

DALLA CELLULA
ALL'ORGANISMO

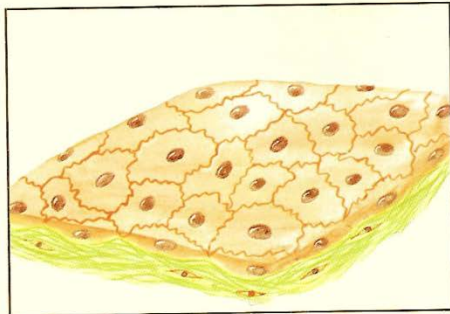
- Le **cellule di un organismo unicellulare** sono in grado di svolgere tutte le funzioni vitali tipiche di un essere vivente: si nutrono, respirano, digeriscono le sostanze nutritive, si riproducono, ecc., **non sono**, cioè, **specializzate**



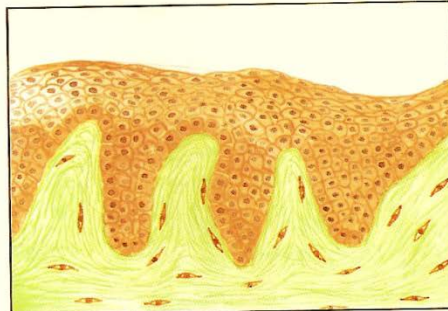
- Negli **organismi pluricellulari le cellule si specializzano** e si riuniscono per compiere la stessa determinata funzione: le cellule muscolari si contraggono, le cellule nervose trasmettono impulsi nervosi, ecc.

- La forma della cellula dipende dalla funzione che svolge

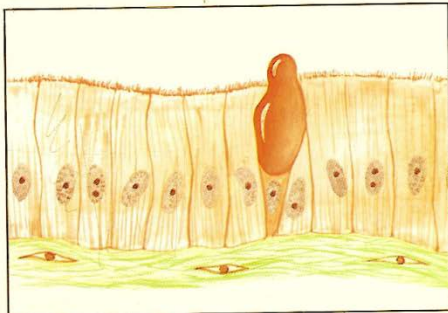




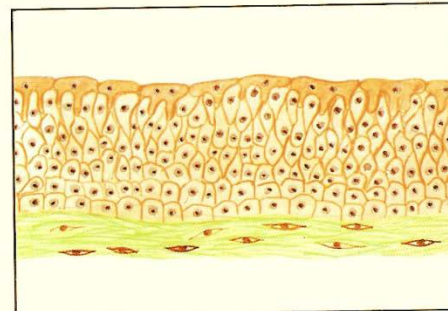
Epitelio piatto monostratificato



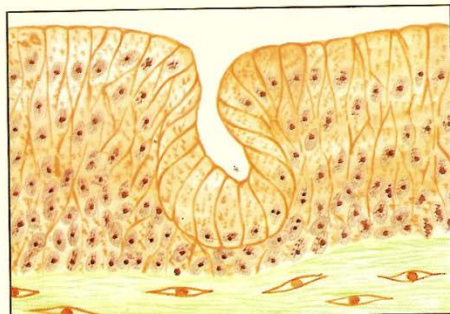
Epitelio pluristratificato



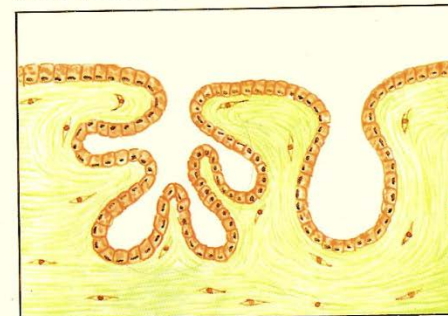
Epitelio prismatico semplice



Epitelio di transizione



Ghiandola intra-epiteliale

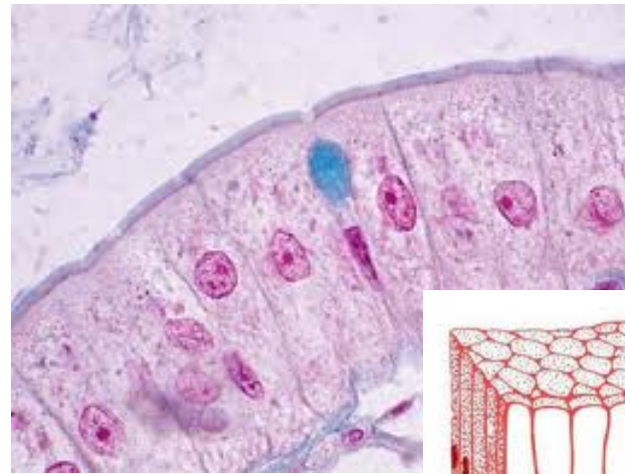


Ghiandole extraepiteliali

- Un **tessuto** è un **insieme di cellule** che hanno la **stessa forma** e che svolgono la **stessa funzione**
- Esistono vari tipi di tessuti: epiteliale, connettivo, muscolare, nervoso, ecc.

Tessuto epiteliale

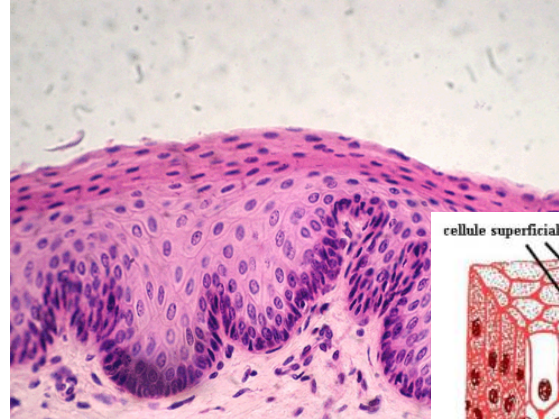
- E' costituito da **cellule** strettamente **a contatto tra loro.**



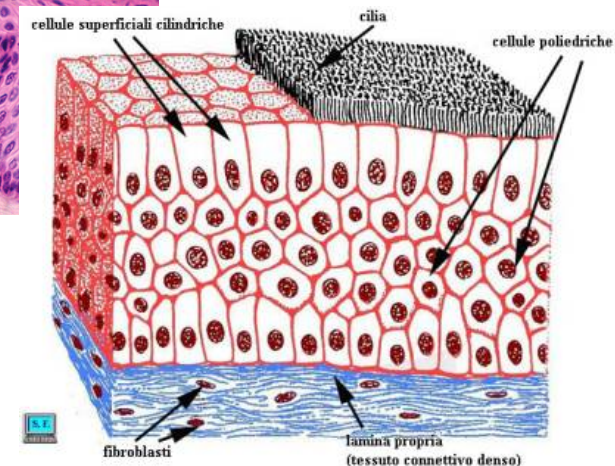
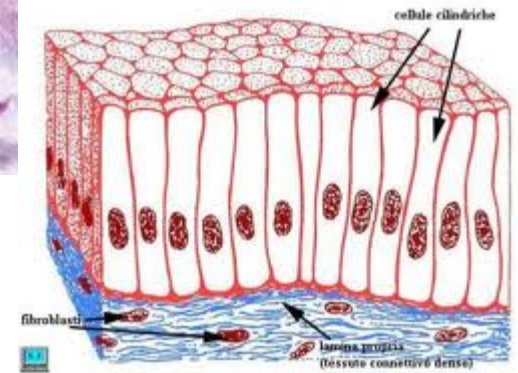
- Può essere **mono o pluristratificato**

