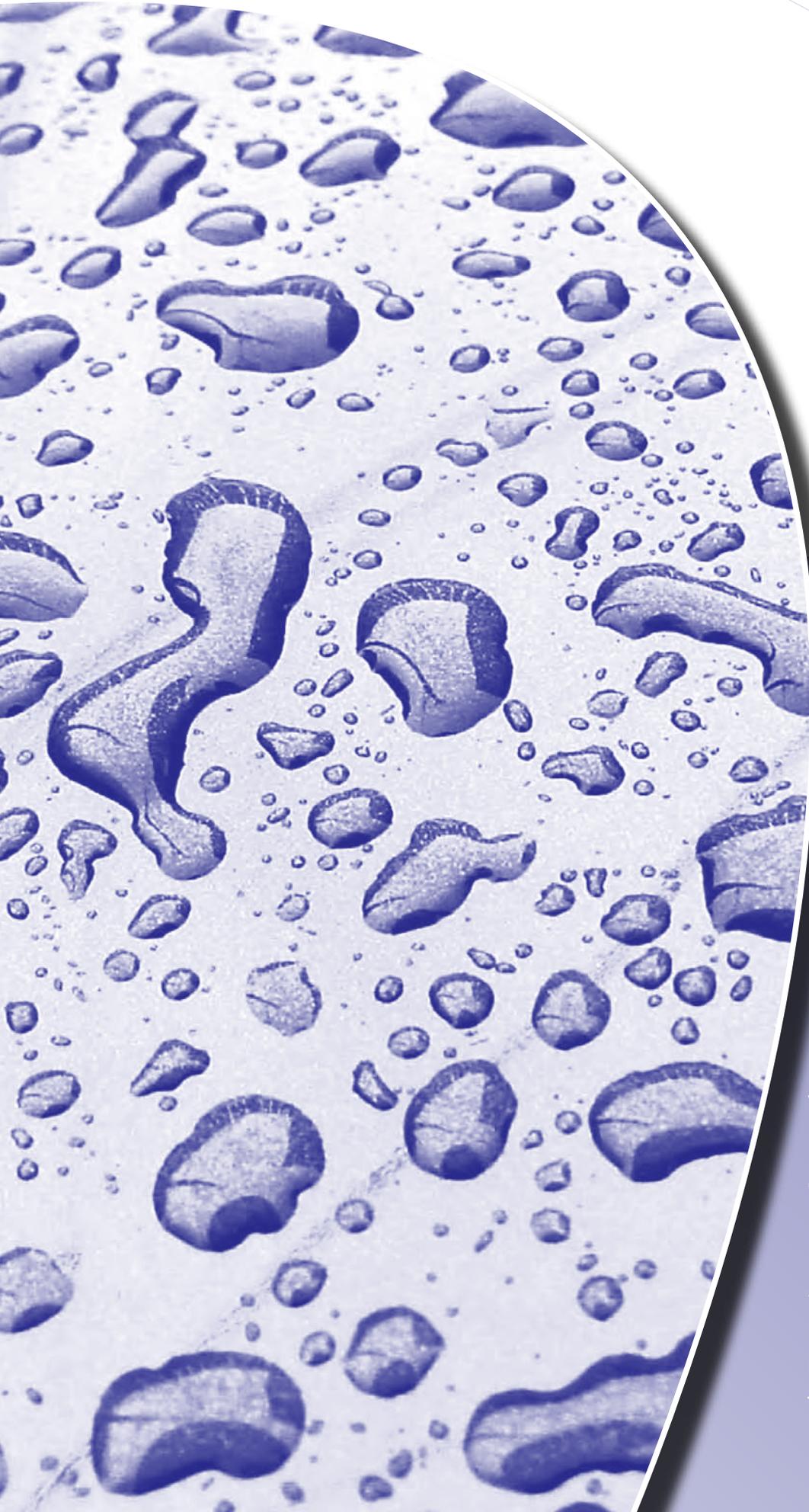




WATER UK



Water for Healthy Ageing

Hydration Best Practice
Toolkit for Care Homes

"Water is a basic nutrient of the human body and is critical to human life"

World Health Organization - Water Sanitation and Health (WSH)

This toolkit has been created as part of a resource to assist care managers, care caterers and other service providers to bring the benefits of improved water consumption to older people in care and to develop best practice. The work has been led by Water UK, The Royal Society for the Promotion of Health, The Royal Institute of Public Health and The National Association of Care Catering, in coordination and cooperation with The Commission for Social Care Inspection. The toolkit has been created through an alliance of care sector stakeholders who are acknowledged on the back page of this folder.

This toolkit contains factsheets, checklists and advice to enable you to improve water consumption with older people and care home staff. It contains:

- 1** Introduction to the toolkit
- 2** The health and economic benefits of providing water
- 3** 'Wise up on water!' Medical evidence for the health benefits of hydration
- 4** Frequently asked questions
- 5** Did you know? Facts about water as a nutrient
- 6** Practical tips for encouraging water consumption
- 7** Sample menu for providing adequate fluids within the care home
- 8** Review of existing care guidance – and recommendations
- 9** How good are your facilities? Facts and tips on providing fresh water
- 10** Hydration awareness quiz – for residents and staff
- 11** Hydration best practice - care home water audit

This toolkit is supported by a website with the information included here and further advice on achieving hydration best practice. Visit www.waterforhealth.org.uk to see:

- Care Home Survey from the Royal Society for the Promotion of Health
- Drinking water consumption surveys by MORI 2003 - 2005
- Wise up on water in your care home – statements from health and hydration professionals
- Guidance on installing and using mains-fed water coolers
- Directory of supporting water advice, research and information
- Hydration best practice – useful references

www.waterforhealth.org.uk

"Evidence is available of the positive impact that good hydration can have on general health, well being and quality of life. The Hydration Best Practice Toolkit will be useful to all care homes in improving their care provision."



Water and Healthy Ageing

Hydration Best Practice Toolkit for Care Homes

1 Introduction to the toolkit

Dear Colleague

I am delighted to provide you with a copy of this toolkit to encourage hydration best practice in the care of older people. This information has been produced by a team of health-based stakeholders to help you to protect the well being of your residents and staff and to promote healthy options in care.

Water is well known for its revitalising properties. Yet even though it is essential to health, it frequently gets overlooked as one of the six basic nutrients, along with carbohydrate, fats, vitamins, proteins and minerals. This can result in vulnerable individuals missing out on the support and guidance they need to help maintain a healthy level of hydration.

