Nervous and endocrine system crossword answers

The endocrine system consists of organs, hormones, the thyroid gland, and the adrenal glands. These carry hormones around your body and get them where they need to go. Hormones communicate digestion, metabolism, sleep cycles, stress, growth, reproduction, and mood. The endocrine system is susceptible to certain diseases. These diseases include diabetes, thyroid disease, and obesity. Hormones are susceptible to an imbalance, which in turn can lead to a host of problems in the body. Think of them as your body's messengers for its most important mail. If the record doesn't get where it's going, parts of the body won't receive instructions on how to function. This mistake can make you sleepy or sweaty for seemingly no reason. It is important that the endocrine system works and that hormone levels are balanced. The endocrine system consists of endocrine glands that release important hormones into the body's bloodstream. These hormones help control everything from metabolism to reproduction. The system regulates hormone production, and the hormones act as chemical messengers. Negative health consequences occur if there are interruptions in the endocrine system or if the system produces too many or too few hormones. Most living beings, including humans, mammals and birds, have an endocrine system consisting of glands, hormones and receptors. The glands produce hormones. These hormones regulate many aspects of health, including growth, reproduction, metabolism, and more. They are chemical messengers that deliver important information to receptors located on different organs and tissues. These messages regulate different health processes. The endocrine system plays a crucial role in health. Too many hormones or too few can cause significant health problems, so the system must release just the right amount into the bloodstream. Many factors, however, can affect these hormone levels. Things like stress and infection can affect the endocrine system in different ways. People with related disorders generally require medical treatment. ttsz/Getty Images As chemical messengers, hormones convey unique information depending on the role they play in the body. In addition, only certain types of receptors are equipped to respond to chemical messages delivered by hormones. The latter travels all over the body, but receptors know which messages to respond. Hormones report on body development, reproductive function, and more. ttsz/Getty Images The body's hormones, like chemical messengers, control various bodily processes. They are involved in blood sugar control, bodily differentiation, the reproductive system, mood, and even in energy production. For the body to grow and function normally, the system must function well. The hormone receptor ratio is an integral part of the function and general health. Estrogens and androgens are hormones produced within the endocrine system. Estrogens are essential for the development of the female reproductive system. Androgens support the development of male sex characteristics. Testosterone, for example, is an androgen. Many other hormones have specific functions in the body. Endocrine system glands are responsible for producing hormones. The thyroid gland, for example, produces two hormones: thyroxine and triiodothyronin. These hormones stimulate cells in the body and help control various processes such as growth, development, metabolism, and reproduction. The body's adrenal glands make hormones in response to stress. They also help regulate things like blood pressure and water and salt balance. A problem with a gland can seriously affect the endocrine system. The pituitary gland is the master gland - it is quite small but has a big job. It is located on the brain base and is roughly the size of a pea. The pituitary gland secretes hormones that control other glands in the endocrine system. It makes growth hormone, prolactin (involved in milk production), hormones that stimulate the thyroid gland, and even hormones that control the amount of fluid in the body. It also receives messages from the hypothalamus, which powers this system and connects it to the nervous system. ttsz/Getty Images Certain conditions like thyroid disorders and diabetes can disrupt the endocrine system. For example, the hormones that help control blood sugar levels may fail to do their job or struggle to do well. In these cases, diabetes, a disease that interferes with blood sugar levels, can develop and affect the endocrine system and overall health. In general, eating a healthy diet and regular exercise should keep the endocrine system functioning as it should. If questions develop, individuals may require medical intervention. Signs and symptoms of problems within the endocrine system include frequent urination, gain weight or lose weight, experience tremors, sweating more than usual, experiencing nausea, and abnormal physical growth or development. There are various endocrine disorders that can affect health. The most common is diabetes, but people may also have hyperthyroidism (too much hormone production), hypothyroidism (too little hormone production), polycystic ovarian syndrome, advanced puberty, Cushing's disease, and adrenal insufficiency. There are many treatments and treatments designed to relieve such symptoms and ailments. stevecoleimages/Getty Images The brain is at the center of our nervous system. It sits on top of our heads where it sends and receives important messages. These messages travel through our nerves and inform our actions. Conversely, our brains also respond to neural messages that it receives from our nerves. These neurons communicate quickly back and forth. When our fingertips graze over get the information immediately and ask us to pull our hand away. The brain and nerves are constantly working together to keep us in check. Anything that works instinctively or automatically is due to the nervous system. When we're right ourselves after a moment of falling, it's due to the small brain. When we feel hunger or thirst after a while of fasting, this is due to the hypothalamus. Or when we feel the sudden urge to run away during stressful situations, this is due to the amygdala. The main route, nerves traveling down before branching out to their repsective body parts, is the spinal cord. The spinal cord extends from the brain down to the tailbone. Although it's a bundle of nervous, many nerves branch out and continue together to places like our arms and legs. The endocrine system consists of glands that make hormones. Hormones are the body's chemical messengers. They carry information and instructions from one set of cells to another. The endocrine (EN-duh-krin) system