

The Human Menstrual Cycle

Biomedical Sciences 136 – Biology of Human Sexuality

	DAYS 1 to 5/7 (menses)	14 (ovulation)	28
STRUCTURE			
PITUITARY	[-----FSH DOMINATES-----]	[[-----LH DOMINATES-----]]	
OVARY	[-----FOLLICULAR PHASE-----] (FOLLICLES IN THE OVARY)	[[-----LUTEAL PHASE-----]] (CORPUS LUTEUM IN THE OVARY)	
OVARIAN STEROID RELEASED	[-----ESTRADIOL DOMINATES-----] VIRTUALLY NO PROGESTERONE PRODUCED	[[-----PROGESTERONE DOMINATES-----]] AND ESTRADIOL STILL PRODUCED	
UTERUS ENDOMETRIUM	[-----PROLIFERATIVE PHASE-----] (ENDOMETRIUM CELLS DIVIDE)	[[-----SECRETORY PHASE-----]] (ENDOMETRIAL GLANDS SECRETE)	
UTERUS - MYOMETRIUM	[-----MORE CONTRACTIONS-----]	[[-----FEWER CONTRACTIONS-----]]	
CERVICAL MUCOUS	[-----THIN, WATERY, HOSPITABLE TO SPERM-----]	[[-----THICK, VISCOUS, INHOSPITABLE TO SPERM-----]]	
BASAL BODY TEMPERATURE	[-----NO EFFECT = NORMAL-----]	[[-----INCREASE OF ½ TO 1 DEGREE CELSIUS-----]]	

Estradiol is the estrogen secreted in the greatest amount in the non-pregnant, premenopausal woman.

Estrogen is a potent **mitogen** = stimulates mitosis (for proliferative phase, cancers, etc.)

Progesterone is **thermogenic** = increases basal body temperature (increase metabolism for pregnancy)

The **MENSES** (menstrual period) is the first 5 to 7 days of the cycle. The first day of the menses is the first day of bloodflow/endometrial loss.

OVULATION (release of oocyte from ovary) usually occurs around day 14 (typically day 12 to 15) of the cycle.

During the middle two weeks of the cycle, the woman is **more fertile** (although fertilization can occur anytime during the cycle depending on the female and when she ovulates). The **day of greatest fertility** is usually 48 hours before ovulation in association with the estrogen surge. This allows time for the sperm to travel and be pulled up the female reproductive system before ovulation and the cervical mucous is more hospitable to sperm during this time.