Strong evidence on drinking water

The medical evidence for good hydration in older people shows that it can assist in the management of diabetes and help prevent pressure ulcers, constipation, urinary infections and incontinence, kidney stones, heart disease, low blood pressure, cognitive impairment, falls, poor oral health, skin conditions and many other illnesses. Furthermore, dehydration has been shown to increase by two-fold the mortality of patients admitted to hospital with a stroke, and to increase the length of hospital stay for patients with community-acquired pneumonia.

Older people have a very similar water requirement to that of younger people. Their bodies require water constantly and all the important chemical reactions – such as the production of energy – take place in water.

Unfortunately, many older people do not drink adequate amounts of tap water. A conservative estimate for adults is that daily intake of fluids should not be less than 1.6 litres per day. A recent survey of water provision in UK care homes for older people, carried out by the Royal Society for the Promotion of Health, found that at best most residents only consumed 2 to 4 glass (480-960ml) a day.

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Future standards for care

As Care Standards now begin to recognise the clear benefits of hydration, it is likely that in the future care homes will be asked to ensure that fresh drinking water is available to residents throughout the day, free of charge. Carers can easily implement this in advance, as best practice. Clearly they have a vital role to play in supporting older, more dependent individuals in maintaining healthy levels of hydration. They can do this by ensuring that fresh tap water is made freely available and physically accessible day and night, as well as with meals. They should also be aware of an individual's need for water and encourage all residents to drink enough.

Total cost of care

Drinking tap water makes good economic sense for care homes on tight budgets. By helping to reduce incidences of some of the more common ailments, better hydration improves well being and can reduce the volumes of medicines that are required. It can also take away many hours of extra care time associated with illnesses and remove some of the higher cost of professional involvement needed to prescribe and administer treatment.

Research and taste tests have shown that where tap water is presented well and offered regularly, it will be drunk. As a primary nutrient, it will begin to play more of a role in nutritional care. Indeed, there are almost no conditions where water is not beneficial to the metabolism. As an alternative to less healthy options, it is the ideal solution.

A handwritten signature in black ink that reads "Pamela Taylor".

Pamela Taylor, Chief Executive, Water UK



Water and Healthy Ageing

Hydration Best Practice Toolkit for Care Homes

2 The health and economic benefits of providing water

Health benefits

Water is well known for its revitalising properties. Yet even though it is essential to health, it frequently gets overlooked as one of the six basic nutrients, along with carbohydrate, fats, vitamins, proteins and minerals. This can result in vulnerable individuals missing out on the support and guidance they need to help maintain a healthy level of hydration.

The medical evidence for good hydration in older people shows that it can assist in preventing or treating ailments such as:

- pressure ulcers
- urinary infections and incontinence
- heart disease
- diabetes (management of)
- dizziness and confusion leading to falls
- skin conditions
- constipation
- kidney stones
- low blood pressure
- cognitive impairment
- poor oral health

Furthermore, dehydration has been shown to increase by two-fold the mortality of patients admitted to hospital with a stroke and to extend the length of hospital stay for patients with community-acquired pneumonia.

Improving hydration brings well being and better quality of life for residents. It can allow reduced use of medication and prevent illness. It is good healthcare and dietary practice – and the right thing to do. Providing fresh water also demonstrates care of residents in a way that relatives and friends can see and enjoy.

Economic benefits – see over



Economic benefits

Encouraging the drinking of fresh water makes good economic sense for care homes on tight budgets. By helping to reduce incidences of some of the more common ailments, better hydration improves well being and can reduce the volumes of medicines that are required. It can also take away many hours of extra care time associated with illnesses and remove some of the higher cost professional involvement needed to prescribe and administer treatment.

Drinking more water may indeed encourage residents to go to the toilet more often, but the investment in staff time can be regained through residents regaining a healthy toilet function, fewer soiling incidents, prevention of urinary tract infections, less need for time-consuming enemas and less need for laxative products. The medicines that remain are proven to work more effectively when the patient is properly hydrated.

It is not often that a healthy option proves to be a cheaper solution, but taking drinking water from the tap is highly cost-effective. Available at around one tenth of a penny for each litre, tap water is as much as one thousand times cheaper as a drink than less healthy sugary and caffeinated options. Where residents can be encouraged to choose the healthy option and consume fresh water, care homes can save directly on the costs of purchasing, storing and supplying more expensive drinks. Tap water in the UK is of the highest quality and is safe to drink. The costs of implementing good hydration and nutritional practice are more than balanced by the lower maintenance costs of healthier people.



Wise up
on water!

Hydration and
healthy ageing

Introduction

Water is well known for its revitalising properties. Yet even though it is vital to health, it frequently gets overlooked as an essential nutrient. This can result in vulnerable individuals missing out on the support and guidance they need to maintain a healthy level of hydration.

Older people are a diverse group with individual needs, desires, and aspirations, which include maintaining their own health and fitness. As we get older our body's needs and health concerns change due to an increasing susceptibility to degenerative disease.¹ Water can make a valuable contribution to health in old age.

Water requirements

Older people have very similar water requirements to those of younger adults. Although there is currently no agreed recommended daily intake level for water in the UK, estimates range from approximately 1.2 litres² to 3.1 litres per day.³ A conservative estimate for older adults is that daily intake of fluids should not be less than 1.6 litres per day.⁴ Unfortunately, many older people do not drink adequate amounts of water. A recent survey of water provision in UK care homes for the elderly found that most residents only consumed 2-4 glasses of water per day (480-960ml).⁵

Age as a factor in poor hydration

The two dietary sources of water are food and drink. About 80 per cent comes from drinks and 20 per cent is contained in food.³ Some older people, however, have diminished appetites or poor nutrition and may miss out on the valuable component of their fluid intake contained in food.⁶

The kidneys play a vital role in regulating the amount of fluid in the body, but their function deteriorates with age. Age-related changes, such as alterations in hormone levels, also mean that water balance takes longer to be restored even after a drink has been consumed.⁷ Although fluid balance can usually be maintained under normal circumstances, dehydration can occur as a result of:

- cognitive impairment
- changes in functional ability
 - medication such as laxatives, diuretics or hypnotics
 - illness, or
 - stress arising from other factors.⁸

In addition, thirst, the body's natural response to dehydration, has been shown to be impaired in older people.⁹ Patients with stroke or those who are suffering from Alzheimer's disease may be particularly insensitive to thirst.¹⁰

'Tis a little thing
To give a cup of water; yet its draught
Of cool refreshment, drain'd by fever'd lips,
May give a shock of pleasure to the frame
More exquisite than when nectarean juice
Renews the life of joy in happiest hours.

Sir Thomas Noon Talfourd (English dramatist, poet and jurist
(1795 - 1854), Ion (act I, sc. 2), (Sonnet III)



Benefits of good hydration

Some of the medical evidence for the benefits of good hydration in older people is summarised below.

