

Covid reduces male sex hormone levels, could be reason why more men die of it, study says

Study by Turkish researchers, published earlier this month, says low serum total testosterone level at baseline has 'a significant increased risk for ICU & mortality' in Covid patients.

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Medics collect swab sample of a man for Covid-19 testing (representational image) | PTI

Text Size: **A-** **A+**

New Delhi: The fact that Covid-19 has led to **deaths of more men than women** the world over could be linked to the ability of SARS-CoV-2 to deplete testosterone levels in their body, a **new study** has found.

While low testosterone levels are associated with poor outcomes in Covid patients, this is the first study that proffers the theory that it may be the infection that is causing the levels of the male sex hormone to deplete.

“For the first time, our data suggest that Covid-19 might deteriorate serum testosterone level in SARS-CoV-2 infected male patients. Low serum total testosterone level at baseline has a significant increased risk for the ICU and mortality in patients with Covid-19,” researchers from University of Mersin, and the Mersin City Education and Research Hospital in Turkey, reported in *The Aging Male* journal.

The study was published earlier this month.

“Future studies related to testosterone treatment in this population would discover possible improvement in clinical outcomes with the testosterone treatment in SARS-CoV-2 infected hypogonadal male patients,” they added.

Testosterone is the principal male sex hormone, and decreases on an average by 0.8–2 per cent a year after the age of 40 years. This would also explain the [worse outcomes in older men](#).

Lead author Selahittin Çayan, professor of urology, explained: “Testosterone is associated with the immune system of respiratory organs, and low levels of testosterone might increase the risk of respiratory infections.”

The professor added: “Low testosterone is also associated with infection-related hospitalisation and all-cause mortality in male in ICU patients. So testosterone treatment may also have benefits beyond improving outcomes for Covid-19.”

In India, about 69 per cent of Covid deaths have been among males.

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‘One of the theories’

The study looked at 438 patients, and 232 of them were men.

“In our study, the mean total testosterone decreased, as the severity of the Covid-19 increased. The mean total testosterone level was significantly lower in the ICU group than in the asymptomatic group,” Çayan said.

“In addition, the mean total testosterone level was significantly lower in the ICU group than in the Intermediate Care Unit group. The mean serum follicle stimulating hormone level was significantly higher in the ICU group than in the asymptomatic group.”

But Dr S. Chatterjee, consultant medicine at Indraprastha Apollo Hospital, said it has been “one of the theories”.

“I do not disagree with the findings of the study at all. But these are the first smaller studies, we need many more studies along the way.”

Chatterjee added: “As we go, our understanding about the disease will also change. But yes, there is this theory that has been around that the impact on testosterone plays an important role. But then it is not as if women are not dying of Covid.”

***Also read:** [Why more men are dying due to Covid-19](#)*
