

# **POISONOUS PLANTS OF TURKEY**

## **WEEK 2**

### **GENERAL INFORMATION**

# **COMMON REASONS OF PLANT POISONING IN TURKEY:**

**1-Accidental ingestion of a poisonous plant**

**(usually by children)**

**2- Misuse of hallucinogenic or narcotic plants**

**3-Use a medicinal plant in a higher dose than necessary**

**4-Accidentally eating a poisonous plant instead of a medicinal plant**

**5-Accidental use of a poisonous plant, instead of a food plant (poisonous mushrooms, wild carrot-hemlock)**

**6-Accidental use of a different part of a food plant or medicinal plant instead of the commonly used part (e.g. fruits instead of roots, tubers)**

**7- Poisoning in some people who are sensitive to the small amount of a specific component contained in an edible plant (favism with *Vicia faba*)**

**8-Eating the plant infected by mycotoxins (e.g. *Aspergillus flavus* infected nuts)**

**9-Use of a poisonous plant for suicide**

**10-Use of a poisonous plant for abortion**

**11-Use of plants grown in areas with  
environmental pollution**

**Diagnosis of Poisonous and Non-Toxic / Edible Apiaceae plants with the help of Leaf Morphology**

**Conium maculatum**  
**(Baldıran)**

- Purple spots on the stem
- Bad smell
- Petiole widens as a sheath at the base and round at the top

# GENERAL TOXICOLOGICAL INFORMATION \*

Toxicology is the science of the effects of chemical substances, biological and physical agents with undesirable, harmful and negative consequences on living organisms.

## **PURPOSE OF TOXICOLOGY \***

- \*To determine the toxic effects of various factors,**
- \*To conduct scientific research in order to increase the knowledge on toxic effects,**
- \*To evaluate the toxic effects of environmental pollution,**
- \* To prevent and control the harmful effects of toxic substances.**



All foreign substances, including drugs taken externally which are not necessary for the normal metabolism of the organism, are called XENOBIOTICS.

Toxicology deals with the effects of xenobiotics.

**The negative effects of all xenobiotics on biological systems are called  
TOXIC EFFECTS.**

**The toxic effect of xenobiotics is expressed as toxicity.**

**-All xenobiotics have the potential to produce toxic effects.**

**FACTORS AFFECTING THE CASE of TOXICITY**

- Route of exposure
- The duration and frequency of exposure
- Dose

## **LOCAL TOXICITY**

**In general, it is the effect which occurs where biological system and the toxic substance come into contact.**

When irritant substances come into contact with the skin or mucosa, local damages may occur!

Dermal, ocular, vaginal, rectal, respiratory tract toxicity ..

# SYSTEMIC TOXICITY:

**Systemic toxicity** is an organism-wide effect and death can be caused by failure of a variety of biologic pathways and processes.

Many compounds can cause systemic toxicity.

# **TREATMENT OF POISONING**

## **(At a Health Institution)**

- Source of poison is removed
- Absorption of the poison is minimized
- Supportive therapy (Oxygen, respiratory support, etc.)
- Specific treatment (Antivenin, antitoxin, chelating agent)