



Accurate Clinic

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There has been far less research regarding opioid-induced endocrine (hormone) deficiencies in women than in men. However, there is growing evidence that opioid use may reduce sex hormone production (including testosterone) in women (9) as well as men and this may predispose women to osteopenia or osteoporosis (reduced bone density that predispose to fragile bones). In such a case, hypothetically, hormone treatment would relieve symptoms and reduce risks of osteoporosis in affected women. In younger women, oral contraceptive pills (OCPs) might have benefit; particularly an OCP with a relatively androgenic (testosterone stimulating) progestin component. However, OCPs are also known to suppress free testosterone.

Because sex hormone concentrations vary during the menstrual cycle, clinical interpretation is difficult in women with irregular menses.(16) Furthermore, diagnosing testosterone deficiency in women is problematic because it is difficult to accurately measure low testosterone levels and because normal testosterone values for women are not well established.(40) When opioid-induced testosterone deficiency is suspected in a woman, testing for DHEA, a precursor (or building block) for testosterone production by the adrenal gland, may be the preferred indicator of endocrine function in women.(16) However, more research - particularly controlled trials - is needed.

Due to the potential for chronic opioid therapy to place women (and men) at increased risk for osteopenia or osteoporosis, it may be advised to obtain bone density testing, especially if other risk factors are present. Please discuss this with your pain management physician and/or your primary care physician.

Treatment

DHEA

One approach might be to take DHEA, which is available as an over-the-counter dietary supplement in the U.S. It is marketed with claims that daily treatment will decrease postmenopausal bone loss and improve muscle strength, sexual performance, and memory. (54) Unfortunately, clinical research (55,56) that claims to support these benefits is of limited quality.(57) One study (58) evaluated DHEA treatment and supported its use in women. Another study (59) indicated that 50 to 100 mg/day of DHEA supplementation has the potential to raise testosterone levels to normal or near-normal. Female patients with suspected testosterone deficiency who are receiving long-term opioid treatment have reported increased energy, increased libido, and weight loss with DHEA supplementation. Although the potential value of DHEA therapy in women remains controversial, it may be the most appropriate treatment option for those with opioid-induced endocrine deficiency.

Testosterone

Few clinical trials have examined the effectiveness or safety of testosterone therapy in women. The theoretical goal of such treatment would be to raise testosterone levels while monitoring for side effects such as acne, hirsutism (male pattern hair growth), or deepening voice. Medications



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containing testosterone are approved in the U.S. for the treatment of vasomotor symptoms such as hot flashes associated with menopause; however, studies on testosterone treatment in women are still inadequate. Additionally, researchers have raised concerns that testosterone treatment might increase women's breast cancer risks. Given the lack of long-term effectiveness and safety studies, testosterone use in women is generally not recommended for the treatment of testosterone deficiency, other than to treat menopausal symptoms.

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