

## What should I know about my sex hormones?



### ESTROGEN

#### Puberty

- Produced mainly in the ovaries
- Promotes the development of secondary sexual characteristics:
  - Breast development, wider hips, fat distribution
- Stimulates growth of uterine lining during each menstrual cycle
- Essential for bone density and growth during puberty

### PROGESTERONE

- Plays a major role once regular cycles established
- Prepares the uterus for potential pregnancy

### FOLLICLE-STIMULATING HORMONE (FSH)

- Produced by the pituitary gland
- Stimulates the growth of ovarian follicles in ovaries
  - These are the immature eggs that FSH matures

### LUTEINIZING HORMONE (LH)

- Produced by the pituitary gland
- Triggers ovulation (release of mature egg by ovary)

### The Menstrual Cycle

#### FOLLICULAR PHASE (DAY 1-14)

- **Estrogen** rises, thickening the uterine lining to prepare for a fertilized egg.
- **FSH** stimulates growth of the ovarian follicle.

#### OVULATION (DAY 14)

- **LH Surge** causes the mature follicle to rupture and release an egg.
- **Estrogen** peaks, creating the egg's release.

#### MENSTRUAL PHASE (DAY 1)

- **Estrogen** and **Progesterone** levels drop, triggering the shed of uterine lining, if no pregnancy present.

#### LUTEAL PHASE (DAY 15-28)

- **Progesterone** becomes dominant and stabilizes the uterine lining for implantation.
- **Estrogen** present but at lower levels

### Pregnancy and Postpartum

#### HUMAN CHORIONIC GONADOTROPIN (HCG)

- Produced by the placenta after implantation
- Maintains the corpus luteum until the placenta

#### ESTROGEN AND PROGESTERONE

- Rise during pregnancy to support growing fetus
- **Estrogen:** promotes blood flow to uterus and preparation of milk ducts
- **Progesterone:** relaxes uterine muscles to prevent contractions and support uterine lining

#### PROLACTIN

- Produced by pituitary gland
- Stimulates milk production after childbirth

#### OCYTOCIN

- Known as the "love hormone"
- Helps uterine contractions during birth and milk ejection during breastfeeding.

### Perimenopause and Menopause

#### PROGESTERONE

- First hormone to decline
- May lead to lighter periods or irregular cycles

#### ESTROGEN

- Declines in perimenopause, drops in menopause
- Affects bone density, skin elasticity, vaginal health

#### FSH AND LH

- Increases significantly after menopause due to the body's attempt to stimulate ovaries, which are no longer responsive

### What will the class cover?

In depth look at how your sex hormones work.

Functional nutrition to support your sex hormones.

Sex hormone lab information and results interpretation.

Supplements and herbs to support your hormones.

Questions and talking points for your providers.