## An overview of herbal remedies and their toxicity

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## Scope of the lecture:

During this lecture toxicity concerns associated with the use of herbal remedies will be discussed. These include extrinsic and intrinsic factors which contribute to toxicity. Recommendations to limit toxicity will be provided.

## Learning objectives:

- 1. Know which extrinsic factors lead to toxicity of herbal remedies.
- 2. Know which intrinsic factors lead to toxicity of herbal remedies.
- 3. Be informed of possible ways in which herbal remedy toxicity can be curbed.

## **Extended abstract:**

The term traditional medicine refers to ways of treating illness or protecting health that existed before the arrival of modern medicine. As medicinal plants are the oldest known products used in healthcare, each culture or country has developed their own pharmacy of locally growing plants. Herbal medicine constitutes a major part of Kampo, Traditional Chinese Medicine, African Traditional Medicine, as well as traditional Asian medicines such as Ayurveda and Unani. These remedies are used by ~80% of the population in developing countries and their use is gaining popularity in developed countries.

Many herbal medicines are used purely for general well-being and the prevention of common ailments. However, there is an increased demand for herbal products which can be used as immune boosters, energy boosters and detoxifiers. This demand stems from the fact that there is presently no adequate treatment for conditions such as autoimmune diseases and cancer as well as the emergence of multi-drug resistant bacteria and parasites. Plants are considered as "safe and harmless", however, this is a common misconception as they possess certain compounds which make them toxic. To this extent, it has been reported that 15-20% of individuals on prescription drugs also use herbal supplements. Numerous reports of adverse effects associated with herbal remedies are available as are reviews.

In this symposium, the factors that may cause toxicity (intrinsic and extrinsic factors) are discussed. Shortcomings that need to be addressed to curb toxicity will be eluded to.