

# Pfizer booster study lifts mood over Omicron variant

December 9 2021, by Sebastien Ash

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A Palestinian medic prepares a dose of the Pfizer/BioNTech Covid-19 vaccine.

Three doses of the Pfizer-BioNTech coronavirus vaccine appear effective against the Omicron variant, a lab test indicated—encouraging news, even as Denmark and Britain announced new restrictions to stem surging caseloads.

In preliminary results published on Wednesday, the US and German companies behind one of the world's foremost shots to combat COVID-19 said a booster generated around the same level of potent antibodies against Omicron as is seen after a second dose with the initial strain.

But they warned that "the Omicron variant is probably not sufficiently neutralised after two doses."

The announcement, which has not yet been peer reviewed, was called reassuring by experts, and came as the first independent data from labs around the world emerged, indicating the new mutations are better at evading immunity from infections and vaccines than those before them.

"We still need to be very measured and take a wait and see approach, but I think what we do have is at least encouraging," virologist Angela Rasmussen of Canada's Vaccine and Infectious Disease Organization told AFP.

Blood samples from around 20 people who had received two doses of the current vaccine showed on average a 25-fold reduction in neutralising antibodies compared to the early strain of the virus, the companies said.

But they added that another part of the immune response—from T cells—were probably still effective against the new variant, meaning that people with two doses "may still be protected against severe forms of the disease".

The vaccine-makers are developing an Omicron-specific version of the jab, which they hope will be ready by March, but say the decision whether to mass produce it would depend on the variant's spread.



Britain's Prime Minister Boris Johnson Johnson announced the stringent measures while facing public anger over video footage of his aides joking about an alleged illicit Christmas party at Downing Street during last year's lockdown.

### **New restrictions**

In Europe, Danish Prime Minister Mette Frederiksen announced she would extend Christmas school holidays, curtail nightlife and urge citizens to work from home as the country fights off a sharp rise in infections.

"The plan is not to have a long closure," she said, while acknowledging a return to home offices would also be unwelcome for many.

Her British counterpart Boris Johnson likewise brought back guidance to work from home and vaccine passports for venues such as nightclubs and stadiums. The new measures apply to England, and were already in place in Scotland and Wales.

"We must be humble in the face of this virus", he said, adding that it was "the proportionate and the responsible thing to move to Plan B in England".

Johnson announced the stringent measures while facing public anger over video footage of his aides joking about an alleged illicit Christmas party at Downing Street during last year's lockdown.

WHO chief Tedros Adhanom Ghebreyesus meanwhile summed up what scientists have learned about Omicron since it was first reported in South Africa in late November.

It evades prior immunity well, and it's possible it may cause milder disease, he said.

But even if it's confirmed to be less severe, the variant's heightened transmissibility—thought to be greater even than the currently dominant Delta strain—mean it could sicken many people.



# Coronavirus variant

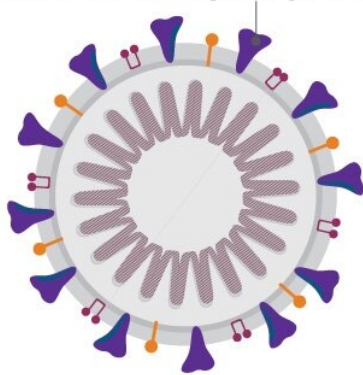
**B.1.1.529**

First record:  
November 2021

Announced in:  
**South Africa**

## Key mutations

32 found on the spike protein




*High number of mutations in regions of the spike that antibodies recognise, potentially dampening immunity*

## Omicron

### Main concerns

- ▶ Detection coincided with a sharp rise in cases in South Africa
- ▶ A preliminary study in South Africa suggested the variant is 3 times more likely to cause reinfections compared to the Delta or Beta strains
- ▶ WHO scientists have said early data showed Omicron does not cause more severe symptoms than other variants
- ▶ Pfizer/BioNTech published their own data Dec 8 showing that their vaccine was “still effective” after 3 jabs

Source: Nature/WHO/Moderna 

Factfile on what we know so far about the Omicron coronavirus variant. Pfizer/BioNTech said Dec 8 that three doses of their vaccine should be "effective" against the mutation.

## Three shots

Pfizer and BioNTech's news came after other preliminary results from a small study in South Africa suggested there was up to a 40-fold drop in the ability of the antibodies from the same vaccine to neutralise Omicron, compared to an early strain.

Willem Hanekom, executive director of the Africa Health Research Institute, which carried out the study, said it was important to be "extraordinarily careful" interpreting the results because they only reflect a laboratory setting, while real-world data was the true test.

Antibody reductions were also seen in studies by German and Swedish researchers, but they varied in magnitude.

Omicron counts more than 30 mutations on the spike protein that dots the surface of the coronavirus and allows it to invade cells, and a high degree of immune evasion was widely anticipated.

But the fact that a booster appears to restore high protection was welcomed by many experts, and provides "strong support for the campaign to give three doses of vaccine," said Charles Bangham, an immunologist at Imperial College London.

While the positive initial assessments of Omicron have helped lift the mood, especially among [global markets](#) as fears of another economic downturn subsided, the variant's emergence has highlighted that the fight against the pandemic is far from over.

COVID-19 has officially killed more than 5.2 million people around the world since it was first declared in late 2019, although the true toll is likely to be several times higher.

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