Pressure ulcers: Poorly hydrated individuals are twice as likely to develop pressure ulcers because dehydration reduces the padding over bony points.¹¹ Fluid intake to correct impaired hydration, increases levels of tissue oxygen and enhances ulcer healing.¹²

Constipation: Inadequate fluid intake is one of the most frequent causes of chronic constipation.¹³ It is more frequent in incapacitated or institutionalised older people, affecting some 42 per cent of patients admitted to geriatric wards.¹⁴ In individuals who are not adequately hydrated, drinking more water can increase stool frequency and enhance the beneficial effect of daily dietary fibre intake.¹⁵

Urinary infections and continence: Water helps maintain a healthy urinary tract and kidneys. Maintaining adequate hydration levels, rather than high fluid intake, per se, is important in the prevention of urinary tract infection.¹⁶ Many older people are loath to drink during the evening to eliminate the need to go to the toilet during the night. Evidence shows, however, that the restriction of overall fluid intake does not reduce urinary incontinence frequency or severity.¹⁷

Kidney and gallstones: Good hydration can reduce the risk of kidney stone formation by 39 per cent because dilute urine helps to prevent crystallization of stone-forming salts.¹⁸ Consumption of water at regular intervals can also help by diluting bile and stimulating gallbladder emptying, which in turn helps to prevent gallstone formation.¹⁹

Heart disease: Adequate hydration reduces the risk of coronary heart disease by 46 per cent in men and 59 per cent in women. It also protects against blood clot formation by decreasing blood viscosity.²⁰

Low blood pressure: Many older people suffer a drop in blood pressure on standing, which sometimes causes them to pass out. Drinking a glass of water five minutes before standing helps stabilise blood pressure, and prevents fainting.²¹

Diabetes: Water is an essential part of the dietary management of diabetes since dehydration can worsen diabetic control.³ In poorly controlled diabetic individuals, high urine output can increase the risk of dehydration.²² Good hydration levels also help to slow down the development of diabetic ketoacidosis during insulin deficiency in Type 1 diabetes, and help maintain healthy blood sugar levels.²³

Cognitive impairment: Dehydration adversely affects mental performance. Symptoms of mild dehydration include light-headedness, dizziness, headaches and tiredness,²⁴ as well as reduced alertness and ability to concentrate.^{25,26} Once thirst is felt (0.8-2 per cent dehydration²⁴), mental function may be affected by as much as 10 per cent.²⁵ Mental performance deteriorates progressively as the degree of dehydration increases. In older people this impacts on cognitive function leading to increasing frailty, functional decline, and a reduction in the quality of life.²⁷

Falls: The risk of falls increases with age and in older people this can result in injury and fractures. A broken hip, for example, can lead to a reduced quality of life, over and above the trauma and hurt. Such individuals rarely get back to the same degree of independent living as they enjoyed before they fell.²⁸ Dehydration has been identified as one of the risk factors for falls in older people, since it can lead to a deterioration in mental state, and increase the risk of dizziness and fainting. The maintenance of adequate levels of hydration in older people could be effective in preventing falls, particularly as part of a multifactorial falls prevention strategy.²⁹ In addition, in hard water areas, tap water provides a significant proportion of dietary calcium, which is essential for good bone mineral density and the prevention of osteoporosis and fractures.³⁰

Hospitalisation in older people: Dehydration has been shown to increase by two-fold the mortality of patients admitted to hospital with stroke. It also increases the length of hospital stay for patients with community-acquired pneumonia.³¹

Skin: Being well hydrated is a good way to keep skin healthy and young-looking. The skin acts as a water reservoir and participates in fluid regulation for the whole body. Mild dehydration causes skin to appear flushed, dry and loose, with a loss of elasticity, which makes it look older than it is. The effects of dehydration on the skin are more noticeable on the face, than on the lower limbs.^{24,32,33}

The role of carers

Carers have a vital role in supporting older, more dependent, individuals to maintain healthy hydration levels. They can do this by ensuring that fluids are freely available and physically accessible both day and night as well as with meals. They should be aware of the individual's need for fluid and encourage them to drink. Many types of foods contain a substantial amount of water. If an older person finds it difficult to increase the amount of fluid drunk, it may be possible to help maintain adequate hydration levels by increasing the amount of moisture consumed in foods, such as fruit and vegetables which are about 80-90 per cent water.⁶

Further information can be obtained from:

Water UK, Water for Health, *Ask about ...*

<http://www.water.org.uk/home/resources-and-links/water-for-health/ask-about>

Written by Hilary J Forrester, Independent Researcher and Senior Policy Executive, Science & Education, BMA

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WATER UK

Water UK represents UK water and wastewater service suppliers at national and European level.

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www.waterforhealth.org.uk



Wise up
on water!

Water and cancer
prevention

Introduction

Next time you feel thirsty - have a drink of water. Not only will you be quenching your thirst, but you will also be helping to protect yourself against three of the biggest killer cancers.

During our lifetime one in three of us will be diagnosed with cancer and one in four will die from cancer. Of the many different types of cancer, the four most common are cancer of the breast, lung, large bowel and prostate. These four alone account for over half of all cases diagnosed. They are also reflected in the most common causes of cancer death. In 2002, 22 per cent of all cancer deaths were from lung cancer, followed by cancer of the large bowel (10 per cent), breast cancer (8 per cent), and prostate cancer (6 per cent).¹ Research suggests that drinking enough water every day, could reduce your risk of developing cancer of the large bowel, breast and prostate.

Cancer of the large bowel

Large bowel cancer, or colorectal cancer, is the third most common cancer in men, and the second most common cancer in women in the UK. Every year there are 18,500 new cases of colorectal cancer in men, and over 16,000 cases in women.²

Water plays a major role in digestion and gut function and yet it is frequently overlooked in studies considering diet and the risk of cancer of the large bowel. Three studies in which the effect of water was considered, found that people who maintained good levels of hydration had a reduced risk of large bowel cancer compared with people whose water intake was low. The extent to which the cancer risk was reduced varied between the studies. In one study, the risk of colon cancer was reduced by 45 per cent in women and 32 per cent in men who drank four or five glasses of water per day, compared to those who drank only two or less glasses per day.³ In the other two studies the protective effect was found to be greatest for men, with risk reductions for rectal cancer of 92 per cent⁴ and for colorectal cancer 42 per cent.⁵ The studies support the potential beneficial effect of adequate water intake in reducing colorectal cancer risk.

One explanation as to why good hydration protects against large bowel cancer is that water may help to dilute toxic compounds in the bowel and speed up the passage of stools so that any harmful substances (carcinogens) spend less time in contact with the bowel lining.

