

MAMMALIAN TOXICOLOGY

EDITED BY

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Mammalian Toxicology surveys chemical agents and examines how such chemicals impact on human health, emphasizing the importance in minimizing environmental exposure to chemical and physical hazards in our homes, communities and workplaces through such media as contaminated water, soil and air.

Starting with the basic principles on a wide range of toxic agents, this textbook describes how they enter the body, their mechanisms of action once inside, and strategies for diagnosis, prevention, and treatment.

Topics covered include:

- **General principles of toxicology:** pharmacological and toxicological principles underpinning the study of toxicology, risk assessments and mechanisms of cell death
- **Disposition:** routes of chemical exposures, entry into the body and various tissues, storage, metabolic biotransformation and elimination, with examples of various toxicants
- **Toxic agents:** the occurrences, disposition in the body, health effects, toxic mechanisms, antidotes and treatments of a range of agents including pesticides, metals, solvents, gases, nanomaterials, food components and additives, pharmaceuticals, drugs of abuse, natural toxins, endocrine disruptors, radiation, and warfare weapons
- **Toxic effects:** including neurotoxicity, developmental toxicity, immunotoxicity, teratogenicity, male and female reproductive toxicity, mutagenicity, carcinogenicity, pulmonary toxicity, cardiovascular toxicity, hepatotoxicity, gastrointestinal toxicity and cardiovascular toxicity
- **Toxicology and society:** epidemiological studies of chemical-induced diseases in human populations, and a vision for toxicology in the 21st century.

Mammalian Toxicology is an essential primer for students of toxicology, biochemistry, biology, medicine and chemistry. It is also appropriate for professional toxicologists in research or regulatory affairs, and anyone who needs to understand the adverse effects of toxic agents on the human body.



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