The Effects of Dibutyl Phthalate (Plasticizer) on Motor-related Activity Ephraim Boamah, Class of 2025

Background: Contemporary research highlights theharmful effects of phthalates—industrial chemicals used in plastic products to enhance flexibility—on cellular functions; some of these products are included children's toys, cosmetics, and medical devices (Blount et al., 2000b; Latini2005, as cited in Xie et al. 2019). Phthalates can alter genetic expression for oxidative balance by reducing the production of antioxidants and increasing the accumulation of reactive oxygen species (ROS) (Deng et al., 2020; Ma, 2013). Such an effect can induce toxicity within the nervous system, leading to the accumulation of dark neurons—which are dying and shrinking cells (Gallyas, 2007). Hence, this summer, I investigated how

References

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