

CNS PLANTS

| CNS plants Common name | Scientific name | Part used | Active ingredient | Uses | Side effects |
|---------------------------------------|------------------------|------------------------|---|--|---------------------|
| Ergot/ LSD lysergic acid diethylamide | Claviceps purpurea | Fungus grows on plants | Ergometrine & Ergotamine | facilitate delivery/ anti-migraine | |
| Peyote | Lophophora williamsii | | Mescaline | Hallucinogen | |
| Cannabis | Cannabis sativa | Leaves | THC (tetrahydrocannabinol) | Hallucinogen, antibacterial, reduce pain | |
| Caffeine | Coffea arabica | Seeds | | Diuretic, anorexic | |
| Theophylline | Camellia sinensis | Tea leaves | | Bronchodilator, stimulant, diuretic, astringent, antioxidant, useful in diarrhea | |
| Theobromine | Theobroma cacao | Seeds | Flavonoids (epicatechin helps cardiovascular effects) | Diuretic, bronchodilator | |
| Cola seeds | Cola vera | Seeds | Caffeine & theobromine | Stimulant, flavoring agent | |
| Cocaine | Erythroxylum coca | Leaves | | Local anesthetic | |
| Ginkgo biloba | Ginkgo biloba | Leaves | | Improves memory | |
| Ginseng | Panax ginseng | | Ginsenoside | Improves mental concentration, aphrodisiac, treatment of anemia, diabetes, diuretic, adaptogenic agent | |
| Galantamine | Galanthus nivalis | | | Alzheimers | |
| Hops | Humulus lupulus | Flower heads | alpha-acid humulone, beta-acid lupulone | Insomnia, neuralgia, excitability, sedative, antibacterial, antifungal | |

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| Valerian | <i>Valeriana officinalis</i> | Roots, rhizomes, stolons | Valerenic acid | Insomnia, stress, anxiety, carminative, antispasmodic, sedative, useful in migraine, headaches, hysteria | Poisoning |
| Passiflora | <i>Passiflora incarnata</i> | Leafy aerial parts like flowers and fruits | Chrysin | Insomnia, hysteria, nervous tachycardia, neuralgia, nervous restlessness, sedative, antiinflammatory, antispasmodic, hypnotic, anxiety, | |
| Lemon balm | <i>Melissa officinalis</i> | Dried leaves | | Sedative, GI disorders, antispasmodic, anti thyroid, anti infective | |
| St. johns wort | <i>Hypericum perforatum</i> | Flowering tops, leaves, unopened buds, flowers | Hypericin, pseudohypericin | Relieve mild to moderate depression, mild anxiety | Interacts with warfarin, cannot be used in pregnancy and lactation |
| Sage | <i>Salvia officinalis</i> | Leaves | | Counter memory loss, soothes inflammation, antiviral, anti inflammatory, used for asthma | |
| Reserpine | <i>Rauwolfia serpentina</i> | Rauwolfia root | | Antipsychotic, anti hypertensive, sedative, hypnotic | Exacerbate Parkinson's symptoms |
| Rosemary | <i>Rosmarinus officinalis</i> | Leaves | Rosmarinic acid, caffeic acid | Antioxidant, improves memory, improves concentration, carminative, spasmolytic | |
| Lavender | <i>Lavendula officinalis/ angustifolia</i> | Flower | | Perfume..., sedative, antispasmodic | Cytotoxic (lavender oil) |
| Picrotoxin | Picrotoxin | | | | Toxic, causes conclusion |
| Lobeline | <i>Lobelia inflata</i> | Leaves and tops | | Smoking cessation | Similar effects to nicotine |

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| Strychnine | Strychnine | | Strychnos nux-vomica | | Highly poisonous |
| Camphor | Cinnamomum camphora | Leaves and tops | | Antiseptic, decongestant, aromatic stimulant | |
| Opium poppy | Papaver somniferum | | Codeine & Morphine | Dental pain/ cough suppressant & analgesia/ management of severe pain | Nausea, constipation, drowsiness, respiratory depression |
| Feverfew | Tanacetum parthenium | Fresh leaves | | Prophylaxis, migraine | |
| Pilocarpine | Pilocarpus microphyllus | Leaves | Pilocarpine | Glaucoma | |
| Calabar bean | Physostigma venenosum | | Physostigmine | Glaucoma | Poisonous |
| | | In a type of mushrooms | Muscarine | Glaucoma | Contraindicated in asthma, toxic |
| Atropa belladonna | Atropa belladonna | Roots, leaves | Atropine | | |
| Datura stramonium | Datura stramonium | Seeds, leaves | Hyoscine (scopolamine) | Motion sickness | |
| Ephedra sinica | Ephedra sinica | Aerial parts | Ephedrine | Decongestant, bronchodilator, treat asthma | |
| Lavender | Lavendula officinalis/ Lavandula angustifolia | | Linalool/ Limonene/ Cineole | Perfumes , creams , lotions , Shampoo (cosmetics). Sedative (aromatherapy). Antispasmodic . Have antiseptic and anti-inflammatory properties | Toxicity /cytotoxic when used topically |
| Picrotoxin | | | | GABA inhibitor | Toxic, causes convulsions |

