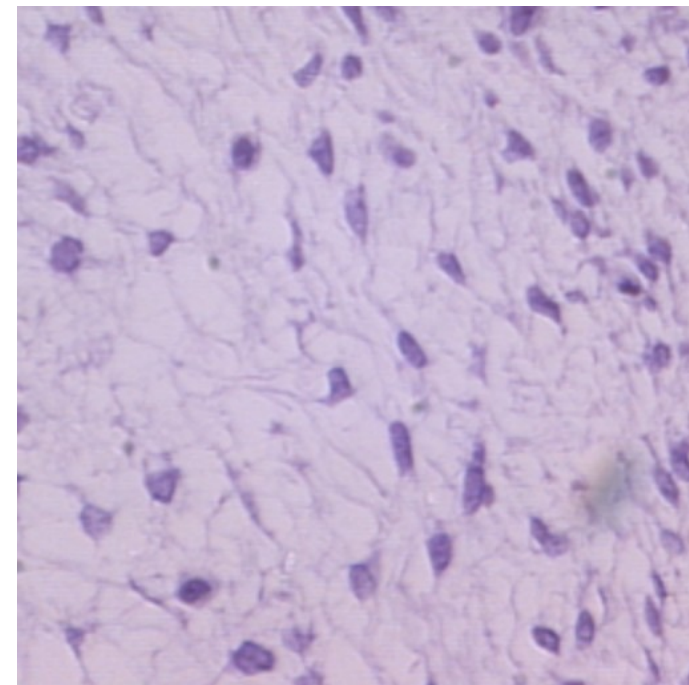
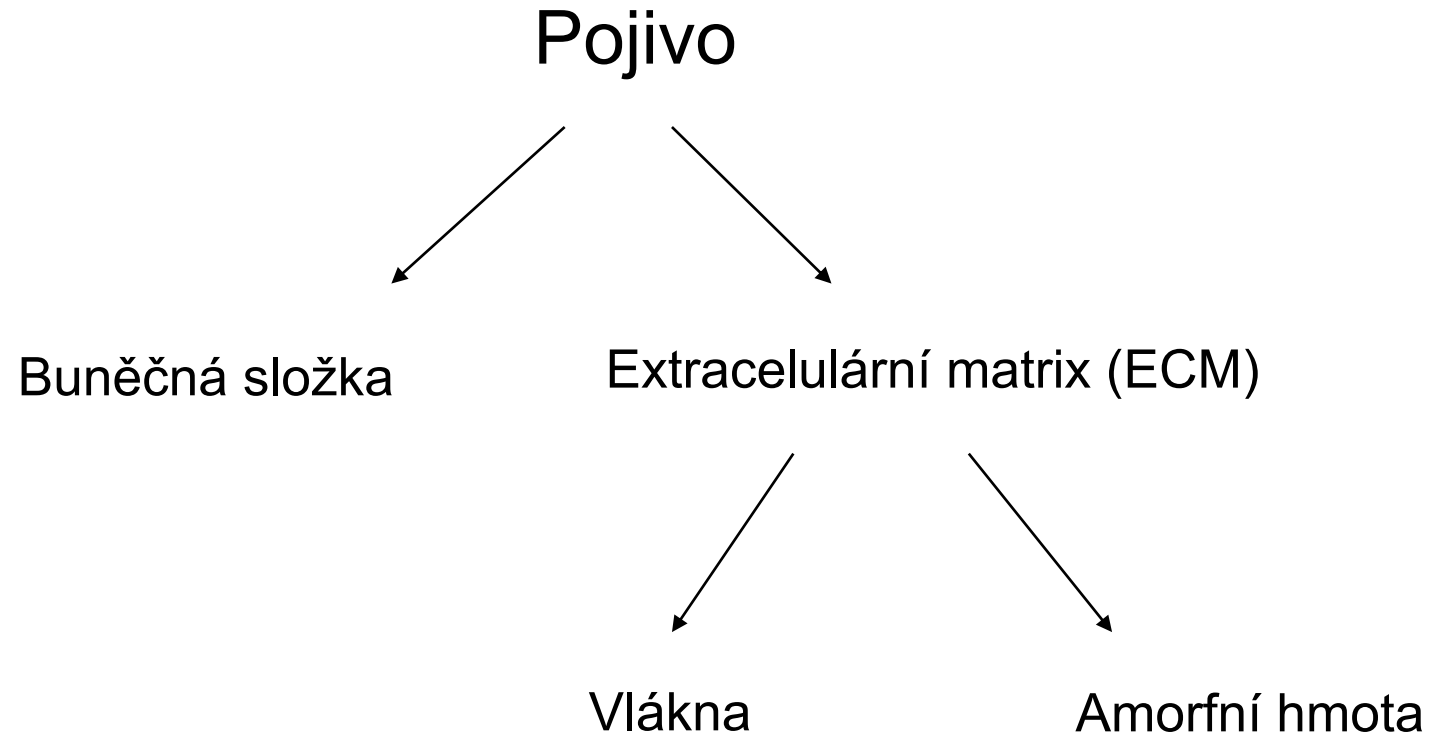


