

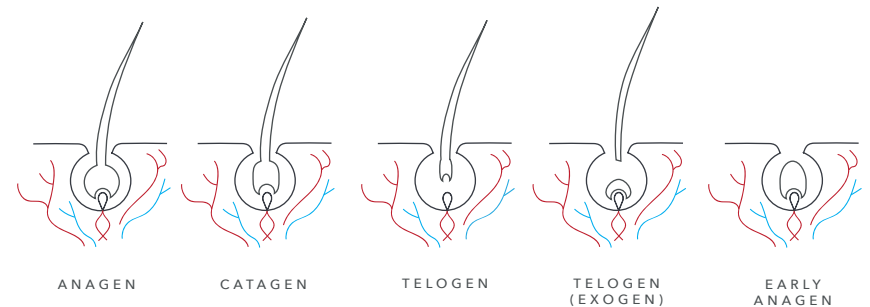
Core Technology

CORE TECHNOLOGY

Cell Signaling Manipulation

Cellular Signaling Pathways and Manipulating Hair Growth Stages

The hair growth process moves through distinct stages, as shown below.



Proteins and hormones are created by the blood vessels that connect to the hair shaft's follicular bulb. These proteins and hormones are full of information that gets sent to our cells, ultimately influencing what phase our hair growth is in.

These messengers must take specific cellular signaling pathways to arrive at these cells, specifically the *Wnt-1* and *JAK-STAT* pathways.

AnteAGE® has found a way to manipulate these pathways, turning them on and off, to optimize hair growth results.

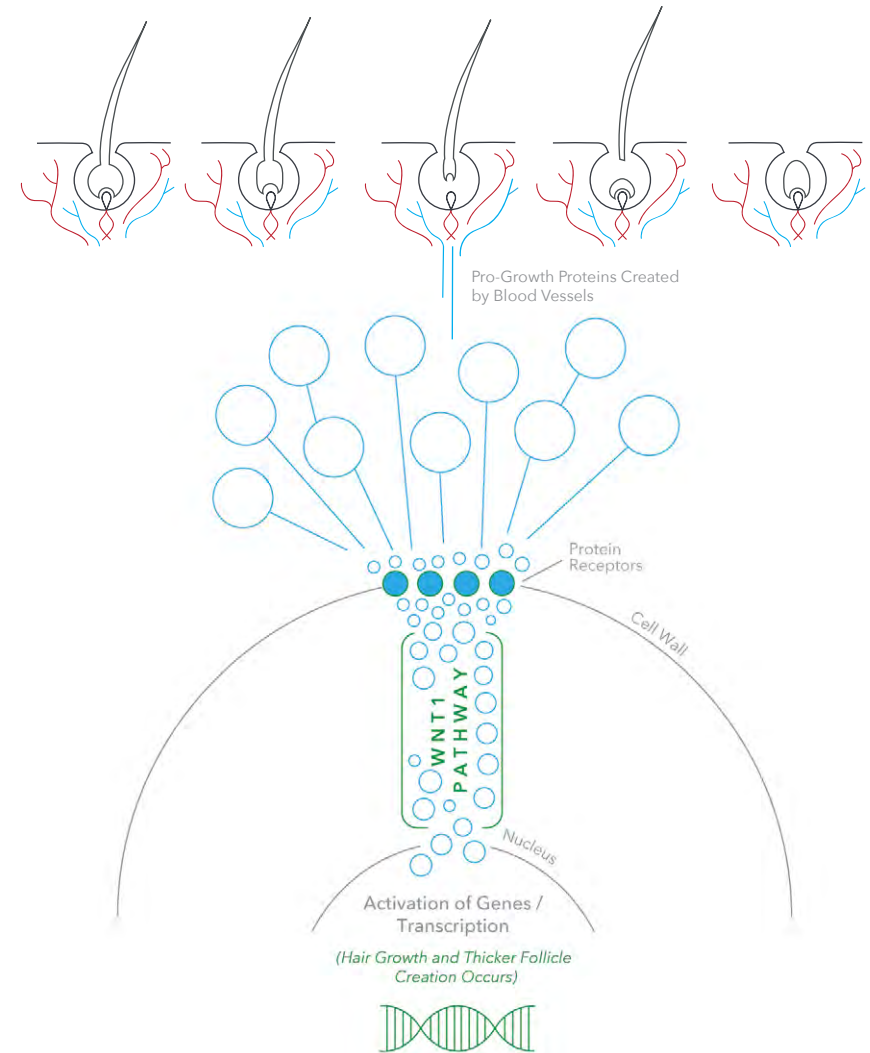
Wnt-1 Pathway: Open for Hair Growth

Cellular signaling pathways receive information from cell surface receptors to influence gene transcription at the nuclear level, providing instructions for our body to make new cells. This is universally required for cell proliferation, differentiation and migration - hence, it is integral to hair follicle development and growth. The Wnt-1 cellular signaling pathway, when exposed to prolonged activation, regenerates follicles into the anagen phase - allowing them to grow larger in size with dramatically enhanced proliferation within the matrix, dermal papilla and hair shaft.