The cancer-protective benefits do not appear to be due to the source of water consumed, but it is possible that other unidentified lifestyle or dietary factors are relevant.⁶

Breast cancer

Breast cancer claims the lives of over 13,000 women a year – 8,000 pre-menopausal women are diagnosed, of which 15 per cent are from the 20-30 age group.⁷ Most women would welcome any opportunity to reduce their chances of developing breast cancer. Drinking

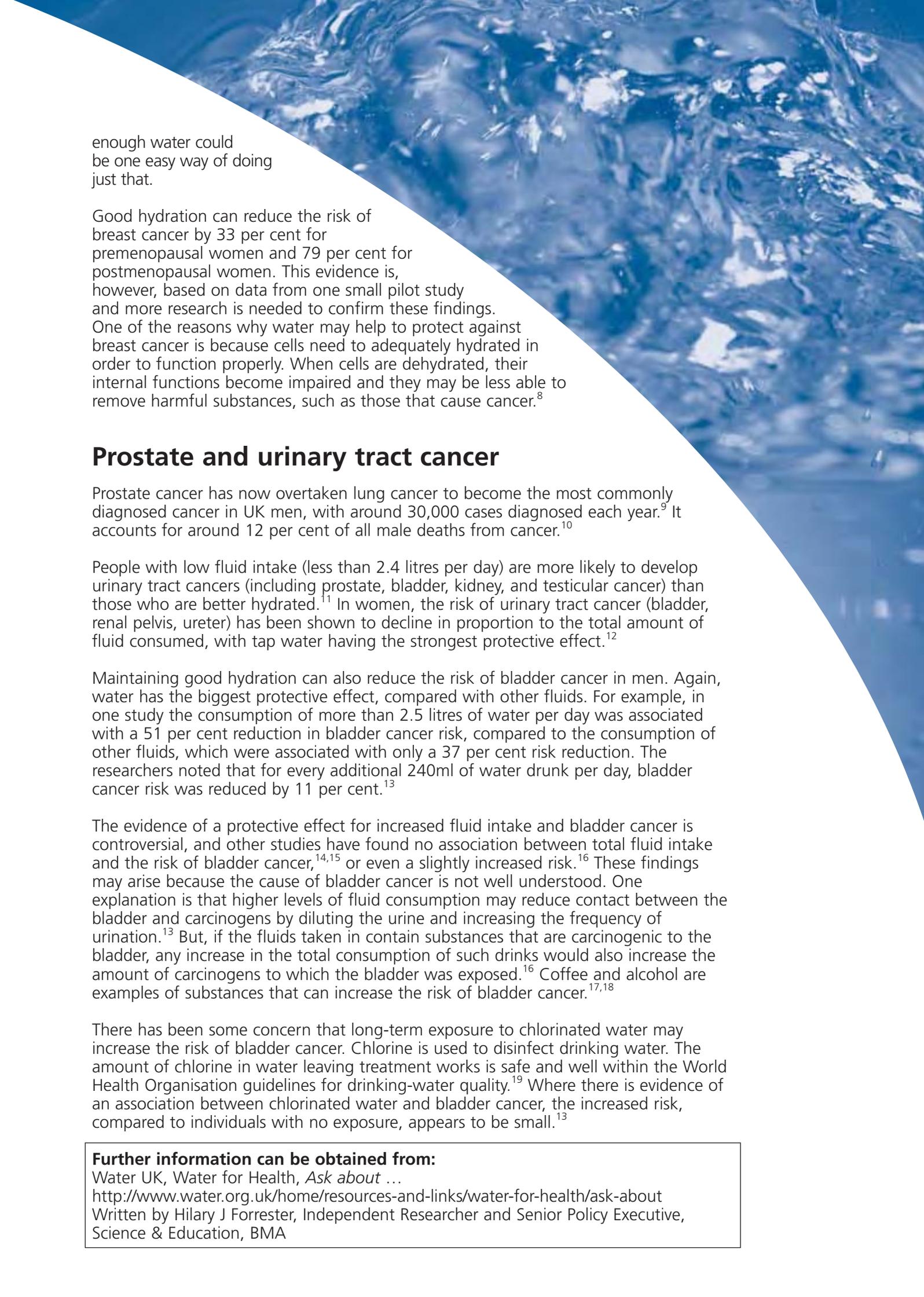


- 1** On a sedentary day, try to drink around two litres of water.
- 2** Start by drinking a glass of fresh water when you get up in the morning.
- 3** If you are not used to drinking water regularly, try initially replacing just one of your other drinks a day with fresh water, increasing your consumption as the weeks go by.
- 4** Ask for a glass of tap water to go with your coffee and tea in cafes.
- 5** Drink a glass of water before and during each meal.
- 6** Hot water with a piece of fruit in - like lemon, lime, orange etc.- often helps those who want a hot drink.
- 7** Carry a bottle filled with chilled tap water with you whenever you leave the house.
- 8** During exercise, drink at 10 to 15 minute intervals or think of it as a full glass every 30 minutes - drink slowly and drink early, it's physically easier to do this when you are still feeling fresh.
- 9** Keep a check on your urine. As a general guide to hydration, it should be plentiful, pale in colour and odourless.
- 10** Ask for a jug of iced tap water with your meal when in restaurants and with your alcohol when in bars – good establishments will be happy to provide this.

All relevant medical practice and care guidance must be observed before considering these suggestions.

In conclusion ...

The benefits of good hydration to protect against cancer have not been well studied and the current findings are considered to be inconclusive.⁶ More research is urgently needed in this area. The evidence that does currently exist, suggests that good hydration makes good sense as part of a healthy lifestyle. Most of us would agree that any opportunity to protect ourselves against three of the biggest cancer killers would be well worth taking.



enough water could be one easy way of doing just that.

