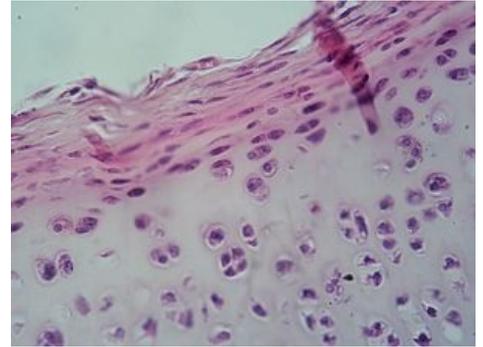


# Chondrocyte

**Chondrocytes** are 10-30  $\mu\text{m}$  oval cells **forming cartilage**. They differentiate from mesenchyme, from which chondroblasts arise (on the periphery of cartilage) and these subsequently differentiate into chondrocytes. Chondrocytes are located in **lacunae** and often form isogenetic groups in them (hyaline - up to 8 cells, elastic - 2 cells). Isogenetic groups are formed by mitotic division from one original cell in a lacuna. Alternatively, they are arranged in linear rows (fibrous cartilage).

They have various protrusions on the surface that increase the surface of the cells and facilitate metabolism. Their main function is the production of intercellular matter components (collagen and other substances), which is evidenced by a relatively large nucleus, granular endoplasmic reticulum and Golgi complex developed in the cytoplasm. Inclusions - lipid droplets, glycogen, secretory vesicles and elements of the cytoskeleton are found in the cytoplasm.



Hyaline cartilage

## Links

### Related Articles

- Cartilage
- Ossification

Gallery of histological preparations:

- Portal:General histology

### Source

- KONRÁDOVÁ, Václava – UHLÍK, Jiří – VAJNER, Luděk. *Funkční histologie*. 2. edition. H & H, 2000. pp. 291. ISBN 80-86022-80-3.
- JUNQUIERA, L.Carlos – CARNEIRO, Jose – KELLEY, Robert O. *Základy histologie*. 1. edition. H & H, 1997. pp. 502. ISBN 80-85787-37-7.