When this process is hormonally disrupted (such as what occurs during Androgenetic Alopecia or AGA), follicles experience a decline in growth factor processes, loss of blood flow, and a decrease in nutrition and growth factor activity. This leads to the miniaturization and eventual death of the hair follicle resulting in hair thinning and loss.

Our products contain specific ingredients that manipulate signaling pathways to hack your hair growth cycle into being back on track. **Two of the main technologies behind AnteAGE Hair products focus on activating the Wnt-1 cellular signaling pathway (shown on the right) as well as the inhibition of the JAK-STAT pathway (featured on the following page).**

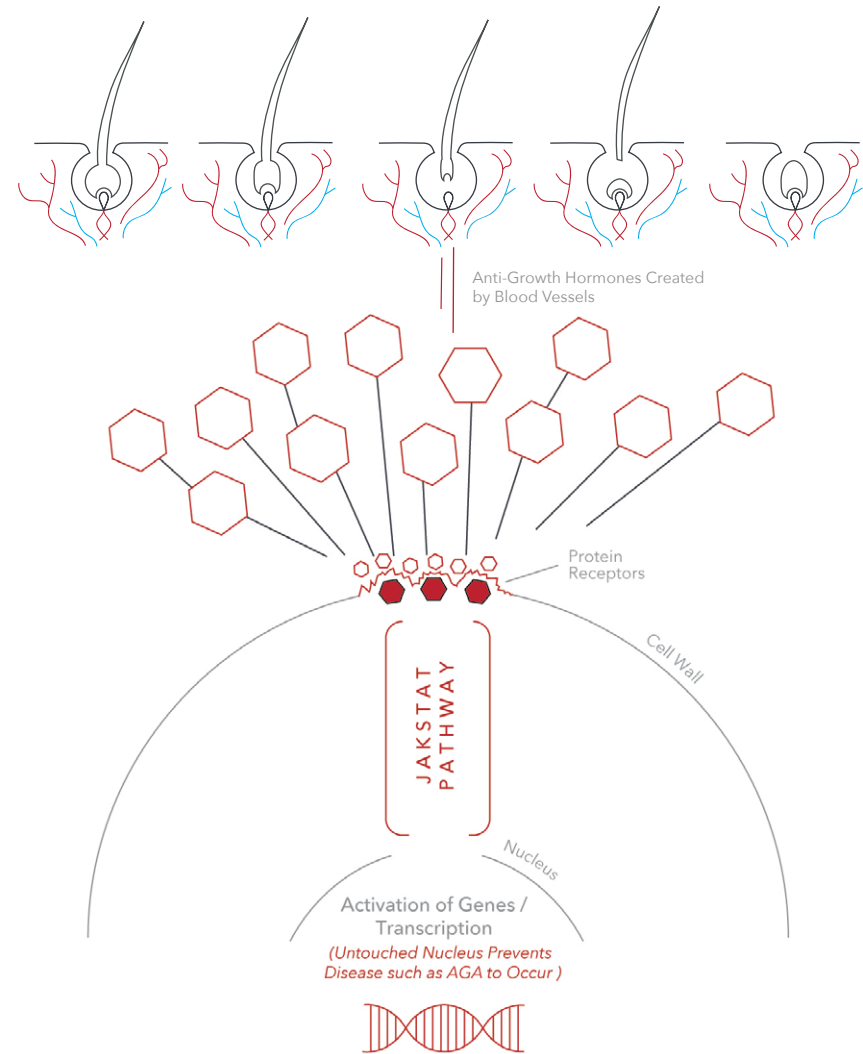
Hair follicle genesis, function and phase transitioning is impossible without Wnt signaling. **We manipulate human bone marrow mesenchymal stem cell cultures by employing proprietary specialized techniques that allow us to harvest conditioned media with a “Wnt emphasis” - enabling a kick start to the growing phase with our targeted products and technology.**



JAK-STAT Pathway: Close for Hair Growth

Similarly to the Wnt pathway, the JAK-STAT cellular signaling pathway allows for external chemical information bundles (including hormones) to be communicated to the nucleus of a cell. **Research has shown that inhibition of this pathway promotes rapid hair regrowth by triggering the anagen (growth) phase of a follicle.** This occurs by inhibiting instructions from the hormones which are harmful to the anagen phase (such as DHT) from reaching the cell nucleus and transcription process, effectively allowing hair to remain in the growth phase much longer than before.

