

# Toxicology

The background is a dark teal color. It features several decorative elements: a large teal circle in the bottom left, a medium teal circle in the top right, a large teal circle in the middle right, and a small teal circle in the bottom right. A vertical red rectangle is located in the top right corner.

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# WHAT IS THE MEANING OF THE TERM **toxicity**

... and how to pronounce it ?

# Introduction to toxicology:

## ▶ **Definition of toxicology:**

▶ The basic science of poisons.

▶ the study of the adverse effects of chemicals or physical agents on living organisms.



▶ **Toxicant :**

- ▶ substances that produce adverse biological effects of any nature
- ▶ May be chemical or physical in nature
- ▶ Effect may be of various types (acute, chronic , etc.)



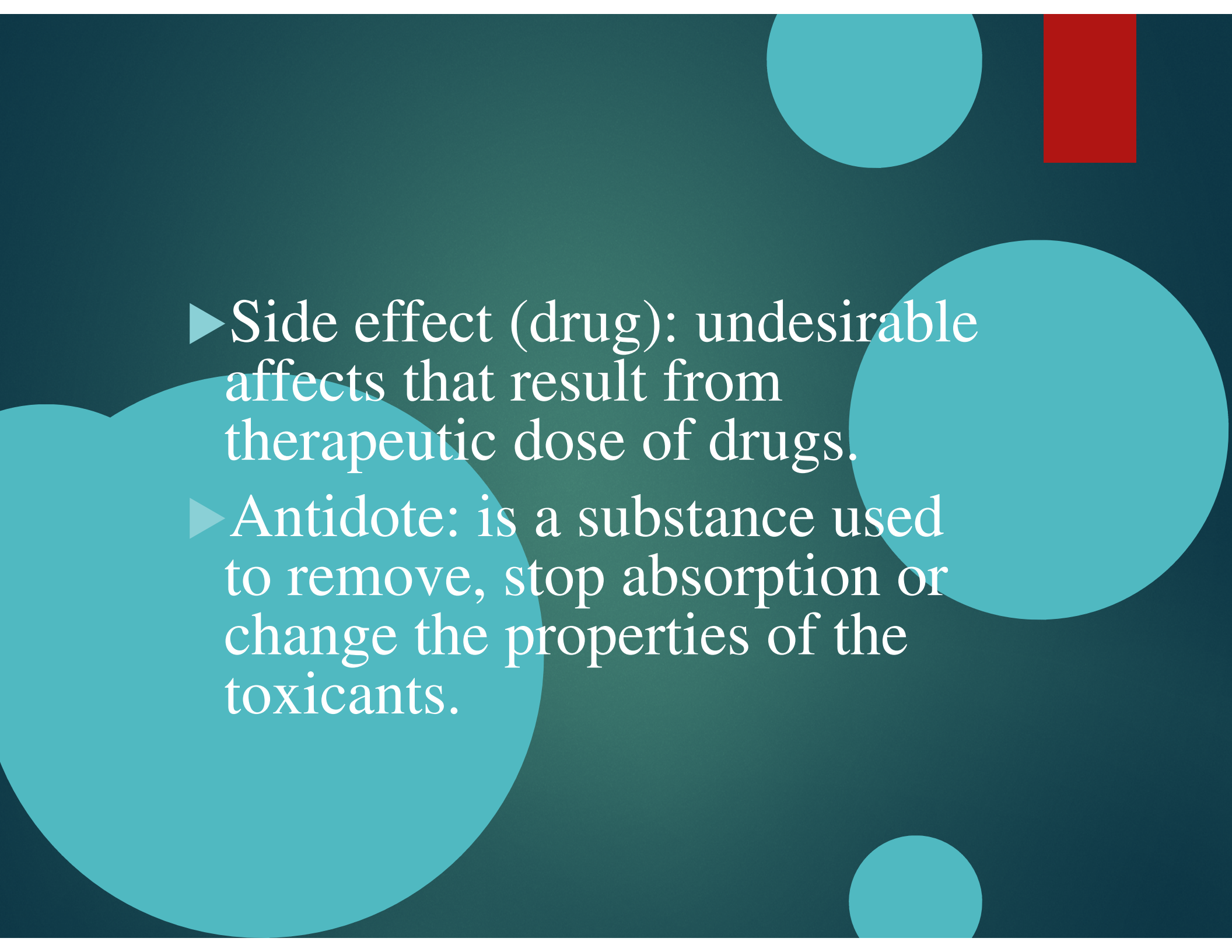
## ▶ **Toxins :**

- ▶ Specific proteins produced by living organisms (mushrooms toxins or tetanus toxins)
- ▶ Most exhibit immediate effect

## ▶ **Poisons :**

- ▶ Toxicants that cause immediate death or illness when experienced in very small amounts eg: cyanide , Arsenic



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- ▶ Side effect (drug): undesirable affects that result from therapeutic dose of drugs.
  - ▶ Antidote: is a substance used to remove, stop absorption or change the properties of the toxicants.

# Applications of Toxicology

- ▶ 1 -Clinical toxicology:
  - ▶ studies of the clinical pictures (signs and symptoms) associated with toxicants, also deals with treatment of a case of poisoning.
    - ▶ a. Accidental overdosage
    - ▶ b. Criminal overdosage
    - ▶ c. Addictive drug overdosage