Good hydration can reduce the risk of breast cancer by 33 per cent for premenopausal women and 79 per cent for postmenopausal women. This evidence is, however, based on data from one small pilot study and more research is needed to confirm these findings. One of the reasons why water may help to protect against breast cancer is because cells need to be adequately hydrated in order to function properly. When cells are dehydrated, their internal functions become impaired and they may be less able to remove harmful substances, such as those that cause cancer.⁸

Prostate and urinary tract cancer

Prostate cancer has now overtaken lung cancer to become the most commonly diagnosed cancer in UK men, with around 30,000 cases diagnosed each year.⁹ It accounts for around 12 per cent of all male deaths from cancer.¹⁰

People with low fluid intake (less than 2.4 litres per day) are more likely to develop urinary tract cancers (including prostate, bladder, kidney, and testicular cancer) than those who are better hydrated.¹¹ In women, the risk of urinary tract cancer (bladder, renal pelvis, ureter) has been shown to decline in proportion to the total amount of fluid consumed, with tap water having the strongest protective effect.¹²

Maintaining good hydration can also reduce the risk of bladder cancer in men. Again, water has the biggest protective effect, compared with other fluids. For example, in one study the consumption of more than 2.5 litres of water per day was associated with a 51 per cent reduction in bladder cancer risk, compared to the consumption of other fluids, which were associated with only a 37 per cent risk reduction. The researchers noted that for every additional 240ml of water drunk per day, bladder cancer risk was reduced by 11 per cent.¹³

The evidence of a protective effect for increased fluid intake and bladder cancer is controversial, and other studies have found no association between total fluid intake and the risk of bladder cancer,^{14,15} or even a slightly increased risk.¹⁶ These findings may arise because the cause of bladder cancer is not well understood. One explanation is that higher levels of fluid consumption may reduce contact between the bladder and carcinogens by diluting the urine and increasing the frequency of urination.¹³ But, if the fluids taken in contain substances that are carcinogenic to the bladder, any increase in the total consumption of such drinks would also increase the amount of carcinogens to which the bladder was exposed.¹⁶ Coffee and alcohol are examples of substances that can increase the risk of bladder cancer.^{17,18}

There has been some concern that long-term exposure to chlorinated water may increase the risk of bladder cancer. Chlorine is used to disinfect drinking water. The amount of chlorine in water leaving treatment works is safe and well within the World Health Organisation guidelines for drinking-water quality.¹⁹ Where there is evidence of an association between chlorinated water and bladder cancer, the increased risk, compared to individuals with no exposure, appears to be small.¹³

Further information can be obtained from:

Water UK, Water for Health, *Ask about ...*

<http://www.water.org.uk/home/resources-and-links/water-for-health/ask-about>

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Water UK represents UK water and wastewater service suppliers at national and European level.

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Water and Healthy Ageing Hydration Best Practice Toolkit for Care Homes

4 Frequently asked questions

Q1. After their lifelong experience of drinking tea and coffee rather than water, how can I get my residents to enjoy and ask for water?

A1. Of course it is a free choice if a resident will not consume water, but increasing consumption is often just a matter of good presentation of tap water, and carers can and should set the tone. Often residents will agree to make improved health choices if they are helped to understand the benefits. Have a look at the facts and tips included in this toolkit for ideas (*factsheet 9*). Do remember that one of the reasons for leading change is that nowhere in public health guidance will you find caffeinated, high-sugar soft drinks and fizzy drinks recommended.

Q2. How should I serve tap water to make it taste as good as possible?

A2. Taste tests have shown that tap water is enjoyed when it is served cool – not too cold, not warm – and that it must be fresh. If clear water is not enough and it's a question of adding a taste, simply adding a flavoured ice cube, a fresh sprig of mint or a slice of fruit will often lift the visual and taste sensation. Serving tap water through water coolers can make a feature of water provision, and it allows the water to be served chilled or at a regular temperature. Be cautious when offering squash or cordials. They are very useful when they are well diluted and fortified (i.e. with Vitamin C), and they can be provided sugar-free. However, avoid serving strong, high-sugar solutions – they can often become too strong before they are the required taste for a resident's palate.

Q3. What can I do if residents insist on drinking mostly hot drinks?

A3. That's fine as long as they are drinking plenty of appropriate fluids. For hot drinks, promoting hot water with pieces of fruit in it works well. If you feel you have to provide other drinks, avoid strong and caffeinated drinks and offer caffeine-free and low-sugar options instead. Quality of life is vital, so it is not a case of drinking water or drinking nothing, but it is important that residents, and indeed staff and visitors, have access to healthy options. At one tenth of a penny for each litre, tap water will also drastically cut your home's expenditure on less healthy drinks.

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Q4. Is tap water safe to drink?

A4. Yes. The UK mains tap water supply is totally safe to drink and of extremely high quality – one of the best in the world. In taste tests across the UK, people can rarely tell the difference between bottled water and tap water if they are served the same way (fresh and cool). Always make sure that the tap water you are serving is fresh from the mains and not from stored water tanks. If in doubt about the water quality in your building, always check with your local water company first.

Q5. Do I need to filter or treat my tap water before I serve it to drink?

A5. No. The tap water you receive is carefully monitored and tested and is supplied ready to drink straight from the tap. Sometimes filters will polish the taste slightly, but the same effect can normally be achieved by leaving the water to stand. Adding a little ice or chilling the water in the fridge will help take away any chlorine taste.

Q6. If my residents drink more water, will they have an increased toilet function?

A6. Yes, for a while, and that's a very positive change. Residents will use the toilet more often if they drink more, and while there are perceived problems in the extra effort of going more often, there is also a lack of awareness of the serious ill-effects of not drinking enough and not going to the toilet enough. Residents can be embarrassed to make it known that they need to go to the toilet, but when shown the health facts, they can see that it can be more embarrassing and traumatic to suffer the effects of poor hydration, such as falls, bed-wetting, bedsores, urinary tract infections (UTIs) and many other conditions.

As a guide, try not to provide late night drinks (after 6pm). Instead, start residents drinking early with a fresh glass of water. Promote the fact that water 'flushes through' the system and helps to prevent kidney stones, UTIs and constipation. Increased toilet function may also help reduce the need for medication. For more information, see the medical evidence on the leaflets '*Wise up on water!*' that are included in this toolkit.

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Q7. How do I provide for residents who cannot serve themselves?

A7. Residents should be given access to fresh tap water throughout the day so that they can drink as often as they wish. This is especially important for those who cannot choose to serve themselves and those who have an impaired thirst response. Providing options for residents to help themselves is vital. There are many ways to achieve this, including providing regular covered jugs of fresh tap water at bedsides and tables, having mains-fed water coolers at accessible heights, serving water regularly and giving residents their own water vessels. When providing water as a beverage, residents will want a dignified way of taking their drink. Paper cups, plastic cups, drinking tubes and larger sports bottles are often unappealing. Above all, however, make sure that even the least mobile have access to healthy choices.

Q8. To save water wastage, should I wait until the water jugs are empty before I serve more water?

A8. No. There are many ways to save water in the care home, but hanging on to unappetising water is not one of them. Keep changing the jugs regularly (at least three times a day – before each meal, and more if possible) so that drinking water is always available, appealing, fresh and cool. The left over tap water from the jugs can be put to excellent use in watering residents' gardens, topping up vases of flowers and maintaining lawns. Ten litres of tap water will only cost you around one penny, so refill as often as you can.

Q9. Is there proof that introducing positive hydration will benefit residents and the operation of the care home?

