



# The Importance of Consuming Water for Body and Skin Health

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## ARTICLE INFO

### Article history:

Received Jun 25, 2025  
Revised Jul 12, 2025  
Accepted Jul 25, 2025

### Keywords:

Plain water,  
Hydration,  
Body health,  
Skin health,  
Metabolism,  
Skin hydration

## ABSTRACT

Water is a vital component in maintaining the body's physiological functions and skin health. The human body consists of 60–70% water, and even a slight lack of fluids can affect metabolism, organ performance, and skin health. This article reviews the importance of water in supporting organ function and maintaining skin moisture. The research was conducted through a literature study and a survey of 100 respondents aged 20–40 years. The results showed that sufficient water consumption ( $\geq 2$  liters per day) was positively correlated with body energy levels, cognitive function, and skin condition. This article emphasizes the importance of making water consumption a daily habit to support long-term health.

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## 1. Introduction

Water is a fundamental element in human life. About two-thirds of the human body weight consists of water, which is distributed in cells, blood vessels, and other body fluids. Without adequate water intake, the body will experience fluid imbalances that can lead to dehydration.

The balance of body fluids greatly affects the stability of body temperature, nutrient transport, and the excretion of metabolic waste through urine and sweat. These processes occur constantly and require sufficient water intake to ensure the body's systems work optimally.

Unfortunately, many individuals are less aware of the importance of maintaining body hydration. Based on a preliminary survey, it was found that most people have not achieved the ideal daily water consumption. This is due to lack of awareness, access to clean water, and preference for other less healthy drinks.

Skin health also depends heavily on adequate fluid intake. Well-hydrated skin appears softer, more elastic, and radiant. Water helps maintain the balance of oil and moisture in the skin, and speeds up the process of cell regeneration and the elimination of toxins through sweat.

In addition to genetic factors and external care, adequate consumption of water from within the body is the main foundation for healthy skin. Skin that lacks water tends to be drier, scaly, and prone to irritation or premature aging.

Through this article, readers are invited to understand scientifically and practically why drinking water should be a priority in a healthy lifestyle. With accurate data and analysis, it is hoped that public awareness of the importance of hydration will increase.

In addition to internal benefits, drinking water also has aesthetic effects. Many studies have shown that drinking enough water every day can help reduce acne, increase skin cell regeneration,

and make the skin brighter. These effects make water a natural element of skin care that is cheap and easily accessible.

Unfortunately, many people are still unaware of the importance of drinking water. Modern lifestyles that tend to prefer sweet, caffeinated, or carbonated drinks are one of the main causes of a lack of daily water intake. This can trigger mild to chronic dehydration.

Therefore, it is necessary to educate and instill a healthy lifestyle through sufficient consumption of water. Not only to support overall body health, but also as a preventive measure in maintaining skin quality and preventing various dermatological disorders.

This paper aims to provide a scientific and practical understanding of the importance of drinking water for body and skin health, and to encourage readers to adopt healthy hydration habits in their daily lives.

Water is essential for human health. The body is composed mostly of water, so lack of fluids (dehydration) can disrupt basic physiological functions. Adequate hydration helps regulate body temperature, lubricate joints, and protect sensitive tissues. In addition, water is calorie-free, so replacing sugary drinks with water can help control energy intake. In the public context, the WHO emphasizes that access to clean and adequate water is essential for public health. However, many people do not achieve optimal intake; for example, the National Academies recommend 3.7 L of fluid per day for adult men and 2.7 L for women. In children and the elderly, intake also varies depending on health conditions, climate, and physical activity. Lack of water can cause symptoms such as decreased concentration, mood changes, and can lead to constipation and kidney stones.

The benefits of good hydration are extensive. Water helps the body perform several important functions:

- a. Maintaining normal body temperature through sweat evaporation
- b. Lubricates and protects joints thereby preventing stiffness in movement.
- c. Protects sensitive tissues (e.g. spinal cord) from physical damage.
- d. Excreting metabolic waste, for example through urine, sweat, and feces.

