Periods of Prenatal Development

<table>
<thead>
<tr>
<th>Period</th>
<th>Length</th>
<th>Key Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zygote</td>
<td>2 weeks</td>
<td>• Fertilization</td>
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<tr>
<td></td>
<td></td>
<td>• Implantation</td>
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<td></td>
<td></td>
<td>• Start of Placenta</td>
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<tr>
<td>Embryo</td>
<td>6 weeks</td>
<td>• Arms, legs, face, organs, muscles all develop</td>
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<td></td>
<td></td>
<td>• Heart begins beating</td>
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<tr>
<td>Fetus</td>
<td>30 weeks</td>
<td>• “Growth and finishing”</td>
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</tbody>
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Teratogen Substances

- Drugs
  - Prescription
  - Nonprescription
  - Illegal
- Tobacco
- Alcohol
- Radiation
- Pollution

The Apgar Scale

A - Appearance (color)
P - Pulse (speed of heartbeat)
G - Grimace (reflexive responses)
A - Activity (muscle tone)
R - Respiration (respiratory effort)

Preterm and Small-for-Date Babies

Preterm
- Born weeks before their due date.
- May be appropriate weight for length of pregnancy.

Small-for-Date
- May be born at due date or preterm.
- Below expected weight for length of pregnancy.
Reflexes

- A reflex is an inborn, automatic response to a particular form of stimulation.
- Adaptive Value of Reflexes
  - Some reflexes have survival value. For example, the rooting reflex helps a breast-fed baby find the mother's nipple.
  - Some reflexes may have had significance in our evolutionary past, but no longer serve a special purpose (e.g., the Moro reflex).
  - Several reflexes help parents and infants establish gratifying interaction.
- Reflexes and the Development of Motor Skills
  - A few reflexes form the basis for motor skills that will develop later. For example, the tonic neck reflex may prepare the baby for voluntary reaching.
  - If the stepping reflex is exercised regularly, babies are likely to walk several weeks earlier than if it is not practiced.
- The Importance of Assessing Newborn Reflexes
  - Researchers believe the disappearance of most newborn reflexes during the first 6 months of life is due to the infant’s gradual increase in voluntary control over behavior.
  - Reflexes provide a way of assessing the health of the baby’s nervous system.

- eye blink (shine bright light), withdrawal (prick foot with pin), rooting (stroke cheek near mouth), suckling (place finger in mouth), swimming (place infant face down in water), Moro (holding infant on back let head drop), palmar grasp (placing finger in hand and pressing against palm), tonic neck (turn baby’s head to side while lying on back), stepping (hold under arms and allow bare feet to touch the ground), Babinski (stroke sole of foot from toe to head)

Infant States of Arousal

- States of arousal are different degrees of sleep and wakefulness.
- Infants move in and out of 5 states throughout the day and night.
- Regular Sleep
  - No or little body movement during sleep
- Irregular Sleep
  - Body movements and rapid eye movements during sleep
- Drowsiness
  - Transition between falling asleep or waking up
- Quiet Alertness
  - Inactive with alert eyes
- Waking Activity and Crying
  - Body activity