

Errata

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Title: HLTAAP001 Recognise healthy body systems – Learner guide (content only)

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Page numbers: 16, 17, 19 and 35

Attachments
NEW p. 16, 17, 19 and 35: HLTAAP001 Recognise healthy body systems

Please use the attached pages to replace erroneous page in the above resource.

Aspire Learning Resources

Demonstrate knowledge of the musculoskeletal system

Support workers need to be able to demonstrate knowledge of the musculoskeletal system in order to care for people effectively.

Knowledge of the musculoskeletal system helps you to:

- ▶ make sure a person's environment is free from hazards that could lead to trips and falls
- ▶ make sure a person's environment is well lit to prevent falls
- ▶ provide appropriate care to compensate for muscle or bone weakness
- ▶ assist with safe transfers
- ▶ assist people to complete rehabilitation exercises
- ▶ communicate effectively with people with limited facial movement.

The endocrine system

One of the major functions of the body's systems is to keep the body in balance. The medical term that describes the processes used to regulate the body is homeostasis. One of the systems that plays a major role in homeostasis is the endocrine system.

The endocrine system produces and secretes hormones that are distributed throughout the body and regulate other functions of the body, which are listed below.

These hormones regulate:

- ▶ growth
- ▶ metabolism
- ▶ heart rate
- ▶ organ function
- ▶ bone density
- ▶ mood.

Anatomy of the endocrine system

The glands of the endocrine system include the:

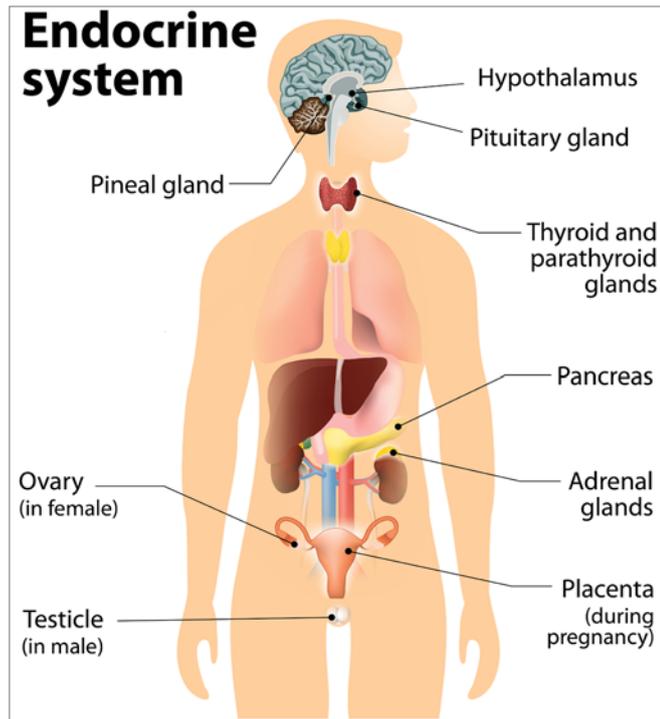
- ▶ adrenal gland
- ▶ gonads
- ▶ hypothalamus
- ▶ pancreas
- ▶ parathyroid gland
- ▶ pineal gland
- ▶ pituitary gland
- ▶ thyroid gland.

The function of the endocrine system

The endocrine system is a collection of glands that produce hormones to regulate metabolism, growth, development, tissue function, sexual function, reproduction, sleep and all the functions required for development and everyday life.

Endocrine glands secrete hormones directly into the bloodstream where they are carried to the target organs or receptor sites.

Hormones are chemical messages that act as a key in a lock for specific target receptors. They carry specific messages and cannot attach to or unlock another receptor.



Hormones and their effects are closely monitored by a feedback loop system in the body. An example of this is the release of insulin in response to the level of glucose in the blood after a meal.

Location of the endocrine system

The endocrine glands secrete specific hormones to target other glands, organs of the body or body systems. They work to maintain homeostasis. Many of the hormones secreted are vital to body maturation and some are essential for vital body functioning.

Adrenal glands

- ▶ The adrenal glands are located on top of each kidney.
- ▶ The adrenal cortex – the outer part of the gland/s – produces hormones that are vital to life, such as cortisol (which helps regulate metabolism and helps your body respond to stress) and aldosterone (which helps control blood pressure).
- ▶ The adrenal medulla – the inner part of the gland – produces adrenaline (which helps your body react to stress).

Hypothalamus

- ▶ The hypothalamus is the portion of the brain that maintains the body's internal balance (homeostasis).
- ▶ The hypothalamus is the link between the endocrine and nervous systems.
- ▶ It produces releasing and inhibiting hormones, which stop and start the production of other hormones throughout the body.

Thyroid

- ▶ The thyroid gland is located in your throat and is shaped like a butterfly.
- ▶ The thyroid regulates your metabolism.
- ▶ The two main thyroid hormones are T3 and T4.
- ▶ Thyroid disorders are common and include goitres, hyperthyroidism, and hypothyroidism.

Endocrine system terminology

In some cases, people require medication to help regulate the level of hormones distributed throughout their body. In such cases, support workers may be required to assist with medication and document the medication taken. Workers should also be able to recognise the signs that the endocrine system is not working properly so they can record and report these changes to health professionals who can act on and monitor the person's condition.

Here are some terms you may come across in relation to the endocrine system.

Hyperthyroidism

Hyperthyroidism occurs when a person has an overactive thyroid, which can cause an increase in heart rate, weight loss and feelings of exhaustion.

Hypothyroidism

Hypothyroidism occurs when people have an underactive thyroid, which can lead to depression, exhaustion and weight gain.

Osteoporosis

Oestrogen levels affect bone mass. Post-menopausal women have reduced levels of oestrogen. As a result, they often have reduced bone density. This condition is known as osteoporosis.

Type 2 diabetes

Type 2 diabetes (also known as diabetes mellitus) occurs when a person has insufficient levels of insulin. In the long term this can damage the heart, kidneys, nerves, eyes and blood vessels. It can be managed through a modified diet, exercise, weight loss and in some cases medication.

Spleen	The organ located in the abdomen that removes diseased cells and other harmful matter from the bloodstream
Splenomegaly	An enlargement of the spleen
Tonsillitis	Inflamed tonsils

Location of the lymphatic system

The lymphatic system is similar to the cardiovascular system and covers all regions of the body. It consists of glands vessels, nodes, tissues and organs. For example, the thymus is a gland that functions in childhood and gradually diminishes after puberty before being replaced by fatty tissue. When the lymphatic system is working to protect the body from disease, the nodes that consist of lymphatic tissue increase in size and can be felt through the skin.

Here is more information (and terminology) about the location of parts of the lymphatic system in the body.

Head and neck

- ▶ Adenoids
- ▶ Cervical nodes
- ▶ Lingual tonsils
- ▶ Palatine tonsils

Upper torso

- ▶ Axillary nodes
- ▶ Broncho mediastinal trunk
- ▶ Broncho pulmonary nodes
- ▶ Intercostal nodes
- ▶ Jugular trunk
- ▶ Mediastinal nodes
- ▶ Right lymphatic duct
- ▶ Spleen
- ▶ Subclavian trunk
- ▶ Thoracic duct
- ▶ Thymus gland

Lower torso

- ▶ Appendix
- ▶ Cysterna chyli
- ▶ Iliac nodes
- ▶ Inguinal nodes
- ▶ Intestinal trunk
- ▶ Lumbar trunk
- ▶ Peyer's patches

Arm and hand

- ▶ Cubital nodes

Leg and foot

- ▶ Popliteal nodes