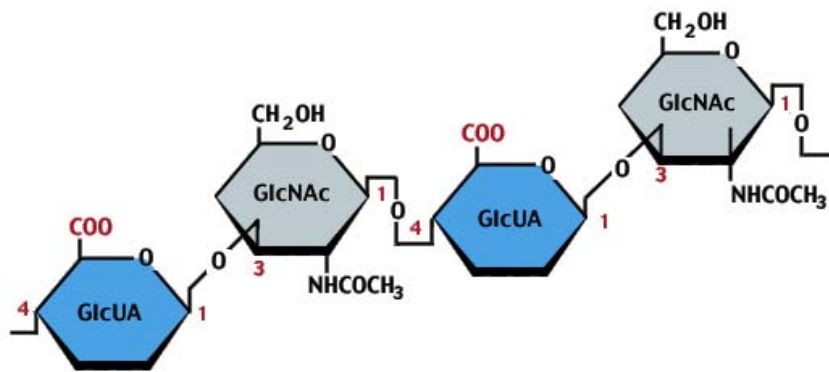


Hyaluronic acid

Hyaluronic acid is a natural substance that is found in all living organisms. High concentrations are found in soft connective tissue and in the fluid surrounding the eye. It is also present in some cartilage and joint fluids and in skin tissues.



Total of 55% of the total content of hyaluronic acid in the human body is physiologically found in the skin. In skin tissue, hyaluronic acid is a jelly-like substance that fills the space between collagen and elastin fibres.

The role of hyaluronic acid in skin is to:

- a mechanism of transport of essential nutrients from the bloodstream to living skin cells
- hydrate the skin by holding in water
- act as a cushioning and lubricating agent against mechanical and chemical damage.

Over time, either through the natural process of aging or through exposure to environmental factors such as pollutants and sunlight, the body's natural store of hyaluronic acid is degraded and destroyed.

Today, it is the most widely used substance in aesthetic medicine because of its simple application, proven efficacy and practically non-existing counter-indications.

The products available on the market are divided in two categories:

- a) Products containing natural hyaluronic acid
- b) Products containing hyaluronic acid modified and/or integrated with other substances.

Hyaluronic acid is obtained through two processes:

- a) Extraction from rooster crests, allowing to obtain a hyaluronic acid with highest molecular weight in excess of 3×10^6 D
- b) Production, fermenting special microorganisms that release in the cultivation area hyaluronic acid with molecular weight between 0,8 and $1,5 \times 10^6$ D.

Considering the problems relating to extraction from animal sources, hyaluronic acid of biotechnological origin is becoming our first choice in the applications of this polysaccharide.