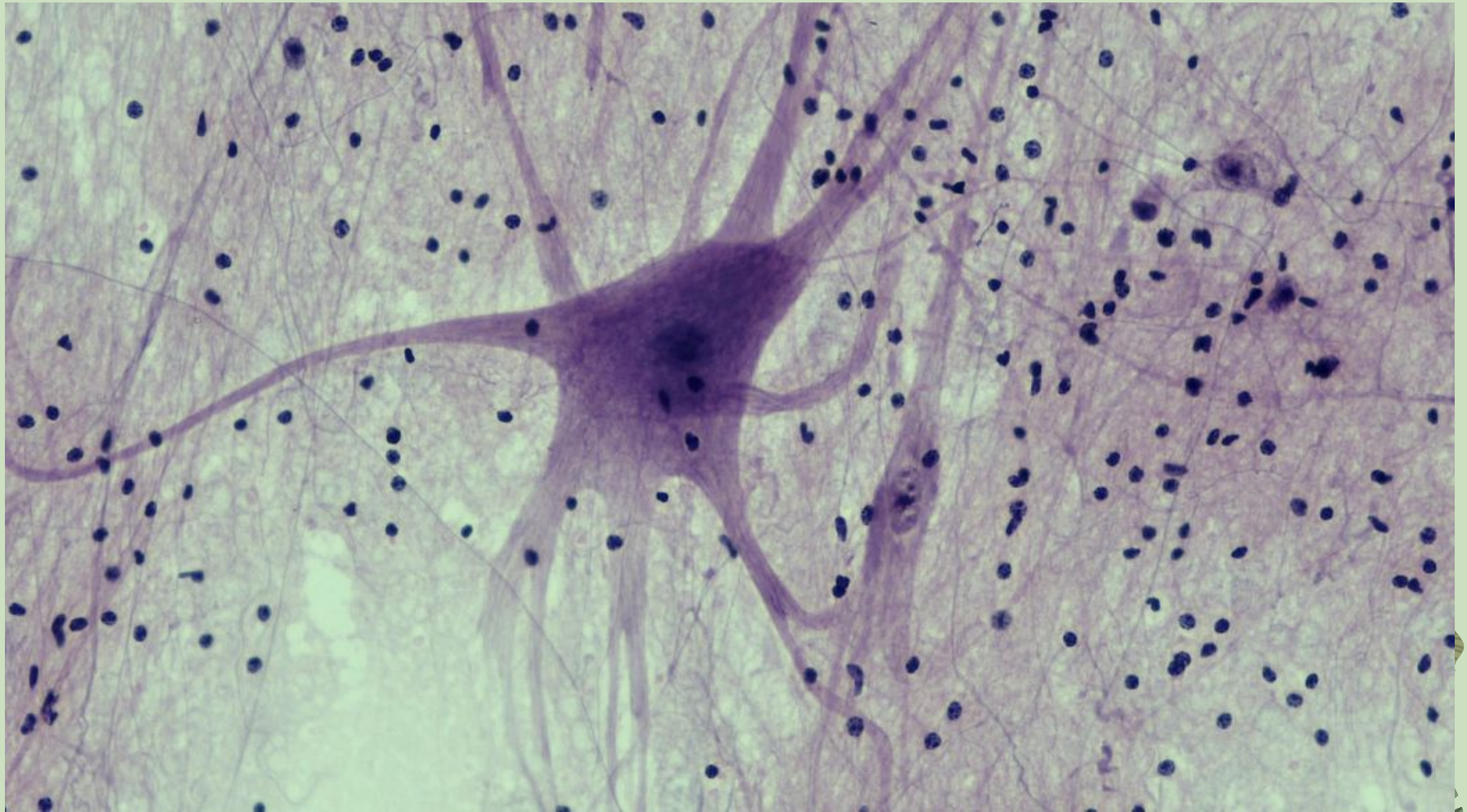


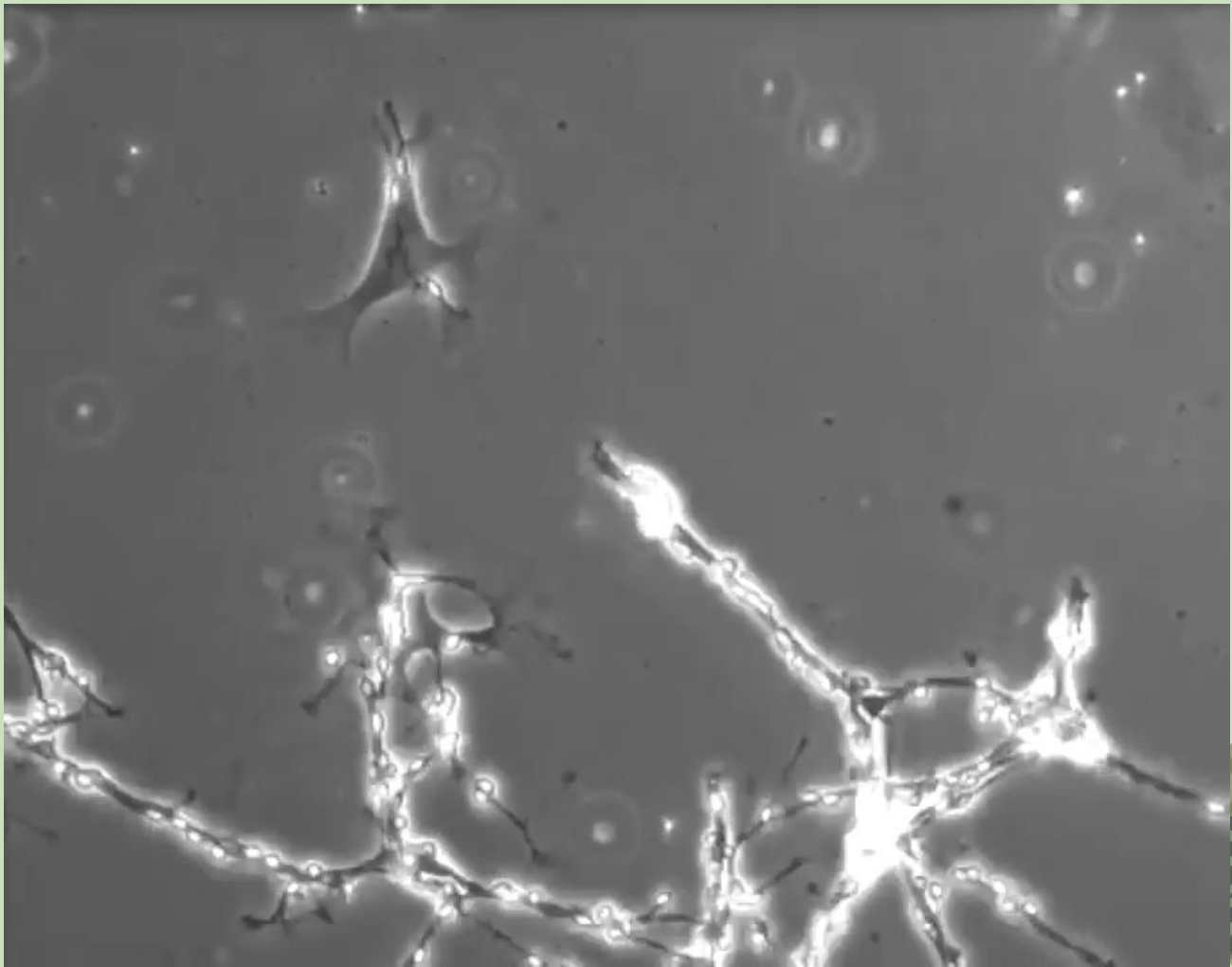
- Om all annan vävnad togs bort skulle ändå alla organ gå att känna igen



