

Effect of different micronutrient combinations on the optimization of tissue stability: Production of collagen type I

The most important function to prevent any form of disease is the stability of tissue in the body. The decisive molecules that are produced in the connective tissue cells (mainly fibroblasts) are collagen fibers. Collagen fibres/fibers have a similar stabilising/stabilizing function to the steel girders in a high-rise building. The more collagen that is produced, the more resistant the body is to disease.

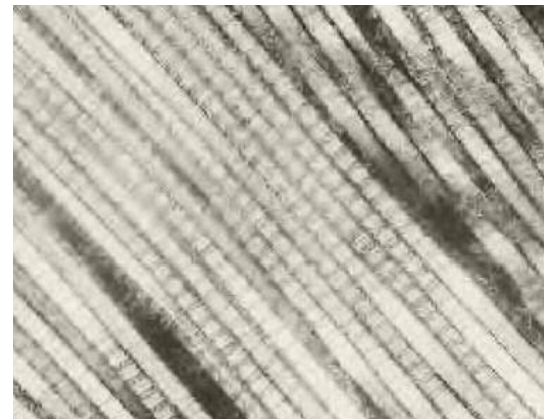
There are different types of collagen in the body, with type I and type IV playing a special role. Type I collagen is mainly responsible for the functions of healthy skin, tendons, bones and teeth. Collagen type IV is particularly important for preserving the integrity of the blood vessel walls and for the optimal functioning of the cardiovascular system.

How do the tested micronutrient combinations affect the production of type I collagen?

This study tested the effect of different micronutrient combinations on the formation of type I collagen by human skin fibroblasts. Again, the dosages used in the tests corresponded to the daily amounts recommended by the manufacturers. The results showed that the tested micronutrient combinations achieved only a minimal increase in collagen production (red column).

In contrast, a four to six-fold increase in collagen formation was achieved with the use of the scientifically developed micronutrient combination (column A to C).

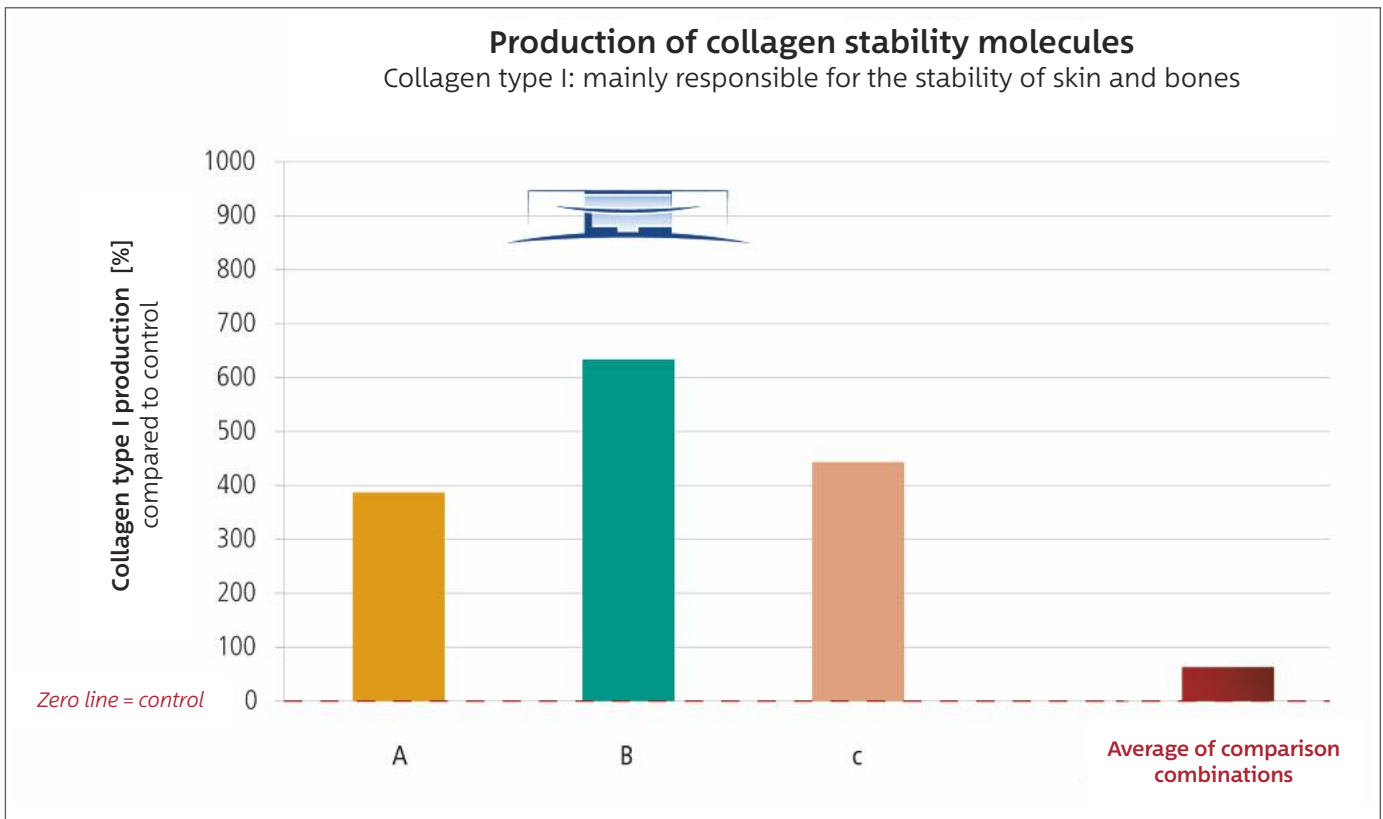
The results show that the tested micronutrient combinations also differ considerably with regard to their ability to optimize the production of stability molecules in the body's cells.



Collagen fibers have a stabilizing function in the body.

The picture above shows these biological "steel girders" under an electron microscope.

Below: Collagen type I can be found particularly in skin, tendons, bones and teeth.



Tested micronutrient combinations composed of:

A: Different vitamins, minerals, trace elements, amino acids and phytochemicals

B: Vitamin C, E, B6, D, folic acid, lysine, proline, copper, betaine, chondroitin sulfate, acetylglucosamine, pycnogenol

C: Vitamin C, lysine, proline

Without scientific proof, advertising claims by vitamin producers should always be questioned.