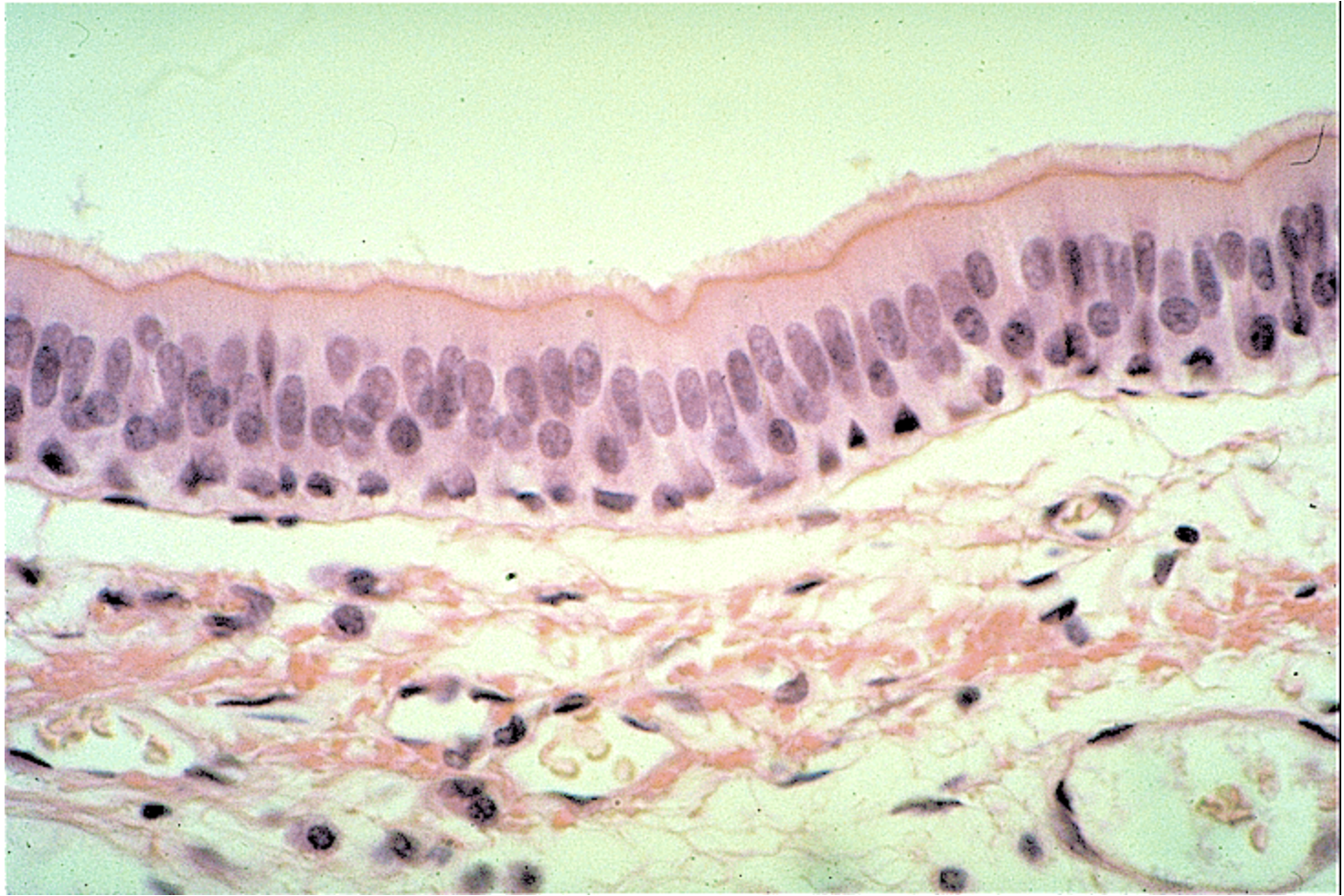
- Tra i tessuti epiteliali ricordiamo:

1) il **tessuto di rivestimento** che ricopre esternamente o internamente il corpo



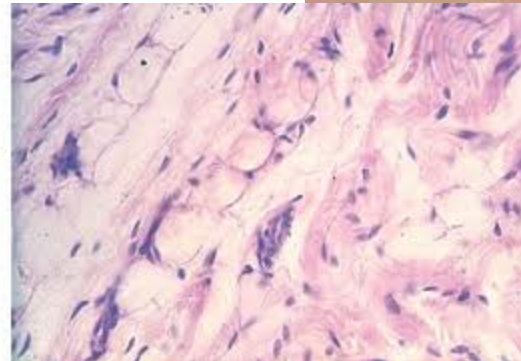
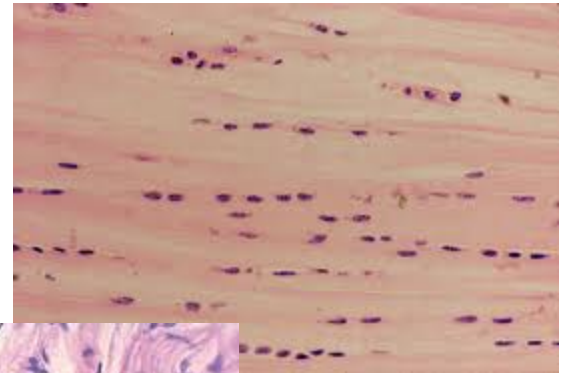
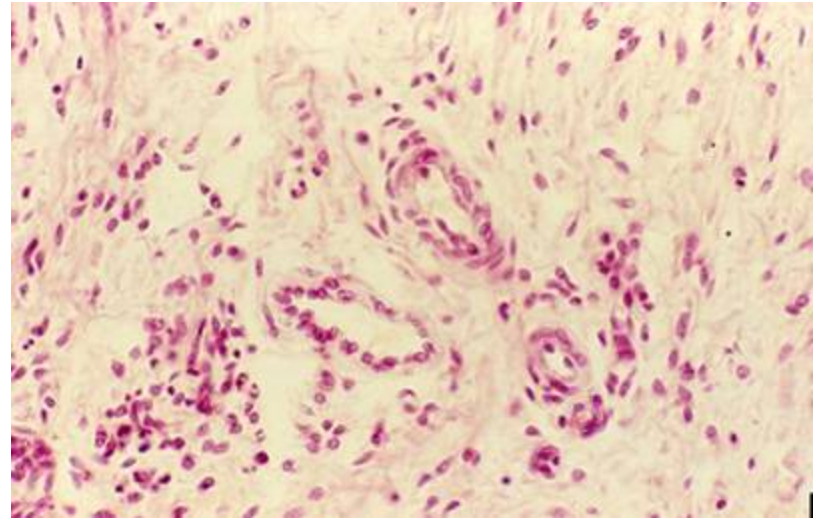
2) Il **tessuto ghiandolare** che costituisce le ghiandole **esocrine** ed **endocrine**





Tessuto connettivo

- Ha la funzione di connettere, unire e sostenere le strutture del corpo
- Si trova in tutti gli organi
- Le **cellule** del tessuto connettivo **hanno forme diverse** e sono immerse in una **abbondante sostanza intercellulare**



Vi sono vari tipi di tessuti
connettivi:

