

# E-cigarette explosions cause lifelong injuries: Systematic review

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As schools and parents alike battle with the increasing popularity of e-cigarettes or "vaping," worried about the health of their young people's lungs, there's another cause for alarm; the risk to their face, teeth and

jaw.

Although extremely rare, e-cigarettes can spontaneously explode—and the consequences can be devastating.

At La Trobe University, we examined all the published cases of exploding vapes around the world—mainly case reports made by treating [clinicians](#) in countries such as the U.S., U.K. and Malaysia and published our findings in the *Journal of Oral and Maxillofacial Surgery*.

Incidents were rare; over the last 10 years there's only been 32 recorded cases of spontaneously exploding vapes. However, what was really alarming was the seriousness of the injuries.

When vapes explode, extensive burn and blast injuries can result from the projectile which can even dislodge into the brain and cause death.

Of those 32 published cases, there were 105 injuries to the facial region. Some victims required [major surgery](#), including jaw reconstruction.

Clinicians also reported other serious injuries to faces, throats and jaws. Of these, 62% of patients had a bone or tooth fracture, and required surgery—including open reduction and internal fixation, dental extraction, bone and [skin grafts](#) and ocular surgery.

And these are just the reported incidents; there may be hundreds of other cases where patients don't seek [medical attention](#)—or the treating doctor doesn't publish their findings.

There is also published research demonstrating many injuries to the hips, thighs and legs occurring from vapes exploding in people's pockets.

Our research didn't uncover cases like this in Australia, but it seems that

it's only a matter of time before someone is seriously injured, or even killed, by an exploding e-cigarette.

Much of current debate is focused on regulating the use of nicotine vapes—which technically require a prescription in Australia but can be easily accessed online—but it's important users also understand the other risks involved in using e-cigarettes.

Far from a "safer alternative" to cigarettes, these devices are not regulated, and do not have to undergo [safety testing](#) before we put them in our mouths.

We need to improve the safety of these devices through education and regulation—because although these explosions are rare, they can lead to lifelong consequences, disfigurement and even death.

**More information:** Vincent Tran et al, Oral and Maxillofacial Injuries Associated With E-Cigarette Explosions: A Systematic Review and Management Guidelines Proposal, *Journal of Oral and Maxillofacial Surgery* (2023). [DOI: 10.1016/j.joms.2023.01.009](https://doi.org/10.1016/j.joms.2023.01.009)

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