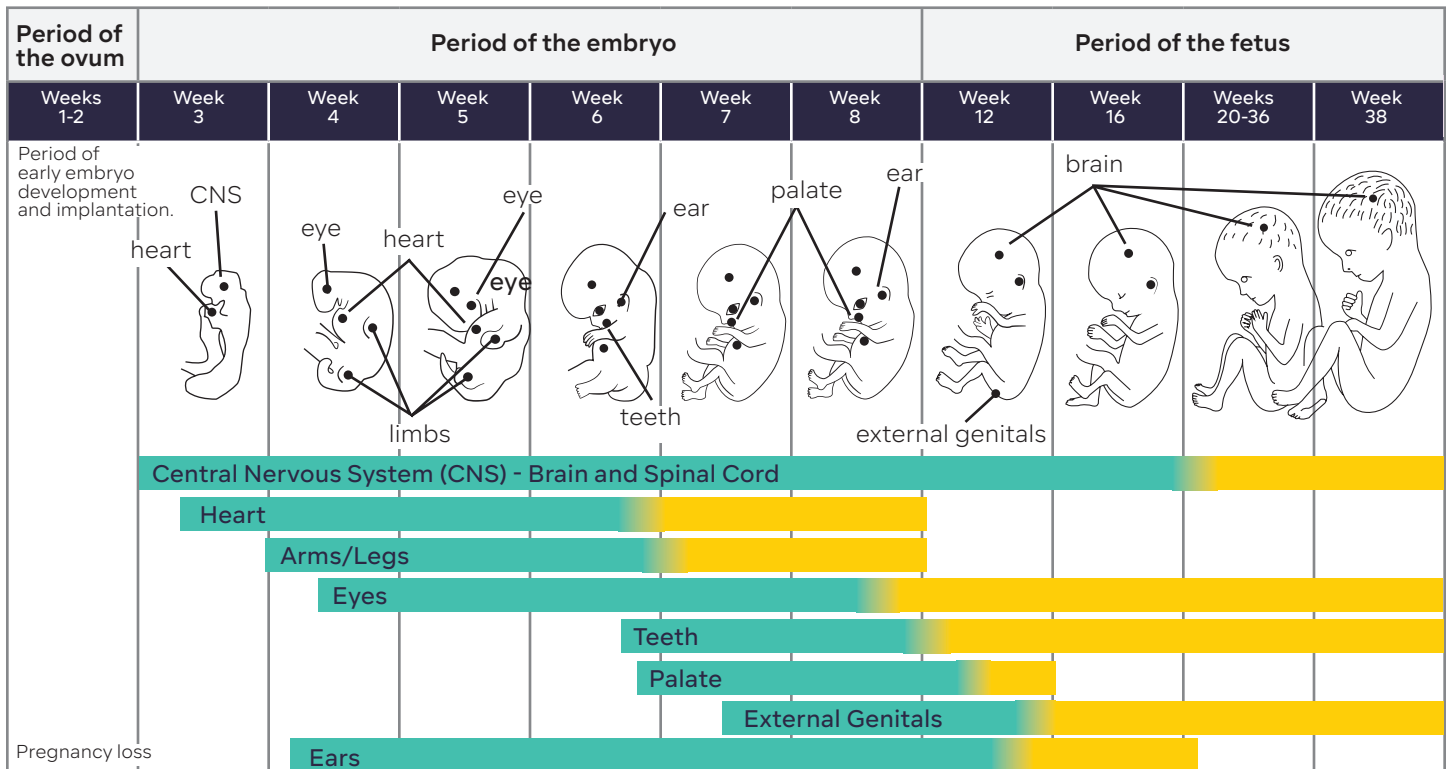


Fetal Development Chart

This chart shows vulnerability of the fetus to defects throughout 38 weeks of pregnancy.*
 • = Most common site of birth defects



Period of development when major defects in bodily structure can occur.
 Period of development when major functional defects and minor structural defects can occur.

Alcohol is a teratogen, which means that it is a substance that can harm a developing fetus.^{2,3} Prenatal alcohol exposure can cause serious consequences for multiple organ systems in the fetus, and it is especially harmful to the central nervous system, including the brain.⁴ The brain is developing throughout the entire pregnancy⁵; because of this, prenatal alcohol exposure during any trimester can impact brain development. Prenatal alcohol exposure can cause brain lesions⁶, structural brain defects⁷⁻⁹, and microcephaly (a condition in which the baby's head and brain are significantly smaller than expected).^{10,11} These effects on brain development can lead to mild to severe disabilities.¹² People with prenatal alcohol exposure may have cognitive impairments such as deficits in academic achievement, attention, behavior, cognition, language development, and memory.¹³

In addition to the effects on the brain, alcohol exposure during pregnancy can cause abnormalities in the heart¹⁴, abnormal facial development¹⁵, issues with the immune system¹⁶ (leading to increased risk of infections)¹⁷, difficulty with movement and motor skills¹⁸, and other physical health issues.

Because of the serious consequences that prenatal alcohol exposure can have on fetal development, all major medical organizations in the United States, including the Centers for Disease Control¹⁹, the American Academy of Pediatrics²⁰, and the U.S. Surgeon General²¹ advise that if a person is pregnant or could become pregnant, they should abstain from drinking alcohol. There is no known safe level of alcohol use during pregnancy, and research suggests that even lighter levels of prenatal alcohol exposure can impact fetal development.^{22,23} The safest choice is to not drink any alcohol throughout one's entire pregnancy.

The following includes areas of development that can be impacted by prenatal alcohol exposure by trimester.²⁴⁻³⁶ This list does not include every aspect of fetal development that can be impacted but rather some of the major defects that are a result of PAE (prenatal alcohol exposure).

1st trimester

- Brain (including brain lesions, structural brain defects, and microcephaly)
- Spinal cord
- Heart
- Abnormal facial development
- Cognitive deficits
- 12x increased risk of FASD

2nd trimester

- Brain (including brain lesions, structural brain defects, and microcephaly)
- Spinal cord
- Immune system (most significant effect if exposed during 2nd trimester)
- Cognitive deficits
- 61x increased risk of FASD (if PAE occurs during both 1st and 2nd trimester)

3rd trimester

- Brain (including brain lesions, structural brain defects, and microcephaly)
- Spinal cord
- Bone development
- Cognitive deficits
- 65x increased risk of FASD (if PAE occurs during all 3 trimesters)

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