- 1) tess. osseo
- 2) tess. cartilagineo
- 3) tess. adiposo
- 4) il sangue

Tessuto osseo



TESSUTO CARTILAGINEO

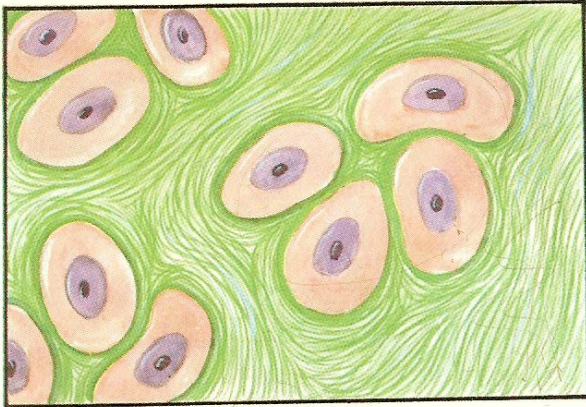
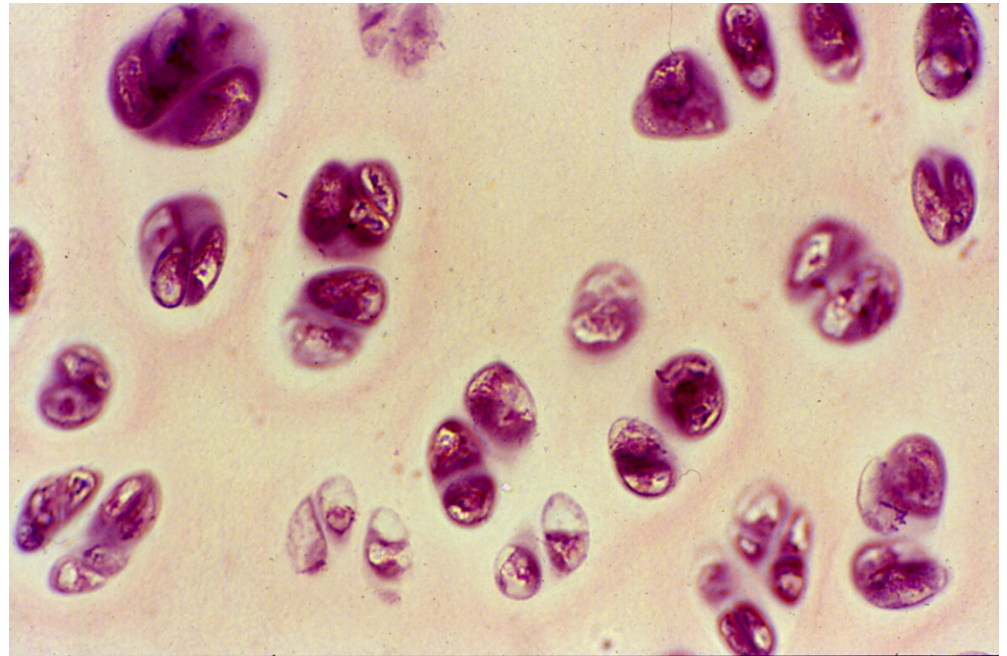
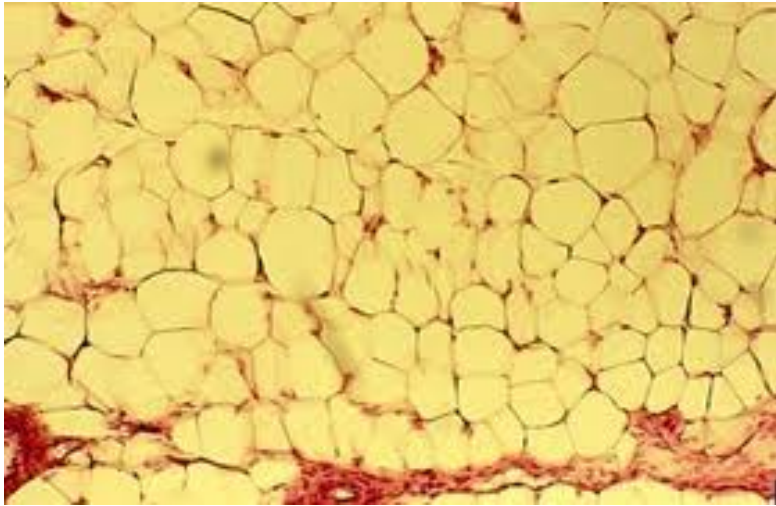
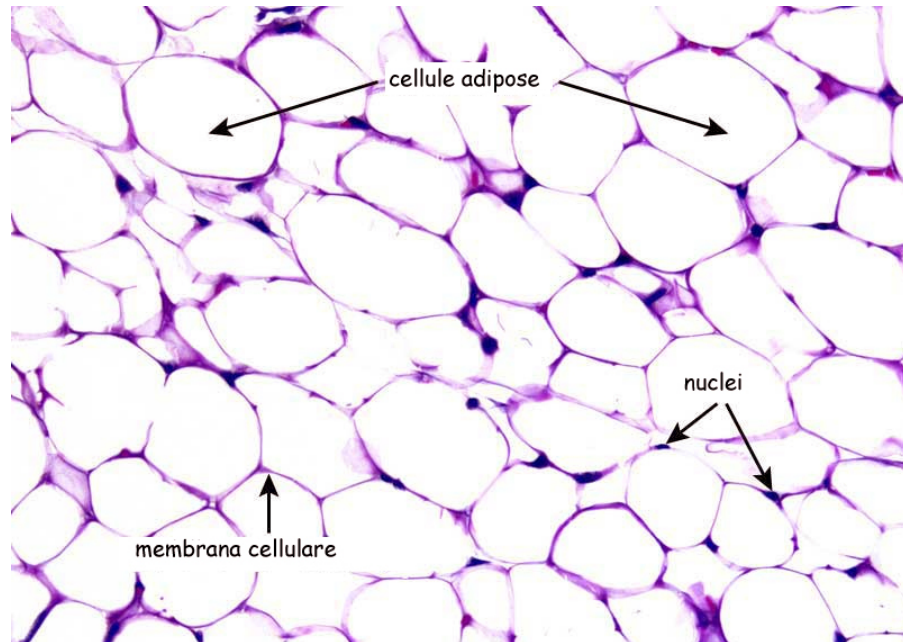


Fig. 1.11 - Tessuto cartilagineo.





