

UN urges deeper probe into hormone-disrupting chemicals

February 19 2013



A nurse at the Mother and Child Hospital in Surabaya in East Java province looks after 13 newborn babies born on December 12, 2012. Scientists suspect chemicals which disrupt the hormone system are linked to early breast development, poor semen quality, low birthweight in babies and other problems, but more research is needed, UN agencies reported.

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reported on Wednesday.

The UN Environment Programme (UNEP) and [World Health Organisation](#) (WHO) said evidence is mounting that so-called [endocrine disrupting chemicals](#) (EDCs) become a health risk when they enter the environment, but key knowledge gaps remain.

"Close to 800 chemicals are known or suspected to be capable of interfering with hormone receptors, hormone synthesis or hormone conversion," the agencies said in a report.

"However, only a small fraction of these chemicals have been investigated in tests capable of identifying overt endocrine effects in intact organisms."

The report was commissioned against a backdrop of concern that EDCs—found in some pesticides, electronics, personal care products, cosmetics and food additives—are entering water supplies and the food chain through agricultural runoff, waste dumps and other sources.

In recent decades, scientists have observed a rise in endocrine-related disorders in humans and wildlife, including studied populations of deer, sea lions and sea otters.

In some countries, up to 40 percent of young men have low semen quality, which reduces their ability to father children, said the report, *State of the Science of Endocrine Disrupting Chemicals*.

"Global rates of endocrine-related cancers—breast, endometrial, ovarian, prostate, testicular and thyroid—have been increasing over the past 40 to 50 years," it said.

"There is a trend towards earlier onset of breast development in young

girls in all countries where this has been studied. This is a risk factor for [breast cancer](#)."

Incidence of genital malformation in young boys, such as non-descending testes, has increased over time or levelled off "at unfavourably high rates," it added.

The emergence of these disorders over such a short time means that genetic factors can be ruled out, it said.

Laboratory studies back suspicions that EDCs are to blame, it said.

But there are big gaps in knowledge, especially grass-roots studies that compare incidence of these disorders and exposure to the chemicals, it said.

There could be other environmental causes, and age and nutrition could play a role, it added.

In the quest for a fuller picture, the report called for more research and better international coordination on testing standards and urged governments, in the meantime, to be vigilant.

"Worldwide, there has been a failure to adequately address the underlying environmental causes of trends in endocrine diseases and disorders," it said. "(...) (The) disease risk due to EDCs may be significantly underestimated."

The document was issued on the second day of a meeting of UNEP's governing ministers, which ends in Nairobi on Friday.

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Citation: UN urges deeper probe into hormone-disrupting chemicals (2013, February 19)
retrieved 17 July 2024 from <https://medicalxpress.com/news/2013-02-urges-deeper-probe-hormone-disrupting-chemicals.html>

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