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1. The cyclic change of vagina

The vagina is an elastic, muscular canal with a soft, flexible lining that provides lubrication and sensation. The vagina connects the uterus to the outside world. The vulva and labia form the entrance, and the cervix of the uterus protrudes into the vagina, forming the interior end.

Supporting the vagina are its upper, middle, and lower third muscles and ligaments. The upper third are the levator ani muscles, and the transcervical, pubocervical, and sacrocervical ligaments. It is supported by the upper portions of the cardinal ligaments and the parametrium. The middle third of the vagina involves the urogenital diaphragm. It is supported by the levator ani muscles and the lower portion of the cardinal ligaments. The lower third is supported by the perineal body, or the urogenital and pelvic diaphragms. The lower third may also be described as being supported by the perineal body and the pubovaginal part of the levator ani muscle. The historical changes observed in the vagina demonstrated a good correlation with the observation on cytological examination of smears.

2. The cyclic change of cervix

The cervix is the lower part of the uterus in the human female reproductive system. The cervix is usually 2 to 3 cm long (1 inch) and roughly cylindrical in shape, which changes during pregnancy. The narrow, central cervical canal runs along its entire length, connecting the uterine cavity and the lumen of the vagina. The lower part of the cervix is also known as the vaginal portion of the cervix (or ectocervix).

The cervix, which is the spongy, button-like tissue with a central area (os) that can open and is the entrance of the uterus from the vagina, can undergo certain changes during different times of the menstrual cycle and pregnancy.

During menstruation, besides the tell-tale sign of vaginal bleeding, the cervix during this time of the menstrual cycle feels firm, hangs low and the os is open to allow blood to escape from the uterus. The os then closes once all the blood has shed from the uterus. The cervix may also be slightly angled to one side.

3. Discuss Menstrual Cycle.

The menstrual cycle is the regular natural change that occurs in the female reproductive system (specifically the uterus and ovaries) that makes pregnancy possible. The cycle is required for the production of oocytes, and for the preparation of the uterus for pregnancy. The menstrual cycle occurs due to the rise and fall of estrogen. This cycle results in the thickening of the lining of the uterus, and the growth of an egg, (which is required for pregnancy). The egg is released from an ovary around day fourteen in the cycle; the thickened lining of the uterus provides nutrients to an embryo after implantation. If pregnancy does not occur, the lining is released in what is known as menstruation.

The menstrual cycle is governed by hormonal changes. These changes can be altered by using hormonal birth control to prevent pregnancy. Each cycle can be divided into three phases based on events in the ovary (ovarian cycle) or in the uterus (uterine cycle). The ovarian cycle consists of the

follicular phase, ovulation, and luteal phase whereas the uterine cycle is divided into menstruation, proliferative phase, and secretory phase.

Stimulated by gradually increasing amounts of estrogen in the follicular phase [The follicular phase starts on the first day of your period (so there is some overlap with the menstrual phase) and ends when you ovulate], discharges of blood (menses) flow stop, and the lining of the uterus thickens. Follicles in the ovary begin developing under the influence of a complex interplay of hormones, and after several days one or occasionally two become dominant (non-dominant follicles shrink and die).