3. Nervvävnad (signalöverföring)

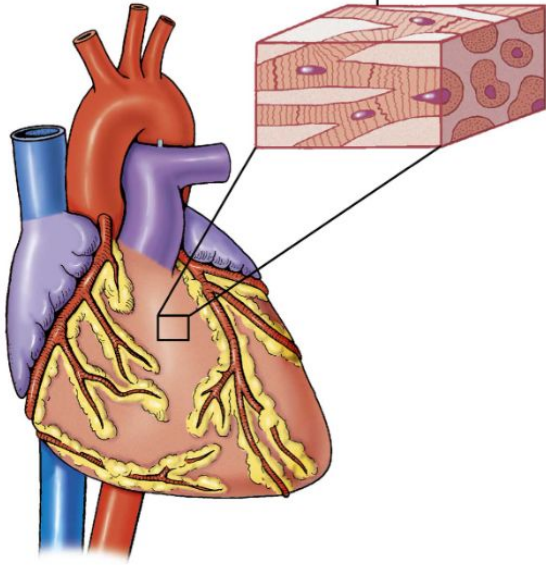






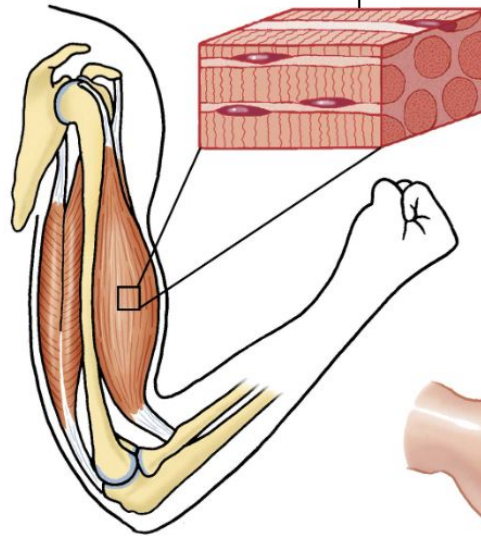
4. Muskelvävnad (rörelse)

