ENDOMETRIAL GLANDS

Uterine Glands

Tube-like uterine glands, which are found in the functional layer of the uterine called endometrium.

❤️ Organ  🟢 Female

About Endometrial glands

Function

Uterine growth and endometrial gland formation (adenogenesis) and function, are essential for fertility and are controlled by estrogens (female sex hormone) and other regulators.

The endometrial glands are best developed and most active during early human pregnancy. The uterine glands synthesize or transport and secrete substances essential for survival and development of the embryo or fetus and associated extraembryonic membranes (membranous structures that appear parallel to the embryo and which play important roles in embryonic development, after birth they are not part of the organism). Over the first trimester the glands gradually regress.

Anatomy

Endometrium (the inner layer of the mammalian uterus) (Pic. 1) is composed of tubular glands, a dense fibroblastic stroma and thin blood vessels before puberty, because it is inactive.

When puberty comes, cyclic pituitary and ovarian hormonal activity is responsible for endometrial cyclic changes involving glands, stroma and blood vessels. They can be indentifies as characteristic for each day of the cycle.

Histology

Their appearance varies during the menstrual cycle. During the proliferative phase (the stage of the menstrual cycle in which ovarian follicles mature and prime themselves for ovulation), uterine glands appear long (Pic. 2) due to estrogen secretion by the ovaries. During the secretory phase (when the maximal thickness is reached and the uterine glands complete their growth), the uterine glands become very coiled with wide lumens and produce a glycogen-rich secretion (a type of glucose that serves as a form of energy storage in humans).

Find more about related issues

Diagnoses

Adenomyosis
Medical condition characterized by the presence of ectopic endometrial tissue within the myometrium.
Learn more at: www.Fertilitypedia.org/therapy/diag/adenomyosis

Gallery
Sources

"Endometrial glands as a source of nutrients, growth factors and cytokines during the first trimester of human pregnancy: A morphological and immunohistochemical study" [https://rbej.biomedcentral.com/articles/10.1186/1477-7827-2-58] — by Hempstock et al. licensed under CC BY 2.0


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