

What is a teratogen?

Teratogens are agents that can cause congenital defects, or increase the chance of a congenital defect occurring.

radiation



fetus

placenta

- ↑ alcohol
- ↑ drugs
- ↑ hormones
- ↑ cigarettes
- ↑ german measles
- ↑ lead
- ↑ mercury

Teratogens can be classified as:

- Physical
- Infectious
- Chemical

What are physical
teratogens?

Physical teratogens are agents that come from the external environment that physically affect the mother and can harm a developing fetus.



They include...

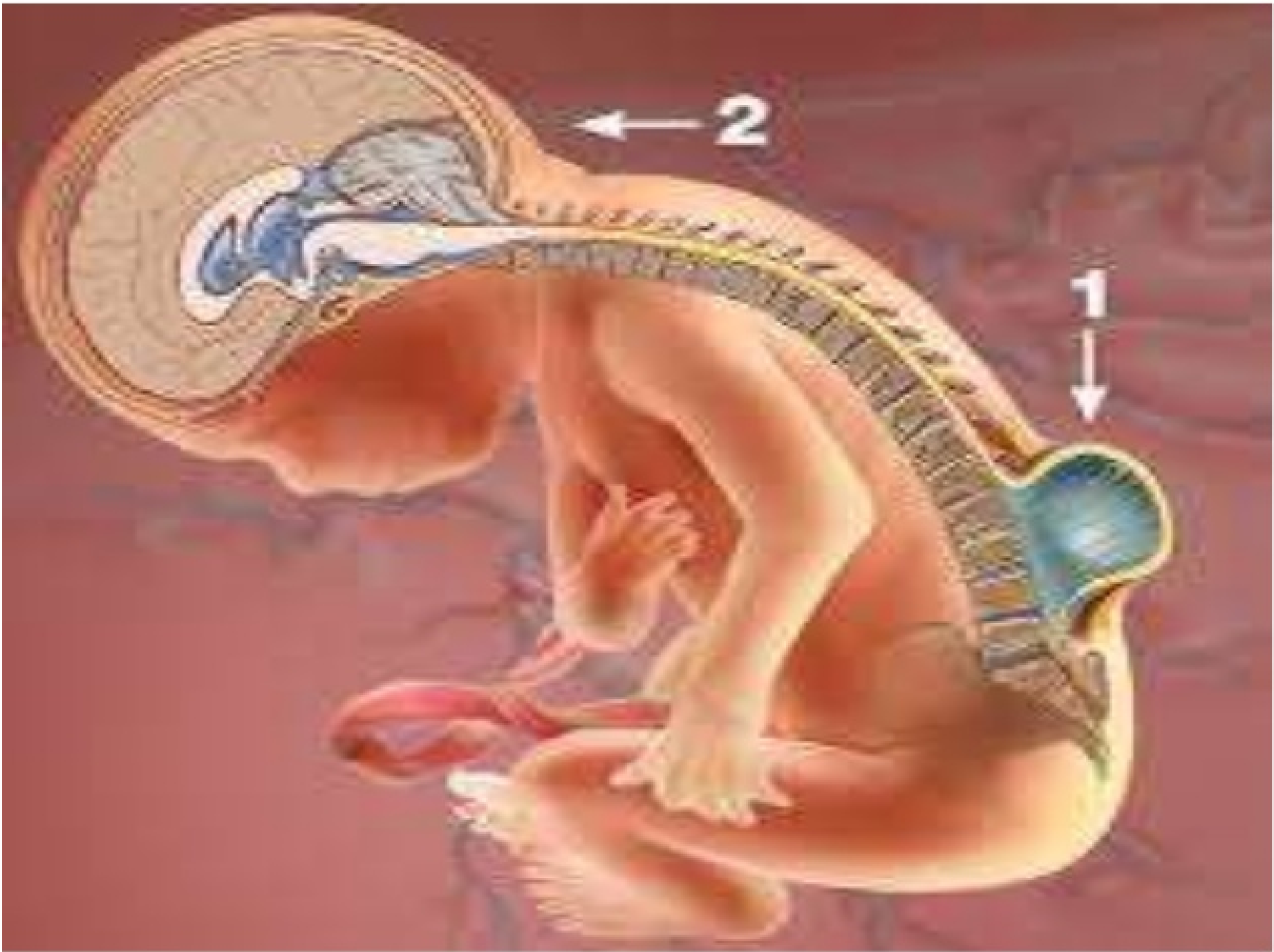
X-Rays

- slow growth, developmental disabilities, sterility, possible cancers later in life

Hyperthermia

- Refers to an abnormally high body temperature (fever, prolonged exposure to extreme heat source, heavy exercising)
- Baby is more likely to form *neural tube defects*, including *spina bifida (incompletely formed spinal cord, may result in paralysis)*





If Milhouse were a pregnant woman, not only would he not have super powers, but his baby would be susceptible to:

- Genetic abnormalities
- Mental retardation
- Small head size
- Cancer
- Leukemia
- Spontaneous abortion



What are infectious
teratogens?

Infectious teratogens are viruses that infect the mother, and in turn may infect and damage the fetus during development.

Infectious teratogens are classified under the designation TORCH:

T
Toxoplasmins

O
Other

R
Rubella

C
Cytomegalovirus

H
Herpes

HIV

- The biggest risk to the fetus is for transmission of the virus to fetus
- Treatment during pregnancy can greatly reduce the risk to the baby.

Rubella

- A.K.A. German Measles, may result in the baby being born blind, deaf, mentally disabled, have heart defects

Toxoplasmosis

- Common infection caused by infectious worms
- Can cause developmental disabilities, deafness, blindness

Toxoplasmosis congénita



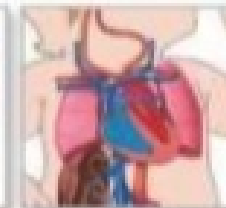
Infant with Congenital Rubella Syndrome



Rubella syndrome



Microcephaly



PDA



Cataracts



Eye anomalies may include cataracts, glaucoma, strabismus, nystagmus, microphthalmia, and iris dysplasia.

ADAM

Infectious agents are commonly known to cause:

- Mental retardation
- Cranial abnormalities
- Eye development defects
- Cataracts
- Hearing loss or deafness