

*Age of Viability - 23-24 weeks

Environmental Influences

Maternal Factors

- age of mother refers to either end of the age spectrum - young mothers (18 and under with immature reproductive systems) and older mothers (40+) are at an increased risk for giving their child birth defects
- number of previous pregnancies - Generally, having a second baby is easier than the first. However, after multiple pregnancies the chances of having low birth weight babies, or stillborn babies increases. This is because multiple births are very taxing on the mother's reproductive system
- high levels of stress that are severe and prolonged (i.e. death of a spouse, divorce, health problems, financial issues, job loss, war, etc.) have negative effects of the fetus. Stress hormones can lead to their babies having high emotionally reactivity, cleft palate, among other issues
- nutrition: studies on malnourished mothers show an increased risk of fetal death, birth defects, and problem pregnancies. Must do quasi, not experimental, studies to determine the effects of a mother's nutrition. Stress and poverty are associated with malnourishment.

Teratogens (Influences not related to the mother)

- external agent that can cause birth defects
- teratology - field of study concerned with birth defects - specifically teratogens brought on by diseases, drugs, chemicals, and radiation

Six Principles of how Teratogens Act

1. Depends on the species we're talking about as not all teratogens affect different species in the same way (ex. rats vs humans)
2. Some teratogens have different effects depending on the stage of pregnancy (ex 1st trimester, 3rd). Susceptibility differs depending on when the fetus is exposed to a particular teratogen.
3. Certain effects make it obvious which teratogen caused it
4. Death or serious illness
5. Can gain access to the fetus through mother's placenta, blood stream, etc
6. Increases with level of exposure

Maternal Diseases

- Rubella
 - congenital (present at birth) blindness
- Toxoplasmosis
 - produced by a parasite
 - mild disease with symptoms similar to the common cold
 - pregnant women should avoid raw or undercooked meat
- STIs
 - can reach fetus through the birth canal

Drugs

- even mild drugs that don't affect the mother can have an adverse effect on the fetus
- Thalidomide
 - originally prescribed to treat morning sickness
 - presumed to be safe because it had no effect on rats during testing
- DES
 - prescribed to women who had trouble bring pregnancies to term
 - increased risk of cervical cancer

Recreational Drugs

- smoking cigarettes
 - increased risk for Sudden Infant Death Syndrome
 - associated with behavioural problems such as aggression
- alcohol
 - Fetal Alcohol Syndrome
 - physical - facial characteristics (smaller head, flattened nose, upper lip underdeveloped)

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Prenatal Development

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- neurological - irritability, hyperactivity, seizures, tremors
 - intellectual - mental retardation, judgement, ability to focus and persevere
 - spectrum as it's not an all or none thing as to how people can be effected by alcohol
- marijuana
 - caffeine