Hjärtmuskler



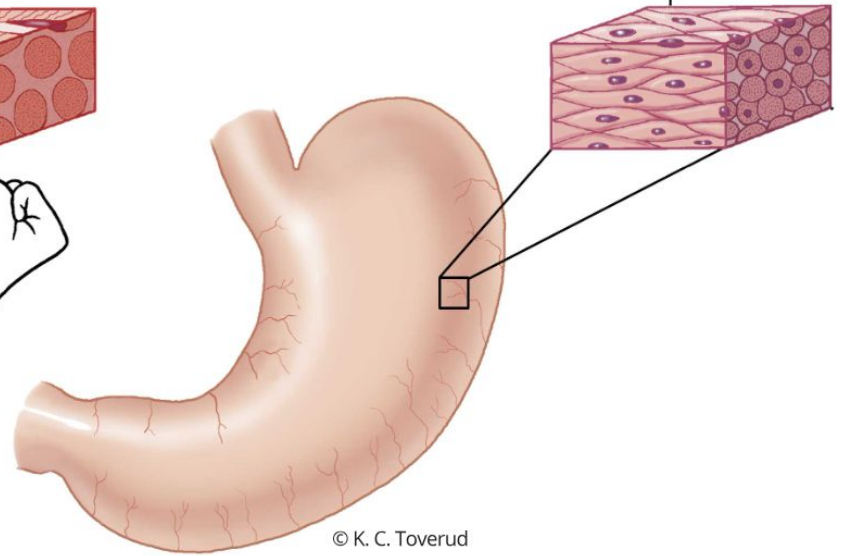
1

Skelettmuskler



2

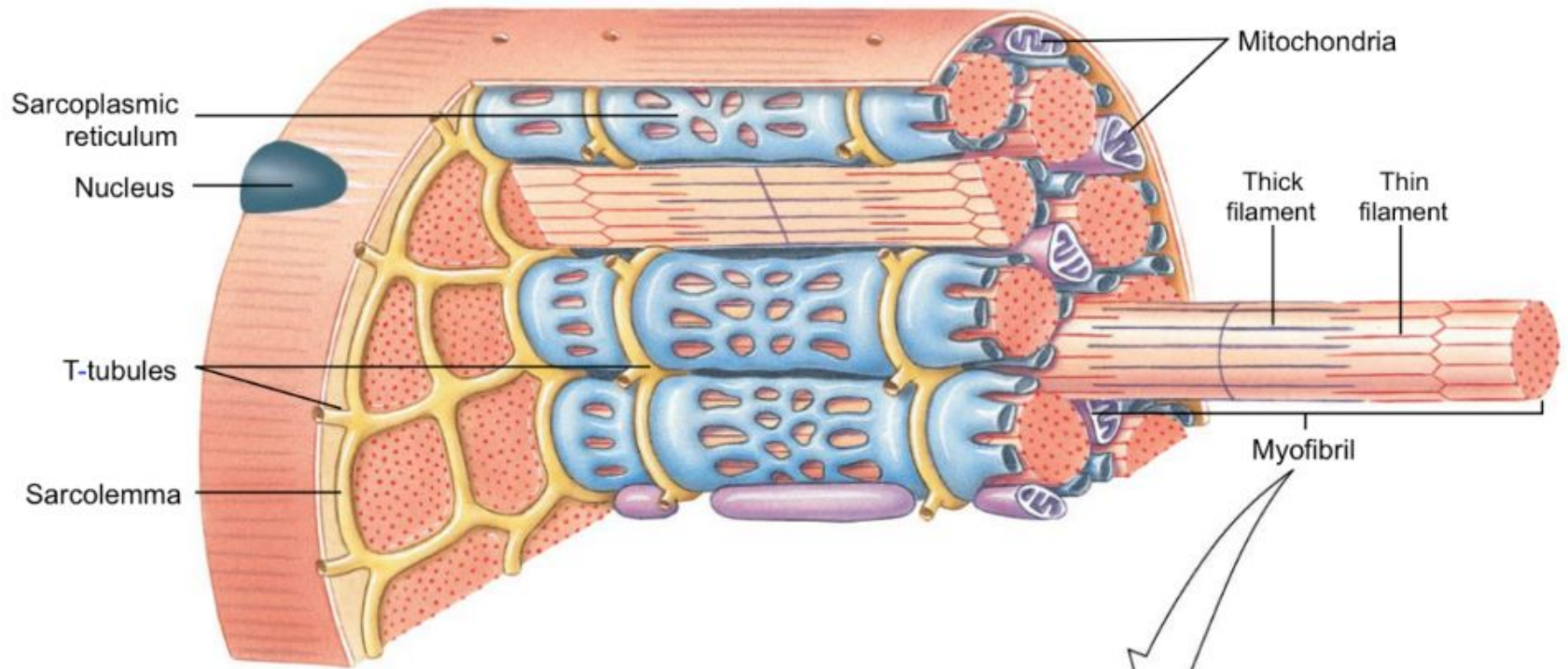
Glatta muskler



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3

Structure of Skeletal Muscle Fiber



(b)

