

US probes link between vaping and lung disease as patient dies

A patient who had recently been vaping has died in the US after developing severe lung disease, officials said, as authorities scrambled to find the cause behind almost 200 more potential cases.

"We received a report of the death of an adult who had been hospitalized with severe unexplained respiratory illness after reported vaping," Jennifer Layden, the chief medical officer in the Midwestern state of Illinois said, medicalxpress.com wrote.

She declined to provide the person's gender, but said that the ages of the patients treated in the state had been between 17 and 38.

There were 193 cases across 22 states of potential cases of severe lung illness associated with e-cigarette use since the end of June, according to figures released by the Centers for Disease Control and Prevention (CDC).

The cause has not been determined but all had recently used e-cigarettes to inhale either vaporized nicotine or cannabis, and many of the products have been sent for lab testing.



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"The severity of illness people are experiencing is alarming and we must get the word out that using e-cigarettes and vaping can be dangerous," said Illinois health department director Dr. Ngozi Ezike.

But Ileana Arias, acting deputy director on non-infectious diseases at the CDC, added that although the cases appeared

similar, "it is unclear if these cases have a common cause, or if they are different diseases with similar presentations."

Safer than smoking?

No specific product has been identified or blamed for the illness in any of the cases. E-cigarettes have been

available in the US since 2006, and are sometimes used as an aid to quit smoking traditional tobacco products like cigarettes.

Their use among adolescents has skyrocketed in recent years: some 3.6 million middle and high school students used vaping products in 2018, an increase of 1.5 million on the year before.

E-cigarette users don't get exposed to the estimated 7,000 chemical constituents present in combustible cigarettes, and vaping is generally believed to be safer than smoking.

The liquids do, however, contain nicotine, which has been studied for decades and is known to be highly addictive, and a variety of other constituents classed as "potentially harmful" according to a 2018 study compiled by the US National Academy of Sciences requested by Congress.

The report identified "substantial evidence" that the vapor contains traces of metals, either from the coil used to heat the liquid, or other parts of the device.

Another potential red flag is the presence of diacetyl, which is used to add a butter flavoring but has been linked to a serious but relatively rare lung disease.

Brian King, deputy director of the CDC's office on smoking and health, said it was possible, therefore, that such cases were arising before the current investigation and were only being registered now through heightened monitoring.

Three parts of your body you should always check for tick bites

Lyme disease may have an innocent sounding name, but it's a nasty condition transmitted by ticks which, left untreated, can lead to severe health problems. Here are three parts of your body you should always check after visiting grassy and woodland areas, as well as other symptoms you should look out for.

Lyme disease is spread to humans by infected ticks. The most common place to get bitten is in areas with long grass that can conceal ticks, although another way you can be bitten is within your home if you've been outside with any pets that may have a tick attached to them. So how do you know if you've been bitten — what symptoms should you look out for? According to Dr. Andrew Thornber, chief medical officer at Now Patient, there are certain areas you're more likely to find ticks than others, express.co.uk wrote.



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He explained: "Ticks prefer warm, moist areas of the body.

"Once a tick gets on your body, they're likely to migrate to your armpits, groin or hair."

There are physical symptoms you should also look out for if you've been bitten by an infected tick.

Thornber said: "A tick bite does not always turn into Lyme disease, however you may have the condition if you experience flu-like — such as feeling hot and shivery, headaches, aching muscles or feeling sick — or a circular red rash."

A tick bite can only cause Lyme disease in humans if the tick has already bitten an infected animal, but it's still important to be aware of ticks and to safely remove them as soon as possible, just in case said Thornber.

He advised: "To remove a tick you should try to use a pair of fine-pointed tweezers then try to grasp the tick as close to the skin as possible."

"You should then pull away from the skin at a steady pressure (do not yank or twist the tick.)"

You should then book an appointment with your GP who may give you a blood test to see if it's Lyme disease.

If it comes back positive, you may be prescribed antibiotics to get rid of the infection. Thornber said: "Lyme disease is easier to treat the earlier it is diagnosed, so if you do suspect you have been infected do not hesitate to speak to your GP."

When it comes to preventing being bitten by a tick, there are two things you should consider.

Thornber said: "The best way of preventing Lyme disease is to prevent yourself from being bitten, this can be done in various ways."

"The first is to wear long clothes — trousers, especially when walking through grassy areas."

"The second is by wearing insect spray (ideally containing DEET)."

Bug bites can come in all shapes and sizes with there being a variety of different insects that bite from ticks to sand flies, but some bites may be more dangerous to a person's health than others.