Our technology prevents this pathway from receiving these instructions by using patented ingredients that have been shown to directly inhibit the JAK-STAT pathway, essentially “closing” this type of cellular communication and therefore preventing hair loss and related disease (such as Androgenetic Alopecia).



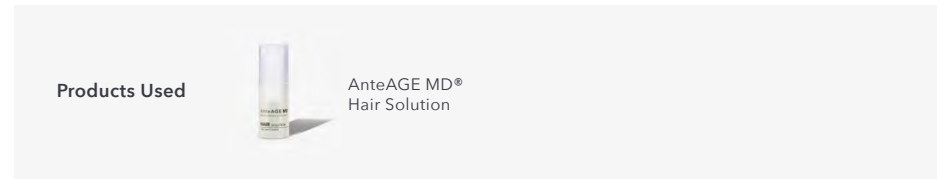
HAIR REGENERATION

Results

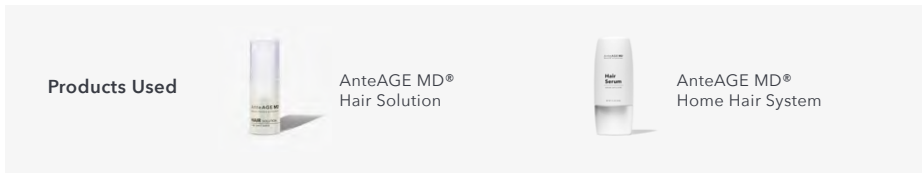
AFTER 2 MONTHS / FOUR TREATMENTS



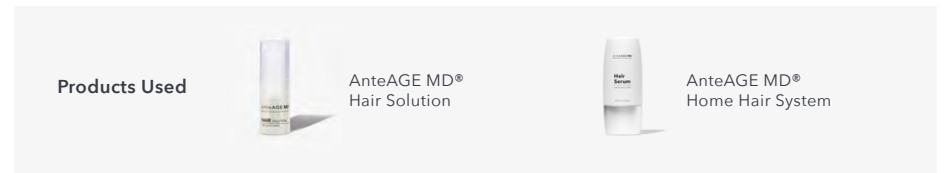
AFTER THREE MONTHS / 2 TREATMENTS



AFTER 2 MONTHS / FOUR TREATMENTS



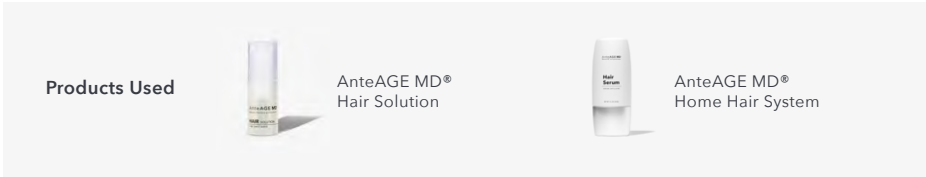
AFTER 2 MONTHS / FOUR TREATMENTS



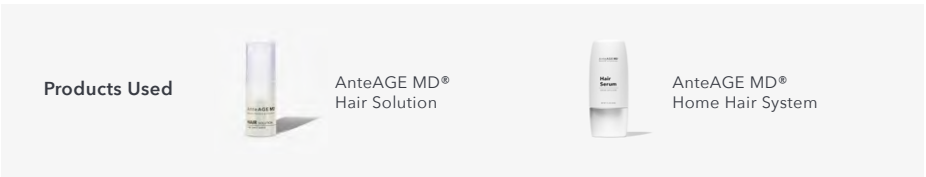
HAIR REGENERATION

Results

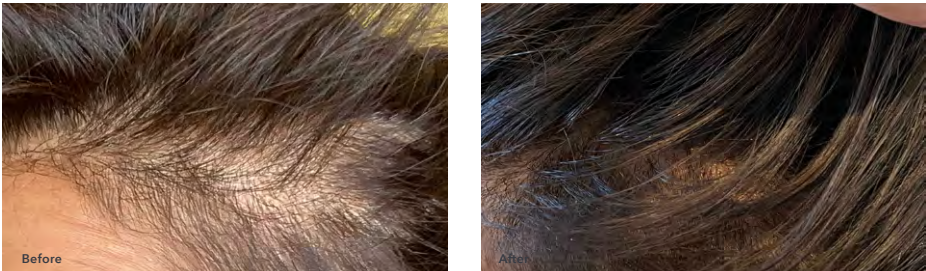
AFTER ONE MONTH / ONE TREATMENT



AFTER SIX MONTHS / SIX TREATMENTS



AFTER 2.5 MONTHS / FIVE TREATMENTS



AFTER FIVE MONTHS / FIVE TREATMENTS