# Pojivové tkáně, Vazivo

# Charakteristika pojivové tkáně

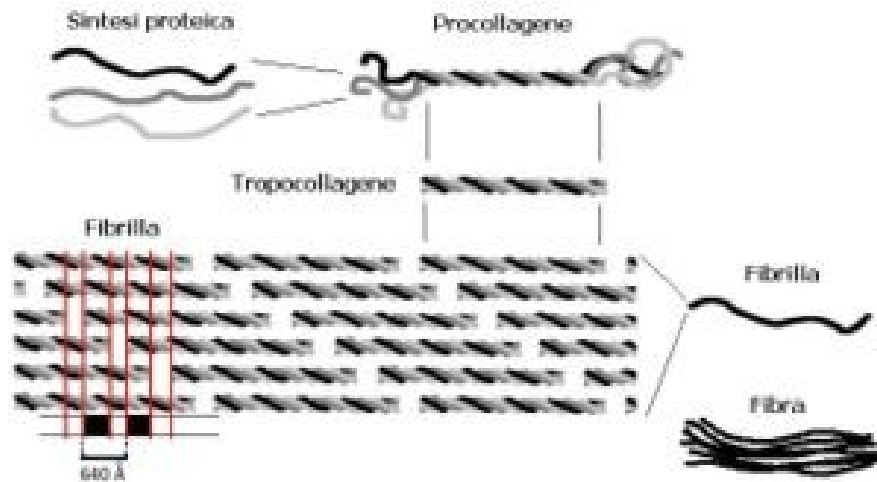


<http://www.anatomie.net/histowebatlas/m-139b.htm>

# Typy vláken

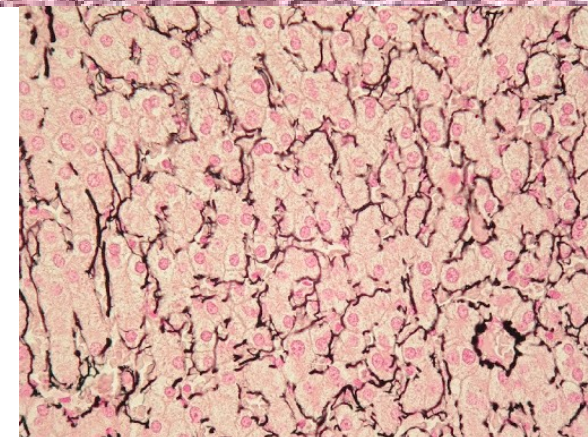


## 1. Kolagenní



<https://cs.wikipedia.org/wiki/Kolagen>

## 2. Elastická



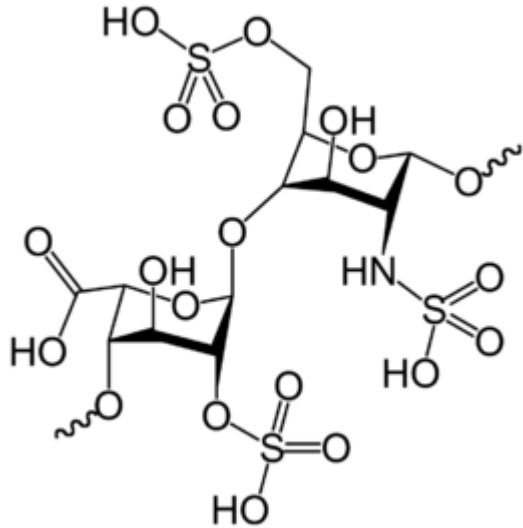
## 3. Retikulární

# Základní hmota amorfní

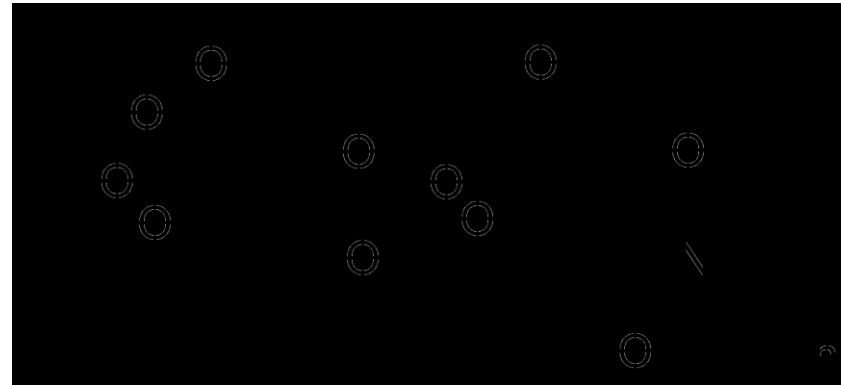
Její součástí jsou:

- 1. Glykosaminoglykany**
- 2. Proteoglykany**
- 3. Glykoproteiny**

# Glykosaminoglykany



<https://cs.wikipedia.org/wiki/Heparin>



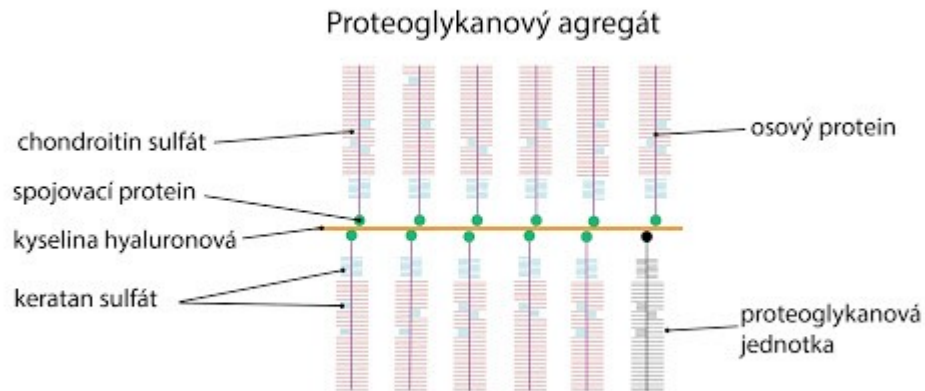
x 1000

[https://cs.wikipedia.org/wiki/Kyselina\\_hyaluronov%C3%A1](https://cs.wikipedia.org/wiki/Kyselina_hyaluronov%C3%A1)

# Proteoglykany a glykoproteiny



## Proteoglykany



<http://fblt.cz/skripta/ii-premena-latek-a-energie-v-bunce/140-2/>

Sacharidy > Proteíny

## Glykoproteiny



<https://www.intechopen.com/books/glycosylation/structural-biology-of-glycoproteins>

Sacharidy < Proteíny



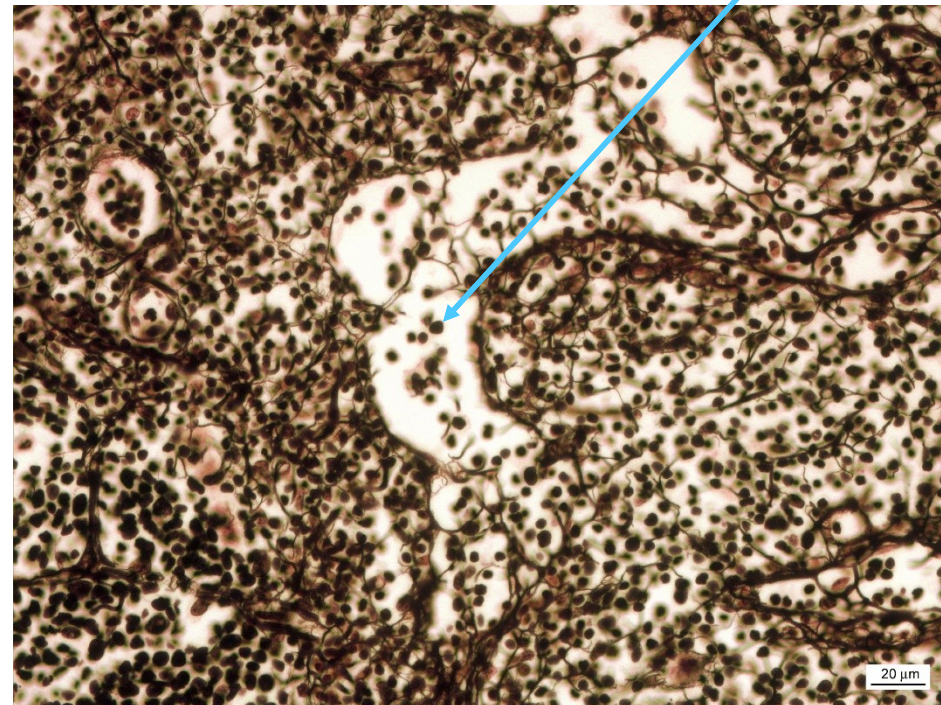
# Buňky vaziva - producenti ECM

## Fibroblasty



<https://en.wikipedia.org/wiki/Fibroblast>

## Retikulární buňky

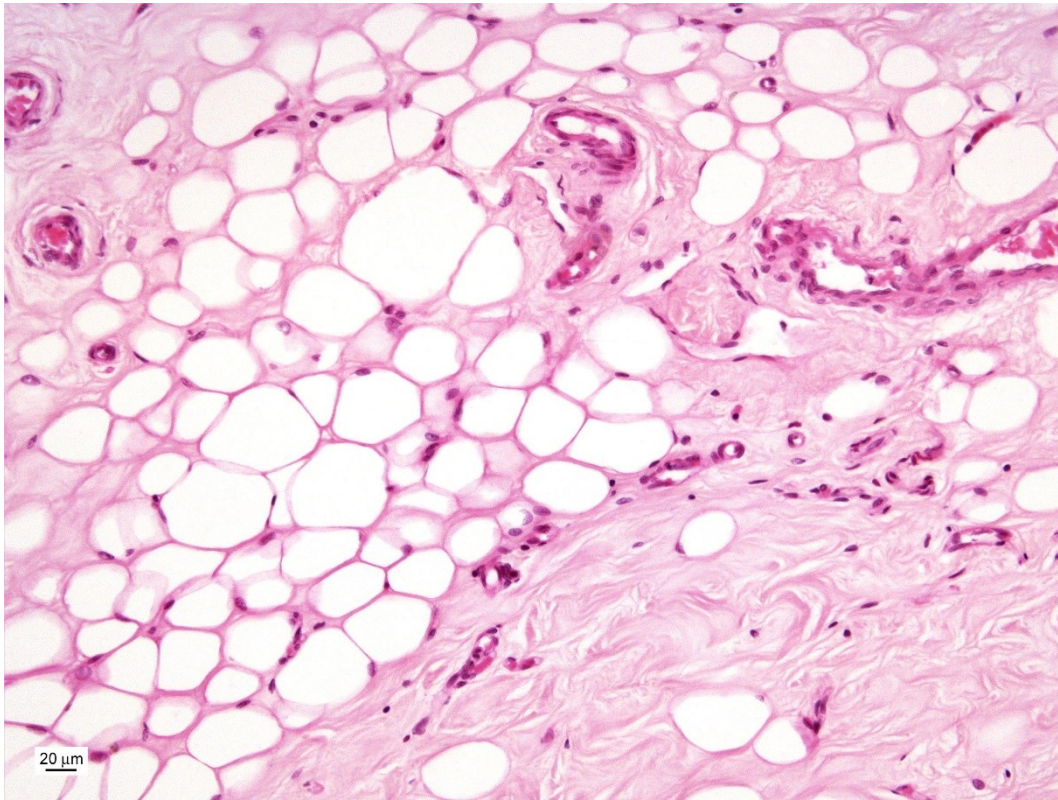




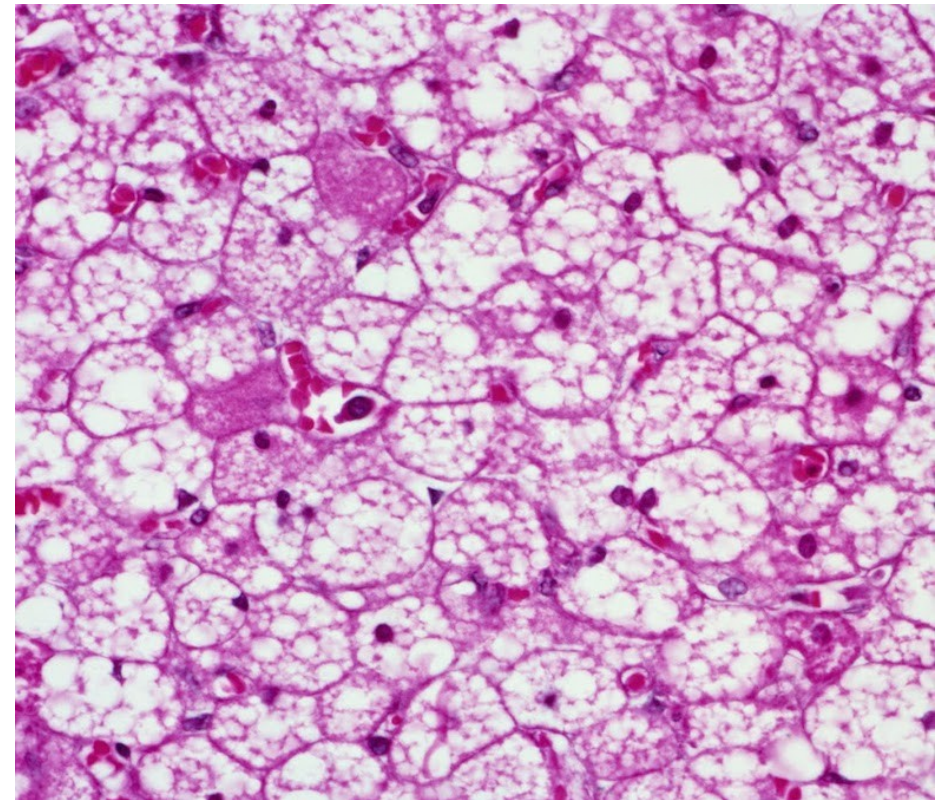