Tessuto adiposo



IL SANGUE

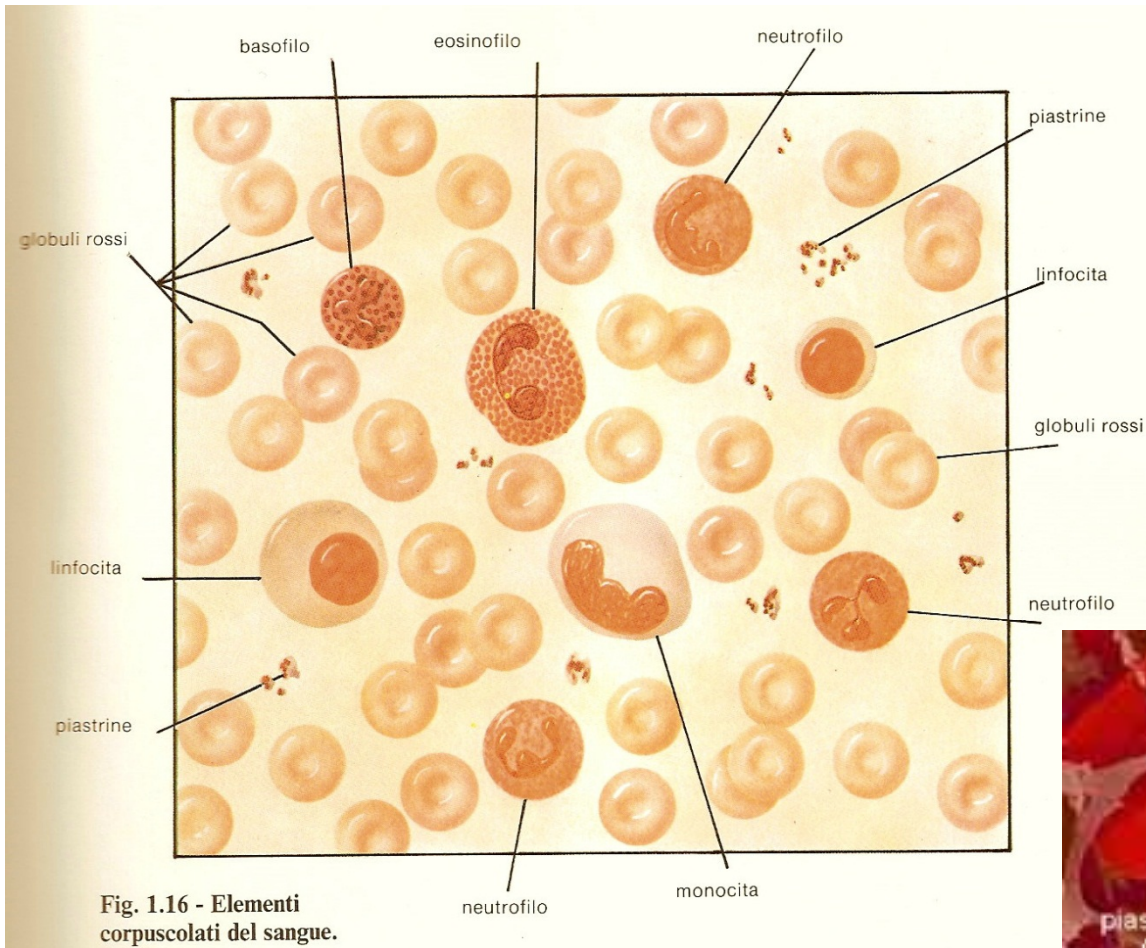
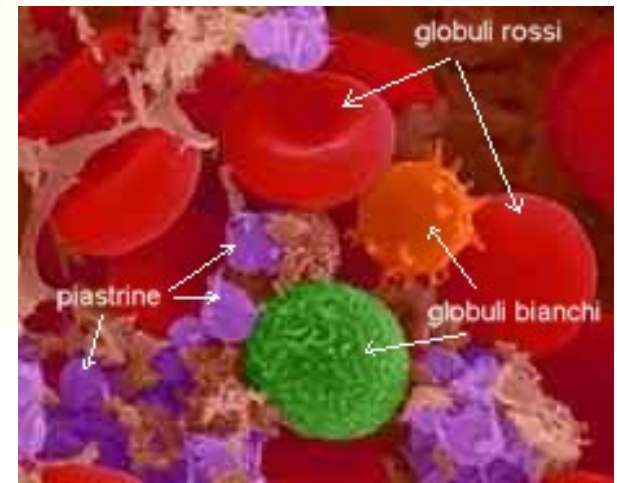
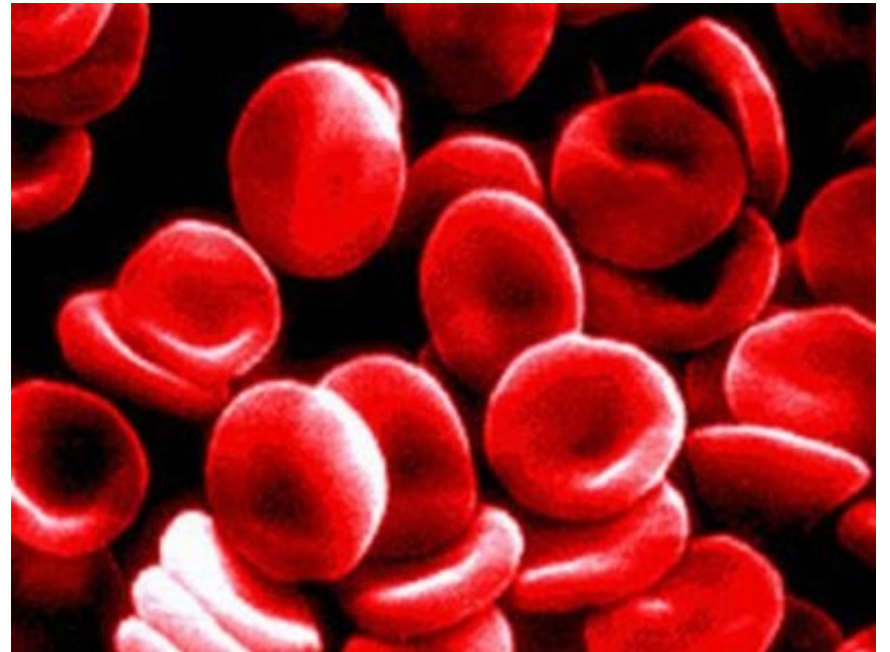
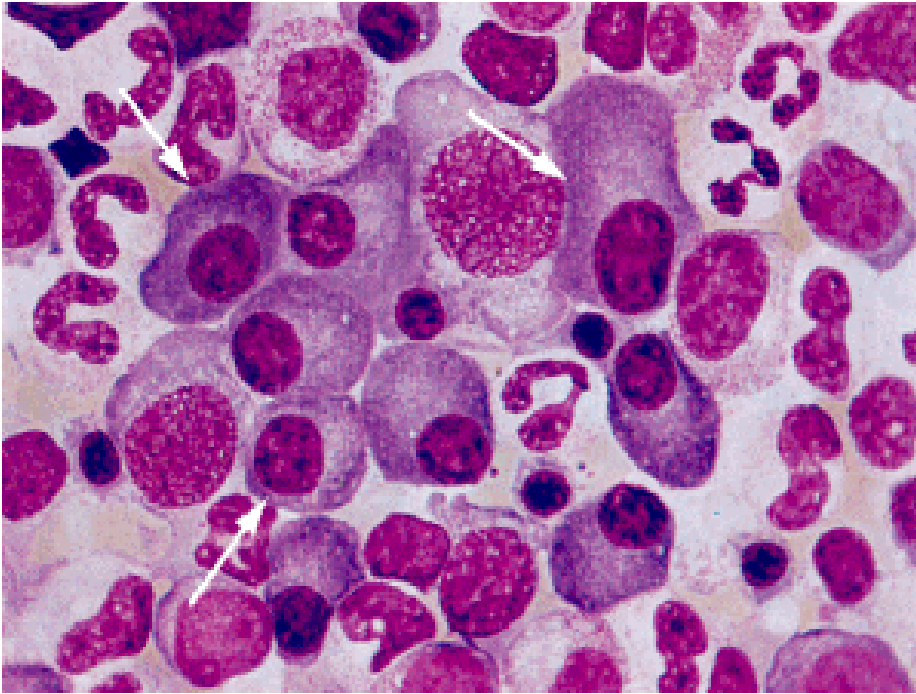


Fig. 1.16 - Elementi corpuscolati del sangue.

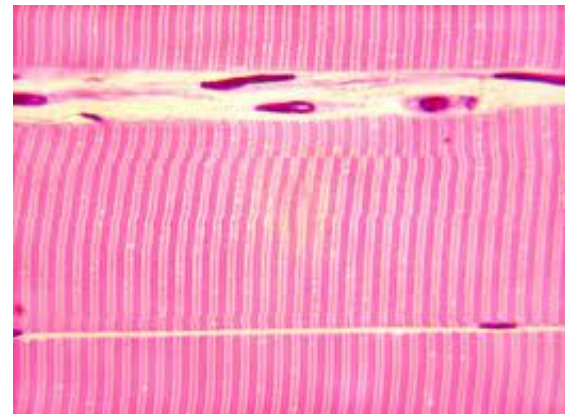
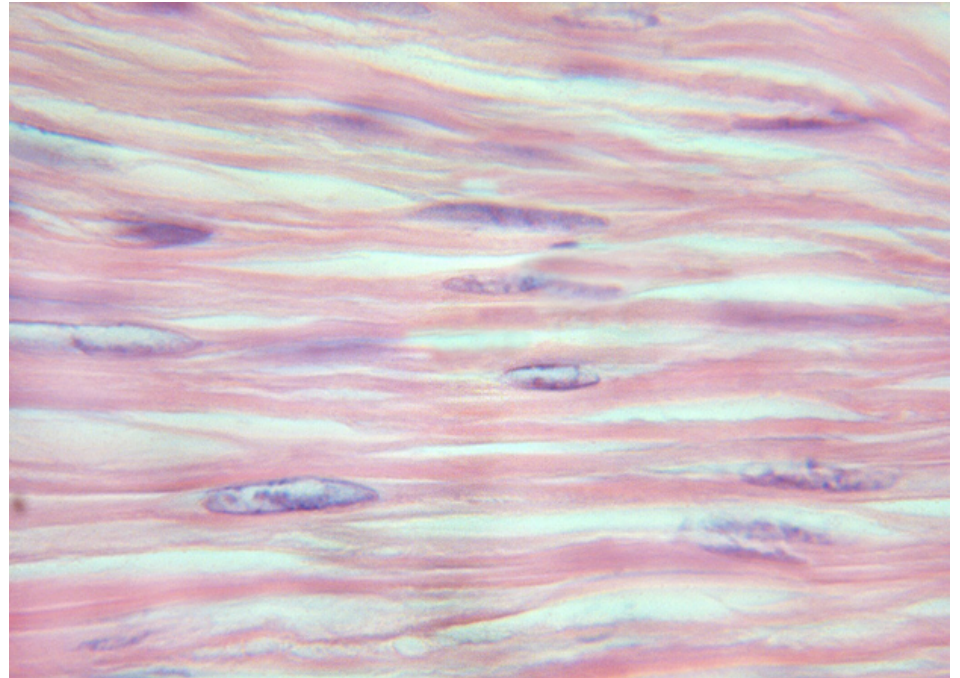