Dementia caregiving takes toll on sleep

Family caregivers for dementia patients don't sleep as long or as well as other adults of the same age, a new study suggests.

In an analysis of the combined data from 35 earlier studies, researchers found that dementia caregivers slept about three hours less per week than age-matched adults, according to the report published in JAMA Network Open, Reuters reported.

"Sleep debt is known to have cumulative associations with physical, mental and cognitive health," the researchers, led by Chenlu Gao wrote.

"Therefore, poor sleep quality in dementia caregivers should be recognized and addressed."

The researchers did not respond immediately to a request for comment.

To take a closer look at the impact of caregiving on sleep, Gao and her colleagues scoured the medical literature for research on the topic. In the end they focused on 35 studies that looked at sleep problems in caregivers, including some that also considered the impact of therapy for the issue.

Sleep length and quality in those studies was measured either by polysomnography, which measures brain waves, wrist worn motion sensors or self-reported answers to questionnaires.

The combined studies included information on 3,268 caregivers, 76.7 percent of whom were women. When compared to age-matched non-caregiving adults, caregivers slept less — by an average of 2.42 hours to 3.5 hours per week — and had poorer sleep quality, including more difficulty falling asleep and disturbed sleep.

Among the 35 studies were 13 that looked at the impact of therapy for sleep problems in caregivers. Those studies showed that poor sleep could, indeed, be improved.

Just looking at the average difference in sleep over a week may be "misleading," said Stephen Smagula, an assistant professor of psychiatry and epidemiology at the University of Pittsburgh. "That comes down to about 25 minutes a day. But some caregivers may be really losing a lot of sleep while some aren't losing much," he added.

Bad sleep can lead to a host of health problems, Smagula said. "If you're losing a lot of sleep over a long period of time, you are at higher risk of heart disease, Alzheimer's, dementia, diabetes."

The new study "was not at all surprising" to Katherine Ornstein, an assistant professor of geriatrics and palliative care medicine at the Icahn School of Medicine



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at Mount Sinai in New York City.

"We know caregivers are doing so much," she said.

"They are caring for children, working, dealing with financial stress, their own health. So, of course sleep would be impacted in some way."

Sleep problems may be a more concrete way of looking at the extra

burdens caregivers have taken on, Ornstein said.

The new findings are "really just one more reminder that we have to do more to support caregivers," Ornstein said. "That's the bottom line. We are completely reliant on them. And with dementia they are (caregiving) for longer periods of time."

Athletes have poor teeth despite brushing



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Elite athletes have had teeth despite putting more effort into looking after them than other people, a study showed.

University College London (UCL) scientists interviewed 352 British athletes, including those preparing to compete at the 2016 Olympic Games in Rio, Brazil, BBC wrote.

It showed they were far more likely to brush twice a day and floss between their teeth, but still struggled.

Researchers said athletes need to take more steps to look after their teeth, such as high fluoride toothpastes.

Many previous studies have shown athletes from footballers to London 2012 competitors have problems with their oral health.

Around half of elite athletes in the UK have signs of tooth decay compared with around a third of similarly aged adults.

The latest study, published in the British Dental Journal, attempted to explore why.

Academics interviewed competitors from 11 sports, including cycling, swimming, rowing, hockey, sailing, athletics as well as rugby and football.

It showed:

- 94 percent of athletes brushed their teeth twice a day compared with 75 percent of the general public
- 44 percent flossed regularly compared with 21 percent of the public

Smoking rates and overall diets were also much better in the elite athletes.

"However, they use sports drinks, energy gels and bars frequently during training and competition," said Dr. Julie Gallagher, one of the UCL researchers.

She added: "The sugar in these products increases the risk of tooth decay and the acidity of them increases the risk of erosion."

"This could be contributing to the high levels of tooth decay and acid erosion we saw during the dental checkups."

- 87 percent used sports drinks
- 59 percent used energy bars
- 70 percent used energy gels

Other explanations include the mouth becoming dry due to breathing heavily during exercise so there is less protection from saliva in the mouth.

There are some suggestions poor oral health could have an impact on performance for reasons including less time spent in training.

At the pinnacle of elite sport, the difference between winning and losing is tiny, so even marginal improvements can make a crucial difference.

The report says athletes may need extra help with their teeth which could include using very high fluoride toothpastes.

"Athletes were willing to consider behavior changes such as additional fluoride use from mouthwash, more frequent dental visits, and reducing their intake of sports drinks, to improve oral health," Gallagher said.

Pilot studies testing this have already been conducted, but the results are not yet known.