Stages of Prenatal Development

- Zygotic (germinal) stage
- Embryonic stage
- Fetal stage
- Critical period

Critical Periods in Fetal Development

<table>
<thead>
<tr>
<th>Week 3</th>
<th>Brain and spinal cord begin to form from neural tube</th>
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<tbody>
<tr>
<td>Weeks 3-4</td>
<td>Placenta and umbilical cord, eyes and primitive heartbeat</td>
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<tr>
<td>Week 5</td>
<td>Arms and leg buds</td>
</tr>
<tr>
<td>Week 8</td>
<td>Organogenesis complete; now one inch long, weight 1/30th oz.</td>
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</tbody>
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Zygotic Stage

- Conception to 14 days
- Rapid Cell Division
- Process of Implantation

Day One

Implantation
Embryonic Stage

- 2 weeks to 8 weeks
- Cell division
- Cell differentiation: Embryogenesis
- Three layers of cell division
  - endoderm
  - mesoderm
  - ectoderm

Embryonic Stage

- Structures
  - Amniotic sac
  - Placenta
  - Umbilical cord
One Month
Five Weeks

Fetal Stage

- 8 weeks to birth
- 3rd month: period of sexual emergence
- 5th month: reflexes are present
- Zone of viability: 24 weeks

18 Weeks
Four Months

20 Weeks

Fetal Stage

- Vernix
- Lanugo
Fetal Behavior

- States of arousal
- Ability to learn