

News in brief



VACCINES REDUCE LONG COVID RISK — BUT NOT BY MUCH

Vaccination against COVID-19 cuts the risk of long COVID for people who get infected by about 15%, according to a study in the largest cohort yet used to examine how well vaccines protect against the condition.

Long COVID is defined as illness that persists for weeks or months after SARS-CoV-2 infection. It has been unclear whether it is less likely after a ‘breakthrough’ infection – one in a vaccinated person.

Nephrologist Ziyad Al-Aly at VA St Louis Health Care System in St Louis, Missouri, and his team studied records from the US Department of Veterans Affairs dating from January to December 2021. These included records from about 34,000 vaccinated people who had breakthrough SARS-CoV-2 infections, 113,000 people who had been infected but not vaccinated and more than 13 million people who hadn’t been infected (Z. Al-Aly *et al. Nature Med.* <https://doi.org/gp7ft5>; 2022).

The researchers found that vaccination seemed to reduce the likelihood of long COVID, but by only about 15%. Previous studies have found much higher protection rates. The limited protection means that withdrawing measures such as mask mandates might be putting more people at risk, Al-Aly says.

Metal analysis shows scale of waste

A study looking at the economic lifetimes of 61 commercially used metals finds that more than half have a lifespan of less than 10 years. The research also shows that most of these metals end up being disposed of or lost in large quantities, rather than recycled (A. Charpentier Poncelet *et al. Nature Sustain.* <https://doi.org/gp624c>; 2022).

The study compared data from several industries to see how long the metals stayed useful and how they were lost. For many metals, only a small proportion is recycled (see ‘Scrap metal’). Exceptions include gold, which stays in use for centuries, as well as iron and lead. Several metals that have been designated ‘critically important’ – including cobalt and gallium – have high rates of loss and low rates of recycling.

Metal production accounts for around 8% of global greenhouse-gas emissions. So, recycling more metal could help to lower its environmental impacts, says co-author Christoph Helbig, an industrial ecologist at the University of Bayreuth in Germany. “The longer we use metals, the less we need to mine,” says Helbig. “But before we can identify how to close those loops, we need to know where they are.”

SCRAP METAL

In general, metals with a higher end-of-life recycling rate – the percentage of scrap that is functionally recycled – have lower loss rates.

