

"Second Week of Development"

[Preview: Cells of Inner cell mass: Now called Embryoblast and Cells of Outer cell mass: Now called Trophoblast]

《 Day 8 》

- Blastocyst is partially embedded in endometrial stroma

》 Trophoblast: Differentiated into two layers:

1) Cytotrophoblast

- Mononucleated cells
- Distinct cell boundaries
- Mitosis takes place in these cells

2) Syncytiotrophoblast

- Multinucleated zone
 - No distinct cell boundaries
- No mitosis occurs here: Cells from
- Cytotrophoblast enter Syncytiotrophoblast

» Embryoblast: Differentiated into two layers:

- 1) Cuboidal layer → Forms Hypoblast
- 2) Columnar layer → Forms Epiblast →
Cavity within the epiblastic cells is called
amnion

» Endometrial surface near the site of Implantation becomes:

- Highly vascular
- Edematous
- Large tortuous glands are present which secrete: Glycogen + Mucous

- Endometrium is further divided into:
Functional layer + Basal Layer
- Functional Layer is further divided into:
Spongy layer → Compact Layer

' Uterine Cycle: Stages: '

1) Follicular or Proliferative Stage:

- Caused by: Estrogen from Theca Interna and Granulosa cells
 - Changes: Growth

2) Secretory or Progestational Phase:

- Caused by: Progesterone from Corpus Luteum
- Changes: Large tortuous glands formed + Vascularity increases + Glycogen and Mucous production

3) Menatural Phase:

- Cause: No fertilization -> Corpus Luteum degenerates -> Corpus Albicans (scar tissue) formed -> Progesterone secretion decreased -> Positive effect on Uterus decreased -> Mensturation