# Buňky vaziva - adipocyty



## Unilokulárne adipocyty



## Multilokulárne adipocyty

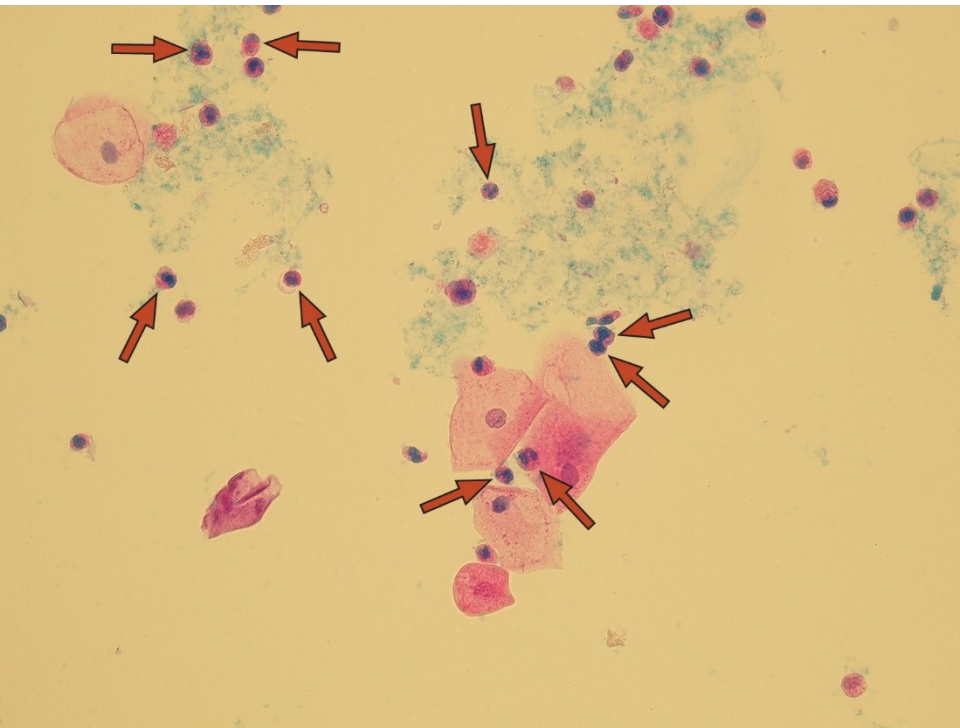


<https://focusonpath.com/in-vivo-noninvasive-detection-of-brown-adipose-tissue-through-intermolecular-zero-quantum-mri/>

