Female hormones and adhd

The rise and fall of oestrogen levels throughout a woman's life can have a significant effect on her adhd symptoms.

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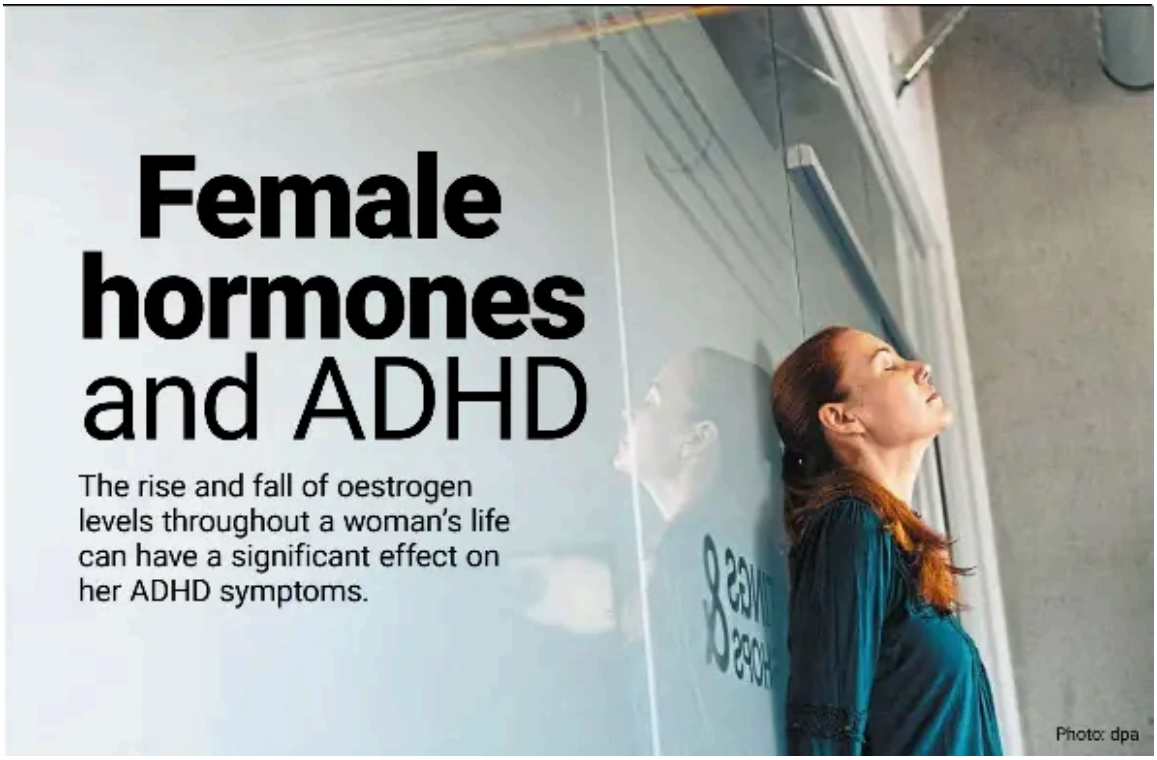
AT certain times of the month, or in certain phases of life, many women find it harder to concentrate, handle stress and control their emotions, with mood swings, restlessness and fatigue all increasing as a result.



Hormones often play a major role, especially in women with attention-deficit/hyperactivity disorder (ADHD).

In males, the neurodevelopmental disorder is typically diagnosed in childhood, but in females, it is often diagnosed much later, if at all.

One reason is that females commonly have inattentive symptoms, which can be harder to recognise than hyperactive ones.

Another is that their symptoms fluctuate more, for instance, during the menstrual cycle, pregnancy and menopausal transition.

In women with inattentive ADHD, comparatively minor hormonal changes can have stronger effects than in those without the disorder.

Their emotional outbursts and drop-offs in concentration and stress management are more intense.

The female sex hormones are a central factor, principally oestrogen.

It not only has physical effects, but also acts on neurotransmitters such as serotonin and dopamine.