Il sangue

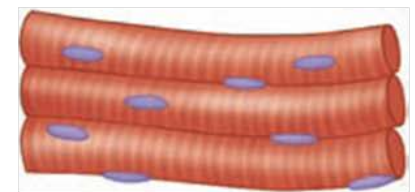
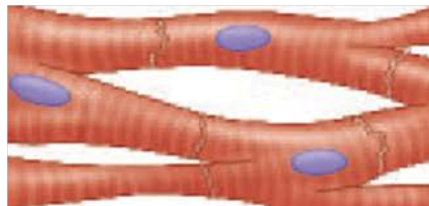
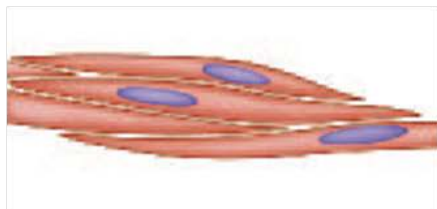
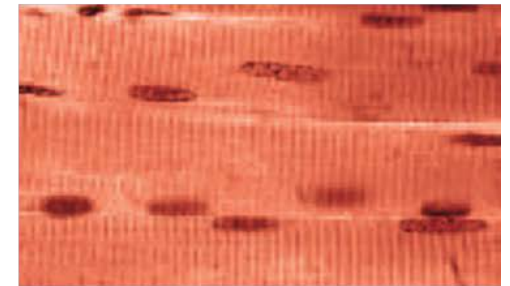
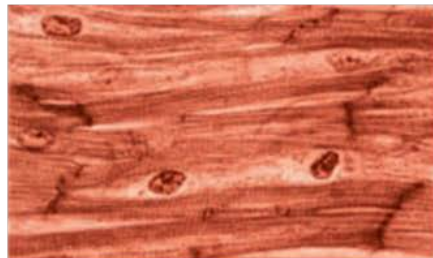
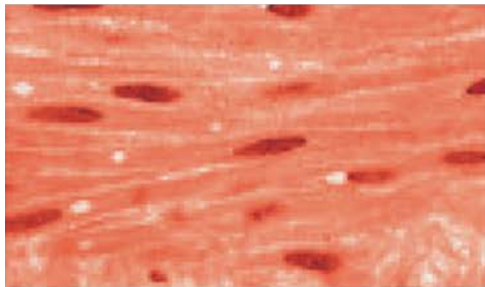
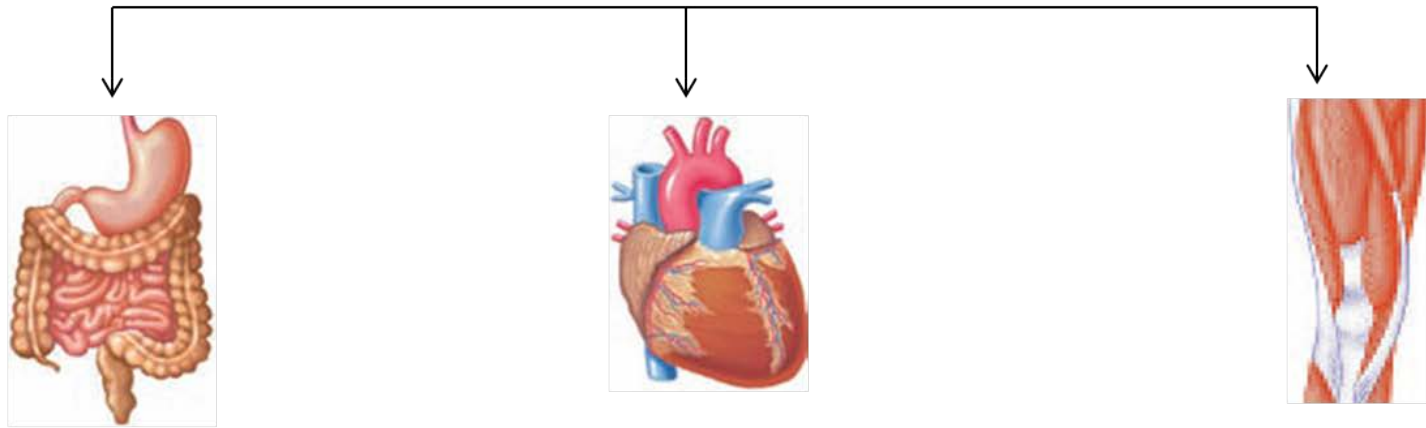


Tessuto muscolare

- E' formato da cellule allungate chiamate **fibre muscolari**
- Le cellule muscolari hanno la **capacità di contrarsi**
- Ci sono tre tipi di tessuto muscolare: **liscio, striato e cardiaco**



I tre tipi di tessuto muscolare

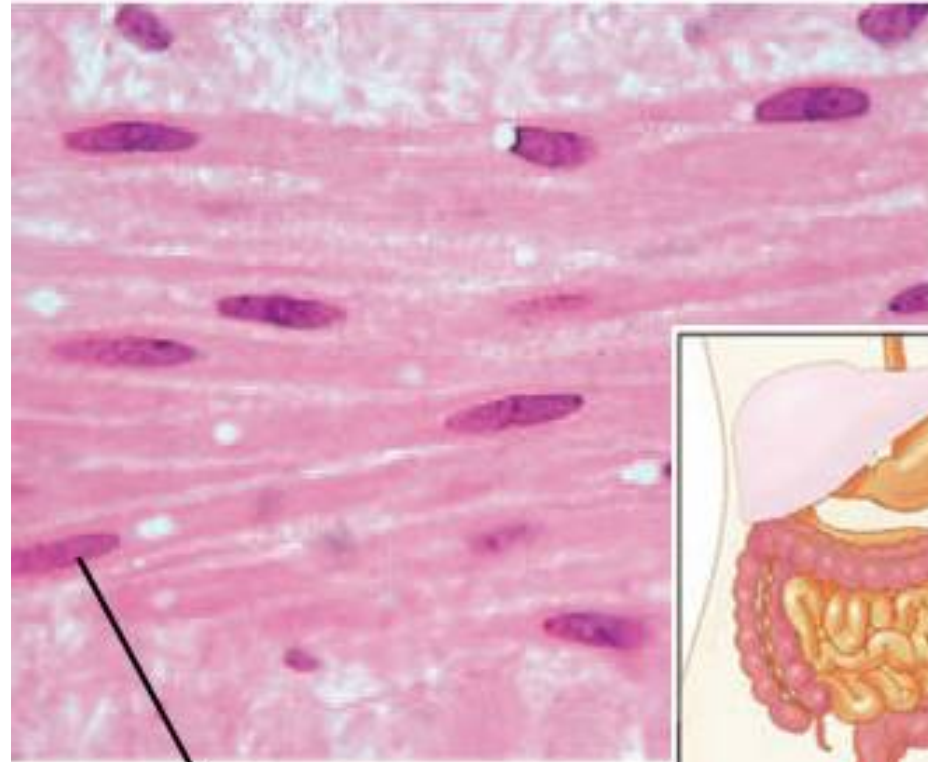
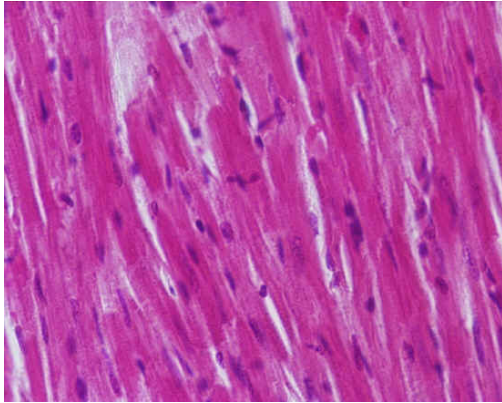