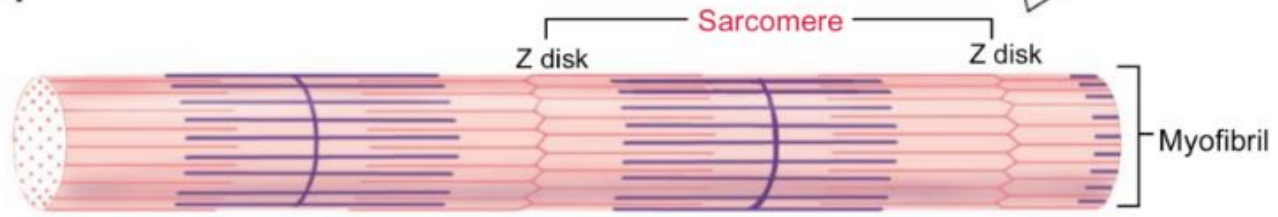
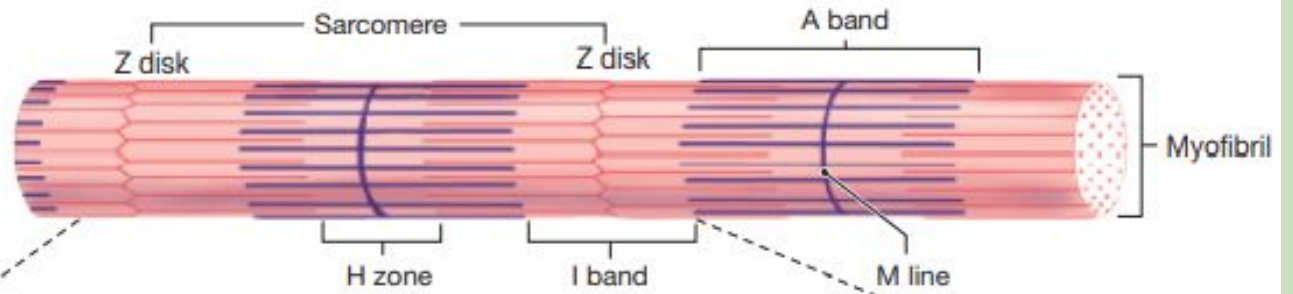
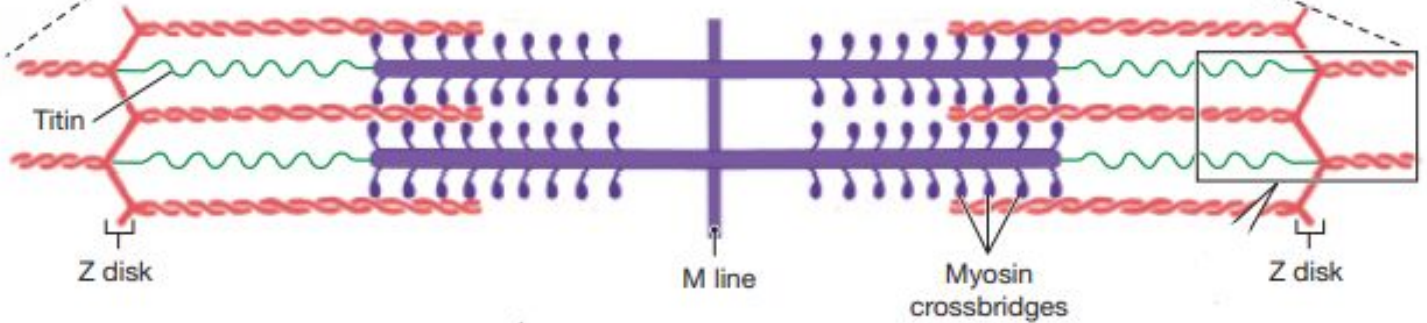


