



How sarin gas kills you

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A person would have to have head-to-toe protection and a special mask to safely enter an area where sarin gas had just been released.

By [Matt Rocheleau](#)

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It rapidly fills the air around you. Within minutes, it will kill you. But you can't see it, smell it, or taste

it.

Specialists say those are the signs of an attack by the banned nerve agent sarin, suspected of being used in the bombing that killed scores of civilians this week in northern Syria. That attack [prompted the US strikes on a Syrian air base](#) Thursday night.

The first signs you've been exposed to deadly levels of [sarin](#) gas come within seconds as your eyes become itchy and tears suddenly begin to stream from them.

At the same time, you start to salivate uncontrollably, drooling and frothing at the mouth.



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Your vision blurs as your pupils constrict. Your nose starts to run as mucus flows into your upper airways, and you begin to sweat excessively.

You vomit and soil yourself. Your heart rate either speeds up or slows down. Confusion and exhaustion start to set in.

Your muscles weaken and start to twitch. The convulsions quickly become more and more violent.

If there are children around you, perhaps your own, you witness them suffer the same symptoms. Because the chemical's effects overwhelm their smaller bodies at a faster rate, you might watch helplessly as they die.



Paralysis strikes your lung muscles at about the same time as the heavy flow of mucus and saliva clogs your bronchial tubes and fills your lungs.

You cannot breathe.

Finally, you suffocate and die.

“It’s a pretty demeaning way to die,” said Rudy J. Richardson, a toxicology professor at the University of Michigan’s School of Public Health. Your body loses control of a cascading number of voluntary and involuntary functions, setting them into overdrive until your body can’t handle it, and then “everything just pretty much shuts down.”

And it all happens within a couple or several minutes, depending on the concentration of sarin gas that you are exposed to.

“It’s really, really fast from exposure to death,” said Laxmikant S. Deshpande, a neurology professor at Virginia Commonwealth University’s School of Medicine. “Sarin is extremely potent. It is one of the most lethal compounds that’s out there.”

The Turkish Health Ministry [has said](#) that the poison that killed and injured scores of people, including children, in Syria this week was sarin gas. [In 2013](#), hundreds of people in Syria were killed in a sarin attack.

Once exposed to the chemical, the odds of survival are slim.

You would need medical help to arrive quickly. Their ability to reach you would be difficult.

Because the man-made gas is heavier than air, it settles quickly and can take sometimes several hours before it clears away, especially in confined areas or if there is little wind.

A person would have to have head-to-toe protection and a special mask to safely enter an area where sarin gas had just been deployed.

Holding your breath wouldn't matter. The nerve agent would absorb into your body in other ways — through your eyes, even through your skin.

“It is a nasty, nasty chemical,” Deshpande said.

“There's really nothing you can do,” Richardson said.

If by some miracle, medical personnel were able to reach you, you might need repeated doses of medication to try to counteract the symptoms and could be on [artificial ventilation, perhaps for weeks](#).

If you survive that, you might be left with permanent brain damage.

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