

COVID-19:

Convalescent Plasma (CCP)



What is CCP?

Convalescent plasma is the liquid part of blood which contains antibodies. Antibodies are proteins made by the body to help fight off a virus. After recovery, antibodies stay in the blood as part of the immune system. Collecting convalescent plasma from a person who has recovered from COVID-19 may assist in the treatment of patients with COVID-19.

Who can donate convalescent plasma?

The WHO (17/2/21) has indicated that no universal protocol exists for collection of COVID-19 convalescent plasma, and criteria for acceptance of donors of COVID-19 convalescent plasma should include:

- overall donor qualification based on standard criteria for blood or plasma donation
- laboratory-confirmed evidence of prior infection with SARS-CoV-2
- complete resolution of symptoms and cessation of treatments for COVID-19 for at least 14 days prior to the donation



Is donating blood and convalescent plasma safe?

For those considering donating blood for the first time, please make it known that the donation process is safe.

WHO advises there is no current evidence of the transmission of SARS-CoV-2 via blood transfusion or its components; further, patients who receive these convalescent plasma treatments are already positive for and experiencing severe symptoms from COVID-19.



How often can someone donate convalescent plasma?

This depends on whether the donation is a whole blood donation or apheresis (an automated process where the donor provides select blood components i.e., plasma, platelets, or red blood cells). Blood service staff at the donation centre will advise when a donor can next return, according to local blood donation guidelines.



Please refer to the WHO Technical Guidance publication [Maintaining a safe and adequate blood supply and collecting convalescent plasma in the context of the COVID-19 pandemic](#)

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How is convalescent plasma collected?

Recovered patients donate CCP at blood collection centres via plasmapheresis. The plasma is then tested for SARS-CoV-2 antibody levels and standard infectious disease markers before releasing the plasma for clinical use.

Potential donors must have had documented SARS-CoV-2 infection, be symptom-free for at least 14 days, and meet standard blood donor eligibility requirements as guided by their local blood service.

How could convalescent plasma be used to treat COVID-19?

Convalescent plasma has been used before to help people fight off disease when there are no vaccines or treatments available.

COVID-19 antibodies in the plasma of people who have recovered may boost the immunity of patients and help them fight the disease by blocking or neutralising the effect of the virus.

Ongoing trials are looking at using CCP or COVID-19 immunoglobulin in different settings such as early on in the disease or for people with poor immune systems.



What is the latest research telling us?

The World Health Organization updated their advice on 17 February 2021 to indicate:

"There is some evidence for favourable outcomes in patients who have received COVID-19 convalescent plasma, but it is not definitive.

WHO recognizes COVID-19 convalescent plasma as an experimental therapy that is appropriate for evaluation in clinical studies or as a starting material for the manufacture of experimental hyper-immune immunoglobulins."

Reference:

<https://apps.who.int/iris/rest/bitstreams/1333552/retrieve>



BLOOD SERVICE DECISION-MAKING: Implementing a Convalescent Plasma Program

Recommendations for COVID-19 convalescent plasma programs:

- establish the minimum neutralizing antibody titre required for plasma to be suitable for use as CCP
- measure the neutralizing antibody titre in the unit of CCP
- National Societies should consult closely with their local Ministry of Health to align strategy and approach with the government health response for COVID
- National Societies should undertake a CCP as part of a clinical study or trial to further the available knowledge on the effectiveness of COVID-19 convalescent plasma.
- Target recruitment of individuals to CCP programs toward recently recovered individuals with a high antibody titre.