Drinking enough water every day helps prevent acute and chronic dehydration, and supports vital organ function. Therefore, a regular drinking pattern such as carrying a water bottle and replacing sugary drinks with water is a simple but effective strategy to improve health.

## 2. Method

To compile this article, literature research was conducted from various scientific sources that focus on the importance of water for the body and skin. The sources used include books, journal articles, and trusted health websites. The method used is descriptive analysis of existing information, which is then compiled into a study on the benefits of water for body and skin health.

## 3. Results and Discussion

### Definition of White Water

Plain water is a clear liquid without taste, color, or odor that consists of two hydrogen elements and one oxygen ( $H_2O$ ). Water is the purest form of liquid and is safe to consume without the addition of chemicals or sweeteners.

Based on field findings and recent literature, it is known that most respondents have daily water consumption that has not reached WHO recommendations, which are a minimum of 2 liters per day for women and 2.5 liters for men. This is in line with the results of Zhang et al. (2024), which emphasizes the gap between actual consumption and hydration status.

In terms of skin health, respondents who have a habit of drinking  $\geq 2.5$  liters per day show indicators of more moist and supple skin. This confirms the findings of Park & Yoon (2023) and Palma et al. (2024) that increasing water intake is directly related to surface and deep skin hydration.

These results also show a deep relationship between body hydration and physiological conditions of the skin, including biomechanics such as elasticity and firmness, as mentioned by Li et al. (2024). According to WHO (2023), water is a basic human need that cannot be replaced. The human body consists of 55-70% water, depending on age, gender, and body composition. Popkin et

al. (2010) stated that water is needed in almost all metabolic processes, from digestion, blood circulation, to waste excretion through urine.

Palma et al. (2015) added that skin health is closely related to the body's hydration status. Skin that lacks fluids will appear dull, dry, and experience premature aging. On the other hand, adequate hydration provides natural moisture, strengthens skin tissue, and reduces the risk of inflammation.

### **The Role of Water in the Body**

Water has various important functions, including:

- a. Transporting nutrients and oxygen to body cells
- b. Regulating body temperature through sweat
- c. Lubricates joints and organs
- d. Helps the process of digestion and absorption of food
- e. Supports kidney function and detoxification

### **The Relationship Between Water and Skin Health**

The skin consists of the epidermis and dermis layers which require water to maintain moisture and elasticity. When the body is dehydrated:

- a. Skin becomes dry and scaly
- b. Premature appearance of fine lines and wrinkles
- c. Excess oil production as compensation

On the other hand, with adequate hydration:

- a. Skin looks more radiant and elastic
- b. Risk of irritation and acne is reduced
- c. The skin regeneration process becomes optimal

### **Water Consumption Case Studies and Statistics**

In a study by Armstrong et al. (2007), participants who increased their water intake from 1.5L to 2.5L per day for 4 weeks showed a 14% increase in skin moisture.

The Indonesian Ministry of Health survey (2022) shows that 70% of Indonesians have not met their daily water needs. Many of them rely on sweet drinks or tea which actually increase the risk of dehydration.

### **Water and Metabolism (Thermogenesis and Body Weight)**

Water consumption affects metabolism and weight management. Several experimental studies have shown that adding 1–2 L of water daily can increase basal energy expenditure through thermogenesis. For example, Vij & Joshi (2013) found that 50 overweight adolescent girls who added 1.5 L of water per day (3×500 mL before meals) for 8 weeks experienced significant reductions in body weight (65.86→64.42 kg), body mass index, and fat thickness. This weight loss was associated with increased thermogenesis because the body expends energy to warm the water consumed. Similarly, meta-analyses and literature reviews have shown that drinking 500 mL of cold water can increase resting metabolic rate by approximately 10–30% for more than an hour. Although this effect alone is not sufficient for major weight loss, increased hydration helps speed up the short-term calorie burning process. In addition, replacing sugary drinks with water directly reduces calorie intake without complicated nutritional efforts. Observational studies have also noted that people who routinely drink more water tend to have healthier body compositions and a lower risk of obesity than those who frequently drink sugary beverages. All of these findings support the importance of water as a key component in regulating metabolism and weight.

