

What is an Endocrinologist?

What is the endocrine system?

The endocrine system is a complex group of glands. Glands are organs that make hormones. These are substances that help to control activities in your body. Hormones control reproduction, metabolism (food burning and waste elimination), and growth and development. Hormones also control the way you respond to your surroundings, and they help to provide the proper amount of energy and nutrition your body needs to function. The endocrine glands include the thyroid, parathyroid, pancreas, ovaries, testes, adrenal, pituitary and hypothalamus.

What is an endocrinologist?

An endocrinologist is a specially trained doctor. Endocrinologists diagnose diseases that affect your glands. They know how to treat conditions that are often complex and involve many systems within your body. Your primary care doctor refers you to an endocrinologist when you have a problem with your endocrine system.

What do endocrinologists do?

Endocrinologists are trained to diagnose and treat hormone problems by helping to restore the normal balance of hormones in your system. They take care of many conditions including:

- diabetes
- thyroid diseases
- metabolic disorders
- over or under production of hormones
- menopause
- osteoporosis
- hypertension
- cholesterol (lipid) disorders
- infertility
- lack of growth (short stature)
- cancers of the endocrine glands

Endocrinologists also conduct basic research to learn the way glands work, and clinical research to learn the best methods to treat patients. Through research, endocrinologists develop new drugs and treatments for hormone problems.

What type of medical training do endocrinologists receive?

Endocrinologists finish four years of medical school and then spend three or four years in an internship and residency program. These specialty programs cover internal medicine, pediatrics, or obstetrics and gynecology. They spend two or three more years learning how to diagnose and treat hormone conditions. Overall, an endocrinologist's training will take more than 10 years.

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 areas, such as diabetes, pediatric disorders, thyroid, or reproductive and menstrual disorders. Others work in all areas of endocrinology. The major areas of endocrinology are described below.

Diabetes

Patients with diabetes have too much sugar in their blood. Recent studies have found that controlling blood sugar helps prevent serious problems that can be caused by diabetes. These can include problems with the eyes, kidneys and nerves, which can lead to blindness, dialysis, or amputation. Endocrinologists treat diabetes with diet and medications, including insulin. They also work closely with patients to control blood sugar and monitor them so they can prevent health problems.

Thyroid

Patients with thyroid disorders often have problems with their energy levels. They may also have problems with muscle strength, emotions, weight control, and tolerating heat or cold. Endocrinologists treat patients with too much or too little thyroid hormone. They help patients reach a hormone balance by replacing or blocking thyroid hormone. Endocrinologists also receive special training to manage patients with thyroid nodules or thyroid cancer, and enlarged thyroid glands.

Bone

Osteomalacia (rickets), which causes bones to soften, and osteoporosis are bone diseases that endocrinologists diagnose and treat. Osteoporosis is a disease that weakens your skeleton. Certain hormones act to protect bone tissue. When hormone levels are abnormal, bones can lose calcium and weaken. Menopause, in women, and loss of testicle function, in men, and aging may put you at risk for bone fractures. Endocrinologists treat other disorders that can affect bones, such as too much parathyroid hormone and long term use of steroids like prednisone.

Reproduction/Infertility

About one in ten American couples are infertile. Endocrine research has helped thousands of couples to have children. Endocrinologists diagnose and treat hormone imbalances that can cause infertility, and also assess and treat patients with reproductive problems. They work with patients who need hormone replacement. Problems that they treat include menopause symptoms, irregular periods, endometriosis, polycystic ovary syndrome (PCOS), premenstrual syndrome, and impotence.

Obesity and Overweight

Endocrinologists treat patients who are overweight or obese, sometimes because of metabolic and hormonal problems. When someone is obese they have too much body fat. Thyroid, adrenal, ovarian, and pituitary disorders can cause obesity. Endocrinologists also identify factors linked with obesity, such as insulin resistance and genetic problems.

Pituitary Gland

The pituitary is often called the master gland of the body because it controls other glands. The pituitary makes several important hormones. Over - or under - production of pituitary hormones can lead to infertility, menstrual disorders, growth disorders (acromegaly or short stature) and too much cortisol production (Cushing's syndrome). Endocrinologists control these conditions with medications and refer patients who need surgery.

Growth

Children and adults can have effects from not making enough growth hormone. Pediatric endocrinologists treat children who suffer from endocrine problems that cause short stature and other growth disorders. Adults with growth hormone deficiency can experience emotional distress and fatigue. Safe and effective growth hormone replacement therapy is available for people whose growth hormone is abnormal.

Hypertension

Hypertension is high blood pressure, and it is a risk factor for heart disease. Up to 10% of people have hypertension because of too much aldosterone, a hormone produced in the adrenal glands. About half of these cases are caused by growths that can be removed with surgery. Conditions such as the metabolic syndrome or a rare adrenal growth called a pheochromocytoma also may cause hypertension. These conditions also can be treated successfully.

Lipid Disorders

Patients with lipid disorders have trouble maintaining normal levels of body fats. One of the most common lipid disorders is hyperlipidemia - high levels of total cholesterol, low-density lipoprotein cholesterol (known as "bad" cholesterol), and/or triglycerides in the blood. High levels of these fats are linked to heart (coronary) disease, strokes, and peripheral vascular disease (problems with circulation in the legs). Endocrinologists are trained to detect factors that may be related to lipid disorders, such as hypothyroidism, drug use (such as steroids), or genetic or metabolic conditions. Lipid disorders can be found in several conditions that require special management, including the metabolic syndrome, polycystic ovary syndrome (PCOS), and obesity. Special diets, exercise, and medications may be prescribed to manage hyperlipidemia and other lipid disorders.

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