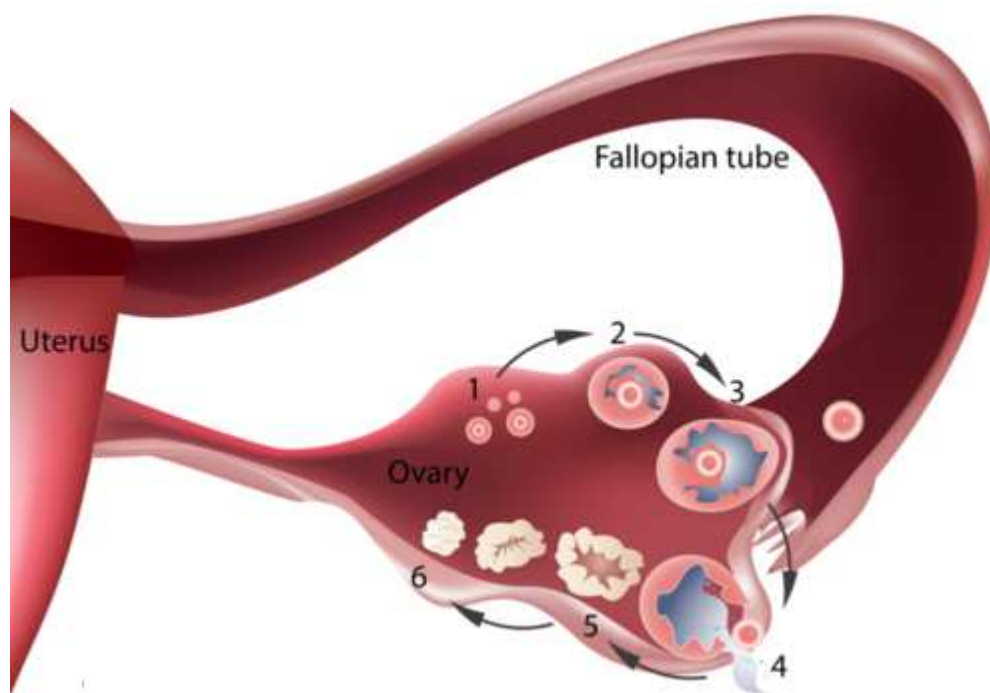


Menstruation cycle

The process of producing eggs in the ovary is called **oogenesis**. At birth, a female's ovaries contain all the eggs she will ever produce. However, the eggs do not start to mature until she enters puberty. After menarche, one egg typically matures each month until a woman reaches middle adulthood. Oogenesis begins long before birth when an **oogonium** with the diploid number of chromosomes undergoes **mitosis**. It produces a diploid daughter cell called a **primary oocyte**. The primary oocyte, in turn, starts to go through the first cell division of meiosis (meiosis I). However, it does not complete meiosis until much later. The primary oocyte remains in a resting state, nestled in a tiny, immature **follicle** until puberty. Beginning in puberty, each month one of the follicles and its primary oocyte starts to. The primary oocyte resumes meiosis and divides to form a **secondary oocyte** and a smaller cell, called a **polar body**. Both the secondary oocyte and polar body are haploid cells. The secondary oocyte has most of the cytoplasm from the original cell and is much larger than the polar body. After 12–14 days, when the follicle is mature, it bursts open, releasing the secondary oocyte from the ovary. This event is called **ovulation**. The follicle, now called a **corpus luteum**, starts to degenerate, or break down. After the secondary oocyte leaves the ovary, it is swept into the nearby fallopian tube by the waving, fringed end.

If the secondary oocyte is fertilized by a sperm as it is passing through the fallopian tube, it completes meiosis and forms a **mature egg** and another polar body. (The polar bodies break down and disappear.) If the secondary oocyte is not fertilized, it passes into the uterus as an immature egg and soon disintegrates.

Try to name the phases or structures (1-6) of ovulation.



1. **primary oocyte (immature follicle)**

4. **ovulation**

2. **secondary oocyte (mature follicle)**

5. **corpus luteum**

3. **mature follicle**

6. **degenerating cor. luteum (*corpus albicans*)**