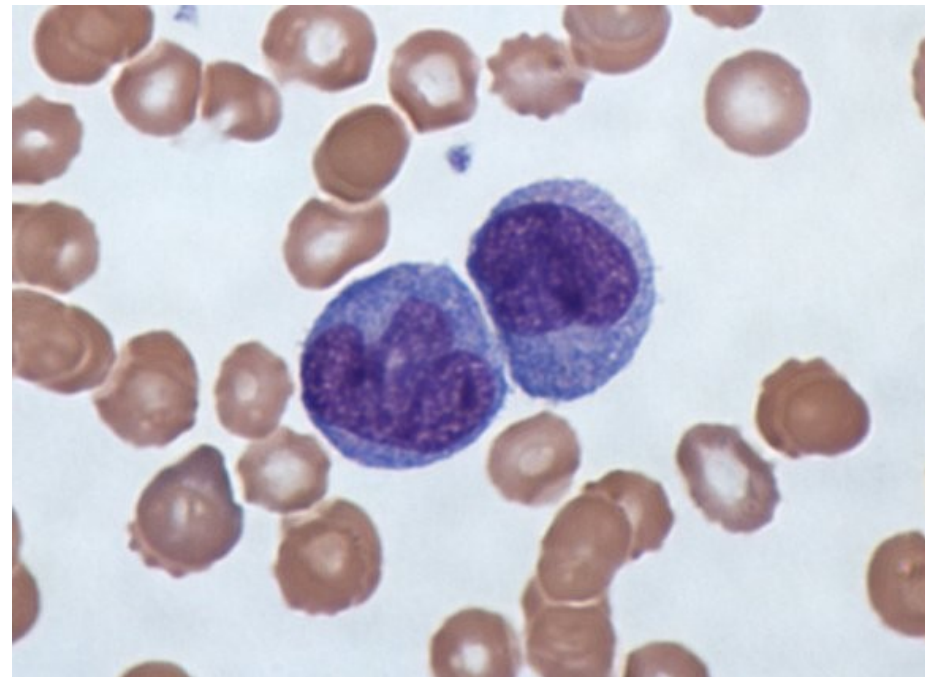


# Buňky vaziva - buňky imunitního systému

Granulocyty +  
lymfocyty



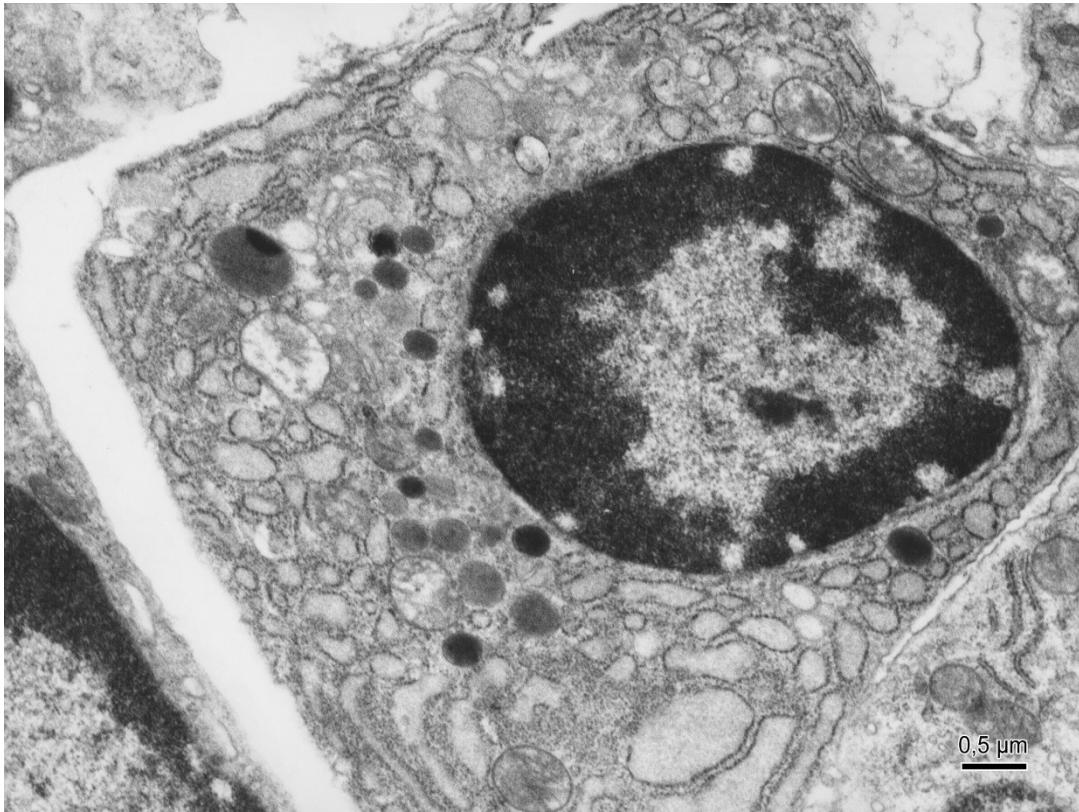
Makrofágy



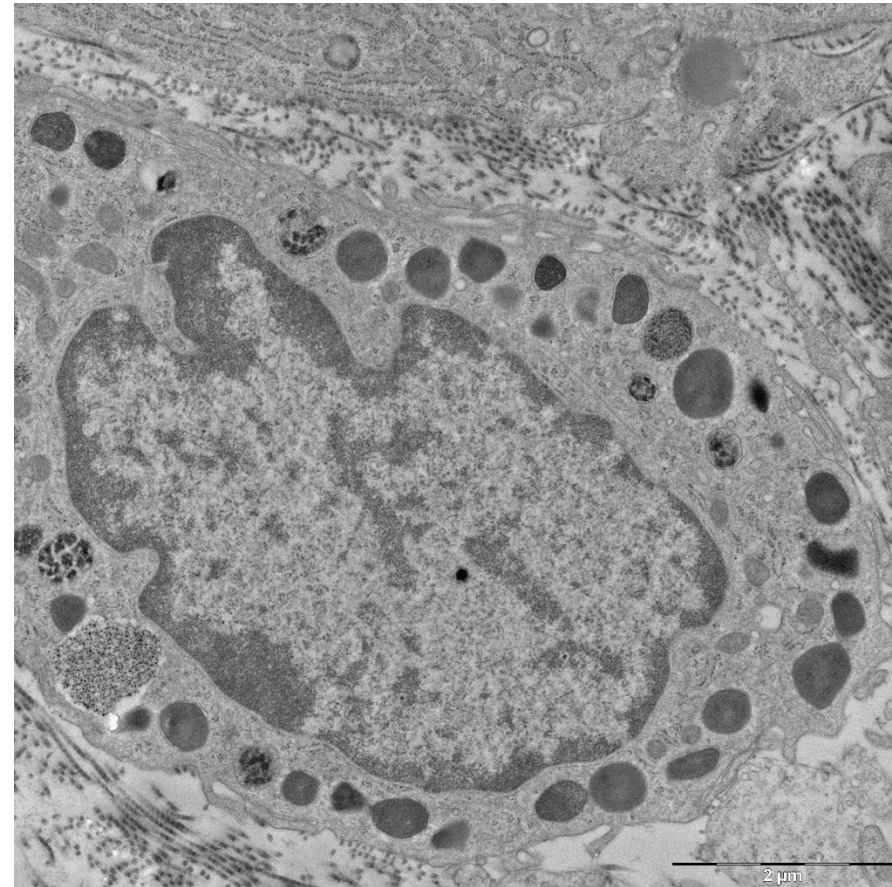
[wikipedia.org/macrophages](https://wikipedia.org/macrophages)