Tessuto muscolare
liscio

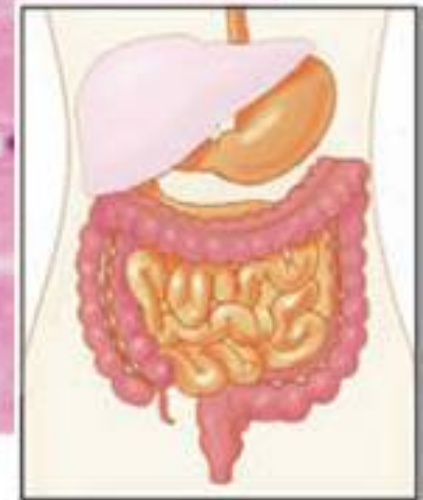
Tessuto muscolare
cardiaco

Tessuto muscolare
scheletrico

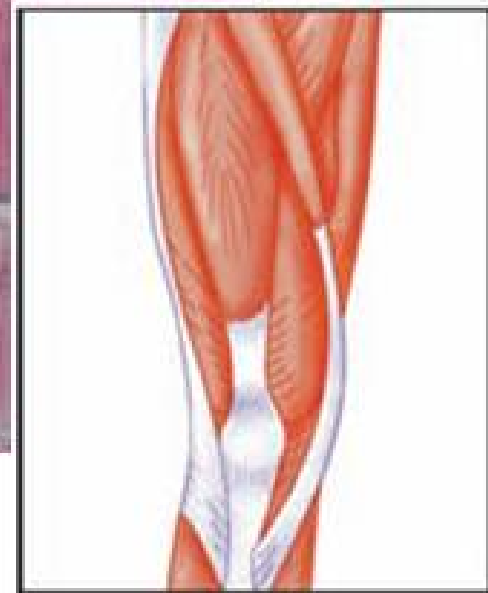
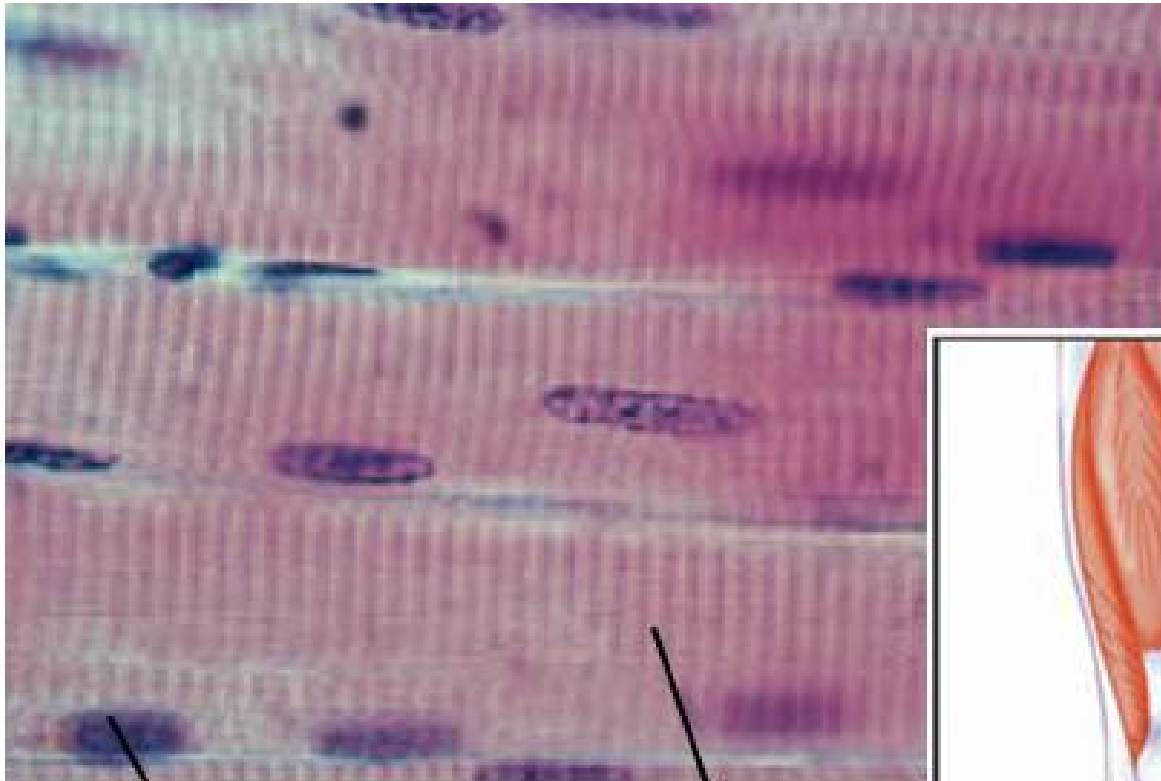
Tessuto muscolare liscio



Nucleo



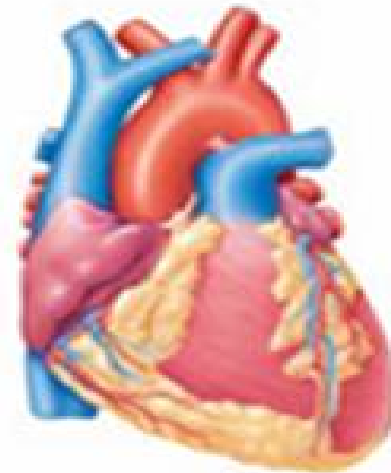
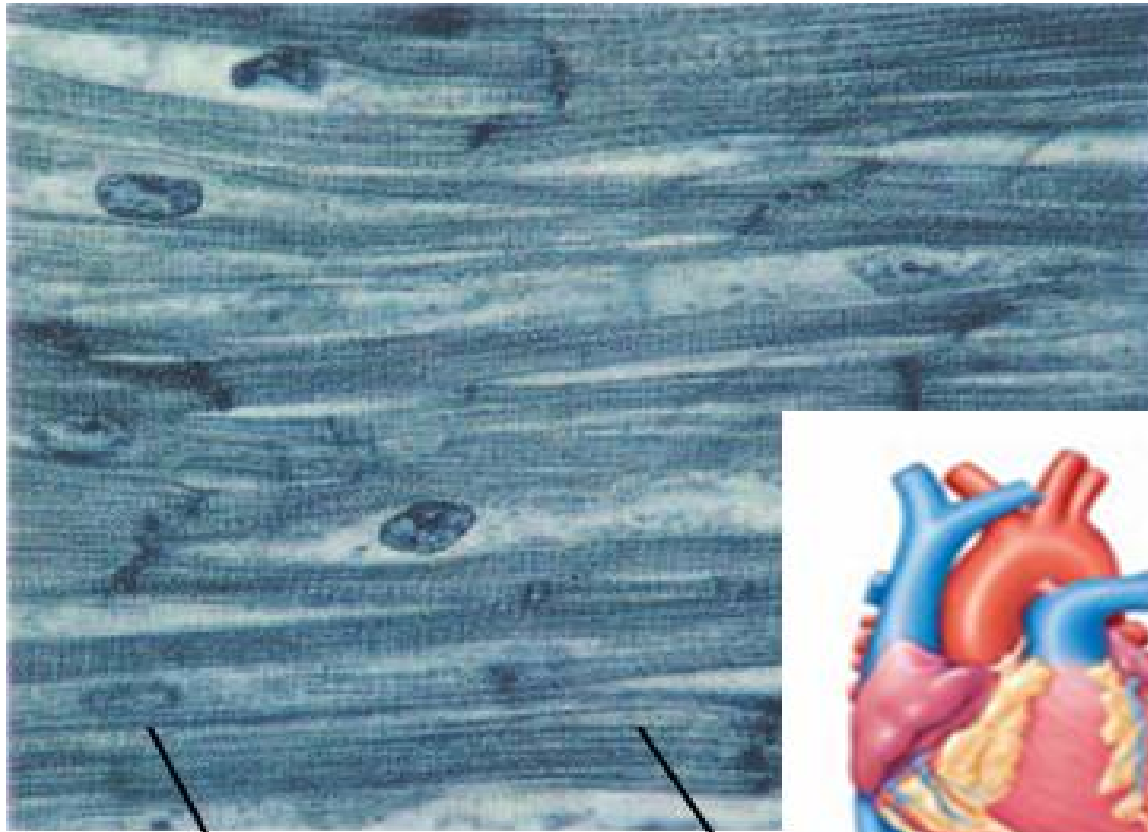
Tessuto muscolare striato



