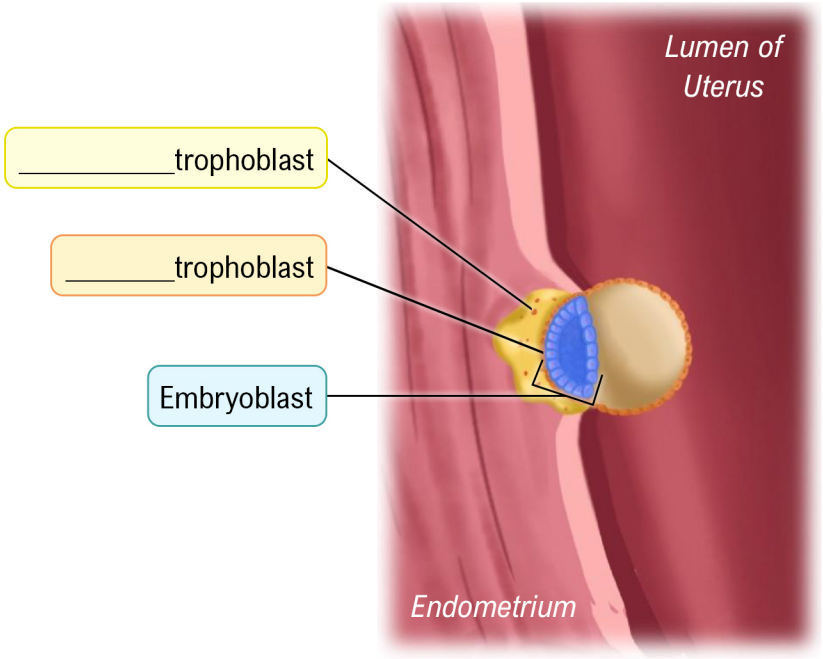
TOPIC: IMPLANTATION

Implantation: Days 6-9

- **Implantation:** Embedding of a _____ into the endometrium of the uterine wall.
- Begins around day _____; trophoblast cells adhere to the endometrium.
- Trophoblast proliferates rapidly days 7-9, differentiating into ____ layers:
  - The **cyto**trophoblast
  - The **syncytio**trophoblast
- Syncytiotrophoblast erodes endometrium and projects long extensions that absorb & digest _____.

Terminology Tip:

Syncytio means fused or *united* – this structure will 'fuse' with the endometrium and form the placenta.



EXAMPLE

In the process of implantation, the _____ cells attach to the uterine wall.

a) Embryoblast.

b) Zona pellucida.

c) Trophoblast.

d) Amnion.

PRACTICE

The trophoblast eventually differentiates into two layers. Which of these layers erodes the endometrium and begins projecting extensions into the uterine lining?

a) The cytotrophoblast.

b) The syncytiotrophoblast.

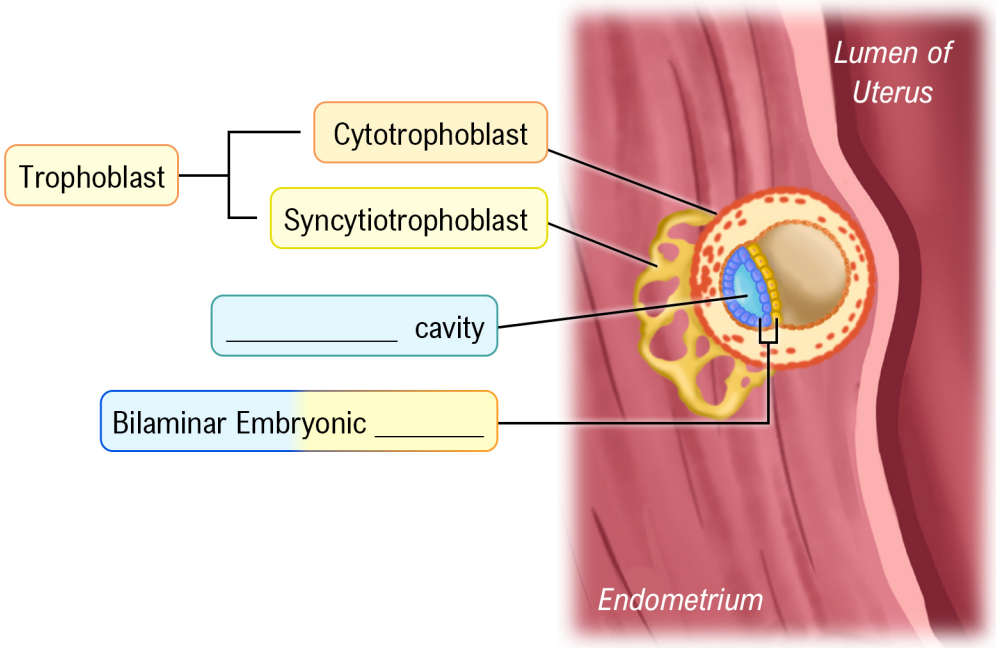
c) The blastocyst.

d) The morula.

TOPIC: IMPLANTATION

Implantation: Days 10-12

- Embryoblast separates from trophoblast, forming 2 new structures:
  1. _____laminar **Embryonic Disc**
  2. **Amniotic Cavity:** _____ between embryonic disc & trophoblast.
- Endometrial cells proliferate & cover the blastocyst, which is now fully implanted.
- Syncytiotrophoblast secretes **Human Chorionic Gonadotropin (_____)**.



EXAMPLE

Which of the following structures begins secreting human chorionic gonadotropin (the substance detected by most modern regnancy tests)?

a) The cytotrophoblast.

b) The syncytiotrophoblast.

c) The embryonic disc.

d) Endometrial cells.

PRACTICE

The process of implantation is usually complete by approximately:

a) 1-2 days after fertilization.

b) 4-5 days after fertilization.

c) 10-12 days after fertilization.

d) 20-28 days after fertilization.