# Buňky vaziva - buňky imunitního systému

Plazmatické bunky



Žírné bunky

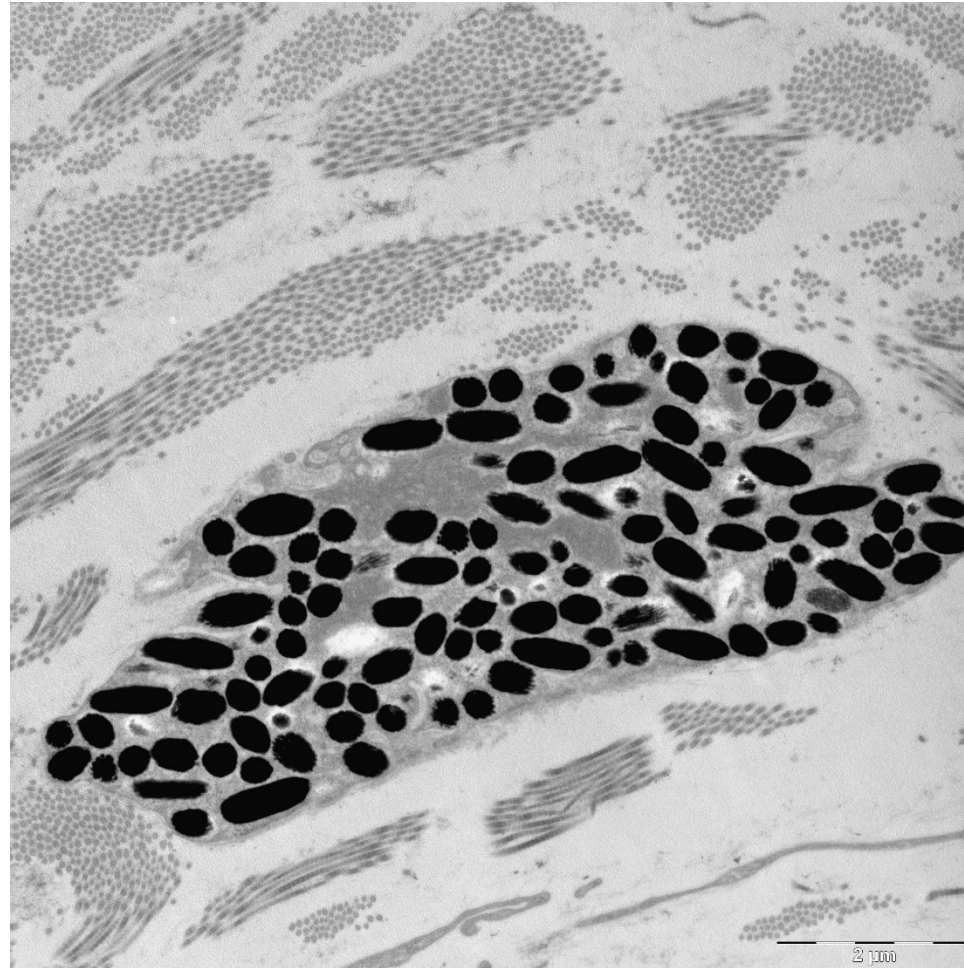




# Buňky vaziva - pigmentové buňky



**Melanocyty** – původ z neurální lišty



# Funkce vaziva

Funkce vaziva je dána jeho složením, tedy jaké buňky a jaká ECM se v něm nachází:

1. **Mechanická** – daná hlavne kolagenem a další ECM
2. **Nutritivní** – složení vaziva podmiňuje tvorbu cév a vaskularizaci
3. **Imunitní** – interakce s imunitním systémem. Podmíněná mj. rozsahem vaskularizace
4. **Zásoba energie** – tukové buňky zajišťující metabolismus lipidů
5. **Nosná síť orgánů** – jemné mikroprostředí pro různé typy buněk



# Typy a stavba vaziva



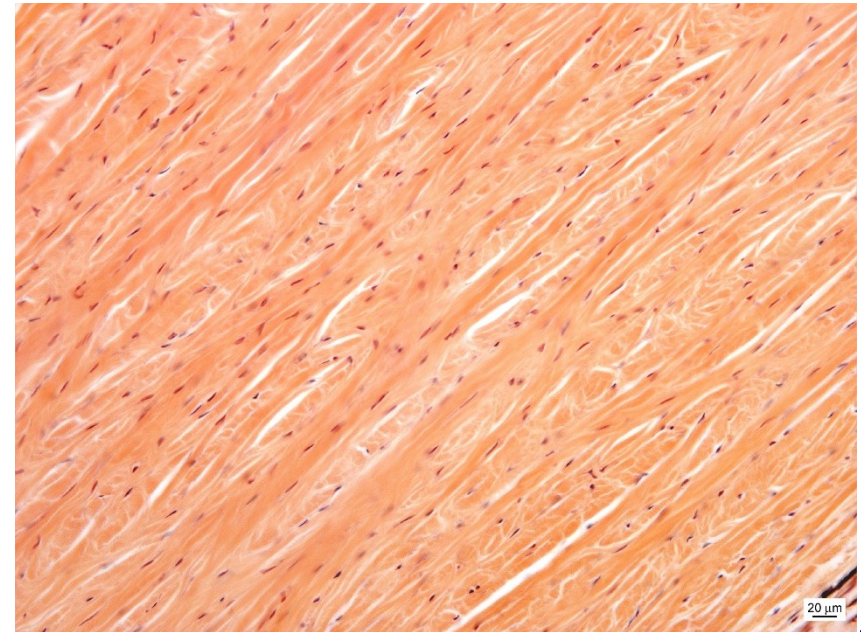
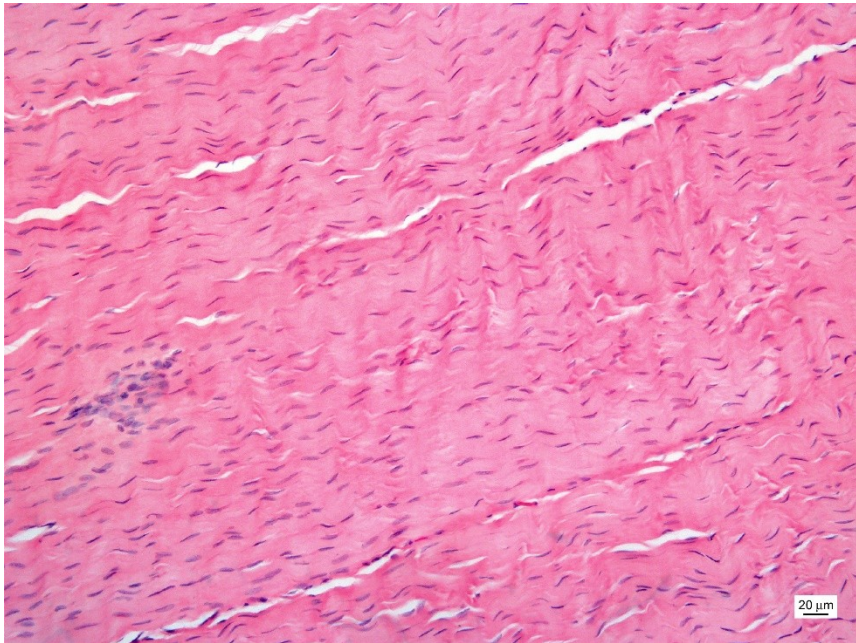
# Typy vaziva