A9. Yes. Water is an essential nutrient and dehydration is frequent in the elderly. As you will find in this toolkit, there is evidence that improving water intake:

- reduces constipation and subsequent medication
- reduces confusion (with reduced risks of falls and fractures)
- reduces headaches
- reduces urinary tract infections
- improves skin integrity and reduces the risk of pressure sores
- improves blood pressure
- reduces consumption of unhealthy caffeine, alcohol, soft drinks and sparkling drinks
- reduces the cost of providing other commercial beverages.

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Q10. How much water should residents drink?

A10. The most helpful answer is “more than they do now”. Surprisingly, while we know a great deal about the requirements of the other main nutrients (fats, proteins etc.), the government does very little to promote our primary nutrient. Most professionals agree that around 8 decent-sized glasses a day is about right. That’s around 2 litres. What we do know is that most people, especially older people, drink nowhere near that amount, and mild dehydration is very common. It is vital to encourage older people (and staff) to drink more. Within reason and with a balanced diet, it is difficult to drink too much water.

Q11. Is it true that the colour of urine can be used as a guide to how much water to drink?

A11. As a general rule, this is a very useful guide to good hydration. Urine that is plentiful, odourless and pale in colour generally indicates that a resident is well hydrated. Dark, strong-smelling urine could be a sign of too little water. However, since a few medical conditions, certain medicines and some vitamins can add colour to urine, it is best to use this method only as a guide. Monitoring fluid intake is definitely the best way forward.

Q12. What is the recommendation for drinking water provision in the Care Standards?

A12. At this time, Care Standard 15 only recommends that hot and cold drinks and snacks be available throughout the day and offered regularly (*factsheet 8*). It is likely that this will change to include water provision when the Standard is reviewed in 2006. This toolkit has been produced to help develop best practice outside of regulations and standards. Drinking enough water is fundamental to good health and dietary practice. It is the right thing to do for the well being of residents and staff.



Water and Healthy Ageing

Hydration Best Practice Toolkit for Care Homes

5 Did you know?

Facts about water as a nutrient

- Water is the main constituent of the body and forms 50-60% of body weight and around 75% of volume. The exact amount varies with age and sex and also depends on body fat content.
- Water contains no fats, no proteins, no carbohydrates and therefore no calories.
- Water is the perfect complement for a nutritionally balanced meal.
- There are no health advantages to drinking expensive bottled water instead of water from your tap.
- Even in the absence of any visible perspiration, approximately half of water loss occurs through the operation of our lungs and skin.
- If you enjoy doing exercise to burn off fat and keep trim, there is little point working off the calories just to replace them with high-sugar energy drinks. When you exercise for an hour or less, cool fresh water is the only drink you need. A suitably balanced diet will take care of the rest.
- Remember that sugar slows down the rate at which water can be absorbed from the stomach.
- Fresh tap water does not need to be filtered or treated in any way.
- Water is one of the six basic nutrients. It is widely seen as the most important because the body requires it constantly and all the important chemical reactions – such as the production of energy – take place in water.
- 10 litres of tap water costs around one penny – that can be as much as 1,000 times cheaper than soft drinks, caffeinated drinks and bottled water.

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- Simply breathing in and out uses more than a pint of water a day. Without water, you would only expect to live for around one week.
- Tap water quality in the UK is among the highest in the world.
- Drinking water helps keep the body flushed of waste products.
- Strange as it sounds, drinking more water actually helps to reduce water retention.
- We each use around 150 litres of water a day, but national surveys show us that we currently drink as little as one litre – that's around half the amount we need.
- We lose lots of water when we suffer from diarrhoea, sickness or infections that cause a fever. It is vital to drink more water then.
- Tap water tastes best when it is served fresh and cool. Keep tap water in a jug in the fridge for an instant cold drink.
- It is generally recommended that adults should drink around two litres of water daily and considerably more when they perform exercise and/or the weather is hot. 6-8 good-sized glasses of water a day should give you this amount.
- Being well hydrated helps medicines to work more effectively and helps combat the diuretic effect of some medicines.
- If your tap water tastes of chlorine, put it in the fridge or leave it to stand for a short while and the taste will go.
- Of the total amount of water on the planet, just 3% is fresh water. Much of that is currently frozen, leaving just 1% available to drink.
- When the body is not adequately hydrated, it responds by conserving its stocks, shifting water to where it is most needed and causing thirst.
- Fluid loss corresponding to 2.5% of body weight has been shown to reduce an athlete's physical performance capacity by 45%.
- For the price of one cup of coffee (£1), you can drink the equivalent of 1,000 litres of tap water.
- Water is the drink of choice for protecting your teeth and gums.



Water and Healthy Ageing Hydration Best Practice Toolkit for Care Homes

6 Practical tips for encouraging water consumption

- 1.** Start by encouraging your team to develop a policy on how you will provide water for your residents.
- 2.** To remind carers to encourage water intake for those at higher risk, hang a picture of a drop of water in kitchens and near residents' beds.
- 3.** Older people may need to be reminded, encouraged and even convinced to drink more water. Using a positive approach often helps. "Here is some nice cool refreshing water for you" is often more productive than "Do you want something to drink?"
- 4.** Water is best served fresh and cool – not left in open jugs.
- 5.** Many people prefer to drink 'little and often'. Try to offer water at mealtimes and between meals.
- 6.** Those in care tend to drink all the water in their glass when they are swallowing their tablets. Offering slightly larger volumes of water at this time encourages them to drink more.
- 7.** Serve small quantities of water alongside coffee and tea and explain why it would be beneficial to drink more water.
- 8.** Residents often worry about increased toilet visits in the night, so avoid late evening drinks. Encourage water consumption from when residents wake in the morning.
- 9.** Older people can lose their thirst response and their taste sensation. Never take it for granted that they will know when they need to drink.
- 10.** Where possible, inform families and friends about the importance of promoting hydration when they visit. They can help in meeting that important hydration target.

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- 11.** For trips and for use in outside areas, providing residents with a personal water bottle can help. These are easy to carry, to clean and to refill, and can be marked clearly with the resident's name.
- 12.** During activities or group events, try serving glasses of cool water with slices of lemon and ice cubes at each resident's table place when they begin. Make sure you keep refilling their glasses as the event goes on, so they can drink little and often. By providing citrus fruit with water, you are also helping the consumption of Vitamin C.
- 13.** Hot water with a piece of fruit – such as lemon, lime or orange – can appeal to those who want a hot drink.
- 14.** Encourage residents to participate in growing fresh mint, lemon verbena and lemon balm in the garden, if possible. Add sprigs – freshly bruised – to a pot of hot water or to jugs of cold water. It makes a fresh-tasting drink and has an appetising aroma.
- 15.** As the weather gets warmer, increase the availability of drinking water and encourage residents to drink more. Older people perspire more in warmer weather.
- 16.** Offer water and fluids at all mealtimes. Make sure that those who are less able can choose to drink.
- 17.** In the dining room, use different coloured napkins for those who are at specific risk and need their water intake monitored. Make sure that all staff are aware of the colour used.
- 18.** Have fun when explaining why water is good for you. Encourage local primary schools to come in and present the health benefits of drinking water to residents and staff. Water is now a central part of the government's Healthy Schools programme.
- 19.** Think of an easy counting system to help those with mild memory problems, confusion or dementia to consume enough water.
- 20.** Persevere! Helping people to recognise and choose healthy options will take time and patience.

