

## Hong Kong studies impact of Pfizer vaccine on Omicron variant

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### COVID-19 variant Omicron significantly reduces virus neutralisation ability of Pfizer-BioNTech vaccine

A recent study jointly conducted by the LKS Faculty of Medicine, The University of Hong Kong (HKUMed) and the Faculty of Medicine, The Chinese University of Hong Kong (CU Medicine) has revealed that Omicron, the latest COVID-19 variant, can significantly reduce the virus neutralisation ability of Pfizer BioNTech (BNT162b2) vaccine by 32 folds or more.

A similar test of another vaccine used in Hong Kong, CoronaVac, is being conducted and the results will soon be available.

'We can see that most individuals had high levels of virus killing (neutralisation) activity against the original SARS-CoV-2 but this ability was markedly reduced by 32 folds or more against the Omicron variant,' said the researchers. These findings suggest that vaccine-protection against breakthrough infection with Omicron will be much reduced.

The data from CoronaVac vaccinated individuals will also soon be available but because previous studies suggested that virus-killing antibody levels in CoronaVac vaccines were lower than with the BioNTech vaccines, it is very likely that the loss of activity against CoronaVac will also be very large.

The joint research team will be testing the blood of those who have received a booster dose of vaccines in the coming week and it is expected that the booster dose will provide increased levels of protection.