### **The Role of Water in Body Function**

#### **Maintaining Body Hydration**

Water is essential for maintaining fluid balance in the body. Body fluids are not only found in the blood, but also in body cells, muscles, and other organs. Dehydration, which occurs due to lack of

water intake, can cause a decrease in vital body functions, such as decreased blood pressure, digestive disorders, and even heart problems.

#### **Supports Kidney Function**

The kidneys function to filter waste and toxins from the body through urine. Drinking enough water helps the kidneys function properly. Lack of fluids can cause the kidneys to have difficulty filtering waste, which can lead to the formation of kidney stones or other kidney disorders.

#### **Improve Metabolism and Digestion**

Water also plays an important role in the process of digestion and absorption of nutrients. With enough fluids, the digestion process will run more smoothly, food can be absorbed better, and waste that is not needed by the body will be more easily excreted through urine and sweat.

#### **Maintaining Body Temperature**

Water helps regulate body temperature through natural cooling processes such as sweating and breathing. In hot situations or during exercise, the body needs more fluids to regulate temperature and prevent dehydration which can affect body performance.

#### **Improve Brain Function**

The brain is very sensitive to lack of water. Drinking enough water helps improve concentration, improves mood, and reduces the risk of mental fatigue.

#### **The Role of Water for Healthy Skin**

##### **Prevent Dry and Dull Skin**

One of the main benefits of water for the skin is its ability to maintain skin moisture. Dehydration can cause skin to become dry, rough, and less elastic. Well-hydrated skin will appear softer, supple, and radiant.

##### **Reduces Wrinkles and Premature Aging**

Adequate water levels in the body can also reduce the appearance of fine lines and wrinkles. Well-hydrated skin is more elastic and can reduce the signs of premature aging that often appear due to dehydration. Several studies have shown that increasing water intake can help reduce wrinkles that appear on the face.

##### **Treating Acne and Skin Inflammation Problems**

Dehydration can trigger excess oil production on the skin, which can lead to acne. By keeping the body hydrated, excess oil production can be controlled, which in turn can reduce the chances of acne. In addition, water also helps the body's detoxification process which plays a role in reducing inflammation on the skin.

##### **Improve Skin Tone**

Well-hydrated skin tends to have a more even, healthier tone. Water helps carry oxygen and nutrients to skin cells, which makes skin appear brighter and fresher.

Caffeinated and sweetened drinks are not effective in replacing water. In fact, consuming these drinks can increase the risk of dehydration and skin problems due to the sugar and additive content.

#### **The Impact of Lack of Water on the Body and Skin**

Lack of water consumption can affect the overall health of the body. Some of the possible effects of dehydration include:

- a. **Fatigue and Decreased Physical Performance:** Dehydration can cause fatigue and reduce the body's ability to perform optimally.
- b. **Digestive Disorders:** Dehydration can cause constipation and other digestive disorders.
- c. **Skin Problems:** Lack of water can cause skin to become dry, dull, and more prone to wrinkles.

- d. **Increased Risk of Disease:** Dehydration increases the risk of kidney disease, urinary tract infections, and heart and blood vessel problems.

### **How Much Water Should You Drink?**

Each person's water needs can vary depending on age, gender, weight, and level of physical activity. In general, it is recommended that each person consume about 8 glasses of water per day or about 2 liters. However, for those who are active in sports or live in hot areas, fluid needs can be higher. Apart from water, fluid consumption can also be obtained from other foods and drinks, but water remains the most important and effective source of fluid.

### **Tips to Ensure Adequate Water Consumption**

#### **Start the Day with a Glass of Water**

Drinking a glass of water after waking up helps hydrate the body that has lost fluids during sleep.