## Husté kolagenní vazivo

Uspořádané

Neuspořádané

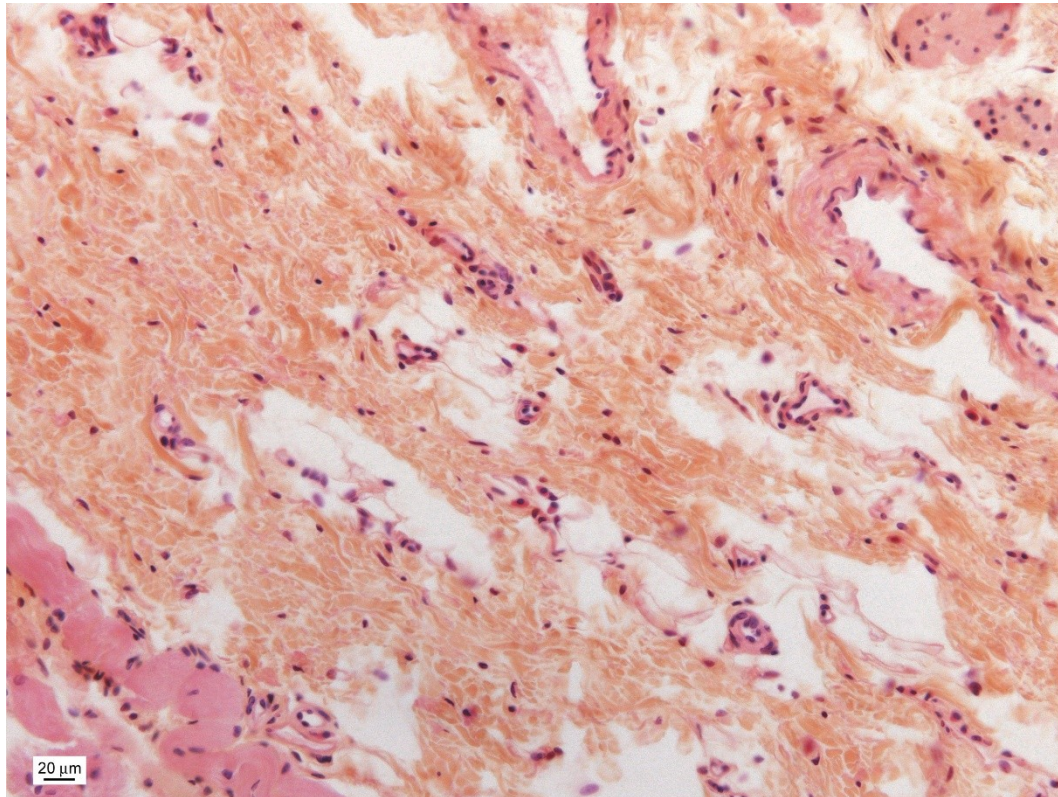




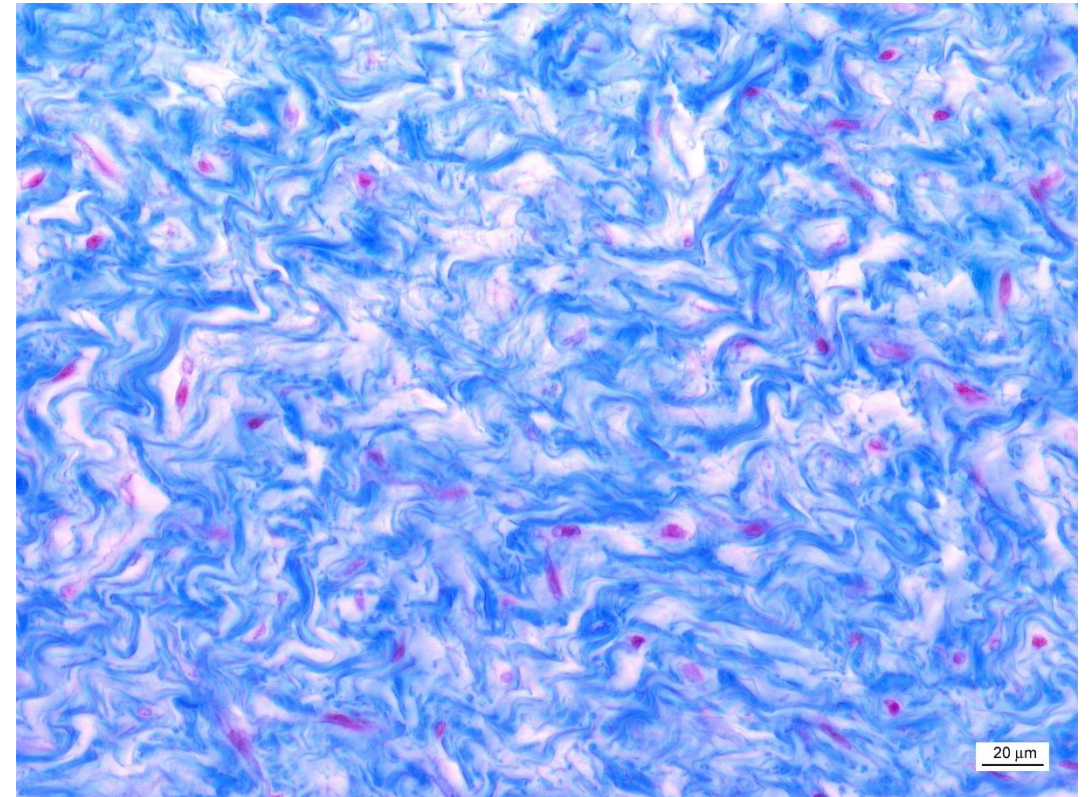
# Typy vaziva



## Řídké kolagenní



## Rosolovitě



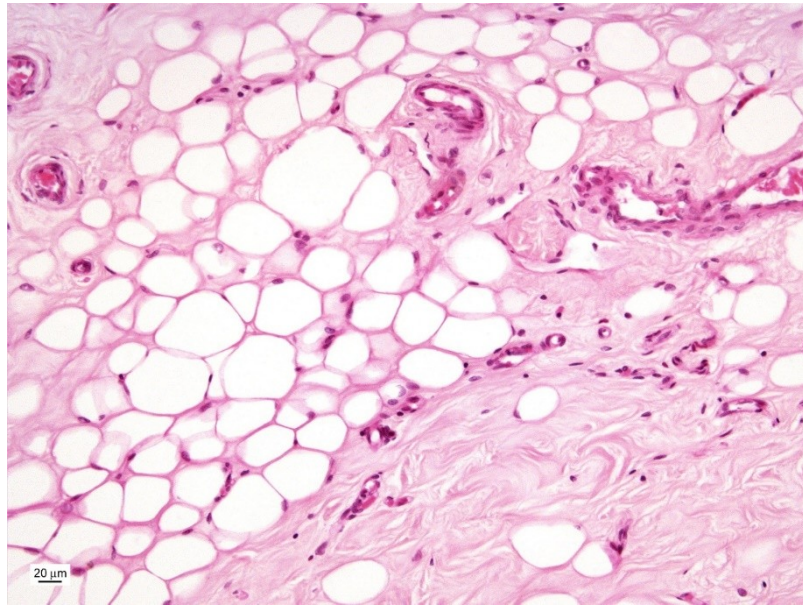
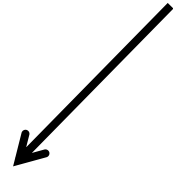


