Effects of toxicants on development(Teratogens):

Teratology: is the study of birth defects ; structural or functunal abnormalities that are present at birth in humans.

Teratogene: is an environmental agent which produce birth defects that include,structural malformation,growth retardation as well as pregnancy complications and fetus death.

One in ten US babies is born preterm and about 5% have low birth weight. Preterm birth, defined as birth at less than 37 weeks of gestation, is a major basis of infant mortality throughout childhood. Exposures to environmental toxins such as lead, tobacco smoke, and DDT have been linked with an increased risk for spontaneous abortion, low birth weight, or preterm birth.

Alcohol:

Drinking alcohol in pregnancy can result in a range of disorders known as fetal alcohol syndrome.

Tobacco smoke:

Fetal exposure to prenatal tobacco smoke may experience a wide range of behavioral, neurological, and physical difficulties. Adverse effects include stillbirth, placental disruption, lower mean birth weight, physical birth defects , decrements in lung function, increased risk of infant mortality

Lead:

The developing nervous system of the fetus is particularly vulnerable to lead toxicity. Neurological toxicity is observed in children of exposed women as a result of the ability of lead to cross the placental barrier.

effects of lead exposure in pregnancy include : low birth weight, neurological delays, anemia, encephalopathy, paralysis, blindness.

Air pollution:

Air pollution can negatively affect a pregnancy resulting in higher rates of preterm births, growth restriction, and heart and lung problems in the infant.

Compounds such as carbon monoxide, sulfur dioxide and nitrogen dioxide all have the potential to cause serious damage when inhaled by an expecting mother.

Dioxin:

Dioxins and dioxin-like compounds persists in the environment for a long time and are widespread, so all people have some amount of dioxins in the body. Intrauterine exposure to dioxins and dioxin-like compounds have been associated with subtle developmental changes on the fetus. Effects on the child later in life include changes in liver function, thyroid hormone levels, white blood cell levels

Mercury:

Elemental mercury and methylmercury are two forms of mercury that may pose risks of mercury poisoning in pregnancy. Methylmercury, a worldwide contaminant of seafood , is known to produce adverse nervous system effects, especially during brain development.