Common teratogens

Cytomegalovirus (CMV)

- CMV is a common STD that is transmitted by sexual contact and secretions.
- Adult infections may be asymptomatic.
- About 1% of pregnant women are infected, and only a small percentage of these will have babies with clinical symptoms.
  - Although, it can cross the placenta and interfere dramatically with human development
- Symptoms for the baby include: hearing loss, cerebral palsy, microcephaly, mental retardation, visual defects and dental anomalies.
- They would have a very characteristic appearance
  - Shallow cranial vault

Alcohol

The features of foetal alcohol syndrome (FAS) occur in 30-40% of babies born to chronic alcoholics.

Another 50-70% of such babies may suffer from foetal alcohol effects (FAE), which is milder than FAS. To be diagnosed with FAS, a baby must have the following features:
- Growth retardation
- Central nervous system problems
- Characteristic facial appearance (small head, flat facial profile, thin upper lip)
- Other major birth defects (heart, gastrointestinal, etc.) are also possible. It is linked to septal defects, deafness and hearing problems.

Children with FAS fail to thrive, have mild to moderate mental retardation and behaviour problems. FAS is the most preventable cause of mental retardation.

Thalidomide

- In wide use in the UK.
- Very effective treatment for leprosy.
- It was the ‘wonder drug’ of the 1960s developed to treat morning sickness.
- Tested extensively in animals with no apparent congenital effects.
- It interferes with the development of ‘limb buds’ early on in pregnancy, resulting in abnormally short arms and legs. It blocks the growth of blood vessels.
- It is now being tested as an effective treatment of cancer, particularly lung cancer.