

# ENDOCRINE SYSTEM

The endocrine system is a network of glands in the body responsible for producing hormones.

## WHAT IS A HORMONE?

A hormone is a chemical secreted into the blood by a special cell whose purpose is to signal other cells to perform certain functions.

### Hypothalamus

This organ connects your endocrine system with your nervous system. Its main job is to tell your pituitary gland to start or stop making hormones.

#### Pituitary gland

It uses information it gets from your brain to tell other glands in your body what to do. It makes many important hormones.

#### Pineal gland

Releases melatonin, regulating the sleep-wake cycle and other circadian rhythms.

#### Thyroid gland

This gland makes thyroid hormone, which controls your growth and metabolism. Also produces the hormone calcitonin, which may contribute to bone strength.

#### **Parathyroid**

This is a set of four small glands behind your thyroid. They play a role in bone health. The glands control your levels of calcium and phosphorus.

#### **Thymus**

This gland makes white blood cells called T lymphocytes that fight infection and are crucial as a child's immune system develops. This gland starts to shrink after puberty.

#### Adrenals

Make the "fight or flight" hormone adrenaline (epinephrine), these two glands also make hormones called corticosteroids. They affect your metabolism heart rate, oxygen intake, blood flow and among other things.

#### **Pancreas**

This organ is part of your digestive and endocrine systems. It makes digestive enzymes that break down food. It also makes the hormones insulin and glucagon.

#### Ovaries (in women)

These organs make estrogen and progesterone. These hormones help develop breasts at puberty, regulate the menstrual cycle, and support a pregnancy.

#### Testes (in men)

The testes make testosterone. It helps them grow facial and body hair at puberty. It also tells the penis to grow larger and plays a role in making sperm.