Figure 12-3

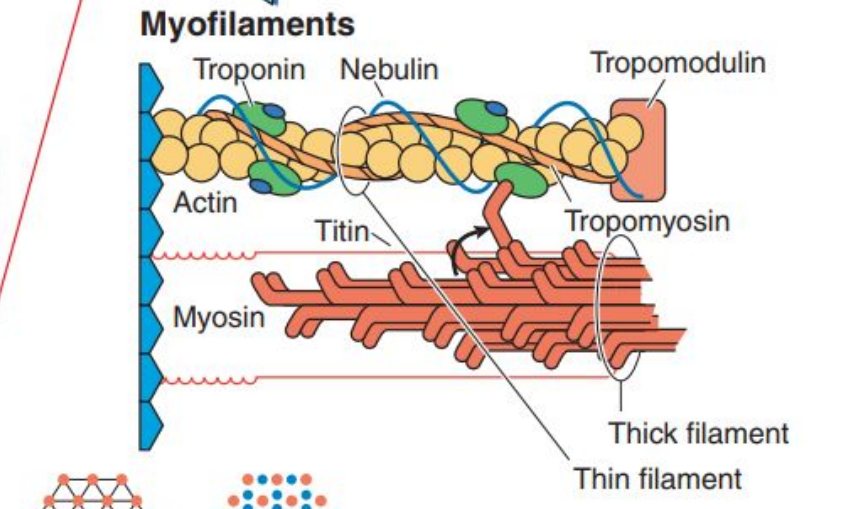
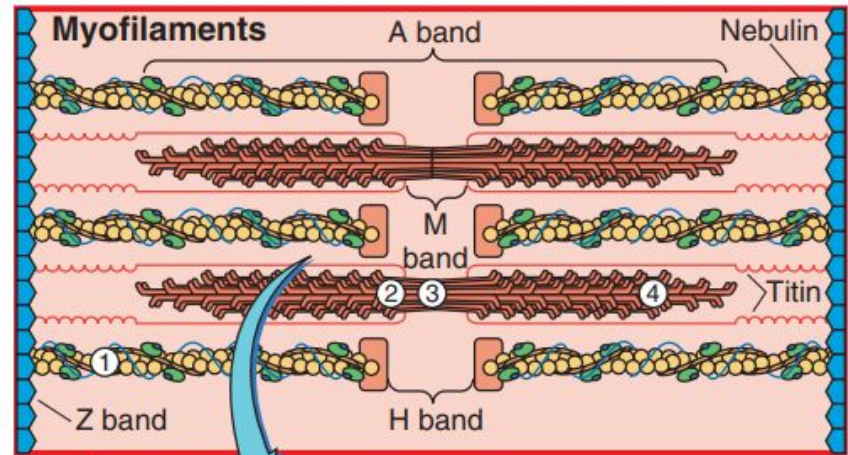
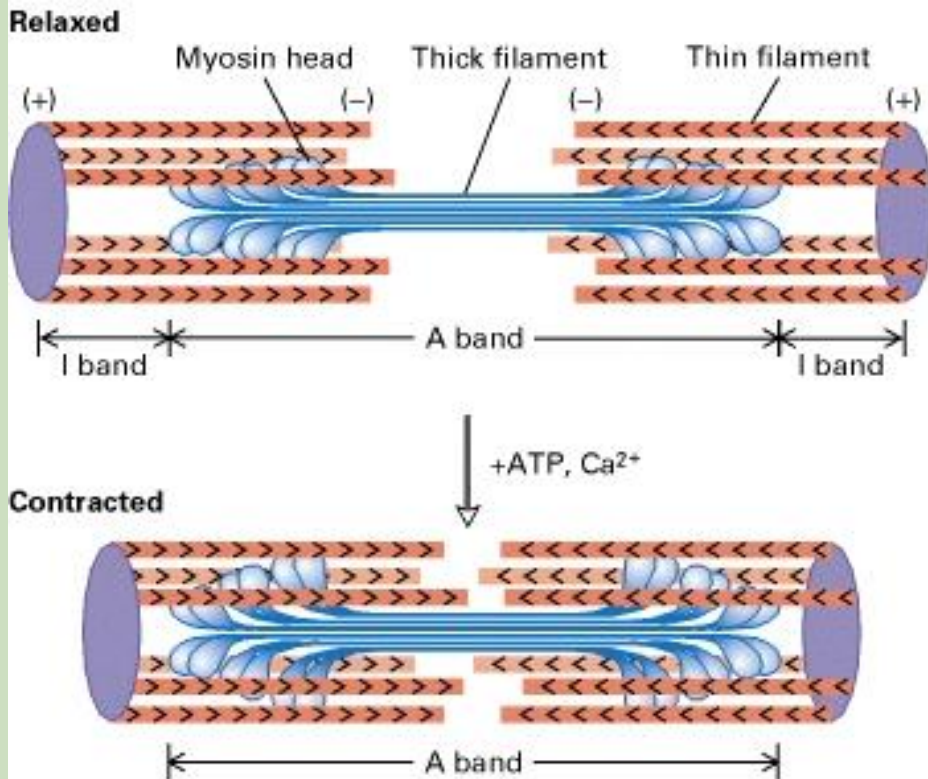
(c) Myofibril