These suggestions are unattributed and have kindly been offered by care home managers, caring teams, catering staff, nurses, dieticians and related charities. All relevant medical practice and care guidance must be observed before considering these suggestions. Suggestions are reproduced with the kind permission of the Royal Institute of Public Health, Kingston Hospital, Quantum Care Homes, Leicestershire County Council, Water UK and the National Association of Care Catering.



Water and Healthy Ageing Hydration Best Practice Toolkit for Care Homes

8 Review of existing Care Guidance – and recommendations

This factsheet provides information on advice currently available to carers and makes recommendations on how this can be developed to achieve best practice.

- **The key Care Standard for this area is Care Standard 15 of the *National Minimum Standards – Care Homes for Older People*.**
- **The current best practice guidelines are contained in the Caroline Walker Trust second edition of *Eating Well for Older People*.**

Care Standard 15

Care Standard 15's expected outcome is that "service users receive a wholesome appealing balanced diet in pleasing surroundings at times convenient to them".

Recommendation: wholesome, fresh water should be included as a central part of this diet.

15.1 requests that "the registered person ensures that service users receive a varied, appealing wholesome and nutritious diet, which is suited to individual assessed and recorded requirements, and that meals are taken in a congenial setting and at flexible times".

Recommendation: as a primary and essential nutrient, fresh drinking water should be made available as part of a varied, appealing, wholesome and nutritious diet and its consumption encouraged throughout the day.

15.3 indicates that "Hot and cold drinks and snacks are available at all times and offered regularly".

Recommendation: as Care Standards now begin to consider the clear benefits of drinking water, it is likely that in the future care homes will be asked to ensure that fresh drinking water is available to residents throughout the day, free of charge.

Dehydration occurs regularly in older people. While resident choice for other drinks is a must, we must consider that there is nowhere in general public health guidance that you will find caffeinated,

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high-sugar soft drinks and fizzy drinks ever recommended. Unfortunately, many of the hot drinks currently on offer contain diuretics and make the body urinate. As a source of caffeine, they also act as a stimulant and can affect a resident's ability to relax and to sleep. With care homes now investing such great effort and resources into creating a calm and relaxing environment, you may find it helpful to consider providing alternatives to caffeinated drinks.

15.9 asks that "Staff are ready to offer assistance in eating where necessary, discreetly, sensitively, and individually, while independent eating is encouraged for as long as possible".

Recommendation: staff should also consider extending this guidance to ensure that residents are encouraged and reminded to drink appropriately.

Carers can obtain further recommendations on implementing the regulatory standard from the National Association of Care Catering 'National Minimum Standards for Care Catering (Care Homes for Older People)'. This can be sourced at www.thenacc.co.uk

Eating Well for Older People

The Caroline Walker Trust second edition of *Eating Well for Older People* recommends: "A regular and adequate intake of fluids is extremely important for older people" and that "older people should aim to drink about eight cups of non alcoholic fluid a day" (just over 2.5 pints or 1.5 litres).

The guidance suggests that water should be part of menu planning for the two main meals of the day – lunch and the evening meal.

Recommendation: this is an excellent recommendation, and one that would be simple to progress to best practice by simply ensuring that fresh cool tap water is available from the time the resident is awake, and that it is included as an additional healthy option with every meal and snack.

The Caroline Walker Trust guidance suggests that residents should be offered additional drinks after meals so that they achieve the 8 cups of fluid a day.

Recommendation: another piece of reliable guidance. It is important to offer fresh tap water as one of the additional drinks and explain to residents why this is a healthy option. Many residents may only think of caffeinated or sugary drinks unless the benefits of hydration are explained and well presented water is available.

The Caroline Walker Trust guidance explains that tea and coffee are sociable and relatively cheap drinks, while fruit squashes could also be used to improve fluid intake.

Recommendation: while water is clearly stated as an option in menu planning, it is unfortunately not included as an option in the section on fluids (Chapter 4, p. 38). Drinking water is an important nutrient for the body, vital to life. Any guidance for fluid provision should recognise water as the primary nutrient and propose methods of implementing water in hydration best practice.



Water and Healthy Ageing Hydration Best Practice Toolkit for Care Homes

9 How good are your facilities? Facts and tips on providing fresh water

Take a look at your existing drinking water facilities to make sure they are appropriate. Photocopy this checklist and tick the boxes if you meet these statements.

How good are your facilities?

- We have specific facilities available for providing drinking water
- The facilities we have can provide enough fresh water, when it is needed, for all the residents and staff in our care home
- Facilities are in safe and suitable areas for residents
- Facilities are regularly cleaned and well maintained
- Residents have access to water throughout the day, free of charge
- Able bodied residents serve themselves
- Less able bodied residents serve themselves
- Clean cups and vessels are provided
- I would be happy to drink solely from these facilities every day
- Our facilities are supplied with fresh tap water and labelled as such
- The water we are offering the residents tastes fresh and palatable
- I have tasted it myself

How did you do? Is fresh and wholesome water available to your residents throughout the day?

Format supplied courtesy of ERIC (www.enuresis.org.uk). Additional material courtesy of the Royal Society for the Promotion of Health, Department of Health, Northumbrian Water, The Welsh Assembly, The Scottish Executive, The European Point of Use Drinking Water Association, Royal Institute of Public Health, National Association of Care Catering, Leicestershire County Council and South Staffordshire Water.

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Facts and tips on providing fresh water

- The UK mains drinking water supply is safe to drink and of extremely high quality. Through strict regulation, the UK has one of the highest quality tap waters in the world.
- Make sure you always take your drinking water fresh from the mains water supply. Check that all staff and residents understand what this means.
- Avoid taking drinking water from taps that are fed by storage systems and tanks (see above).
- Normally, the tap in the kitchen will be the one providing fresh, wholesome, cool, mains-fed water.
- Provide a variety of beverage options for residents to help themselves, and support these with served water (see menu suggestions, *factsheet 7*).
- If you choose to use water coolers, mains-fed cooler systems are the most sustainable. They don't run out, they remove health and safety concerns regarding lifting and changing of bottles, and they save the inconvenience of storing bottles.
- Mains-fed water coolers are also the best option for saving money. Water from bottled-fed machines can cost £6 for each 19 litre bottle or around £1,000 each year to run each machine. The cost of supplying mains-fed water would be less than 2p for each 19 litres.
- Consider purchasing water coolers that serve both chilled water and water at its natural temperature.
- If you are not sure whether your water supply is safe or wholesome, contact your local water company or the Drinking Water Inspectorate. Contact details are available through the web pages supporting this toolkit – www.waterforhealth.org.uk

How good are your facilities? Turn over the page to use the toolkit checklist.



