

"Second Week of Development"

《 Day 13 》

》 Primary Villi Formation:

- Are cellular columns with Syncytial covering
- Formed when Cytotrophoblast penetrates Syncytiotrophoblast

》 Secondary Yolk sac or Definitive Yolk sac:

- Hypoblast produces additional cells -> Migrate along the inside of exocoelomic membrane -> Proliferate -> Form a new cavity within Exocoelomic cavity -> called Secondary Yolk sac or Definitive Yolk sac

» Chorionic Cavity:

- During the formation of Secondary/Definitive Yolk sac -> Large portions of exocoelomic cavity are pinched off -> Exocoelomic cyst -> Found in Extraembryonic coelom or Chorionic cavity
- In short, extraembryonic cavity becomes chorionic cavity

» Bleeding:

- Blood flow into lacunar spaces from maternal sinusoids may cause bleeding at about 28th day from the last menstrual cycle -> May cause confusion between pregnancy and menstruation

» Chorionic Plate

- Extraembryonic mesoderm lining the inside of cytotrophoblast is known as Chorionic plate

» Connecting Stalk:

- The only place where extraembryonic mesoderm traverses the chorionic plate is called connecting stalk
- With development of blood vessels -> Stalk becomes umbilical cord

"Highlights of Second Week of Development"

» Week of 2's

Reason:

1. The trophoblast differentiates into two layers:
the cytotrophoblast and syncytiotrophoblast
2. The embryoblast forms two layers: the epiblast and hypoblast
3. The extraembryonic mesoderm splits into two layers: the somatic and splanchnic layers
4. Two cavities form: the amniotic and yolk sac cavities.

' Important Events: '

- Day 8: Cytotrophoblast + Syncytiotrophoblast formation
- Day 9: Lacunar Stage
- Day 10,11,12: Uteroplacental circulation
- Day 13: Primary Villifformation