

Flu vaccine could cut COVID risk

Health-care workers who got the influenza vaccine were also protected from COVID-19 — but the effect might not last long.

A study of more than 30,000 people found that those who got an influenza vaccination were nearly 90% less likely to develop severe COVID-19 over the next few months than those who hadn't recently had the jab (E. Tayar *et al.* Preprint at medRxiv <https://doi.org/hvr5; 2022>). The study, which was conducted before the roll-out of COVID-19 vaccines, confirms previous work suggesting that ramping up the immune system using influenza vaccines and other jabs could help the body to fend off the coronavirus SARS-CoV-2.

Laith Jamal Abu-Raddad, an infectious-disease epidemiologist at Weill Cornell Medicine–Qatar in Doha, and his colleagues analysed the health records of 30,774 medical workers in the country. The researchers matched 518 workers who tested positive for SARS-CoV-2 with more than 2,000 study participants who had tested negative. Those who had received a flu jab that season were 30% less likely to test positive for SARS-CoV-2, and 89% less likely to develop severe COVID-19, compared with workers who had not. The study was posted on the medRxiv preprint server on 10 May.

Günther Fink, an epidemiologist at the University of Basel in Switzerland, says the Qatar analysis cuts the odds that other studies that reported the same link were a fluke. His team reported that flu vaccines were tied to a lower death risk for people hospitalized with COVID-19 in Brazil (G. Fink *et al.* *BMJ Evid. Based Med.* **26**, 192–193; 2020).

How long this protection lasts is unclear. Among those in the Qatar study who had the flu jab and later contracted COVID-19, Abu-Raddad's team recorded SARS-CoV-2 infections occurring, on average, about six weeks after vaccination. "I don't expect to see this effect lasting long at all," he says. Mihai Netea, an infectious-disease specialist at Radboud University Medical Center in Nijmegen, the Netherlands, guesses that the benefits last for between six months and two years.

By Ewen Callaway



The fossilized molar, seen here from several angles, is thought to have belonged to a young Denisovan girl that died between 164,000 and 131,000 years ago.

ANCIENT TOOTH SHOWS DENISOVANS VENTURED FAR BEYOND SIBERIA

Molar found in Laos could be first fossil evidence that the hominin species could adapt to different climates.

By Freda Kreier

A fossilized tooth unearthed in a cave in northern Laos might have belonged to a young Denisovan girl that died between 164,000 and 131,000 years ago. If confirmed, it would be the first fossil evidence that Denisovans — an extinct hominin species that co-existed with Neanderthals and modern humans — lived in southeast Asia.

The molar, described in *Nature Communications* on 17 May¹, is only the second Denisovan fossil to be found outside Siberia. Its presence in Laos supports the idea that the species had a much broader geographical range than the fossil record previously indicated.

"We've always assumed that Denisovans were in this part of the world, but we've never had the physical evidence," says study co-author Laura Shackelford, a palaeo-anthropologist at the University of Illinois Urbana-Champaign. "This is one little piece of evidence that they were really there."

Denisovans were first identified in 2010, when scientists sequenced DNA from a

fingertip bone found in Denisova cave in Siberia, and showed that it belonged to a previously unknown species of ancient human². Subsequent genetic studies^{3,4} have revealed that millions of people from Asia, Oceania and the Pacific Islands carry traces of Denisovan DNA.

This suggests that the species ranged far beyond Siberia — but the fossil evidence has been sparse. The entire fossil record for Denisovans so far boils down to a handful of teeth, bone shards and a jawbone found in Tibet. Aside from the latter, every specimen (including a piece of bone that belonged to a half-Denisovan girl whose mother was a Neanderthal) has come from Denisova cave.

That's partially because fossils have a better chance of surviving in cold, dry conditions than in warm, humid ones. But in 2018, Shackelford and her colleagues were looking for potential dig sites in northern Laos when they came across a cave "just filled with teeth". These belonged to a mixture of species, including giant tapirs, deer, pigs and ancient relatives of modern elephants. Among the first batch of fossils to come out of the cave was a small, underdeveloped hominin tooth.

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