

COVID patient with sepsis makes 'remarkable' recovery following megadose of vitamin C

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Researchers Dr Yugeesh Lankadeva and Professor Clive May reversed sepsis in animals with a megadose of vitamin C. *(ABC News: Loretta Florance)*

A young Australian man who was critically ill with COVID-19 and suffering early stages of sepsis made a remarkable recovery after being given massive doses of vitamin C, according to his doctors.

Key points:

- Sepsis is a common cause of death for people gravely ill with COVID-19
- Researchers at the Florey Institute used megadoses of vitamin C to treat sepsis in animals
- Doctors at Austin Hospital tried the technique on a critically ill patient, who then made a "remarkable" recovery

Professor Rinaldo Bellomo, director of Intensive Care at Melbourne's Austin Health, said the 40-year-old's health had started to deteriorate significantly from COVID-19, with the man losing kidney function, and his blood pressure plummeting.

Sepsis — a life-threatening condition which occurs when the body damages its own organs while responding to an infection — was starting to take hold of his body and time was running out.

"We were dealing with somebody who was very unwell. We felt we were in a very difficult situation, and the patient's life was under serious threat," he said.

Professor Bellomo knew researchers at the Florey Institute had some promising experimental findings using megadose vitamin C to treat sepsis.

[Catch up on the main COVID-19 news from December 3 with our coronavirus blog.](#)

With the family's consent, doctors gave the patient the same treatment the Florey researchers had trialled in animals.



Professor Rinaldo Bellomo hoped the researchers' promising laboratory results would translate into a good outcome for his patient. *(ABC News: Loretta Florance)*

The man was given an initial dose of 30 grams of sodium ascorbate (vitamin C) over 30 minutes, then a maintenance dose of 30 grams over six and a half hours.

"This is the equivalent of 5,000 oranges pumping through his veins," Professor Bellomo said.

An over-the-counter vitamin C supplement is 500mg, meaning this megadose was 60 times the normal dosage, and had to be administered under hospital conditions.

Sepsis is a life-threatening condition that occurs when the body's response to an infection damages its own organs and tissues.

[A sepsis survivor's message](#)



[In a matter of days, Mick O'Dowd went from being a healthy, sport-loving father to a quadruple amputee. This is his extraordinary story and his warning to others how a simple sore throat or even a mosquito bite can turn deadly.](#)

Organs start to fail and the patient goes into septic shock.

It's the most common cause of death in intensive care units, and a common cause of death for people gravely ill with COVID-19.

Often patients [need to have limbs amputated to survive.](#)

Professor Bellomo said after the patient had the megadose of vitamin C, the changes were "remarkable".

"In a short period of time, we saw improved regulation of blood pressure, arterial blood oxygen levels and kidney function," he said.

His temperature also improved.

"The patient was able to be taken off machine ventilation 12 days after starting sodium ascorbate treatment and discharged from hospital without any complications 22 days later," he said.

'This can't be true'

The Florey Institute's Professor Clive May had collaborated with Professor Bellomo for many years, keeping him up to date with the promising results they were seeing in the lab with the sepsis treatment.

"He didn't believe us. He said 'this can't be true'," Professor May said.

Colleague Dr Yugeesh Lankadeva sent the intensive care doctor videos of what was happening in the lab.

"Professor Bellomo literally rocked up at the laboratory door the next day ... because he was just like, 'I need to see this for my own eyes'," he said.

"When he came and when they saw it, they were all very amazed at how quickly the disease just reversed by doing this treatment."



Researchers Dr Yugeesh Lankadeva and Professor Clive May had been trialling the treatment on animals. (Supplied: The Florey Institute of Neuroscience and Mental Health)

Professor May has been studying sepsis for almost two decades.

His research, which has just been published in the journal *Critical Care Medicine*, showed giving megadose vitamin C to animals with sepsis could reverse the effects of the disease.

"I have never seen any treatment before this being able to do that," he said.

"Giving this dose of vitamin C is just totally revolutionary. The response was quite remarkable."

He said the function of the animal's heart, kidneys, liver, lungs and brain began to significantly improve just three hours after getting the megadose of the vitamin.

"If the treatment works as well in patients as it does in our animal studies, I think it's going to totally revolutionise the treatment of septic patients in intensive care units all over the world," Professor May said.



Dr Yugeesh Lankadeva, Professor Rinaldo Bellomo and Professor Clive May (left to right) were thrilled when the treatment was successful. (Supplied: The Florey Institute of Neuroscience and Mental Health)

But he stressed people with COVID-19 or any other illness should not try the same treatment at home.

"We don't want people going out and buying ten bottles of Vitamin C and think it's going to solve their problems — that would just make them feel very sick."

Experts urge caution -

*****ML Note???? Who are these "experts" Could they be the FDA or Big Pharma????******

While the result seems promising for the seriously ill Melbourne patient, and the animal studies, experts said previous studies using large doses of vitamin C to treat sepsis have been mixed.

Professor Simon Finfer, from the George Institute for Global Health, has been researching sepsis for more than 25 years.

"We have seen so many treatments that seem to work in animal models and case reports but haven't proven effective in big studies," he said.

"The pharmaceutical industry has spent \$10 billion trying to find a magic bullet for sepsis."



The researchers use Sodium Ascorbate Solution vitamin C, which does not have the same acidity as regular vitamin C. (ABC News: Loretta Florance)