Healthy Ageing: why is being well hydrated so important?
The number of seniors is reaching historically unforeseen levels. In 1950, seniors between 45 and 75 years old made up 19% of the total population, whereas the United Nations forecasts 32% by 2050.1

Actually, beginning around 45 years old, the ageing process begins sometimes earlier than we think. The body evolves slowly. For example, nutritional needs change due to physiological modifications that affect body composition, water balance and bone health.2… The body becomes less efficient than before and starts to feel the first signs of ageing.

All of these changes are of course unavoidable!

However, it is possible to take action in order to protect oneself as much as possible against premature ageing.

Healthy living can actually slow down and delay these slight drawbacks, which on a daily basis, can become tiresome and harm the well-being of seniors. 71% of seniors across the world are willing to modify their diets to improve their health status. As health care professionals, you can help your patients.

To do so, you can give them good advice to be followed on a daily basis: practicing on a regular basis a physical activity which is suitable for them, adopting a varied and balanced diet which provides them adequate amounts of macro- and micronutrients and drinking enough water to keep the body properly hydrated.

Help ageing people preserve their quality of life!

1. EuroStat Datamonitor – seniors are define as people aged 50 years old and over
With ageing, seniors are more at risk of mild dehydration

Gradual ageing of the body is accompanied by several changes, both physical and physiological. For example, the decline in lean body mass is accompanied by a decrease over time in the percentage of water in the body. So, the percentage of body weight made up of water falls from about 60% in adults to about 50% in the elderly.3,4.

A more troubling fact: seniors are more at risk of dehydration as the sensation of thirst decreases with age, and their kidneys have decreased ability to concentrate urine.

1. Age and progressive reduction of the sensation of thirst

The sensation of thirst is a rather complex biological mechanism which allows the body to realise that it lacks water. Thus, when we feel thirsty, our body is already slightly dehydrated. In seniors, the sensation of thirst is decreasing, and therefore they are more at risk of becoming dehydrated.

This is a well established physiological fact for seniors aged 65 and over, but it is also true amongst younger seniors as shown by two studies.6,7 Indeed, in the Marzalek et al study, which examined men who were exposed to a hot environment, levels of thirst in older men (aged 58-64 years) were lower than amongst young people (aged 20-29 years).

Another study, carried out during a strenuous hill walk, has also shown that the sensation of thirst was lower for seniors (aged 56+/−3 years) than for younger adults (aged 24+/−3 years).
2. Age and impairment of kidney function

With age, the kidneys do not function as well and renal ability to concentrate urine decreases. In fact, between the ages of 30 and 80, there is often a 20 to 25% loss of renal mass, most of which is from the cortex. Other changes explain the difficulty which kidneys have in adapting urine concentration. For example, the decrease of renal blood flow and of the glomerular filtration rate.

When seniors are slightly dehydrated, they can feel the onset of some physical signs: thirst of course, but also a dry and sticky mouth, muscle weakness, headache, sleepiness or tiredness.

Therefore, it is important to advise them to drink water regularly throughout the day, and to drink before they become thirsty.

Good hydration is important for the quality of life of seniors

Water is vital for the whole body and is essential for health.

1. Water is essential for the brain

Water is the main component of the body. This is true for children and adults, but also for seniors, even though the percentage of water in the body gradually decreases with age. Water is everywhere. It hydrates every cell, every organ, including the brain. More than 2/3 of the brain* is made up of water11.

Age can affect physical and cognitive functions. Water can’t solve this problem but it is necessary for seniors in their daily life. Indeed, maintaining good hydration is important for the whole body including the brain.

* 73% of an adult’s brain is made up of water.
2. Intestinal comfort

It is common knowledge that elderly people are affected by problems with bowel movements and constipation. People may experience feelings of heaviness, bowel discomfort... i.e. minor yet most unpleasant problems on a daily basis.

From the Suares study, constipation affects between 11% and 18% of the people according to geographical region. And the prevalence of this disorder is even higher for women and older people. Constipation in the elderly has many potential causes, including a reduced fluid intake, malnutrition, reduced fiber intake, lack of physical activity, impaired mobility, side-effects of medication, an acute or chronic illness.