These, among other things, help regulate concentration, motivation, mood and emotional stability.

A drop in oestrogen levels – for example, in the second half of the menstrual cycle, after childbirth and in menopause – can upset the delicate hormonal balance.
Many women then react more sensitively to emotional stress.
The symptoms at these times can be much stronger for women with ADHD, says Swedish psychiatrist Dr Lotta Borg Skoglund, who specialises in the treatment of girls and women with ADHD and has written a book on the subject.
Affected women complain more frequently of heightened distractibility, lower stress resistance, greater emotionality and increased sleep issues.
To understand how hormones such as oestrogen can influence ADHD symptoms, it's instructive to look at dopamine – a deficiency of which makes it harder to concentrate, control inner tension and complete tasks.
Experts believe that people with ADHD have lower dopamine levels in their brain than normal, or that the chemical messenger is underutilised or breaks down too quickly.
It can explain why they often react impulsively, are easily distracted and more prone to mood swings.
To address the problem, ADHD patients are often prescribed medications that increase levels of dopamine and noradrenaline (also known as norepinephrine) in their brain.
This can improve concentration, motivation and emotional stability.
"Dopamine helps to regulate many of our everyday behaviours, including some of the more problematic ones," Dr Borg Skoglund says.
"Its release produces feelings of energy and happiness."
The motivating effect elevates the ability to undertake tasks and stick with them.
Here's where female sex hormones come into play.
Oestrogen affects dopamine levels in various ways.
It can stimulate its production, facilitate its release and slow its breakdown.
"Oestrogen is a real dopamine booster," says Dr Frank Matthias Rudolph, a specialist in psychosomatic medicine and psychotherapy.
A drop in oestrogen levels often lowers dopamine availability, which can especially impact women with ADHD, particularly during their menstrual cycle.
In the first half of the cycle, oestrogen dominates and supports dopamine production.
Levels decline in the second half, when the female sex hormone progesterone increases.
The altered hormonal balance can result in lower dopamine availability, to which many women react sensitively and have more difficulty structuring their day.
This increases the risk of premenstrual syndrome (PMS), whose symptoms include irritability, anxiety, depressed mood, headache and breast tenderness.
Studies show that PMS is much more frequent in women with ADHD.
A severe, chronic form of the syndrome is premenstrual dysphoric disorder (PMDD), which affects 3% to 5% of childbearingaged women.
There are indications that here, too, ADHD women are at higher risk.
Among the various ways to treat PMS and PMDD are herbal remedies such as monk's pepper; low-dose SSRI (selective serotonin reuptake inhibitors) antidepressants, which increase the availability of serotonin; and hormonal management, e.g. via birth control pills or oestrogen gel.

During pregnancy, oestrogen levels rise sharply, which can affect the symptoms of ADHD women.
Dr Borg Skoglund says they often report feeling uncomfortable in their own body, and worry about the birth and their suitability for motherhood.
When oestrogen levels drop after childbirth, depressive moods increase.
While 10% to 20% of women in the general population experience postpartum depression, says Dr Rudolph, some studies put the figure for ADHD women at 60%.
Many women with ADHD aren't diagnosed with the disorder until perimenopause, or natural transition into menopause.
The ovaries then produce less progesterone, or none at all, and oestrogen levels fluctuate greatly, which, among other things, can affect the availability of serotonin and dopamine in the brain.
The erratic hormone levels can lead to stronger mood swings, along with problems regulating emotions and tolerating stress.
Some women, Dr Borg Skoglund says, report having ADHD symptoms in menopause that they had never experienced before.
"Taking into account possible contraindications, it's important to seriously consider hormone replacement therapy for these women," says Dr Rudolph.
Besides medications, exercise can help, he adds, as can mindbody practices such as tai chi, yoga or qigong.
"Everyday strategies such as fixed routines, sufficient sleep, regular exercise, healthy eating habits and structured planning are especially important in hormonally turbulent life phases," remarks Dr Borg Skoglund, who says that selfhelp groups and psychoeducation can help too. – dpa