



The effects of a glass of wine on the reproductive systems of men and women



Introduction

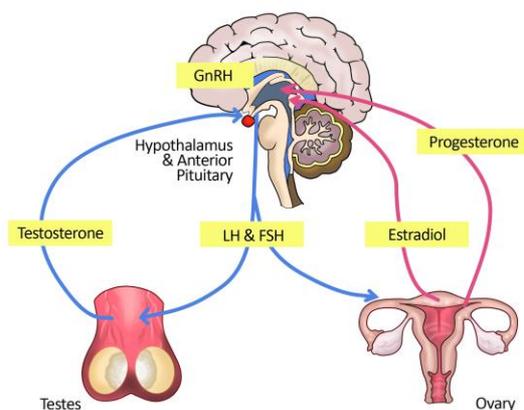
Our reproductive system includes three basic components – a brain region (hypothalamus), the pituitary gland (located at the base of the brain) and the gonads – specifically, the ovaries in women and the testes in men. This is referred to as the hypothalamic-pituitary-gonadal axis.

The role of the hypothalamus is to produce a hormone (gonadotropin-releasing hormone), which is released into the blood vessels that connect the hypothalamus to the pituitary gland.

In response to the release of gonadotropin-releasing hormone, the pituitary gland produces and releases two more hormones – luteinizing hormone and follicle stimulating hormone, which influences the function of the ovaries and the testes.

In women, the hormones trigger the release of eggs (ovulation) and the production and release of the hormones, estrogen and progesterone. Estrogen and progesterone then circulate in the blood back to the hypothalamus and pituitary gland to regulate the further production and release of hormones.

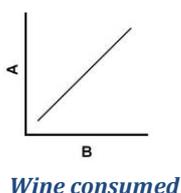
In men, the hormones trigger the maturation of sperm and the production and release of the hormone, testosterone. Testosterone then circulates in the blood back to the hypothalamus and pituitary gland to regulate the further production and release of hormones.



Components of the reproductive system

Drinking wine affects, both directly and indirectly, all three basic components in the body's reproductive system—the hypothalamus, the pituitary gland and the gonads (ovaries and testes). There is a linear relationship between the amount of wine consumed and the adverse effects on the reproductive system, where the more wine you drink the greater the adverse effect.

Adverse reproductive effects



Did you know?

In men:

- Drinking wine reduces the amount of testosterone in blood. This occurs via the hypothalamus and the pituitary gland, as well as by the testes, and increases the breakdown of testosterone in the liver, which also reduces the amount of

testosterone in blood. Testosterone can also be broken down to an estrogen hormone which may, for example, cause men's breasts to increase in size.

- Drinking wine affects the development and maturation of sperm cells in the testes, which makes it difficult for you and your partner to conceive a baby, as the ability of the sperm to move towards an egg is decreased.

Drinking wine can also decrease your sexual drive and performance.

In women:

- Drinking heavy or excessive amounts of wine affects your menstrual cycle and ovulation, which makes it difficult for you and your partner to conceive a baby if an egg is not released from an ovary into the fallopian tube.

If you reduce the amount of wine that you drink or even stop drinking, however, these adverse effects are readily reversible.

References and further reading

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Fact Sheet

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Contact

For further information, please contact:

Dr Creina Stockley

Phone 08 8313 6600 **Fax** 08 8313 6601

Email helpdesk@awri.com.au

Website <http://www.awri.com.au>

Address Wine Innovation Central Building,
Corner of Hartley Grove & Paratoo Rd,
Urrbrae (Adelaide), SA 5064