Critical Windows of Development
Learning Module ANSWERS

Purpose: The purpose of this Learning Module is to use TEDX's Critical Windows of Development website to review research on the effects of prenatal exposure to endocrine disrupting chemicals in laboratory animals and to consider the potential implications for human health.

The Learning Module is available on the Critical Windows of Development website from The Endocrine Disruption Exchange (TEDX) http://endocrinedisruption.org/interactive-tools/critical-windows-of-development/about-the-timeline.

Normal Human Development
1a: Week 5
1b: 23 Events

2a: Week 3
2b: Week 10

Chemical Effect Research
4a: Chlorpyrifos
4b: Plastics
4c: Primarily through ingesting it, but also through air exposure.
4d: 5 ppm (5 mg/kg bw)

5a: 4 Effects
5b: 20 Effects
6b: Dioxin generally decreases/inhibits development of the prostate.

6a: AP rats, Wistar rats, C3H/N mice, CD-1 mice
6b:Dissolved and fed in drinking water; delivered in diet; dissolved in corn oil and administered by gavage
6c: Both prenatal and post-natal exposure

7a: thyroid hormone (T4); prolactin; testosterone
7b: Bauer, et al.

8a: Both decreased and increased gene expression of RXRα
8b: Doses differed, as did timing of exposure and age of measurement
8c: Three: the dams (F0), the embryos (F1) and the germ cells (F2)

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