# Typy vaziva

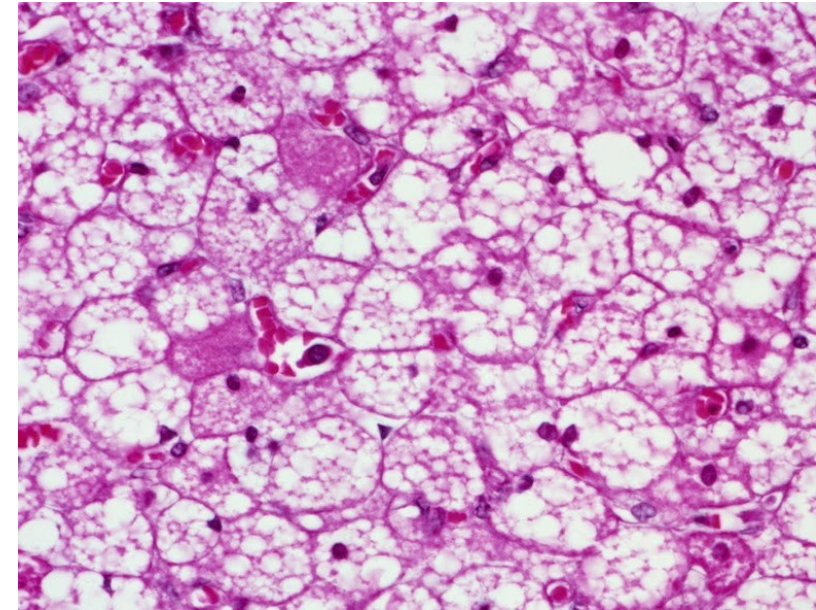
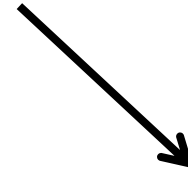


## Tuková tkáň

Bílá



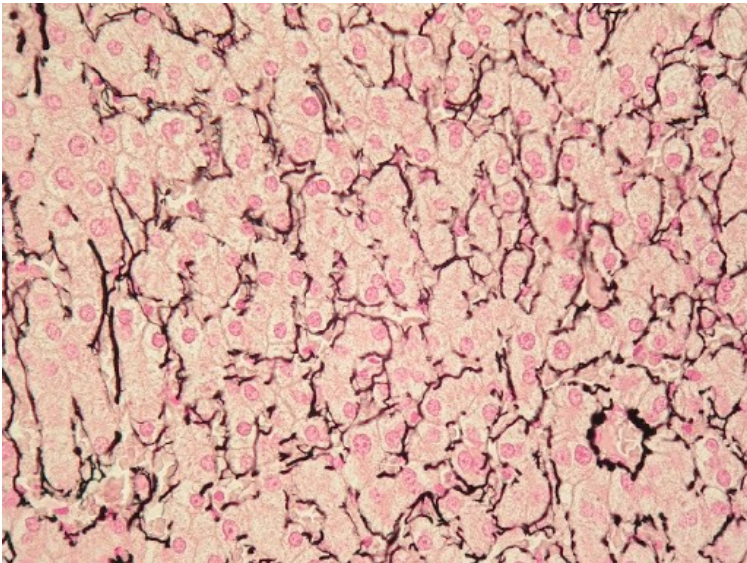
Hnědá



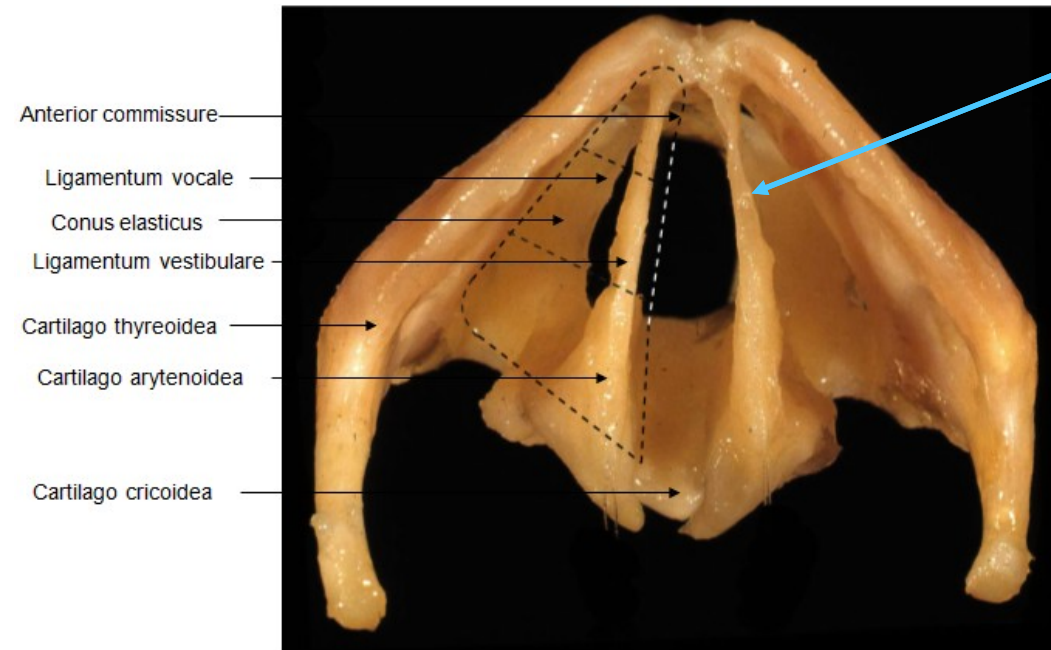


# Typy vaziva

## Retikulární vazivo



## Elastické vazivo



[https://www.researchgate.net/figure/Bony-and-fibroelastic-structures-of-the-larynx-Axial-view-Specimen-of-the-scientific\\_fig2\\_224899279](https://www.researchgate.net/figure/Bony-and-fibroelastic-structures-of-the-larynx-Axial-view-Specimen-of-the-scientific_fig2_224899279)



Klára Dolinová  
Peter Staňo  
Yehonatan Solomonov  
Petr Vaňhara

2020