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**Review Article** 

# Role of liquid foods and beverages to prevent dehydration especially in elderly people

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# Abstract

Dehydration is an important health issue and is more commonly observed in older people than younger ones. Dehydration occurs when there is excess fluid loss of fluid from the body, as a result of exposure to high temperatures, sickness, inadequate fluid intake and use of diuretic medicines. The symptoms of dehydration can range from simple dizziness and confusion to seizures and death. Elderly people should avoid coffee, tea, and alcohol in large quantizes, and also must get enough fruits and vegetables in their daily diet. It is imperative that water and healthy drinks should be made easily available to the elderly at all times. In addition to water, fruit and juice, syrups, vegetables, vegetable juice and pottages, tea, milk, and dairy products, plant-based beverages and also soups should be given to the elderly people. It is advised that elderly must consume more fluid during the summer season.

**Key words:** dehydration; elder people; fluid intake; fluid resources; healthy diet

# Introduction

The foods that contain a sufficient amount of omega fatty acids, amino acids, vitamins, minerals, antioxidants, and various other nutrients, are imperative to maintain good health. Dehydration is the excess loss of body fluids from the body, and is considered a significant health issue for the elderly population. There is loss of electrolytes through the respiration, perspiration, urination and other bodily functions. The old people are at an increased risk for dehydration for a number of reasons, including a decrease in the thirst sensation [10]. The signs of dehydration in elderly include dry mouth. letharginess, muscle weakness, headache, fatigue, low blood pressure, rapid heart rate, etc. [10]. It is important to mention that alcohol, coffee and tea should be avoided in high quantities because of diuretic effect and can lead to dehydration of the body. Eating of a balanced diet preferably the fruits and vegetables (watermelon, pineapples, red strawberries, apple, banana, tomatoes) and others that contain great amounts of water, vitamins, and minerals can help to prevent dehydration [10].

Caring of elder people always requires particular attention [11]. The reason for this is mainly the features on grounds of age, which might be the loss of appetite, loss of fluid, accumulated chronic diseases, physical inactivity or psychological influence [3]. In optimalizing normal work of the organism and also in maintaining hydration, the supply of water and other liquids has a significant role, as it can reduce the death rate of older people, also the rate of acute and chronic diseases [1]. However, its lack can lead to several diseases, even in severe cases to death due to dehydration. The detailed information on prevention and treatment of dehydration in the elderly population during the period of warm weather and illness is presented by Schols and others (2009). Therefore, for the

person of an old age, the intake of adequate amount of liquid is extremely important. The main purpose of this manuscript is to describe the maintenance of the balanced hydration of the old people.

# Most significant fluid resources

#### Benefits of consuming water:

Water has a significant role in preventing illnesses and maintaining health-balance. Also, nutritional recommendations prefer mostly consuming 2 to 3 litres of water daily, which needs particular attention in case of old people [7].

#### Juice, vegetable and fruit consumption:

Supplementing water consumption, fruit, syrup and also juice are perfectly suited. Besides complementing fluid, they are appropriate to take fibre, vitamins, and minerals into the body. They can supplement the dietary recommendations in various forms [9].

# Vegetable juice, vegetables and pottage consumption:

Among the fans of modern cuisine beside fruit, consuming vegetable juice, vegetables and pottages is more and more wide-spread to supplement the recommended daily allowance (RDA). Their content of fibre, vitamins and minerals is also significant [2].

#### Benefits of consuming tea:

Over the years consuming tea has been of absolute importance to safeguard human health. It is mainly well-known of its stimulus. In case of choosing, utilization might be decided, whether its stimulant, metabolic increasing or beneficial effect [5].

#### **Physiological benefits of soups:**

In case of acute illnesses soups are also suitable to supplement liquid, due to their high content of salt and minerals. Thanks to their beneficial active substances, they reduce the inflammatory processes of the organism. They contribute to digestion preventively and also increase efficient enzyme activity [8].

#### Role of milk and dairy products in rehydration:

According to the dietary recommendations, it is suggested to consume half a litre of milk or a kind of dairy product daily. Older people are at high risk considering osteoporosis. Calcium content of milk and the active substances needed for absorption have a significant role in preventing osteoporosis [6]. In that case when lactose is non-digestible for the person consuming it, it is suggested to consume lactose-free milk and dairies [12].

## Integrating vegetable beverages into diet:

In that case, when the digestion disorder of the whole milk is diagnosed, there is the possibility to consume plant-based beverages, which can be produced from coconut, rice, oats, almond and soya. These products are often enriched with vitamins [15].

#### Further recommendations for fluid consumption:

Consuming excessive amount of sugar should be avoided. Salting should also be avoided in accordance with the recommendations of modern cuisine. The amount and quality of beverages with high caffeine content and alcoholic drinks should also be limited [4]. It is pertinent to mention that in case of great physical activity, the amount of consumed fluid should be increased [14].

# Conclusions

Dehydration is considered a significant health issue for the elderly population throughout the world. During dehydration, the electrolytes are lost through respiration, perspiration, urination and other bodily functions leading to several symptoms including weakness, dry mouth, fatigue, letharginess, and headache. The consumption of 2-3 litres of liquid daily has the most significant role to prevent desiccation and to maintain the balanced state of the human body. It is recommended that coconut water is the best beverage to help the elderly people in dehydration. There is a need of continuous awareness of the risk factors and signs of dehydration in the elderly, especially during periods of very warm weather.

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#### Author's contribution

All the authors contributed equally. They read the final version and approved it for publication.

# **Conflict of interest**

The authors declare that they do not have conflicts of interest.

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