Approximately five days post fertilization (dpf), the blastocyst develops. The inner cell mass gives rise to the fetus, while the surrounding trophectoderm transforms into the placenta.

Six to seven dpf, the blastocyst attaches to the uterine wall and begins its invasion.

From weeks three to 10, cytotrophoblast cells escape into the decidua, a specialized layer of endometrium, and differentiate into extravillous trophoblasts. These invading cells remodel spiral arteries to route parental blood to the intervillous space.

By the beginning of the second trimester, the cytotrophoblast plug breaks down and parental blood begins to enter the intervillous space.

During early pregnancy, the placenta remodels the uterine environment to support fetal growth.

**EARLY PLACENTA DEVELOPMENT SETS THE STAGE**

**DAY 0**

**DAY 1**

**DAY 2**

**DAY 3**

**DAY 4**

**DAY 5-6**

**DAY 7-9**

**DAY 10-12**

**EARLY FIRST TRIMESTER PLACENTA**

**FULL TERM PLACENTA**

**BEYOND WEEK 10 PLACENTA**

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