

- Virus

## Infants' strong Covid immunity

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YOUNG children have relative protection from coronavirus because their bodies produce a strong immune response to it, according to a new study by West experts.

The University of Bristol and Bristol Royal Hospital for Children conducted research which found that infants produce relatively high levels of antibodies and immune cells which protect against the virus, compared to adults.

Researchers say the findings could help explain why younger children appear to be protected from the severe effects of Covid-19 at a time of their development when they could be more vulnerable.

The study was led by academics and paediatricians from the university and hospital and is published in Cell Reports Medicine.

The study's authors sought to research why children have only been mildly affected by the virus during the pandemic, especially as younger infants, in particular, are known to be vulnerable to other respiratory viruses such as the flu.

The research team looked at the immune responses in four infants under three months old with confirmed Covid at the start of the pandemic in March 2020 alongside their parents, and other adult patients who had recovered from the virus.

Dr Anu Goenka, clinical lecturer in paediatric infectious

This is very useful information for the design of future Covid-19 vaccines DR ANU GOENKA diseases and immunology at the University of Bristol, said the findings could help design vaccines which mimic the protection in children.

He said: "By conducting a detailed study on young infants who are relatively protected from severe Covid-19, we have shown what protective immunity looks like, in terms of the make-up of specific antibodies and immune cells directed against SARSCoV-2.

"This is very useful information for the design of future Covid-19 vaccines that could seek to induce and mimic the signature of this protective immunity."

The research team now wants to confirm its findings in a larger group of infants, and compare infant versus adult immune response during and at several timepoints after their infection.