

Important Hormones during the Menopause Transition

HORMONE NAME	WHAT IS IT?	WHERE IS IT MADE?	WHAT DOES IT DO?
Estradiol (Estrogen) aka: - E2 - oestradiol -17 β -estradiol	- strongest of the three types of estrogen - a steroid hormone made from cholesterol	- mostly in the ovaries - smaller amounts in other tissues such as the brain, fat tissue, and blood vessel walls	- primary activity is with the reproductive system - maintains and controls the menstrual cycle - triggers breast tissue development - increases bone and cartilage density - acts on multiple centers in the brain
Estrone (Estrogen) aka: - E1 - oestrone	- weaker form of estrogen - the major type of estrogen produced post-menopause	- mostly in the ovaries - some from the adrenal gland - smaller amounts from fat tissue	- specifics are poorly understood - as an estrogen it is involved in the female reproductive system.
Estriol (Estrogen) aka: - E3 - oestriol	- exists in very low levels in non-pregnant women	- high amounts produced by the placenta - triggered by a chemical produced in the fetus' adrenal gland	- involved in uterine growth - helps prepare the body for childbirth
Progesterone	- member of a group of steroid hormones called progestogens	- in the corpus luteum (which is formed from a ruptured follicle that just released an egg)	- causes the lining of the uterus to thicken in preparation for pregnancy after an egg is released - if there is no pregnancy, the corpus luteum (where the progesterone is formed) breaks down, dropping progesterone levels and triggering menstruation
Testosterone aka: -4-androsten-17 β -o	- member (and best known) of a group of hormones called androgens	- mostly in the adrenal gland - small amounts in the ovaries	- stimulates development of male characteristics - enhances libido
Follicle-stimulating Hormone (FSH)	- member of a group of hormones called gonadotropins	- the anterior pituitary gland (from cells called gonadotrophs) - its release is regulated by the hypothalamus	- essential for development at puberty - triggers the release of estrogen - triggers egg development
Luteinising hormone (LH)	- member of a group of hormones called gonadotropins	- The anterior pituitary gland (from cells called gonadotrophs) - release is regulated by the hypothalamus	- triggers ovulation (the release of an egg) - triggers estrogen and progesterone production from the corpus luteum
Anti-Mullerian Hormone (AMH)	- a peptide growth factor of the transforming growth factor- β family that work to initiate and control growth and differentiation of many cell types in animals	Follicles in the ovaries	- Presence in the fetus will trigger development of a male - important in the development of the follicles - the more ovarian follicles a woman has, the more AMH her ovaries will produce - used as a measure of the 'ovarian reserve' or how many eggs are remaining.
Androstenedione	- member of a group of hormones called androgens	- cortex of the adrenal glands - the ovaries	- once secreted it gets quickly converted into estrone and testosterone - produces almost all the estrone in the body