



Health

Long Covid linked to heavier periods and risk of iron deficiency

Survey of 12,000 women also revealed severity of long Covid symptoms rose and fell across menstrual cycle

Ian Sample *Science editor*

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Women with long Covid are prone to longer, heavier periods, which could put them at greater risk of iron deficiency that exacerbates common symptoms of the condition, doctors say.

The findings emerged from a UK survey of more than 12,000 women, which also found that the severity of long Covid symptoms rose and fell across the menstrual cycle and became worse when women had their periods.

Preliminary tests revealed hormonal changes and excessive inflammation of the womb lining in women with long Covid, but more work is needed to establish the knock-on effects. There was no evidence that long Covid harmed ovary function.

The work points to a two-way effect, with long Covid affecting women's periods and hormonal changes over the menstrual cycle affecting the severity of long Covid symptoms.

“Our hope is that this will allow us to develop really specific treatments for women with long Covid who are suffering with menstrual disturbance,” said Dr Jacqueline Maybin, a reader and honorary consultant gynaecologist at the University of Edinburgh. “It may also lead to female-specific treatments for long Covid itself, which we know can be quite prevalent in women of reproductive age.”

An [estimated 400 million people](#) worldwide either have long Covid or have recovered from the condition. Nearly 2 million people in England alone self-report as living with long Covid, defined as symptoms that persist for at least four weeks after catching the virus.

Doctors have recorded [more than 200 long Covid symptoms](#), but the most common include fatigue, brain fog, difficulty breathing, digestive issues, headaches and changes to smell and taste. The ailments appear to be driven by an array of problems, from residual infection and ongoing inflammation to disruption of the immune system and mitochondria, the powerhouses of the cells.

Maybin and her colleagues analysed data from 12,187 UK women who completed an online survey between March and May 2021. More than 1,000 had long Covid, while more than 1,700 had recovered from the virus. More than 9,400 had never tested positive for Covid.

Women with long Covid had longer, heavier periods and more bleeding between their periods than other women, the researchers found. A follow-up survey with 54 women revealed that the severity of their symptoms fluctuated over the menstrual cycle and worsened in the two days before and during their periods.

The researchers went on to analyse blood from 10 women with long Covid. Tests revealed inflammation in the womb lining and higher-than-usual levels of the

hormone dihydrotestosterone. Both could be drivers of heavier periods.

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Importantly, according to the study in [Nature Communications](#), the tests found no evidence that long Covid harmed the normal functioning of the ovaries.

Many women of child-bearing age are iron-deficient, and heavy periods often contribute to the issue. This leads to symptoms such as fatigue, shortness of breath and dizziness, all of which are common in long Covid. “If you have long Covid on top of iron deficiency, it’s unsurprising that these women are really debilitated and unable to function,” Maybin said.

Dr Viki Male, who studies reproductive immunology at [Imperial College London](#), said inflammation in the uterus was associated with heavy menstrual bleeding, so this could be the link between long Covid and prolonged or heavy periods. “Anti-inflammatory drugs are already used to treat heavy periods, so these findings suggest they might also be helpful for people who experience heavy menstrual bleeding as a symptom of long Covid,” she said.

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