

# **Exosomes for Hair Growth**

Exosomes stimulate hair growth by delivering growth factors and cytokines to hair follicles, promoting angiogenesis (new blood vessel formation) for better nutrient delivery, and activating hair follicle stem cells to revive dormant follicles. These tiny, cell-derived vesicles act as messengers, stimulating cell proliferation, reducing scalp inflammation, and shielding follicles from damage, which helps to prolong the hair's growth phase and promotes thicker, healthier hair.

# How Exosomes Work for Hair Growth

### **Cell-to-Cell Communication:**

Exosomes are microscopic extracellular vesicles secreted by cells, including stem cells, that act as messengers to communicate with other cells.

## **Targeted Delivery:**

When applied to the scalp, these exosomes deliver a potent mix of beneficial molecules, including growth factors (like FGF, VEGF), cytokines, proteins, and microRNA.

### **Stimulation of Stem Cells:**

These molecules activate dormant hair follicle stem cells, signaling them to proliferate and enter the hair growth (anagen) phase.

## **Improved Blood Flow:**

Exosomes promote angiogenesis, the formation of new blood vessels, which enhances blood flow to the scalp and increases the delivery of vital oxygen and nutrients to the hair follicles.

#### **Reduced Inflammation and Protection:**

The anti-inflammatory properties of exosomes help create a healthier environment for hair growth. They also shield hair follicles from damage caused by oxidative stress, environmental factors, and hormonal imbalances.

#### **Enhanced Follicle Health:**

By repairing and revitalizing existing follicles and reviving dormant ones, exosomes contribute to overall hair follicle health, leading to increased hair density and thickness.

Learn More:

