



Keywords: Neurotoxicology; Nervous system; Toxicants; Assessment

Introduction

The nervous system plays a critical role in coordinating bodily functions and facilitating communication between various organs and systems. As such, any disruption to its function can have profound implications for health and well-being. Neurotoxicology is the field dedicated to studying the adverse effects of chemical substances on the nervous system, encompassing both acute and chronic neurological disorders. Understanding neurotoxicity is essential for safeguarding public health and developing effective strategies for risk assessment and management [1-3].

Methodology

Mechanisms of neurotoxicity

Neurotoxicity can occur through various mechanisms, depending on the nature of the toxicant and the target site within the nervous system. Common mechanisms include oxidative stress, inflammation, excitotoxicity, and disruption of neurotransmitter systems. Oxidative stress, characterized by an imbalance between reactive oxygen species (ROS) and antioxidant defenses, can lead to neuronal damage and cell death. Inflammation, mediated by immune responses within the central nervous system, can exacerbate neuronal injury and contribute

3. Agamuthu P, Abioye OP, Aziz AA (2010) Phytoremediation of soil contaminated with used lubricating oil using *Jatropha curcas*. *J Hazard Mater* 179: 891-894.
4. Bergerson JA, Keith D (2010) The truth about dirty oil: is CCS the answer? *Environ Sci Technol* 44: 6010-6015.
5. Carlson HK, Stoeva MK, Justice NB, Sczesnak A, Mullan MR, et al. (2015) Monofluorophosphate is a selective inhibitor of respiratory sulfate-reducing microorganisms. *Environ Sci Technol* 49: 3727-3736.
6. Gokulakrishnan K, Balamurugan K (2010) Influence of seasonal changes of the effluent treatment plant at the tanning industry. *Int J Appl Environ* 5: 265-271.
7. Alain M (2007) Environmental noise, sleep and health. *Sleep Med Rev* 11: 135-142.
8. Curtis L, Stuart B, Martin W (2001) Noise Monitoring at Glastonbury Festival. *Noise Vib Worldw* 32: 12-14.
9. Dias RL, Ruberto L, Calabró A, Balbo AL, Panno MT, et al. (2015) Hydrocarbon removal and bacterial community structure in on-site biostimulated biopile systems designed for bioremediation of diesel-contaminated Antarctic soil.