

# Elderly with dementia, diabetes and kidney problems risk dehydration

November 11 2015

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One in every five older people living in UK care homes has dehydration, suggesting that they are not drinking enough to keep themselves healthy. Those with dementia, diabetes and kidney problems are at most risk of dehydration - according to research from the University of East Anglia.

Older people are particularly at risk of water-loss dehydration - which is caused by not drinking enough fluid. It can lead to poor health outcomes such as disability and even death.

New research published today reveals the conditions associated with dehydration. It is hoped that the findings will help carers identify which [older people](#) in [care homes](#) could be most at risk of dehydration.

Lead researcher Dr Lee Hooper from UEA's Norwich Medical School said: "Water is crucial to every bodily action, and maintenance of hydration is essential to life. We know that dehydration is difficult to identify - but it can lead to increased risk of hospital admission, urinary tract infections, disability and even death.

"Older people tend not to feel thirsty when they drink too little. On top of that - as our kidneys get older we are less able to concentrate our urine to preserve fluid, so the body's ability to regulate its fluid balance slowly reduces.

"Until now, there has been limited and contradictory evidence about which health factors are associated with dehydration in older adults.

"We wanted to find out whether any particular conditions are associated with dehydration in order to understand its prevalence and pinpoint which individuals are most at risk."

The research took place across 56 [residential care](#) homes where the team studied 188 over 65s. The elderly volunteers' hydration status was determined by a serum osmolality blood test - and classified as normally hydrated, impending dehydration, and dehydrated.

The researchers then compared results with a wide range of 67 different cognitive, functional and health factors including whether or not they were continent, whether they felt thirsty, their temperature, weight, what medication they were taking, and whether they had been diagnosed with dementia.

It is the first report that takes into account both a large study group and a large range of [health factors](#).

Key findings:

- High prevalence (20 per cent) of dehydration in older people living in long-term residential care.
- Elderly people with kidney problems, dementia and diabetes are at most risk of dehydration.
- Factors including diuretic medication, gender (men), and bladder incontinence are also associated with dehydration.
- Thirst is not associated with hydration status among [elderly people](#).

"We found that elderly people who had been in poor health - those who had been to the doctor more often or had a recent history of emergency

admissions - were more likely to be dehydrated," said Dr Hooper.

"Volunteers with swollen ankles, chronic obstructive pulmonary disease (COPD), arthritis, continence issues, dementia, and those using medications for diabetes, laxatives, diuretics were also particularly at risk.

"We also found that men were more likely to be dehydrated than women. And that thirst is a poor indicator of dehydration in older people.

"Drinking must instead be regulated by habit and routine which can be difficult for people with dementia.

"We found a strong correlation between both poor cognitive function and dehydration. But it is quite possible that dehydration is the cause of poor cognitive function, and that the relationship works in a vicious circle.

"We hope that this research will enable carers to pinpoint which frail older people are most likely to suffer [dehydration](#). More research is needed to assess the direction of causation and the health effects of increasing fluid intakes."

'Which frail older people are dehydrated? The UK DRIE study' is published in the *Journal of Gerontology: Medical Sciences*.

**More information:** *Journal of Gerontology: Medical Sciences*, [biomedgerontology.oxfordjournals.org/doi/abs/10.1093/geronm/glv205](http://biomedgerontology.oxfordjournals.org/doi/abs/10.1093/geronm/glv205)

Provided by University of East Anglia

Citation: Elderly with dementia, diabetes and kidney problems risk dehydration (2015, November 11) retrieved 25 April 2024 from <https://medicalxpress.com/news/2015-11-elderly-dementia-diabetes-kidney-problems.html>

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