

# Anti-Hypertensives

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- The drugs which are used to treat of high blood pressure are called Antihypertensive.
- Antihypertensive therapy seeks to prevent the complication of hypertension such as strokes and myocardial infarction.
- The word hypertension is derived from hyper above tendere to stretch due to narrowing of peripheral blood vessel.

## Rauwolfia

**Synonyms:-** Rauwolfia root, snake-root, chhotachand

**Family:-** Apocynaceae

**Biological source:-** It consists of dried roots of the plant known as *Rauwolfia serpentina*

### Chemical Constituents:-

The chemical constituents of rauwolfia are alkaloids. Also it contain phytosterol, fatty acids, Reserpine and rescinnamine are alkaloids which have main therapeutical effect in rauwolfia. Also it contain indole alkaloids and iridoid glycoside, 7- epiloganin, which is a new sucrose derivative. It also contain ajmaline and ajmalicine.

### Therapeutic efficacy:

- Rauwolfia has been studied for the treatment of mental diseases,
- Rauwolfia treated migraine headaches effectively

- Rauwolfia has been studied as a treatment for autistic children between the ages of 3.5 and 9 years.
- It leads to generalized vasodilatation and lowering of blood pressure by action on the vasomotor centre.
- It soothes the general nervous system by depressant action on the cerebral centers

## Anti Tussives

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- The drugs which are used to suppress cough through either a central or a peripheral mechanism.
- The word antitussives was derived by Latin word.

### Tussis - cough

- The drugs which act upon the pulmonary members that hasten expectoration

### Vasaka leaves

**Synonyms:-** Adhatada

**Family:** Acanthaceae

**Biological source:-** It consists of dried as well as fresh leaves of the plant *Adhatoda vasica* Nees.

### Chemical Constituents:-

- Vasaka leaves contain quinazoline alkaloids such as vasicine, vasicinone and 6-hydroxy vasicine.
- It also contains volatile oil, betain and vaskine and Adhatoda acid.

### Therapeutic efficacy:-

- It used as bronchodilator
- It used to preparation of syrup act an Expectorant.
- Vasicine shows oxytocic property like oxytocin and methyl ergotamine.
- It helps in asthma and reduces inflammation of airways and lungs.
- Vasaka has good results in dyspepsia, gastritis or acidity.
- It reduces acid formation in the stomach.
- It reduces inflammation of sinuses and fights off infections

### Tolu balsam

**Synonyms:-** Balsam of Tolu

**Family:-** Leguminosae

**Biological source:-** It obtain from the trunk of *Myroxylon balsamum* Linn.

### Chemical Constituents:-

- It contain large amount of benzyl cinnamyl esters of benzoic and cinnamic acid.
- Small quantities of vanillin and styrol present in tolu balsam

### Therapeutic efficacy

- It used as Expectorant and flavouring agent

- It use as antiseptic
- It is also used in the preparation of confectionary chewing gums and perfumery.

## Ant rheumatics

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- The drug used to the treatment of rheumatism and known as antirheumatics.
- It can reduce joint damage associated with inflammatory disorders of the joints.

### Colchicum seed

**Synonyms:-** Indian Colchicum

**Family:** Liliaceae

**Biological source:-** Colchicum consists of dried seeds of the plant *Colchi-cum autumnale* Linn.

### Chemical Constituents:-

Colchicum seeds contain alkaloids, colchicine and demecolcine.

### Therapeutic efficacy:

- Colchicum seed are used in gout and rheumatism.
- It can control the malignant tumor but are highly toxic.
- It also in horticulture.

## Anti-tumour

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- The drugs are used in the treatment of cancer.
- The cancer or carcinogenic growth is an abnormal mass of new tissue growing of the body.

### Vinca

**Synonyms:-** Periwinkle, Vinca rosea, Catharanthus.

**Family:** Apocynaceae

**Biological source:-** It is the dried whole plant of *Catharanthus roseus*

**Chemical constituents :**

- Vinca contain indole alkaloids in large amount, mainly vincristine and vinblastine.
- Vinca also contain other alkaloids such as ajmalicine, serpentine and lochnerine as a chemical compound.
- When coupling of indole alkaloids such as catharanthine and vindoline occur, they produce vinca alkaloids.

