

# COVID-related stresses have led to a 19% increase in hormone imbalances

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Credit: London Medical Laboratory

The stressful impact of COVID—including lockdowns, home working and now returning to the office—is impacting on hormone levels, warns a leading testing expert. This could lead to long-term health problems.

The leading blood testing expert, Dr. Quinton Fivelman Ph.D., Chief Scientific Officer at London Medical Laboratory, is warning that there are now 19% more people with significant hormone imbalances than before the pandemic.

He says it is likely that the anxieties created by COVID-19, including fear of illness, lockdowns and unsettling changes to routines, have caused a notable rise in the number of people showing significant hormone changes over the past two years.

Says Dr. Fivelman: "There is growing evidence that hormone imbalances are increasing across the community, in both men and women. Our hormone tests reveal a 19% increase in abnormal results. This is concerning, as long-term imbalances can have negative effects on people's health.

"If untreated, hormone disorders can lead to a wide variety of illnesses, ranging from depression to infertility and heart problems.

"COVID-19 has caused an emotional roller coaster ride, and it seems that this is taking its toll on our [hormone levels](#). At the beginning of the pandemic in March 2020, 49.9% of people experienced high anxiety, according to the UK's Office for National Statistics (ONS). It seems this is now having an impact on our physical wellbeing.

"Typical early symptoms of a hormone imbalance may include:

- Fatigue
- Mood changes
- Digestive issues
- Unexplained weight gain or weight loss
- Anxiety or major depression
- Heavy or frequent periods (for women)

- Stopped or missed periods (for women)
- Erectile dysfunction (for men)
- Hair loss or thinning
- Night sweats
- Skin tags

"We are likely seeing stress-created hormone level changes for estrogen, testosterone, Follicle Stimulating Hormone (FSH), Luteinizing Hormone (LH), both T3 and T4 thyroid hormones, prolactin and DHEA. Our blood tests cover all these hormones and an imbalance in any of them can quickly cause a snowball effect, sometimes leading to severe illnesses.

"Exactly how is stress creating these imbalances? Stress creates more ACTH, which controls the production of another hormone called cortisol. It is this fight or flight hormone that seems to be impacting on other hormones to create the imbalances. Cortisol is known as the body's primary stress hormone. It regulates a wide range of vital processes in your body, including metabolism, inflammation and immune response.

"It's easy to see the significant impact of COVID stress on both men's and women's hormones. The ACTH that triggers cortisone is created in the [pituitary gland](#), which is also where the vital reproductive hormones Follicle Stimulating Hormone (FSH) and Luteinizing Hormone (LH) are produced.

## **Reproductive hormones**

"FSH stimulates the growth and development of unfertilised eggs during the [menstrual cycle](#) and initiates the production of sex hormones such as oestradiol and progesterone. FSH also stimulates the production of sperm. Changes in FSH levels can lead to infertility and pituitary gland disorders in both men and women.



Credit: London Medical Laboratory

"LH regulates the menstrual cycle and ovulation in women by stimulating the ovaries to produce other reproductive hormones, whereas in men, LH stimulates and controls testosterone. Men with low levels of testosterone are more prone to develop anxiety or major depressive disorders compared to those with normal levels.

"Oestradiol levels impacted by stress can have particularly serious consequences as it is the main female hormone produced by non-pregnant women and is used to monitor hormone replacement therapy

(HRT) in peri-pausal and menopausal women.

"Adrenal stress or fatigue causes decreased DHEA levels and, therefore, low hormone reserves. For men, DHEA converts into testosterone; in women, it converts to estrogen. Mostly, it is produced in the adrenal glands. However, a small amount is produced in the male testes and the female ovaries. DHEA also controls body functions such as heart rate and blood pressure.

"In times of stress, prolactin levels can either increase or decrease. The main role of prolactin is to promote lactation (breast milk production) in women during pregnancy and after childbirth. However, a prolactin test is used to diagnose infertility in both men and women as well as menstrual problems and erectile dysfunction.

## **Thyroid problems**

"It's not only reproductive hormones that are being significantly impacted. Vital thyroid T3 and T4 levels decrease with stress. Stress inhibits the thyroid-stimulating hormone (TSH) secretion. If undiagnosed, underactive thyroids (hypothyroidism) can lead to slow heart rate, hearing loss, anemia and, in the most severe cases, Myxoedema Coma.

"Major anxieties can also lead to the opposite problem—an overactive thyroid and overproduction of thyroid hormones. The relationship between stressful life events and the onset of Graves' disease—an immune system disorder caused by an overactive thyroid—was first observed almost 200 years ago.

## **Diabetes**

"Severe stress may be a risk factor for diabetes type 1. A major 1990s study found that children aged five to nine years with stress are significantly more likely to be diabetic. Insulin levels may decrease during stress. This can contribute to [stress](#)-induced hyperglycaemia—a common problem for people with diabetes.

"Anyone who feels they have been particularly stressed and anxious for a lengthy period should take a hormone [blood test](#) to ensure that this has not impacted on their [hormone](#) levels, which could create more severe health problems over time.

"The new generation blood tests are highly accurate, and quick and simple to carry out, both at home through the post, or at one of the many drop-in clinics that offer this test. They take around five minutes, with results usually emailed the next day.

For full details, women should see:

<https://www.londonmedicallaboratory.com/product/female-hormone-profile>

Men should see:

<https://www.londonmedicallaboratory.com/product/male-hormone-profile>

Provided by London Medical Laboratory

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