



Essential natural minerals, especially Silica, in Aava help collagen formation which is essential for flawless skin and healthy hair.

1. Brazilian Society of Dermatology 2016: Use of Silicon for Skin and Hair care: *An Approach of Chemical forms Available and Efficacy*

Silicon is the second most abundant element on earth, exceeded only by oxygen. Also, it is the third most abundant trace element in the human body. It is present in the water and in plant and animal sources.

On the skin, it is suggested that silicon is important for optimal synthesis of collagen and for activating the hydroxylation enzymes, improving skin strength and elasticity

Silicon occurs naturally in foods in the form of silicon oxide and silicates, which are present in water and in plant and animal sources. OSA is the main type derived from silicon present in drinking water and other liquids, including beer, and it is considered the most readily available form of silicon to humans.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4938278/

2. The Journal of Nutrition, Health & Aging : The Chemistry of Silica and its Potential Health Benefits 2007

Multiple forms of silica exist in nature and silicon, a component, is the second most prevalent element after oxygen.

There are several water soluble forms of silica referred collectively to as silicic acid (ortho, meta, di, and tri-silicates), which are present in surface and well water in the range of 1--100 mg/L. Orthosilicic acid is the form predominantly absorbed by humans and is found in numerous tissues including bone, tendons, aorta, liver and kidney. Compelling data suggest that silica is essential for health

Deficiency induces deformities in skull and peripheral bones, poorly formed joints, reduced contents of cartilage, collagen, and disruption of mineral balance in the femur and vertebrae.

A few rodent studies have been conducted, which indicate a No Observed Adverse Effects Level (NOAEL) of 50,000 ppm (mg/L) for dietary silica.

In conclusion, many forms of silica exist in nature and compelling data support myriad beneficial effects of silica in water.

https://pubmed.ncbi.nlm.nih.gov/17435951/





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3. The Journal of Clinical, Cosmetic and Investigational Dermatology: *Dietary Water Affects Human Skin Hydration and Biomechanics* 2015

It is generally assumed that dietary water might be beneficial for health, especially in dermatological (age preventing) terms. **The present study was designed to quantify the impact of dietary water on major indicators of skin physiology.**

A total of 49 healthy females (mean 24.5 ± 4.3 years) were selected and characterized in terms of their dietary daily habits, especially focused on water consumption, by a Food Frequency Questionnaire.

Measurements involving epidermal superficial and deep hydration, transepidermal water loss, and several biomechanical descriptors were taken at day 0 (T0), 15 (T1), and 30 (T2) in several anatomical sites (face, upper limb, and leg). This stress test (2 L/day for 30 days) significantly modified superficial and deep skin hydration, especially in Group 1. The same impact was registered with the most relevant biomechanical descriptors.

Thus, in this study, it is clear that higher water inputs in regular diet might positively impact normal skin physiology, in particular in those individuals with lower daily water consumption.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4529263/

4. Journal of International Society for Bioengineering and the Skin (ISBS): *Positive Impact of Dietary Water on in Vivo Epidermal Water Physiology*

Background/purpose: The importance of water in human physiology is well known, also for skin functionality. This study was conducted to assess the effects of dietary water on epidermal skin hydration in healthy females.

Methods: Thirty-four healthy females (mean 24.5 \pm 6.34 years old) were selected and characterized according to their dietary daily habits, by a previously validated Food Frequency Questionnaire. For 1 month, these subjects were asked to add 2 L/day of water to their regular dietary habits.

Results: This water overload (2 L/day/30 days) did not change the blood volume or weight of the individuals. However, both superficial and deep skin hydration were clearly in those individuals that regularly consumed lees water per day.

Conclusions: This study clearly suggests that dietary water intake seems to influence skin water content.

https://pubmed.ncbi.nlm.nih.gov/26058417/





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5. International Journal of Cosmetic Science: Effect of Fluid Intake on Skin Physiology: Distinct Differences Between Drinking Mineral Water and Tap Water 2007

The aim of our exploratory 'before-after' study was to evaluate the in vivo influence of drinking more than 2 L of mineral water or ordinary tap water per day on skin physiology.

Ninety-three healthy subjects were included in our prospective study. After an initial run-in phase of 2 weeks to monitor individual drinking habits, subjects had to drink 2.25 L day(-1) of either mineral water (n = 53) or tap water (n = 40) for 4 weeks.

In the mineral water group measurements revealed a statistically significant decrease in skin density. Skin thickness increased slightly, albeit not at a statistically significant level. However, when separately analysing those individuals from the mineral water group, who had routinely drunken comparably little before the start of the study, their skin thickness increased at a statistically significant level. Skin surface pH remained almost unchanged in the physiologically optimal range.

In the tap water group, skin density increased significantly, while skin thickness decreased significantly. Skin surface pH decreased at a statistically significant level.

In summary, drinking more than 2 L of water per day can have a significant impact on skin physiology. The exact effects within the skin seem to differ depending on the nature of the water ingested.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4529263/