affects almost all cells, organs and function of our bodies. What makes the endocrine system? Endocrine glands release into the bloodstream. This allows the hormones to travel to cells in other parts of the body. The endocrine hormones help control mood, growth and development, the way our bodies work, and reproduction. The endocrine system regulates how much of each hormone is released. This may depend on levels of hormones already in the blood, or on the level of other substances in the blood, like calcium. Many things affect hormone levels, such as stress, infection, and changes in the balance of fluids and minerals in the blood. Too much or too little of any hormone can damage the body. Medication can treat many of these problems. What are parts of the endocrine system? While many parts of the body make hormones, the major glands that make up the endocrine system are: the hypothalamus pituitary thyroid parathyroids adrenal glands pineal gland body ovarian testes The pancreas is part of the endocrine system and digestive system. That's because it secretes hormones in the bloodstream, and makes and secretes enzymes in the digestive tract. Hypothalamus: The hypothalamus (hi-po-THAL-uh-mouse) is in the lower central part of the brain. It connects the endocrine system and the nervous system. Nerve cells in the hypothalamus make chemicals that control the release of hormones secreted from the pituitary gland. The hypothalamus collects information that is sensed by the brain (such as ambient temperature, light exposure and emotions) and sends it to the pituitary gland. This information affects the hormones that the pituitary gland makes and releases. Pituitary: The pituitary gland (puh-TOO-uh-ter-ee) gland is at the base of the brain, and is no bigger than a pea. Despite its small size, the pituitary gland is often called the master gland. The hormones it does control many other endocrine glands. Pituitary makes many hormones, such as: growth hormone, which stimulates the growth of bone and other body tissues and plays a role in the body's handling of nutrients and minerals prolactin (pro-LAK-tin), which activates milk production in women who are breast-feeding thyrotropin (pro-LAKtin thy-ruh-TRO-pin), which stimulates the thyroid gland to make thyroid hormones corticotropin (kor-tih-ko-TRO-pin), which stimulates the adrenal glands to make certain hormones antidiuretic (an-ty-dy-uh-REH-tik) hormone, which helps control the body's water balance through its effect on the kidneys oxytocin (ahk-see-TOE-sin) , which triggers contractions of the uterus that occur during childbirth The pituitary gland also secretes endorphins (en-DOR fins), chemicals that act on the nervous system and reduce feelings of pain. The pituitary gland also secretes hormones that signal the reproductive organs to make sex hormones. The pituitary gland also controls and menstrual cycles in women. Thyroid: Thy-royd (THY-royd) is in the front of the lower neck. It is shaped like a butterfly or butterfly. It makes thyroid hormones thyroxine (thy-RAHK-sin) and triiodothyronine (try-eye-oh-doe-THY-ruh-neen). These hormones control the rate at which cells burn fuels from food to make energy. The more thyroid hormone there is in the bloodstream, the faster chemical reactions happen in the body. Thyroid hormones are important because they help children's and teens bones grow and develop, and they also play a role in the development of the brain and nervous system. Parathyroids: Attached to the thyroid gland are four small glands that work together called parathyroids (par-uh-THY-roydz). They release parathyroid hormone, which controls levels of calcium in the blood using calcitonin (kal-suh-TOE-nin), as the thyroid gland does. Adrenal glands: These two triangular adrenal glands (uh-DREE-zero) glands sit on top of each kidney. The adrenal glands have two parts, each of which makes a set of hormones and has a different function: the outer part is the adrenal cortex. It makes hormones called corticosteroids (kor-tih-ko-STER-oydz) that help control salt and water balance in the body, the body's response to stress, metabolism, immune system, and sexual development and function. The inner part is adrenal medulla (muh-DUH-luh). So do catecholamines (kah-tuh-KO-luh-meenz), such as adrenaline (eh-puh-NEH-frun). Also called adrenaline, adrenaline increases blood pressure and heart rate when the body is under stress. Pineal: The pineal gland (pih-NEE-ul) body, also called the pineal gland, is in the center of the brain. It secretes melatonin (meh-luh-TOE-nin), a hormone that can help regulate when we sleep at night and wake up in the morning. Reproductive glands: Gonads are the main source of sex hormones. In boys the male gonades, or testicles (TES-teez), are in the scrotum. They secrete hormones called androgens the most important of which is (tess-TOSS-tuh-rone). These hormones tell a boy's body when it's time to make the changes associated with puberty, like penis and height growth, deeper voice, and growth of the face and pubic hair. Working with hormones from the pituitary gland, testosterone also tells a boy's body when it's time to make sperm in the testes. A girl's gonades, the ovaries (OH-vuh-reez), are in her pelvis. They make eggs and secrete the female hormones (ESS-truh-jen) and (pro-JESS-tuh-rone). Estrogen is involved when a girl starts puberty. During puberty, a girl will have breast growth, begin to accumulate body fat around the hips and thighs, and have a growth spurt. Estrogen and progesterone are also involved in the regulation of a girl's menstrual cycle. These hormones also play a role in pregnancy. Pancreas: The pancreas (PAN-kree-us) makes insulin (IN-suh-lin) and glucagon (GLOO-kuh-gawn), which are hormones that control levels of glucose, or sugar, in the blood. Insulin helps keep the body supplied with energy stores. The body uses this stored energy for exercise and activity, and it also helps organs work as they should. What can help keep the endocrine system healthy? To help keep your child's endocrine system healthy: Get plenty of exercise. Eat a nutritious diet. Go for regular medical examinations. Talk to your doctor before taking any supplements or herbal treatments. Let the doctor know about any family history of endocrine problems, such as diabetes or thyroid problems. When should I call the doctor? Let the doctor know if your child: drinking a lot of water but is still thirsty has to pee often have frequent abdominal pain or nausea is very tired or weak wins or loses a lot of weight have tremors or sweating a lot is constipated does not grow or develops as expected Reviewed by: Larissa Hirsch, MD Date reviewed: October 2018 2018