Evidence in both disease-specific and generic quality of life (QOL) instruments has shown that constipation is associated with impaired health-related quality of life.

Therefore, it is important to recommend that your patients practice regular exercise and go to the toilets at the same time everyday either in the morning or after meals. It is also advisable to eat more fruits, vegetables and whole grain foods as sources of fiber. Maintaining adequate fluid intake with fiber consumption is also recommended. Indeed the bulking effect of fibers consists in retaining water. Drinking enough water is a good habit to teach them.
3. Urinary incontinence

Urinary incontinence is an important topic as it has a real impact on daily life. It is a rather sensitive issue for women and especially for senior women. In fact, urinary incontinence affects about 19% of women aged 19 to 44 years, 25% of those aged 45 to 64 years, and 30% of those aged 65 years and older.

We know that there are many misconceptions about urinary incontinence! For example, fear of incontinence may lead people to decrease their water consumption.

How to define urinary incontinence?

Urinary incontinence is a symptom or sign of any involuntary loss of urine. Continence (storage of urine) is maintained when the urethral pressure is greater than the pressure inside the bladder itself (intravesical pressure). Urinary incontinence causes include structural changes in vesical muscle as well as impaired neural control and age-related changes of the lower urinary tract.
Adopting healthy habits can bring a real relief.

- Drinking enough water throughout the day is important for seniors to be well hydrated. A decrease in fluid intake should only be tried in patients with abnormally high fluid intakes\textsuperscript{21}, as a decrease in fluids may lead to urinary tract infections, constipation, or dehydration.

- Maintaining normal weight through adulthood may be an important factor in preventing the development of urinary incontinence especially in women, because overweight increases the pressure on the bladder and surrounding muscles.

- Prescribing some physical rehabilitation therapies with a physiotherapist including musculature of the pelvic floor can also be useful for initial management of urinary incontinence\textsuperscript{18,23}.

- It is also a good idea to advise your patients to take time for going regularly to the toilet.

Thus, it is important to help seniors stay well hydrated and recommend that they drink enough water, regularly throughout the day.
Help them to stay well hydrated

1. Good hydration is important for the whole body

Drinking water helps to maintain the water balance. Every day, water loss must be compensated by sufficient intake of water. That is why it is important for your patients to remain properly hydrated.

A healthy sedentary adult living in a temperate climate loses 2l to 3l of water a day, mainly from urine. But other vectors are also responsible for the body water loss: the skin, the respiratory tract and, at a low level, the digestive system. It is important to compensate those losses by a sufficient water intake.

Our body produces water by metabolism and gets water from food but this is not sufficient to fulfill the body needs. So an adult should drink, on average, 1.5l of water a day**.

**For a healthy sedentary adult living in temperate climate
With ageing, all the parameters of water metabolism undergo changes and so, the water balance evolves. Elderly people show lower non-renal water losses (mainly due to lower sweat losses); at the same time renal concentration capacity becomes impaired, resulting in an increased obligatory urine volume. Because eating habits are changing, the volume of water obtained from food increases slightly with age whereas the metabolic water decreases. So the water balance remains nearly the same and the water intake recommendations can be maintained24. But water input can be reduced due to the diminution of the thirst sensation and appetite. Therefore it is important to teach your patients the healthy habit of drinking regularly throughout the day and explain to them the importance of drinking 1.5l**, the equivalent of 8 glasses*** of water per day10. The daily needs are even higher when the outside temperature increases or when the inside temperature is overheated.

Remind your patients
to drink before being thirsty.

In fact, when the sensation of thirst arises, the body is already slightly dehydrated.


** For a healthy sedentary adult living in temperate climate
*** One glass=20cl
To help them drink 8 glasses** of water per day, give them simple daily landmarks:

- upon waking
- in the evening
- during dinner
- arriving home
- in the afternoon
- morning break
- at lunch
- with a cup of coffee

2. Give them a tip to check their hydration level

Observing the colour of urine is an easy and rapid way to assess whether someone is properly hydrated\(^2,3\).

If urine is dark-coloured rather than pale yellow, it might mean that the patient is not drinking enough. The urine colour can be affected by certain foods, vitamin supplements or medical treatment.

** For a healthy sedentary adult living in temperate climate - one glass = 20cl
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