

“Endocrine Disrupters” Course in TurkHeltox Congress

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Endocrine disrupting chemicals (EDC) are exogenous substances or mixtures that alter function of endocrine system and consequently cause adverse health effects in an intact organism, or subpopulation. They can either be synthetic (xenoestrogens) and naturally occurring (phytoestrogens) compounds. EDC are suggested to be involved in global decrease in semen volume and sperm counts, other urogenital abnormalities such as hypospadias and cryptorchidism and increasing rate of testicular cancer in males and breast cancer in females. Although there has been a great deal of research and efforts related to the hazard assessment and regulation of EDCs there are still remaining uncertainties. In order to assess the risks of EDCs as well as manage their risks first chemicals with endocrine effects and their sources should be identified and exposure levels of human populations to those chemicals should be evaluated. National and international governments are in the process of establishing testing programs and strategies to assess the safety of currently used chemicals with regard to their potential to interact with the endocrine system of man and wildlife.

This course is aimed to address the following subtopics:

1. Introduction to endocrine disrupters; terminology and recent examples
2. National/international testing programs for EDC
3. Validated and non-validated *in vitro* and *in vivo* tests to evaluate ED effect