

# **Uterine action during labor**

## **Uterine changes during pregnancy**

**Uterus is principally composed of involuntary muscle fibers with varying amounts of C.T. of w the most important is collagen.**

**Functionally and anatomically 3 regions are identified:**

**Body (corpus)...is the main part of the uterus and contains the growing conceptus**

**It has 40% of the ms. Fibers in nonpregnant.**

**It provides the main expulsive force during labor**

**Cervix...Connects the body to vagina**

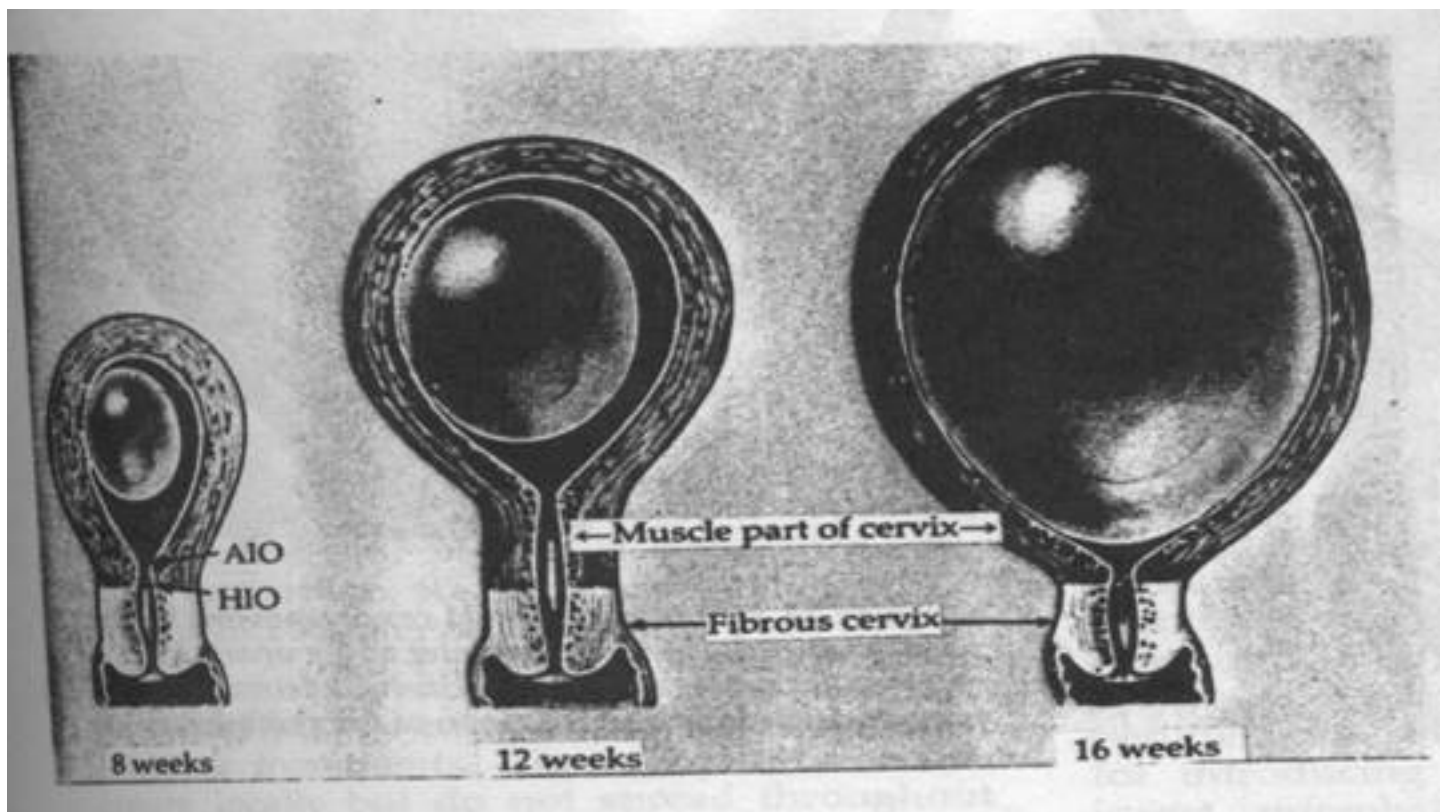
**Isthmus...anatomically it is part of the cervix**

**Histologically it resembles the body of the uterus**

**\*its upper margin is the anatomical internal os (evident macroscopically as a constriction between the uterine cavity and the cervical canal)**

**\*Its lower margin is the histological internal os recognized microscopically as the fibromuscular boundary between cervix and corpus and also the junction between endometrial and cervical glands.**

**The lower part of the uterus developed late in pregnancy from the isthmus (1cm---10cm at term) by relaxation and stretching of the isthmus which becomes incorporated into the upper segment.**



**Uterus increase in weight 10-folds during pregnancy (50gm-----1kg)**

**Mostly because of hypertrophy (increase muscle length), but also due to hyperplasia (increase number of muscle fibers)**

**The uterus accommodates the growing fetus by:**

- 1-Hypertrophy of muscle**
- 2-Hyperplasia of muscle**
- 3- increase compliance of c.t fibers**

**N/B compliance results from plasticity of the c.t fibers i.e. ability to stretch without change in pressure.**

**Factors that help the uterus to expand:**

- 1-Unravelling of the collagen fiber bundle**
- 2-softening of the interfibrillar ground substance permits sliding of fibers**
- 3-degenerative changes may occur.**

**These changes depends on hormonal and mechanical factors**

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