**Therapeutic efficacy:**

- It is used to treat lymphomas
- The Hodgkin's disease is treated by vinca because it contains vinblastin as a chemical constituent.
- Also it helps to treat non-Hodgkin's lymphomas .

- Acute lymphocytic leukemia is treated by the help of vincristine part of vinca herb.

## Antidiabetics

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The drug that works to lower abnormally high glucose levels in the blood which are characteristic of the endocrine system disorder known as diabetes mellitus

Or

- The agent used in treatment of diabetes (Diabetes Millitus are known as antibiotics.
- The inability of the body to utilise glucose due to failure of pancreas to secrete insulin in sufficient quantity.

### Gymnema

**Synonyms:** Gudmar, Madhu nashini

**Family:** Asclepiadaceae

**Biological source:** It consist of the leaves of the plant known as *Gymnema sylvestre*

### Chemical Constituents:

They contain hentriacontane, pentriacontane, phytin alpha ( $\alpha$ ) and  $\beta$  (beta)-chlorophyllis, resin, tartaric acid etc.

### Therapeutic efficacy :

- It used as antidiabetics, stomachia, stimulant laxatives and diuretic.
- It used to treat eye diseases, allergies, constipation, cough, dental caries etc.

## Pterocarpus

**Synonyms:** Bijasal, Indian kino tree, Metaborkino Asana, Rakta-chandan

**Family:** Leguminosae

**Biological source:** It consists of the juice of the plant *Pterocarpus marsupium*

### Chemical Constituents:

- Pterocarpus contains about 70–80% of kinotannic acid, kino-red, k-pyrocatechin (catechol), resin and gallic acid.
- Kinotannic acid is glucosidal tannin, whereas kino-red is anhydride of kinoin.
- Kinoin is an insoluble phlobaphene and is produced by the action of oxydase enzyme.
- It is darker in colour than kinotannic acid.

### Therapeutic efficacy:

- It used as astringent

- It also used as the treatment of diarrhoea.
- It used in dyeing, tanning and printing.

## Diuretics

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A diuretic is any substance that promotes diuresis the increased production of urine

It also known as water pills

Or

Diuretics help your kidneys put extra salt and water into your urine.

They are used treatment of edematous and other non-edematous disease condition.

### Gokhru

**Synonyms:-** Puncture uine

**Family:** Zygophyllaceae

**Biological source:** It consists of ripen fruit of the plant *Tribulus terrestris* Linn.

**Chemical Constituents:**



- The hydrolysed extract consists of sapogenins such as diosgenin, chlorogenin, hecogenin and neotigogenin.
- Certain other steroidal such as terestroside F, tribulosin, trillin, gracillin, dioscin have also been isolated from the aerial parts of the herb.
- It also consists of common phytosterols, such as,  $\beta$ -sitosterol, stigmasterol and cinnamic amide derivative, terestiamide.

### Uses:

- It used as Diuretic tonic
- It used as the treatment of Calculos effections and painful micturition.
- They are also used as aphrodisiacs and in gout.
- It use in preparation of chyavanprash, Dashamoolarishta.
- It used in treatment of gonorrhoea.

## Punarnava

**Synonyms:** Rakta Punarnava, Hog weed, Punarnava

**Family:** Nyctaginaceae

**Biological source:-** It consists of fresh as well as dried herb known as *Boerhaavia diffusa*

### Chemical Constituents:

It contain punarnavine, potassium nitrate and ursolic acid.

### Uses:

- The herb is used as Diuretic and Expectorant.

- It use in the treatment of jaundice.

## Anti-Dysenteric

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- The dysentery is usually the bacteria from genus shigella.
- The inflammation occurs because of the exotoxins produced by certain protozoal animals like Amapa shigella and certain ciliate protozoans etc.

### Ipecacuanha

**Synonyms:** Ipecac

**Family:-** Rubiaceae

**Biological source :**

It consists of dried roots or the rhizomes of *Cephaelis ipecacuanha*

**Chemical Constituents:**

- It contain cephalis acuminata and cephalis ipecacuanha, alkaloids, cephalis psychotrine and ematamine.
- The root also contain ipecacuanhic acid, glycoside ipecacuanhin, starch and calcium oxalate.

**Therapeutic efficacy:**

- Ipecac is emetic and used as an expectorant and diaphoretic and in the treatment of amoebic dysentery.
- It is used to treat amoebic dysentery.

- It have local irritant action.
- Ipecac has the property of emetic.

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