

# Another possible consequence of the opioid epidemic: hormone deficiencies

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Many people who use opioid medications long term do not produce enough testosterone or another important hormone, cortisol, according to a new study. Results of what the researchers called "the most up-to-date

and most comprehensive clinical review of endocrine effects of long-term opioid use" are being presented Sunday at ENDO 2019, the Endocrine Society's annual meeting in New Orleans, La.

"These hormone deficiencies can cause a wide variety of symptoms, such as infertility, extreme fatigue and malaise," said study investigator Amir Zamanipour Najafabadi, M.D./Ph.D. student at Leiden University Medical Center, Leiden, the Netherlands. "People may not recognize these symptoms as possibly related to the increased use of opioids."

Zamanipour Najafabadi and colleagues, in a systematic review of 52 studies published before May 2018, looked at which hormones opioids may affect and what percentage of patients have a hormone deficit. In about half the studies, the patients were receiving opioids to relieve persistent pain.

The researchers then narrowed the number of studies to those dealing with [long-term opioid](#) use—defined as longer than six months. They found enough evidence to determine the frequency of hypogonadism, which is an insufficient production of testosterone, and hypocortisolism, in which the body does not make enough cortisol.

Up to 65 percent of men using opioids long term had hypogonadism, according to 15 studies in 3,250 patients, nearly all men. This condition in men may lead to [erectile dysfunction](#), infertility, decreased [body hair](#) and [muscle mass](#), and development of breasts.

In five studies, the researchers discovered that up to 19 percent of 207 men and women with long-term opioid use had hypocortisolism. Because this hormone affects many different functions in the body, low cortisol can lead to various symptoms including fatigue, weight loss and mood changes, according to the Hormone Health Network.

Patients who use opioids long term should get tested for these [hormone deficiencies](#), so they can get appropriate treatment if needed.

"Our study creates awareness of the frequent endocrinological issues in long-term opioid users and their need for regular endocrine checkups, which are not commonly being done," he said.

Zamanipoor Najafabadi said that the evidence for opioid effects on other endocrine functions was insufficient in their study. He called for more research into opioid-induced effects on other endocrine axes, effect on female sex hormones and the management of related symptoms.

Provided by The Endocrine Society

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