Nucleo

Striature

Tessuto muscolare cardiaco

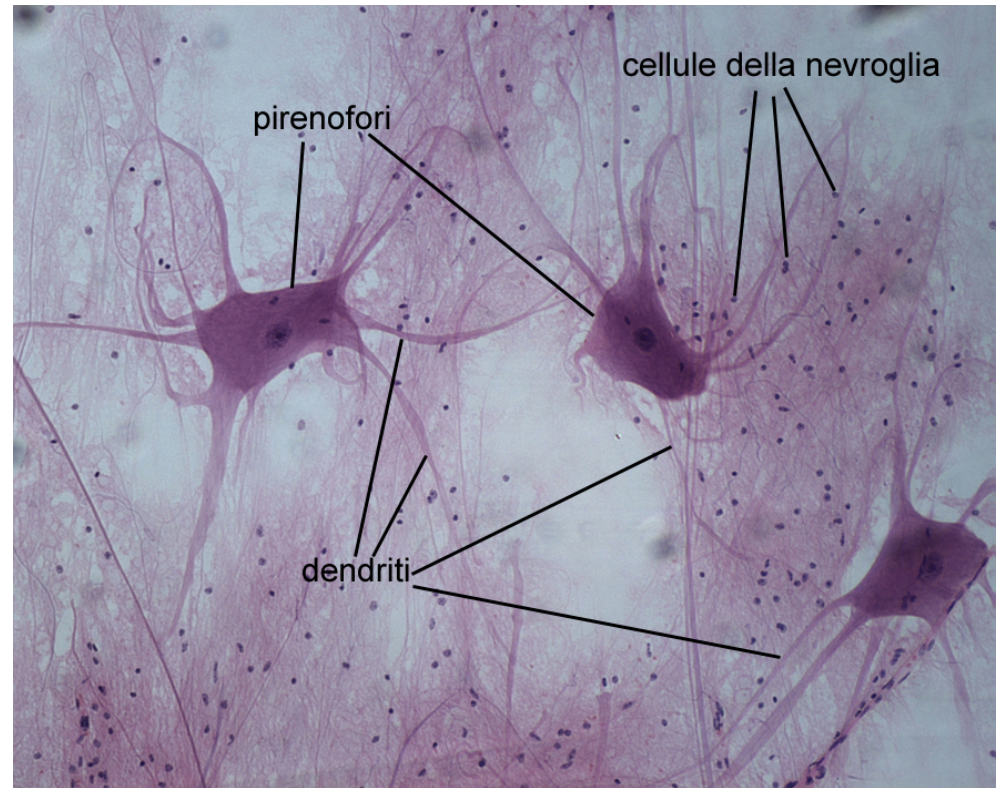
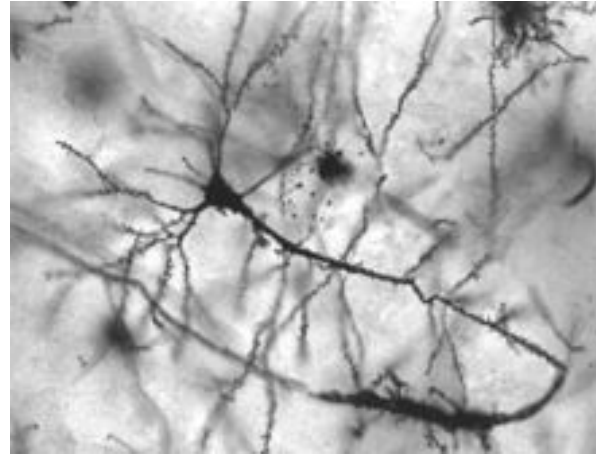


Nucleo

Striature

Tessuto nervoso

- E' formato da cellule dette **neuroni**
- I neuroni sono collegati tra loro da numerosi prolungamenti
- I neuroni sono **capaci** di **trasportare impulsi nervosi**



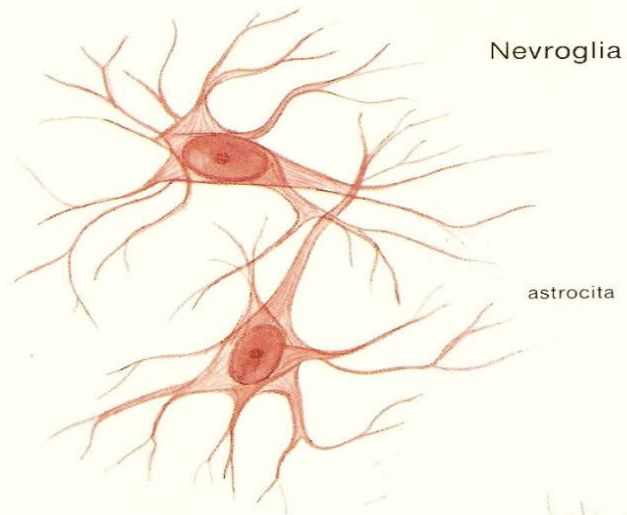
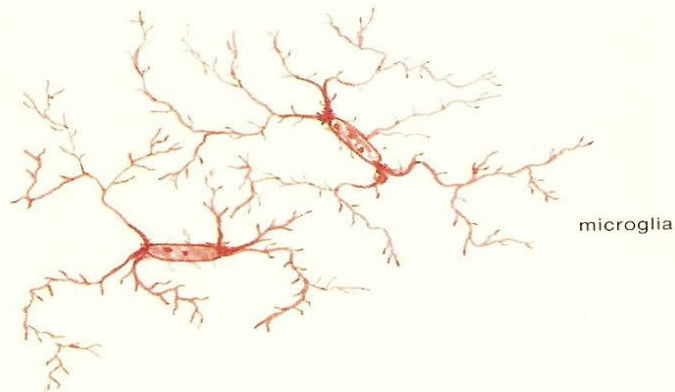
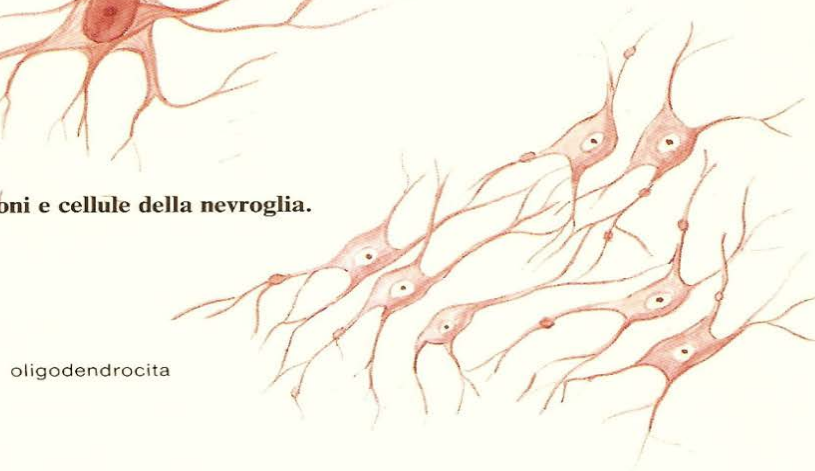


Fig. 1.21 - Neuroni e cellule della nevroglia.

