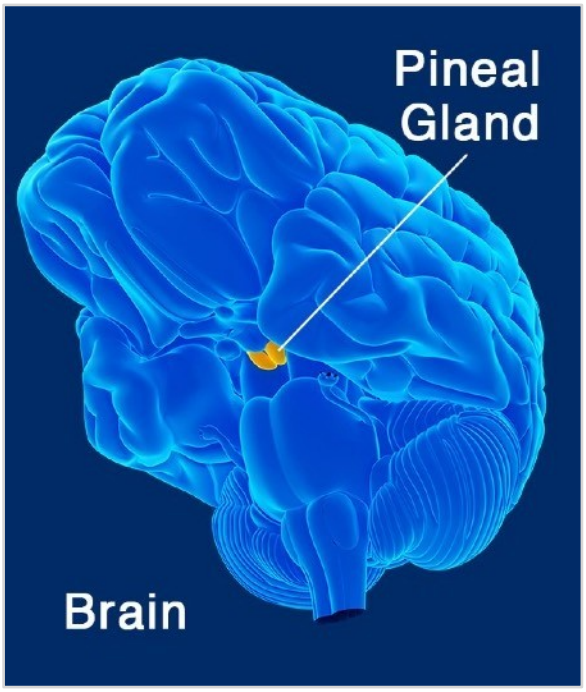
Pineal Gland

Fact Sheet

Location

The pineal gland is located near the centre of the brain. It is a small gland (5-8mm in size) and is shaped like a pinecone (giving this gland its name).



Functions/Roles

The main function of the pineal gland is to make melatonin, which sets the rhythm of many biological systems.

Hormones produced by the pineal gland

Melatonin has key roles in controlling circadian (daily) rhythms (e.g. sleep/wake cycles) and seasonal rhythms. Melatonin also helps protect cells from damage.

Keeping melatonin levels in balance

Melatonin levels change across the day in response to changes in daylight. More melatonin is made during periods of darkness (e.g. night), while less is produced during light periods (e.g. day). This means that melatonin levels usually change in a daily (circadian) and seasonal rhythm.

Common problems and conditions of the pineal gland

Pineal cysts – these are common but generally not harmful.

Circadian rhythm sleep disorders - jet lag

Excess melatonin supplementation – too much melatonin can increase sleepiness, lower body temperature, cause headaches, nausea, anxiety, increase blood pressure and affect reproductive function. Melatonin can interact with other medications (e.g. corticosteroids, anticoagulants) to cause unwanted or dangerous side effects.

More information about hormones and the hormone system is available at https://www.hormones-australia.org.au

More Hormones-Australia factsheets are available at https://www.hormones-australia.org.au/patient-resources/

To find an endocrinologist near you, visit: https://www.hormones-australia.org.au/find-an-endocrinologist/

This information is designed to support, not replace, the relationship that exists between a person and their existing health care professional/s. Please discuss any health concerns with your doctor or specialist.

Hormones Australia aims to improve the health of Australians through increasing understanding about hormones and hormone-related conditions. Hormones Australia is an initiative and governed by the Endocrine Society of Australia (ESA).