

... FOR THE HEALTH AND WELL-BEING OF YOU AND YOUR FAMILY

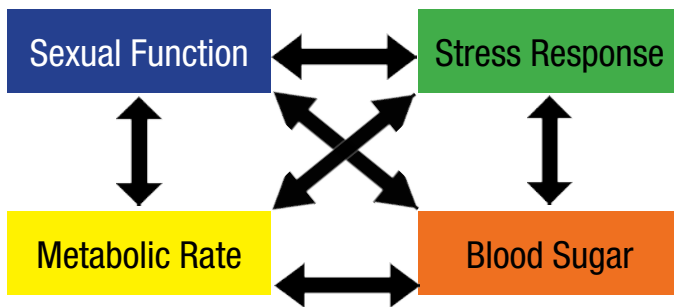
HORMONES & YOU

THE BODY'S MESSENGERS

Hormones are the body's chemical messengers that travel in the bloodstream to tissues and organs, and facilitate many important processes in the body – they are a bit like the post office of the body. They are part of a distinct system, the endocrine system, which is often neglected in areas of health.

Hormones play an essential role in maintaining good overall health, so it is strongly recommended to have hormone levels checked regularly, and to be aware of the symptoms and prevention of disorders involving hormones.

HORMONAL BALANCE



Coach's Quick Take

Maintaining healthy hormone levels is paramount in keeping the body in balance. If you have any of the following symptoms, speak with your doctor without delay. (check all that apply)

- Unexplained weight loss or weight gain
- Fatigue, changes in sleeping patterns
- Depression, anxiety or nervousness
- Skin changes, i.e. dry skin, acne, etc.
- Abnormal menstrual cycle
- Decreased sex drive

HORMONE DISORDERS

Chronic high or low hormone levels may indicate a hormone disorder. Hormone disorders may result from your body's inability to respond to hormones properly. Additional factors such as your blood's fluid/electrolyte balance, stress, and infection also affect your hormone levels.

In the United States, the most commonly diagnosed hormone disease is **diabetes**. Other common hormone disorders include:

- ✓ **Hypothyroidism.** Abnormally low production of thyroid hormone, causing unexplained weight gain, fatigue, constipation, dry skin, muscle weakness/aches, and depression.
- ✓ **Hyperthyroidism.** An elevated production of thyroid hormone. It can lead to weight loss, fast heart rate, sweating, and nervousness. The most common cause of an overactive thyroid is an autoimmune disorder called Grave's disease.
- ✓ **Cushing's disease.** A tumor or growth on the pituitary gland in the brain ultimately results in high levels of cortisol, a stress hormone. Symptoms include collection of fat between the shoulders (buffalo hump), skin infections, acne purple skin marks on the body, fatigue, increased thirst and urination, irregular menstrual cycle and abnormal hair growth in women, among many others.
- ✓ **Polycystic ovary syndrome (PCOS).** Overproduction of androgenic ("male") hormones interfere with the development of eggs and their release from the female ovaries, causing infrequent or prolonged menstrual periods, excess hair growth, acne, and obesity. This syndrome is a leading cause of infertility.



KEEP YOUR HORMONES IN HARMONY

HORMONE	FUNCTION	IMPACT	COMPLICATIONS
Thyroid-Stimulating Hormone (TSH)	<ul style="list-style-type: none"> ➤ Energy ➤ Appetite ➤ Mood ➤ Weight ➤ Body temperature ➤ Healthy skin, hair, and nails 	<ul style="list-style-type: none"> - DON'T: Smoke and/or eat processed/junk food, which increases the severity of thyroid problems. - DO: Eat more vegetables, protein and a moderate intake of whole grains; take daily C, E, and B-complex vitamins; reduce cortisol levels. 	<ul style="list-style-type: none"> • An underactive thyroid can cause weight gain, fatigue, and dry, brittle hair and nails. • An overactive thyroid can cause weight loss, mood changes, and light or absent periods.
Cortisol	<ul style="list-style-type: none"> ➤ Stress hormone ➤ Fight-or-flight response ➤ Immune /Pain Suppression 	<ul style="list-style-type: none"> - DON'T: Over-consume stimulants (caffeine) or alcohol; or make drastic changes to diet or exercise. - DO: Work on stress management techniques; challenge yourself to think more positively; get adequate sleep; exercise regularly; and eat a healthy diet. 	<ul style="list-style-type: none"> • High levels can cause head and muscle aches. • Altered balance can cause GI upset, changes in sleep patterns, and difficulties with mood and concentration. • Chronically elevated levels can impact the immune system and heart health.
Estrogen	<ul style="list-style-type: none"> ➤ Puberty, reproduction, and menopause ➤ Keeps memory sharp, skin moist and blood vessels elastic 	<ul style="list-style-type: none"> - DON'T: Aim to be too thin, this may increase risk of osteoporosis. Eat from heated plastic containers or bottles. - DO: Walk in daylight for at least 20 minutes to encourage proper levels of ovary-stimulating hormones. 	<ul style="list-style-type: none"> • Imbalance can cause irregular periods, painful breasts, weight gain, infertility, and low sex drive. • Lower levels can lead to osteoporosis.
Testosterone	<ul style="list-style-type: none"> ➤ Male sex hormone ➤ Fuels sexual desire in both men and women (produced in smaller amounts in women) 	<ul style="list-style-type: none"> - DON'T: Deprive yourself of sleep, time outdoors, or movement. - DO: Get enough sleep, spend time in the sun, and maintain healthy weight by eating healthy and exercising regularly. Foods rich in phytoestrogens like chickpeas and lentils also help balance testosterone. 	<ul style="list-style-type: none"> • Low levels linked to reduced libido in men and women. • Raised levels in women leads to irregular periods, excess body hair, acne, frontal hair loss, skin tags, and weight gain.
Insulin	<ul style="list-style-type: none"> ➤ Helps tissues increase glucose they need for energy ➤ Helps store the excess glucose safely 	<ul style="list-style-type: none"> - DON'T: Load up on sweets and processed grains, be sedentary. - DO: Exercise, particularly strength train, regularly! Protein and complex carbs are good sugar regulators. Cut down on processed and sugary foods. 	<ul style="list-style-type: none"> • Decreased production or inefficient use of insulin can lead to insulin resistance and diabetes. • Increases risk of heart disease and other aging complications.
Melatonin	<ul style="list-style-type: none"> ➤ Regulates body clock ➤ Maintains healthy sleeping patterns 	<ul style="list-style-type: none"> - DON'T: Be around bright light, such as TV or computers, in the hours before bed. - DO: Go to sleep and wake up at the same time throughout the week, consume more B6 vitamin. 	<ul style="list-style-type: none"> • Low levels can cause difficulty sleeping, which then could lead to fatigue and lapses in memory and concentration. • Higher levels could lead to excessive grogginess.

Resources: www.nlm.nih.gov/medlineplus/hormones.html; www.ion.ac.uk/information/onarchives/hormonesbalance; www.mayoclinic.org/diseases-conditions