

CLASSIFICATION OF CRUDE DRUGS

The term "crude drug" generally applies to the products from plant and animal origin found in a raw form.

The term crude drug also applied to inclusion of pharmaceutical products from mineral kingdom.

Crude drug classified into:

Organized (Cellular)

Unorganized (acellular)

Organized (Cellular): Organised drugs consist of the cellular organization in the form of anatomical features. These are mostly the crude drugs from plant sources. Almost all of the morphological plant parts or the entire plant itself can be called as an organized drugs .

Eg. Cinchona bark, Sandalwood, Rauwolfia roots, Nux vomica seeds

Microscopically and anatomical studies are preeminent for such drugs. These can be used directly in medicine or can be used by modifying or by extracting the active ingredient from it.

Unorganized (acellular): The unorganized drugs do not have the morphological or anatomical organization as such. These are the product which come directly in the market but their ultimate source remains the plants, animals or mineral. Microscopical studies are not required for such crude drugs. These includes products like plant exudates as gums, oleogums, oleogumresins, plant lattices like that of opium, aloetic juices like aloes or dried extract of black catechu, pale catechu, agar, alginic acid, etc., are products coming under this group.

Classification of Drugs

Drugs are classified in the following different ways-----

- A) Alphabetical classification
- B) Taxonomical classification
- C) Morphological classification
- D) Pharmacological classification

- E) Chemical classification
- F) Chemo taxonomical classification
- G) Serotaxonomical classification

Alphabetical classification

- Simplest way of classification.
- Crude drugs are arranged according to alphabetical order of their Latin and English names (common names) or sometimes local language names(vernacular names).
- Some of the Pharmacopoeias, dictionaries and reference books which classify crude drugs according to this system are as follows:

IP

BP

British herbal Pharmacopoeia

United states Pharmacopoeia and National Formulary

British Pharmaceutical codex

European Pharmacopoeia

- In European Pharmacopoeia these are arranged according to their names in Latin where in united states pharmacopoeia and British Pharmaceutical Codex, these are arranged in English.

Merits:

- Easy and quick to use .
- No repetition of entries and is devoid of confusion

Demerits:

No relationship between previous and successive drug entries.

Taxonomical Classification

- Crude drugs are classified according to kingdom, subkingdom, division, class, order, family, genus and species as follows.

- The crude drugs of plant origin are classified on the basis of one of the accepted systems of botanical classification. A large number of plant families have certain distinguishing characteristics that permit crude drugs from these families to be studied at one time.

Phylum	Spermatophyta
Division	Angiospermae
Class	Dicotyledons
Sub class	Sympetalae
Order	Tubiflorae
Family	Solanaceae
Genus	Atropa, Hyoscymus, Datura
Species	Hyoscymusniger, Daturastramonium, Atropabelladonna
Phylum	Thallophyta
Class	Ascomycetes
Order	Clavicipitales
Family	Clavicipitaceae
Genus	Claviceps
Species	Clavicepspurpurea

Merits: Taxonomical classification is helpful for studying evolutionary developments.

Demerits: This system also does not correlate in between the chemical constituents and biological activity of the drugs.

Note-this system of classification is criticized for its failure to recognize the organized and unorganized nature of the crude drug.