

Dementia is one of the leading causes of disability in the elderly worldwide, with 9.9 million new cases happening every year. And yet, there is still not a lot known about what causes the syndrome and ways to possibly prevent it.

However, a recent nation-wide study in Denmark has discovered a new link between the levels of naturally occurring lithium in drinking water and the incidence of dementia.

People exposed to higher levels of lithium in their drinking water are at a reduced risk of dementia, according to a study presented in [*JAMA Psychiatry*](#). They gathered data from city residents, water lithium measurements, and hospital records for over 800,000 individuals to see if there was a connection between the cases of dementia and long-term exposure to lithium in drinking water. For all participants, 73,731 dementia patients and 733,653 controls of the same age, the study averaged the lithium exposure since 1986, while also considering any movement between cities during this time.

You might recognize the third element on the periodic table, lithium, as the stuff that powers your batteries. However, this light metal is also found in various minerals scattered all over the planet's crust and can also be naturally found in drinking water.

Lithium is already being used in medications, such as treatment of bipolar disorder, and previous studies have shown that long-term exposure to lithium might reduce dementia risk in bipolar patients. This is what prompted researchers from the University of Copenhagen to investigate whether they could find the same effect in the population of Denmark by comparing naturally occurring lithium levels in drinking water to dementia incidence rates.

Turns out, their hunch was going in the right direction. The researchers found evidence that

higher levels of lithium in tap water correlate with fewer cases of dementia in the areas they studied.

The researchers found that people exposed to the highest level of lithium (more than 15.0 micrograms per litre) were 17% less likely to have been diagnosed with dementia than those exposed to the lowest levels (between 2.0 and 5.0 micrograms per litre). But then strangely enough, the middle range of lithium exposure of 5.1-10 micrograms per litre, the rates of Dementia diagnosis rose 22%.

“This is the first study, to our knowledge, to investigate the association between lithium in drinking water and the incidence of dementia,” **the research team said in their study.**

Before actions can start being taken, a lot more research needs to be done.

“In high doses, or even at low doses in some people, lithium can be toxic so it is important that people consult with their doctor before they consider taking it as a supplement,” says **James Pickett, head of research at Alzheimer’s Society in the UK.**

“However, more research including clinical trials are needed, and until then we should not consider increasing lithium in drinking water.”

Even though more research and studies are needed, this study is a huge step in the right direction of eventually cutting down the dementia growth rate.

Want to know what else is in your tap water? Check out our technical note, **“Optimized Analysis of 1,4-Dioxane in Tap Water by GC/MS”**

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Summary



Article Name

Natural Lithium in Tap Water Could Protect Against Dementia

Description

New study reveals that traces of lithium naturally found in tap water can be connected to a lower rate of dementia diagnosis'.