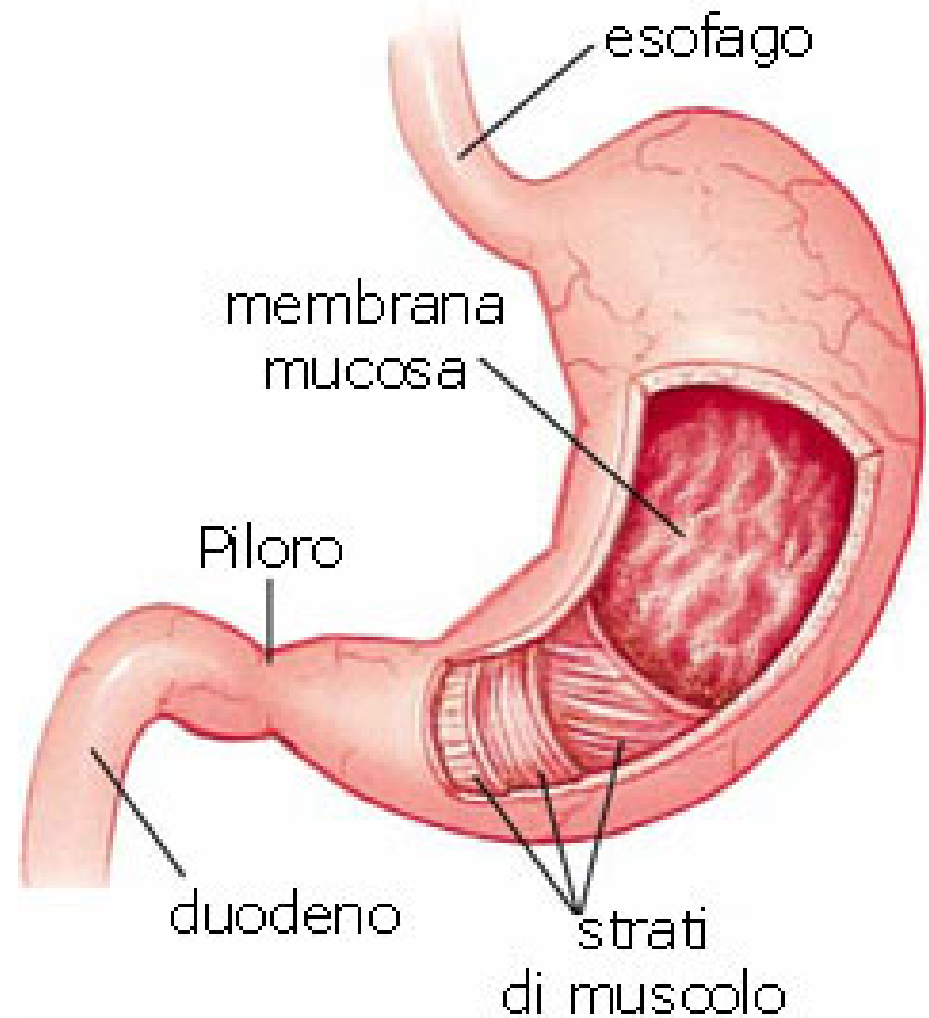


TESSUTO NERVOSO

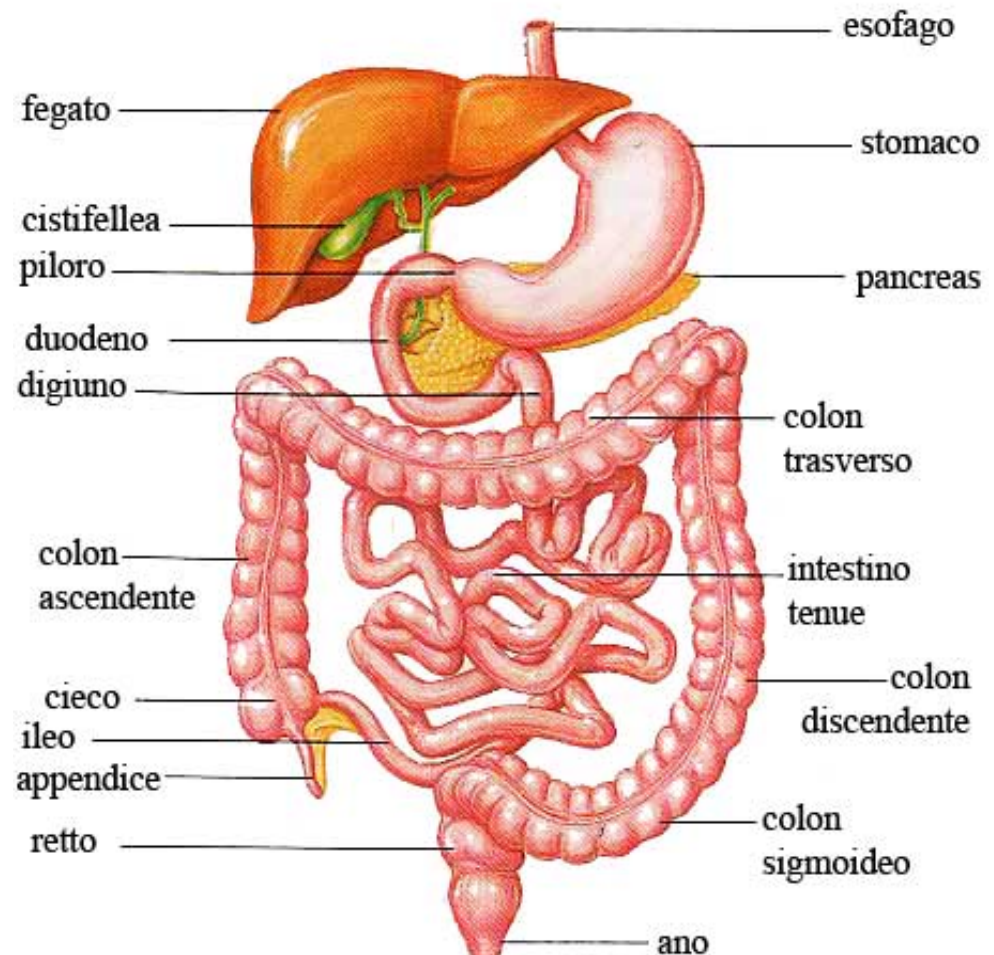
Tessuto nervoso



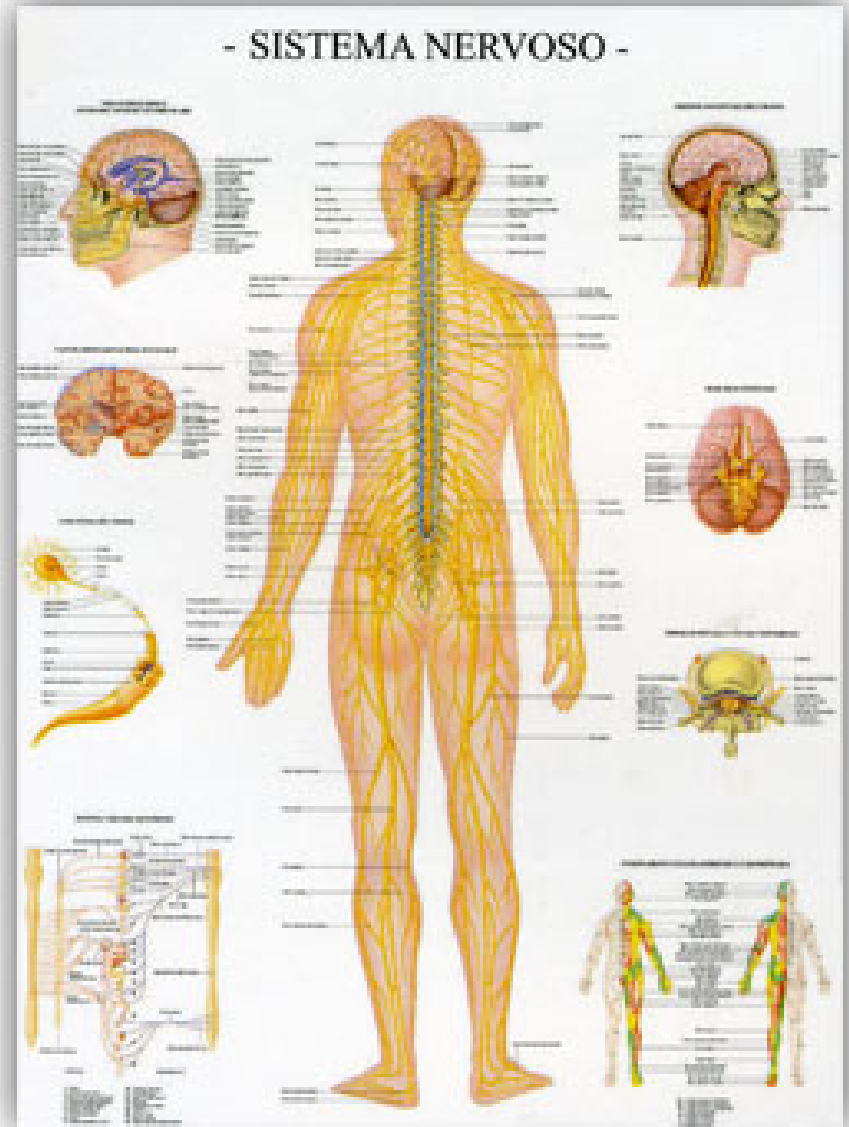
- Più tessuti si riuniscono insieme per formare un **organo** e



..... più organi che svolgono la stessa funzione si riuniscono insieme per formare un **apparato** (apparato scheletrico, apparato digerente, ecc.



Si chiama **sistema**
un insieme di
organi costituiti
dello **stesso**
tessuto, ad
esempio il sistema
nervoso





Infine più apparati e sistemi insieme costituiscono un **organismo** che rappresenta il livello più elevato di organizzazione