(d) Components of a Myofibril



Sarkomerer



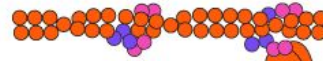
Sliding Filament Theory



Myosin heads split ATP and become reoriented and energised



Myosin heads bind to actin, forming crossbridges



Contraction Cycle Continues if ATP is available and Ca^{2+} Level in the sarcoplasm is high



ATP

ADP

As myosin heads bind ATP, the crossbridges detach from actin

ATP



ADP

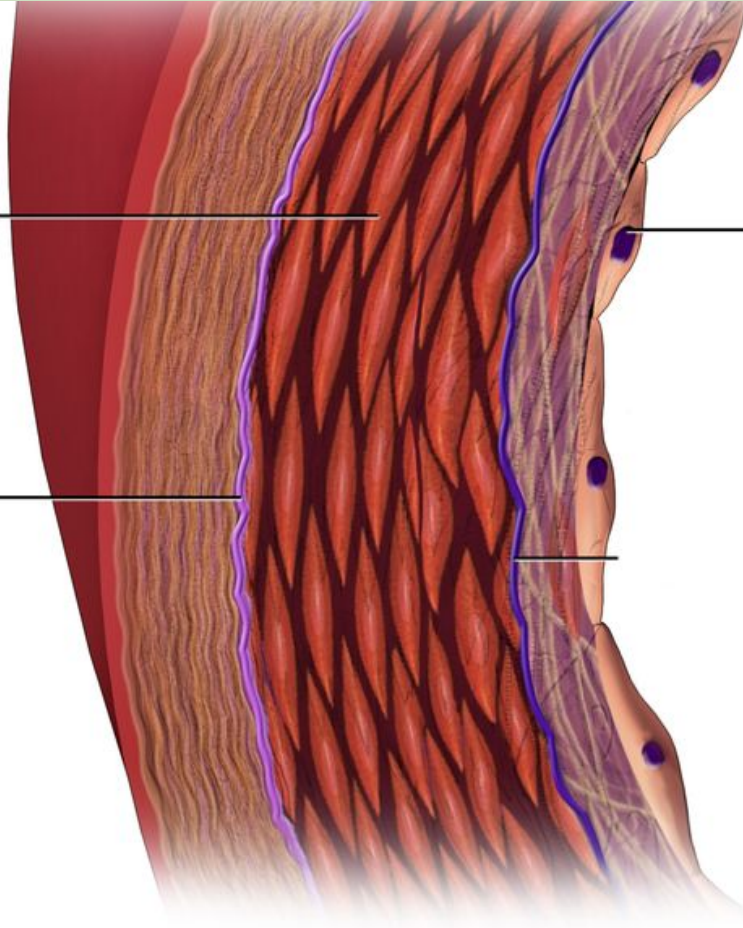
Myosin heads rotate toward center of the sarcomere (Power stroke)