Water and Healthy Ageing

Hydration Best Practice Toolkit for Care Homes

10 Hydration awareness quiz – for residents and staff

Photocopy this sheet and tick off your answers. Correct answers are given over the page.

What is the chemical name for drinking water?

- H₂O
- C₃PO
- He₃

How many glasses of water should you drink each day for good health?

- 1-2
- 3-4
- 6-8

How much of your body is made up of water?

- 75%
- 40%
- 15%

How long can you live without water?

- About one week
- About one month
- About one year

What is another name for water that is safe to drink?

- Portable
- Potable
- Passable

For the price of one cup of coffee, how many litres of fresh drinking water can you get directly from your tap?

- 1 litre
- 10 litres
- 100 litres
- 1,000 litres (or more)

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Which drink would be best to drink to protect your teeth and gums?

- Fizzy cola
- Coffee
- Water

How should you drink your daily water intake?

- All at once
- Little sips regularly
- Big mouthfuls

How much water does simply breathing in and out use up each day?

- A pint
- A glass
- A bathful

Which of these is not a sign of dehydration?

- Headache
- Irritability
- Tiredness
- Sprained ankle

We get some water from our food and drink. From which of the following should we not get our water intake?

- Decaffeinated tea
- Weak squash
- Fruit juice
- Alcohol

What is the ideal colour for urine to be if you are well hydrated?

- Light brown
- Dark yellow
- Pale yellow/clear

Answers: H₂O, 6-8 glasses, 75%, About one week, Potable, 1,000 litres (or more), Water, Little sips regularly, A pint, Sprained ankle, Alcohol, Pale yellow/clear.



Water and Healthy Ageing Hydration Best Practice Toolkit for Care Homes

11 Hydration best practice – care home water audit

Photocopy this sheet and then tick off and count up the statements you can answer with a 'Yes'. Scores are analysed over the page.

- You are clear about the benefits of improving water provision in your care home.
- You have a clear strategy to promote water provision and consumption.
- You consulted and involved the rest of your team.
- You are clear about what you want your hydration strategy to achieve.
- You have a simple and clear code of conduct for providing water.
- You have decided how and where water will be provided.
- You have managed to make water available to able bodied residents and staff throughout the day.
- You have managed to make water available to less able bodied residents and staff throughout the day.
- You are now actively encouraging consumption of water for residents.
- The residents are regularly informed about the health benefits of drinking more water?
- The residents have been consulted for their ideas on how water might be promoted and consumption increased.
- You have a procedure for recording whether residents drink enough.

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Your strategy allows for increased promotion of water:

- in hot weather.
- when residents exercise.
- when residents are outside the care home, on trips or visits.

- You have established a system to ensure all the water facilities are cleaned (including cups, glasses and jugs).

- Residents can ask for and access toilet facilities when they need them.

- The toilet facilities are well maintained and regularly cleaned.

- You have planned how you will now monitor and evaluate the impact of improved water provision on residents.

How did you do?

Count up the number of boxes you have ticked and assess your current practice.

Score

- 0-5** You are underway but more work needs to be done. To make sure you and your residents get the health benefits of good hydration, you and/or your team should retrace your steps and look again at the areas you could not tick off. What needs to be changed to improve your score?

- 6-10** Well done on getting this far. With this score you will soon be on the way to establishing a successful strategy for promoting water. You can use the toolkit factsheets and checklists to work out where you can implement change and you will soon be able to help improve your residents' hydration and well being.

- 11-14** You have come this far and are approaching the score for hydration best practice. With so much achieved, it is now simply a case of refining your efforts and looking at the individual areas for change.

- 15-19** Congratulations, you have done very well and will now be making a real difference to the health and well being of your residents. If you did not score full marks, talk to your team about the areas you missed and how you can take the last few steps to hydration for all.

**For extra copies of this toolkit or
further information, please contact:**

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Telephone: 020 7344 1844
Email: aevans@water.org.uk

Supporting web information for this toolkit can be seen at
www.waterforhealth.org.uk or at www.water.org.uk

"We now have the clearest evidence that water is a health drink of real power. Yet standards for care homes for older people still don't mention water being freely available, and in many environments residents and staff still suffer from a lack of facilities. Water UK believes that everyone, whatever their wealth, whatever their status, should have access to fresh water and the health information to allow them to choose good hydration. By providing healthy choices, and by acting on that awareness, older people in care will be able to benefit from one of the simplest and most effective supports of good health – high quality drinking water."

Pamela Taylor, Chief Executive, Water UK

"Drinking sufficient water is vitally important for older people, and the health benefits are well documented. In some care settings it can be hard to encourage older people to drink. Through this toolkit, the Royal Society wishes to ensure that all carers have access to water policy guidance and that older people get the right health messages about drinking enough water."

Paul Madgwick, Chairman, Royal Society for the Promotion of Health

"Dehydration is particularly dangerous to elderly people. Symptoms arise suddenly and the consequences can be fatal. Improving access to drinking water in care homes is a simple and effective health promotion measure, requiring a change of approach rather than additional investment. It would improve the quality of life for residents – and reduce the costs of healthcare. Therefore, the Royal Institute of Public Health fully supports this Water UK initiative."

Jack Jeffery, Chairman, Royal Institute of Public Health

"Providing older people in care with fresh drinking water throughout the day is a practical and common sense way of improving health and well being. The benefits of drinking fresh water are clear and make good economic sense. By adopting hydration best practice and the principles of the toolkit, carers can promote and enrich the standards of catering within the care sector."

Sue Hawkins, Chairman, National Association of Care Catering

This toolkit has been created through the valuable assistance of representatives of the following organisations, who formed the project team and provided the concepts, outline and supporting material: The National Association of Care Catering, The Royal Society for the Promotion of Health, The Royal Institute of Public Health, The English Community Care Association, Help the Aged, Kingston Hospital, Leicestershire County Council, Milton Keynes Primary Care Trust, Kingston Primary Care Trust, Quantum Care Ltd, The Royal Borough of Kingston, Northumbrian Water, South Staffordshire Water and Unison.

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