

## **Elective Module: Toxicology in Medicine**

### **Introduction**

Toxicology in Medicine is the scientific study of the adverse effects of chemical, biological, physical, and environmental agents on human health. It plays a critical role in clinical practice, public health, and emergency medicine. Toxic exposures can occur from drugs (therapeutic and non therapeutic), pesticides, industrial chemicals, household substances, venomous bites and stings, and environmental pollutants. Effective understanding and management of poisoning and toxic effects can significantly reduce morbidity and mortality.

Students learn to describe the general symptoms, principles of diagnosis, and management of common poisons encountered in the Indian context, including both acute poisoning and chronic toxic effects.

Toxicology is closely integrated with Forensic Medicine and Pharmacology. In Forensic Medicine & Toxicology, students are expected to gain competencies such as identifying plant and animal poisons, describing clinical features and prognosis, and discussing specific approaches to detoxification and management. Other aspects include medico legal implications of poisoning cases and reporting requirements in medico legal contexts.

For an MBBS student, understanding toxicology is essential because poisoning cases are frequently encountered in emergency and clinical settings— from accidental ingestions in children to intentional overdoses and occupational exposures.

In conclusion, Toxicology equips medical students with the

necessary skills to recognize, diagnose, manage, and prevent toxic exposures, thereby contributing to improved patient safety, public health, and clinical effectiveness.