**Endocrine Disruption**

If you’ve been listening to the news at all, you’ve probably heard about the dangerous chemicals that care called Endocrine Disrupting Chemicals, or EDCs. Inside our bodies is a network of glands and organs called the endocrine system that produces, store, and secrete hormones. Normally, the hormones go from the gland or organ to the other organs and fit right into specific receptors expressed in cells kind of like how a key goes into a lock. But, when EDCs get into the body they can mimic the shape of the hormone, and they go into the receptor instead (Borowy, 2016). The can trick the body into thinking they are a hormone or block the hormone from fitting into its receptor. Fooling a cell in this way can trigger abnormal processes in the body. This can wreak havoc on the entire endocrine system and may lead to severe health consequences. EDCs have been linked to human health issues related to sperm quality, fertility, abnormalities in sex organs, endometriosis, early puberty and more because hormones regulate nearly every process in the body (Zhang et al., 2016). What’s worrisome is that exposure to EDCs can happen anywhere and come from the air we breathe, the food we eat, and the water we drink, and through the skin.

Changing hormones can change how the body functions and the reproduction process. EDCs interfere with the immune system, reproductive, developmental system in both human and wildlife. Endocrine disruption is a feature from both natural and man-made substances. The substances include pharmaceuticals, polychlorinated and dioxin compounds. The disruptors mimic natural hormones in human being i.e. estrogen, androgen and thyroid hormones (Borowy, 2016). These hormones are known for causing overstimulation in the human body and as such a mimic man-made substance has the potential to effect functions in a human body. EDCs bind themselves in the human cells. As a result, they impact binding of endogenous natural hormones by blocking the process. Essentially, failure of signals to flow is witnessed hence affected response. Such substances are anti-androgens and anti-estrogen which impact the functioning of the cell. In addition, the EDCs are known to interfere with receptors and there control hence affected body processes.

A higher level of EDCs has potential to affect the normal operation of men and women reproductive system. The development of the nervous system is deeply affected due to thyroid alterations that EDCs offer. Exposure to EDCs weakens the immune system that human beings possess. The natural ability to fight allergic reactions and counter infections. Such cases escalate to major issues that bring about cancer. Breast cancer, testicular and prostate cancer have a strong correlation in which causality is thought to result from the exposure to EDCs. Sperm quality is deeply affected by EDCs by reduced sperm count based on a country’s standard. The development of testis development is affected by exposure to EDCs which is consistent with the worldwide decline in sperm quality. According to Pereira et al., (2015), such environment affects organs associated with reproduction by impairing fertility while increasing miscarriages. In addition, the sex ratio of children showcases prevalence of girls compared to boys. As a consequence, the development of organs related to reproduction suffers abnormalities (Ferraz et al., 2018). Testes formation inside the abdomen while the opening to the urethra is located on the underside of the penis instead of the front end. Endometriosis is another case affecting internal parts of the reproductive system where the womb has uterine tissues within the abdomen instead of the uterus walls.

Synthetic chemicals are widely known and used, to not break down so easily but are moved in different ways. As of late, various man-influenced chemicals to have been appeared to have the capacity to mimic endogenous hormones, and it has been conjectured that changes in the typical example of regenerative advancement found in a few populaces of untamed life are connected with presentation to these chemicals. Of specific significance are those exacerbates that mimic estrogens and androgens and their enemies, on account of their focal part in conceptive capacity (Ferraz et al., 2018). Truth be told, the proof demonstrating that such chemicals really do mimic the activity of hormones in the in-place creature is constrained. In just a couple of cases have research facility contemplates demonstrated that chemicals that mimic hormones at the sub-atomic level likewise cause conceptive brokenness in vivo at earth pertinent focuses. What's more, as stated by (Zhang et al., 2016), the announced investigations on wildlife populaces of creatures are constrained to not very many creature species and they have regularly focused on limited 'problem areas' of synthetic releases. By and by, a significant number of these xenobiotics are industrious and vast in the earth, and in this way a more boundless marvel of endocrine interruption in untamed life is conceivable (Zhang et al., 2016). It has been found that the presentation of steroid hormone mimics may disable conceptive capacity and fundamentally surveys the heaviness of confirmation for the endocrine interruption in natural life. There is an additional confirmation of conceptive and formative mischief connected to debilitations in endocrine capacity in various wildlife species, especially in conditions that are tainted by a mixture of chemicals that are in regular utilize (Ferraz et al., 2018). In view of the human and natural life confirm, numerous researchers are worried about substance poisons having the capacity to meddle with the typical working of hormones, supposed endocrine-disturbing chemicals (EDCs), that could assume a causative part in these ailments and disarranges.

There is an abundance of evidence that expressly links exposure to EDCs and chemicals and the risk of problems in the health of human beings. The mimic in hormones has been detected in water, food and many substances we use at home or workplace. The endocrine disruptors are known to last longer in the environment affecting the produce eaten and drinking water. They influence growth and functions of the human body. In that sense, immunity, development, and growth are affected negatively. It has led to illness. Many compounds have been designed for use in herbicides, industrial chemicals, and their related byproducts. According to Andrady and Rajapakse (2016), plastics are used to package foods and drinks used in the normal routine. Compounds like styrenes and phthalates have great potential to cause illness. Chemicals ingested accumulate and stick in tissues hence affecting cells and their functions. Magnification is a process that leads to concentration of substances which immensely inhibits the breakdown of body fatty deposit. Accumulation of fats is known to bring about problems with the heart, blood pressure, and cancer.

In conclusion, EDCs interfere with the immune system, reproductive, developmental system in both human and wildlife. The development of the nervous system is deeply affected due to thyroid alterations that EDCs offer and the exposure to EDCs weakens the immune system that human beings possess. What's more, the announced investigations on wildlife populaces of creatures are constrained to not very many creature species and they have regularly focused on limited 'problem areas' of synthetic releases. Endocrine disruptors are known to last longer in the environment affecting the produce eaten and drinking water. They influence growth and functions of the human body. Endocrine disruption tricks the body into thinking they are a hormone or block the hormone from fitting into its receptor. Fooling a cell in this way can trigger abnormal processes in the body. This can wreak havoc on the entire endocrine system and may lead to severe health consequences. In that sense, immunity, development, and growth are affected negatively. It has led to human and wildlife illness.

**References**

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