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Reproductive Toxic Potential of Phthalates †

Kirti [1], Anju Sharma [1,*]

[1] Department of Zoology, IIS (deemed to be University), Jaipur; kirtichhakkar1995@gmail.com (K.); dranju1110@gmail.com (A.S.);
* Correspondence: dranju1110@gmail.com (A.S.)
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Abstract: Phthalates are the esters of 1, 2-dibenzene dicarboxylic acid, used in various products such as vinyl flooring, lubricating oils, and personal-care products (soaps, shampoos, hair sprays, etc). These are also used as a plasticizer in polyvinyl chloride (PVC) plastics to make plastics more soft and durable. Phthalates are ubiquitous substances, and due to their widespread use, adults and even children are frequently exposed to them. Phthalates are not chemically bonded to the plastic matrix; therefore, they can easily leach out and pollute the surrounding environment. Various studies have shown serious health concerns about phthalate exposure, including developmental and reproductive damage. The current review is based on phthalates concerning their toxic reproductive potential. Phthalates are reported to reduced fertility, decreased testis weight, changes in accessory sex organs, and a variety of other female reproductive disorders. There are some common phthalates such as DEHP, DBP, BPA, DiNP, DNOP, DEP, BBzP, etc. Among different types of phthalate DEHP is one of the most commonly used plasticizers in numerous human use products, which have been proven to be harmful to the reproductive system. As a result of these findings, non-toxic alternatives to phthalates may be produced, and the consumption of phthalates may be justified as a crucial concern for the human reproductive system.

Keywords: phthalates; plasticizers; reproductive toxicity; reproductive system.

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Conflicts of Interest

The authors declare no conflict of interest.