

ULTRA CA⁺

| Volumizing Bio Stimulator |

Fill in the volume and make your face lively



ULTRA CA+

● Achieving research and development goals

We developed a facial plastic filler that not only adds volume to the injection area but also promotes collagen production using calcium hydroxyapatite, a bone component in the human body, as the main ingredient.

● Differentiation in research and development

Calcium fillers are superior to regular hyaluronic acid fillers in terms of shape retention, volume, and three-dimensional effect, and they do not interact with skin tissue and do not cause inflammation.

In addition, calcium hydroxyapatite, the main raw material of calcium filler, can be seen as a safe material as it has been used in various forms for various surgeries and dental treatments related to oral or maxillofacial defects for the past 20 years.



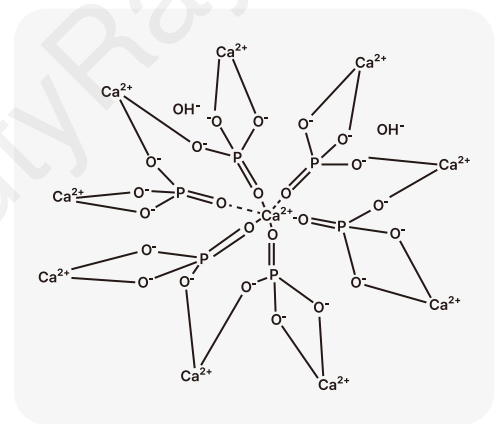
■ Mechanism of action

When injected into the soft tissue of the skin, calcium hydroxyapatite creates an immediate volume effect following the shape held by the gel carrier.

After a certain period of time, the gel carrier is gradually absorbed and new collagen is created around the calcium hydroxyapatite.

After a certain period of time, through the body's normal metabolic process, calcium hydroxyapatite particles are separated into calcium and phosphate ions and are eliminated through the normal excretion process.

Duration is influenced by many factors within the human body, including injection technique, site of placement, patient age, and metabolism.



■ Selection and content of main raw materials

Calcium hydroxyapatite is a naturally occurring inorganic calcium phosphate mineral that is synthesized from various biologically derived raw materials such as mammalian bones, fish scales, and egg shells.

Its shape and texture are similar to hard tissue, and it has a hexagonal structure and the same serum calcium/phosphorus ratio as bone apatite. Unlike calcium phosphate, hydroxyapatite can remain thermodynamically stable at different temperatures and pH levels.

In addition, hydroxyapatite has excellent biocompatibility with the human body, bioactivity, and bone conduction properties, and is widely used as a coating material to improve bone formation by improving the surface properties of orthopedic or dental implants.

In addition, it has a high utility value in the cosmetic surgery market as it promotes collagen production.



● Benefit

Calcium filler not only adds volume through filler, but also helps with collagen synthesis.

It is expected to be effective in lifting areas such as the tip of the nose and chin as it can create a clearer shape than existing hyaluronic acid fillers by using calcium particles.

It is also thought to be able to be used as an anti-aging skin booster that improves skin condition by stimulating self-collagen production.

Because calcium filler is made from components that make up the human body, such as teeth and bones, side effects can be reduced compared to other polymer fillers.

It is safe while reducing the burden of granulomas, and the effect can be maintained for a longer period of time.

| MOA | Mechanism of Action



After a certain period of time after soft tissue injection, the gel carrier is gradually absorbed by phagocytic cells.



Fibroblasts around the microsphere produce new collagen.



Collagen produced around apatite (CaHA) fixes the apatite.



Through the metabolic process, CaHA particles are slowly decomposed into calcium and phosphate ions and are completely decomposed through metabolism.

● Mechanism of Action

When injecting soft tissue, Microspheres create an immediate volume effect in the shape taken by the gel carrier.

After a certain period of time, the gel carrier is gradually absorbed and the newly created collagen fixes the particles.

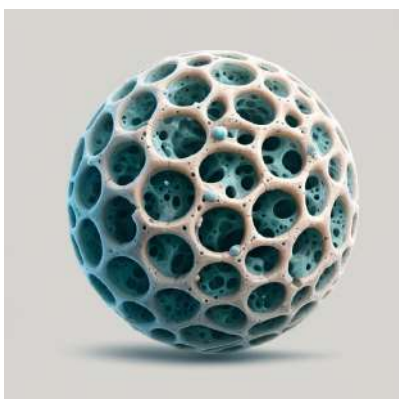
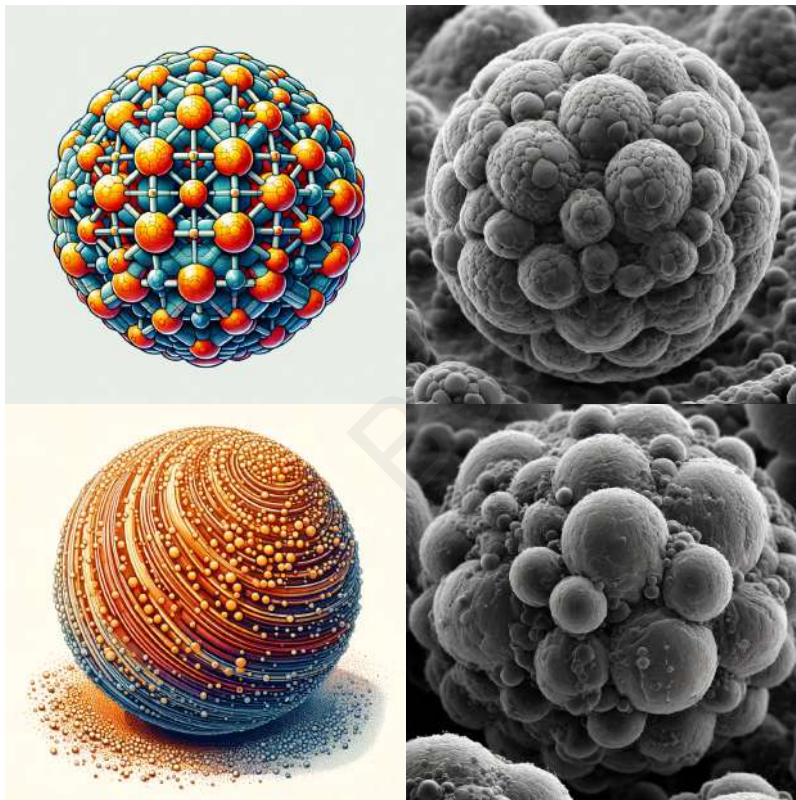
CaHA particles are separated into calcium and phosphate ions and are eliminated through the normal excretory process.

