

# [Anatomy: oxytocin](https://assignbuster.com/anatomy-oxytocin/)

[](https://assignbuster.com/)[Life](https://assignbuster.com/essay-subjects/life/)

Anatomy Report: OXYTOCIN Name: Yeqin Yan Period: first period Oxytocin Oxytocin: from the Greek “ oxy”, meaning " quick," and tokos, meaning " childbirth". History: Oxytocin was discovered in 1909 when Sir Henry H. Dale found that an extract from the human posterior pituitary gland contracted the uterus of a pregnant cat.

Definition: a hypothalamic hormone stored in the posterior pituitary, which has uterine-contracting and milk-releasing actions; it may also be prepared synthetically or obtained from the posterior pituitary of domestic animals; used to induce active labor, increase the force of contractions in labor, contract uterine muscle after delivery of the placenta, control postpartum hemorrhage, and stimulate milk ejection. Peripheral (hormonal) actions: 1. Letdown reflex 2. Uterine contraction 3. Social behavior and wound healing 4.

Modulation of hypothalamic-pituitary-adrenal axis activity 5. Autism 6. Increasing trust and reducing fear 7. Affecting generosity by increasing empathy during perspective taking 8. Affecting Cognitive function Actions within the brain: 1. a Function: 1. Stimulates contractions of the smooth muscle tissue in the wall of the uterus during childbirth. 2. Oxytocin stimulates uterine contraction. 3. Contract the vagina during orgasm. Synthesis: In the hypothalamus, oxytocin is made in magnocellular neurosecretory cells of the supraoptic and paraventricular nuclei. Storage:

It is stored in Herring bodies at the axon terminals in the posterior pituitary. Release: It is then released into the blood from the posterior lobe (neurohypophysis) of the pituitary gland. Where can we find it: Outside the brain, oxytocin-containing cells have been identified in several diverse tissues, including the corpus luteum, the interstitial cells of Leydig, the retina, the adrenal medulla, the placenta, the thymus and the pancreas. Drug forms: Synthetic oxytocin is sold as proprietary medication under the trade names Pitocin and Syntocinon, and as generic oxytocin.