

Your Endocrinologist: A Patient's Guide to Endocrinology

What Is an Endocrinologist?

Patients who suffer from diseases and disorders of the endocrine system are generally referred to endocrinologists by their primary care physicians. An endocrinologist is a specially trained physician who treats patients with diseases that affect hormone-producing glands. Endocrinologists are trained to recognize problems with hormones and restore the natural balance of hormones in a patient's system. In addition, endocrinologists conduct research on the basic and clinical aspects of endocrine glands and disorders. They also provide treatment for a wide range of functions and disorders of the human body, including diabetes, thyroid diseases, metabolism, hormonal imbalances, menopause, osteoporosis, cholesterol disorders, infertility and birth control, short stature and glandular cancers. Finally, endocrinologists develop new drugs and treatments for hormonal disorders.

What Type of Medical Training Do Endocrinologists Receive?

Endocrinologists complete four years of medical school and then spend three or four years in an internship and residency program in internal medicine, pediatrics or obstetrics and gynecology. Then, they must spend an additional two or three years learning how to diagnose and treat hormone-related disorders and diseases.

What Is the Endocrine System?

The endocrine system is a complex system of glands that includes the thyroid, parathyroid, pancreas, ovaries, testes, adrenal, pituitary and hypothalamus. The endocrine glands produce and secrete hormones, the substances that regulate the body's metabolism, reproduction, growth and development. Hormones also control the body's response to the environment and the provision of the energy and nutrients needed for normal body function.

What Are the Most Common Endocrine Diseases and Disorders?

Endocrine diseases and disorders can be grouped into several different areas. Some endocrinologists focus on one or two specific areas of endocrinology, such as diabetes, pediatric disorders, thyroid, or reproductive and menstrual disorders, while others work in all areas of endocrinology. The different areas of endocrinology are described below.

Diabetes

Patients with diabetes have too much sugar in their blood. Recent studies have found that excellent blood sugar control is important for preventing complications

from diabetes to the eyes, kidneys and nerves, which could result in blindness or amputation. Endocrinologists treat diabetes with diet and medications, which may include insulin. In addition, they work with patients on diabetes management to optimize blood sugar control, monitor and work on strategies to prevent complications of their disease.

Type 1 Diabetes: We specialize in the diagnosis and ultra-management of type 1 diabetes. This includes multiple injection and insulin pump therapies, fast in glucose capabilities, downloading glucose monitoring, carb counting classes, certified diabetes educators, complication prevention strategies.

Type 2 Diabetes: We specialize in the diagnosis, ultra-treatment and prevention of type 2 diabetes in kids and adults. We aim to educate patients and families on how to comprehensively manage not just the blood glucose levels, but all aspects of their disease including complication prevention strategies.

Thyroid

Patients with thyroid disorders frequently experience problems with energy levels, heat or cold intolerance, muscle strength, emotions and weight control. Endocrinologists specialize in treating patients with over- or underproduction of thyroid hormones and work to optimize thyroid hormone replacement therapy. In addition, endocrinologists receive special training in managing patients with thyroid nodules, thyroid cancer and enlarged thyroid glands. We use multiple tools including in the office thyroid ultrasound and fine needle aspiration biopsy (if needed) and extensive patient education in addition to medication.

Bone

Osteoporosis is a disease of the skeleton that is associated with loss of bone tissue, which leads to damage to the bone "architecture" and an increased risk of fractures. Several endocrine problems, such as menopause, loss of testicular function and aging, are known to be associated with an increased risk for osteoporosis. Endocrinologists specialize in treating and preventing bone loss and preventing fractures. In addition, endocrinologists treat disorders that may affect bones, such as **hyperparathyroidism**, low and high levels of calcium.

Reproduction/Infertility

About one in 10 American couples of reproductive age are involuntarily infertile. Endocrine research has been crucial in helping thousands of childless couples have children by determining and treating the precise hormonal imbalance that causes infertility. Endocrinologists also treat and evaluate patients with disorders that affect the reproductive glands such as hormone replacement therapy, menopause, irregular periods, endometriosis, **polycystic ovary syndrome**, excessive hair production (**hirsutism**), low libido syndromes (including low testosterone levels or **hypogonadism**) and impotence.

Obesity

Obesity is a condition that is characterized by excessive bodily fat. Endocrinologists treat patients who suffer from obesity due to metabolic and hormonal problems. These include thyroid, adrenal, ovarian and pituitary disorders. They also work with patients to determine whether or not there are any genetic factors that might lead to obesity. In addition, endocrinologists identify factors, such as **insulin resistance**, that might affect the management of this condition.

High Cholesterol and Triglycerides

Abnormal lipids include a variety of disorders which can increase the risk of developing premature cardiovascular disease, stroke or peripheral vascular problems by causing vascular wall dysfunction. Lipid problems can add to the risks if there are additional problems including high blood pressure, diabetes, obesity, smoking and a family history of early vascular events. Endocrinologists are trained to evaluate the patient's individual risks and to develop a comprehensive treatment plan.

Pituitary Gland

The pituitary is often called the master gland of the body because it controls the function of other glands in addition to secreting its own unique hormones. Over or under production of pituitary hormones may result in infertility, menstrual disorders, growth disorders (acromegaly or short stature), Cushing's syndrome and/or reduced function of the other glands. Endocrinologists control these conditions through medication or may refer patients for surgical treatment. We perform extensive evaluations in the office instead requiring in hospital studies.

Pediatric Endocrinology

We specialize in evaluating and treating children and adolescents with diabetes, growth problems such as short stature, thyroid disorders, pubertal disorders (early or precocious puberty and delayed puberty), calcium and osteoporosis problems, menstrual problems, hypoglycemia, elevated cholesterol, high blood pressure, obesity, failure to thrive, metabolic syndrome, adrenal disorders, breast disorders (**gynecomastia**), hair production disorders and pituitary abnormalities.