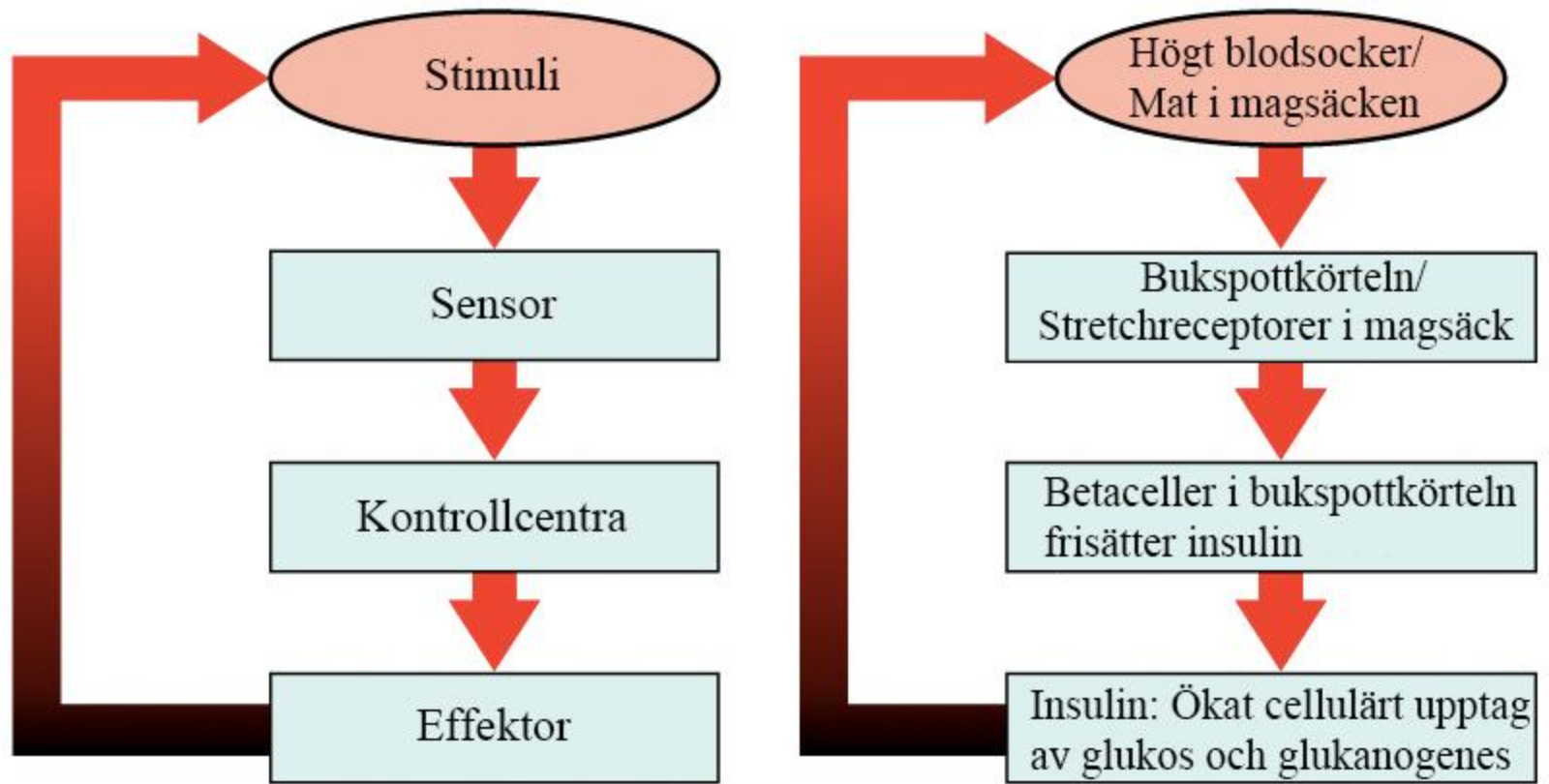
Smooth muscle

Endothelium

External elastic
membrane







Negativ återkoppling

Kroppens Organsystem

- Cirkulationssystemet
- Matspjälkningen
- Endokrina systemet
- Integumentsystemet
- Immunförsvaret/Lymfatiska systemet
- Muskelsystemet
- Nervsystemet
- Fortplantningssystemet
- Respirationen
- Skelettet
- Utsöndringen