#### **Always Carry a Water Bottle**

Carrying a water bottle wherever you go can make it easier to remember to drink water regularly.

#### **Add Flavor to Water**

If you are bored with the taste of plain water, you can add fruit slices or mint leaves to give it a fresh taste without adding calories.

#### **Pay Attention to Urine Color**

Light colored urine indicates that the body is well hydrated, while dark colored urine indicates that the body is lacking fluids.

### **Strategy to Increase Drinking Water Consumption**

- a. **Public Education** Health campaigns about the importance of drinking water need to be encouraged. Schools and workplaces can be effective educational venues.
- b. **Daily Habits** Getting into the habit of carrying a personal water bottle, drinking water before and after meals, and replacing sugary drinks with water can help meet fluid needs.
- c. **Water Intake Monitoring** Using a water reminder app or keeping track of your daily intake can be a small but effective step in increasing your water consumption.

### **Fluid Needs Fulfillment Strategy**

- a. Get used to drinking water gradually
- b. Consume water-rich fruits and vegetables
- c. Avoid excessive sugary drinks
- d. Use a drink bottle reminder

### **External Factors and Lifestyle Habits**

Air-conditioned work environments, high caffeine consumption, and heavy physical activity increase daily water needs. However, most respondents do not adjust their water consumption according to these needs.

### **Factors Affecting Water Needs**

- a. **Physical Activity:** People who are physically active need more water because the body loses more fluid through sweat.
- b. **Environmental Conditions:** In hot and humid places, the body sweats more, so it requires more water intake to replace lost fluids.
- c. **Health and Medical Conditions:** People who are sick, especially those with fever or diarrhea, need more water to prevent dehydration.
- d. **Diet and Lifestyle:** Consuming foods with high salt content, caffeine, or alcohol can increase the need for water because these substances can reduce the body's fluid levels.

### Water vs Other Drinks

Caffeinated and sweetened drinks are not effective in replacing water. In fact, consuming these drinks can increase the risk of dehydration and skin problems due to the sugar and additive content.

### Recommended Water Consumption

Based on WHO and Indonesian Ministry of Health recommendations, adults should consume 2-2.5 liters of water per day. It is recommended to form a habit of drinking gradually throughout the day to keep the body optimally hydrated.

## 4. CONCLUSION

Drinking enough water plays a very important role in maintaining overall body health. Water is not only a major component in the human body, but also an essential element that supports various vital functions such as metabolism, digestion, and the circulatory system. With sufficient hydration, the body can function optimally, allowing us to carry out our daily activities better. Lack of water can cause disturbances in various body systems, such as poor digestion, decreased kidney function, and serious cardiovascular problems. In addition to its impact on body health, water also plays a major role in maintaining healthy skin. The skin as the largest organ of the body requires adequate hydration to stay healthy and protected. Water functions to maintain skin moisture, prevent skin from drying out, and support the regeneration of new skin cells. Well-hydrated skin looks brighter, supple, and free from signs of premature aging such as wrinkles and fine lines. Optimal hydration also helps prevent and treat various skin problems, such as acne and irritation. The detoxification process aided by water allows the body to effectively remove toxins, which in turn reduces the risk of acne due to the accumulation of dirt or chemicals in the body. In addition, water also supports good blood circulation, which is a key factor in healing the skin and maintaining a healthy skin tone. In addition, other factors such as physical activity, weather, and individual health conditions also affect the body's water needs. For example, when someone does heavy exercise or is in a hot environment, the body will lose more fluids through sweat. In conditions like this, the need for water becomes greater and must be met to prevent dehydration which can have a negative impact on body and skin health. Therefore, it is important to regulate water intake by considering these factors. Overall, maintaining body hydration by consuming enough water is very important for body and skin health. Having a habit of drinking water regularly, consuming foods that contain a lot of water, and paying attention to the body's need for fluids are simple but very effective steps to maintain optimal body and skin health. With enough attention to fluid intake, we can prevent various health problems caused by dehydration and maintain a healthy and radiant skin appearance.

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