● DURATION

It is influenced by factors within the human body such as the age and metabolic activity of the subject, as well as injection location and technique.

| Features 1 | CaHA beads with perfect lattice-pore structure

ULTRA CA+, which uses lattice-pore structure particle technology, maintains volume in a stable form in the body for a long period of time.

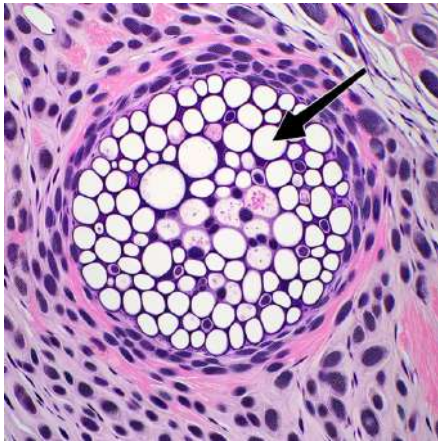


Lattice-pore structure

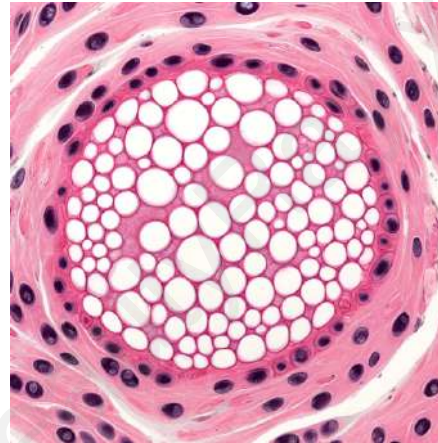
- Fine particle size
- Strong rheology
- Homogeneous particles
- Optimal porosity
- Perfect decomposition and absorption
- Slow decomposition rate

| Features 2 | Biostimulator through collagen production

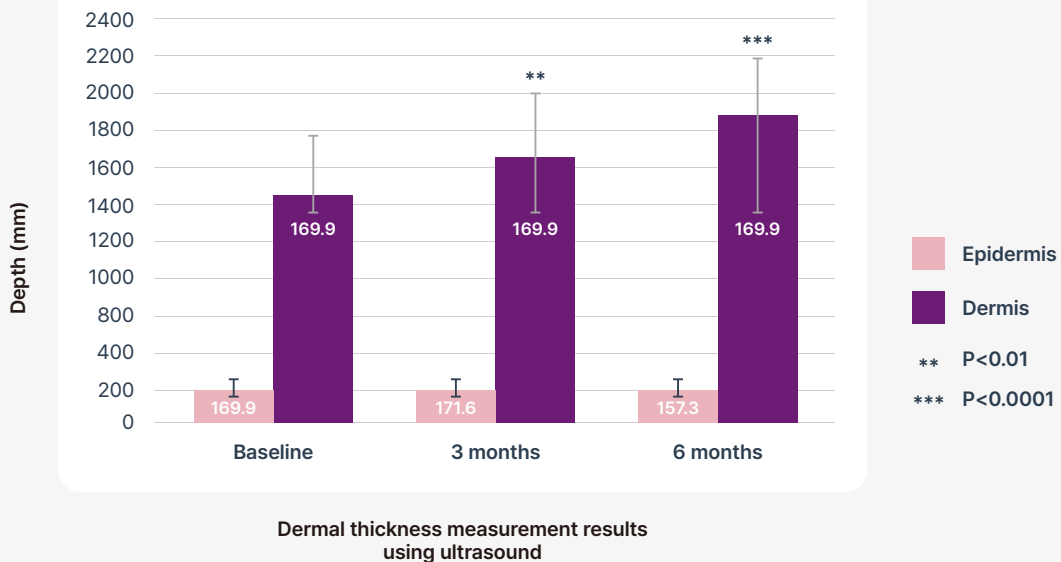
Promotes the production of collagen types that affect the skin.



H&E stain results of tissue applied with calcium filler (Arrow: macrophage/translucent circle: calcium bead)



PSR (picrosirius red) stain result of the same tissue (Red: collagen fiber)



| CLINICAL TEST | Before & After



Volumizing Bio Stimulator



Main Ingredient	Calcium Hydroxylapatite microsphere (30%) Polymer Gel Carrier (Carboxy Methyl Cellulose sodium) (70%)	Treatment depth	Deep Dermis
Efficacy, effect	Temporarily improves facial wrinkles in adults	Packaging unit	0.8 mL X 2 syringes / BOX



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