| Lobeline | <i>Lobelia inflata</i> | leaves and tops | | Has similar effects to nicotine, has been used for smoking cessation | |
|--------------------------------|---|-----------------|-------------------|--|--|
| Strychnine | <i>Strychnos nux-vomica</i> (الجوز المقيء) | | | stimulant | Highly poisonous |
| Camphor | <i>Cinnamomum camphora</i> | leaves | | Aromatic stimulant and decongestant Antiseptic | |
| Codeine opium poppy (الأفيون) | <i>Papaver somniferum</i> | | | less potent than morphine, /management of moderate to severe pain like in dental pain, /cough suppressant | nausea, constipation, drowsiness, respiratory depression |
| Morphine opium poppy (الأفيون) | <i>Papaver somniferum</i> | | | preoperative analgesia short term management of severe pain | nausea, constipation, drowsiness, respiratory depression |
| Feverfew (أقحوان) | <i>Tanacetum parthenium</i> | Leaves | | prophylaxis and treatment of migraine(inhibit secretion of serotonin) | |
| ANS drugs common name | Scientific name | Part used | Active ingredient | Uses | Side effects |
| Pilocarpine | <i>Pilocarpus microphyllus</i> | leaves | | Parasympathomimetic agent, causes salivation/ | |

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| | | | | ophthalmic preparations as a miotic and for glaucoma | |
| Physostigmine | Physostigma venenosum | (Calabar bean) | | Acetylcholinesterase inhibitor/ glaucoma(topically) | poisonous |
| Muscarine | | | | Muscarinic agonist in glaucoma | Contraindicated in asthma /cholinergic symptoms such as :Sweating, facial flushing, salivation, lacrimation, vomiting, abdominal cramps, diarrhea, urination, and miosis/Occasionally: bradycardia, hypotension, and dizziness |
| Atropine | Atropa belladonna | roots, leaves, | | mydriatic agent | |
| Hyoscine (Scopolamine US) | Datura stramonium | seeds, leaves | | motion sickness | |
| Ephedrine | Ephedra sinica | Aerial parts | | Decongestant and bronchodilator/to treat asthma | |

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| Reserpine | Rauwolfia serpentina | Rauwolfia root | | antihypertensive effects/noradrenaline depletion/Blocks the sequestering of catecholamine neurotransmitters | |
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| Blood and heart drugs common name | Scientific name | Part used | Active ingredient | Uses | Side effects |
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| Foxglove | Digitalis purpurea Digitalis lanata | leaves | digoxin and digitoxin | Digoxin increases the force of myocardial contractility /treat supraventricular tachycardia and heart failure | Toxicity : nausea, vomiting and anorexia/ Can cause arrhythmia /Not used in herbal extract form |
| Hawthorn mayflower or whitethorn(الزعرور) | Crataegus monogyna | | flavonoids like quercetin | Inhibits myocardial Na/K ATPase pump/Positive inotropic effect/Cardiac tonic,hypotensive, coronary and peripheral vasodilator,anti-atherosclerotic, + antiarrhythmic Antioxidant | Nausea, headache |

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| Quinidine | Cinchona officinalis | | Found in cinchona (quina) bark Quinine Quinidine Cinchonine | Arrhythmias treatment (quinidine). Antiseptic in abscess & ulcers (tannins)/Stomachic (tannins)/Tonic (quinidine). <u>(Quinine)</u> : skeletal muscles relaxant/ night muscles spasm/ abortifacient Anti-malarial/ Antipyretic/ Analgesic | Auditory and visual disturbances (cinchonism). Skin rash . Bleeding (haemolysis). |
| Bilberry European blueberry | Vaccinium myrtillus/ Similar to American blueberry (Vaccinium cyanococcus) | ripe fruit leaves | anthocyanosides(galactosides) + glucosides of cyanidin with vitamin C | Fruits : antidiabetic, an astringent and antiseptic for diarrhea ,antioxidant and free radical scavenging ,improve blood circulation in hemorrhoids and vision disorders (retinopathy) due to diabetes or hypertension Extract:anti-inflammatory, anti-ulcer, anti-atherosclerotic ,reduce fluid retention. | |

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| Butcher's broom | Ruscus aculeatus | dried underground roots and rhizomes | saponin glycosides | anti-inflammatory Used for varicose veins and hemorrhoids (suppository) retinopathy ,lipid profiles of diabetic patients. | local irritation |
| Ginkgo | Ginkgo biloba | | | peripheral arterial occlusive, prevents platelet aggregation, platelet-activating factor(PAF) antagonist, improves blood circulation, alleviate some of the symptoms of tinnitus, intermittent claudication and altitude sickness | |
| Horse chestnut | Aesculus hippocastanum | Seeds Bark | 30 saponins (escin) /Sterols, coumarins and flavonoids | chronic venous insufficiency, hemorrhoids and varicose veins / decrease the likelihood of DVT after surgery, and topically for bruises and sport injuries /Escin (saponin) reduces edema ,decrease capillary permeability (cerebral edema post road accident | gastrointestinal upset with internal use, and occasional irritation with external application |

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| Red vine leaf | Vitis vinifera | | | treatment of chronic venous insufficiency like varicose veins /Improve microcirculation and wound healing Inhibit platelet aggregation ,reduce edema (reduce) capillary permeability | |
| Garlic | <i>Allium sativum</i> | bulb | Sulfur compounds (Diallyl Disulfide Diallyl trisulfide /E-ajoene & Z-ajoene (formed from allicin | antiplatelet + antithrombotic activity/ Hypolipidemic(inhibitin g LDL oxidation)/antiviral and antibacterial, chemopreventive activity/ antifungal/Antihypertens ive activity. Carminative Antihistaminic activity (external). expectorant, treat bronchial asthma Allicin : antioxidant | Be careful: when used combination with other cardiogenic drugs |

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| Guar gum | <i>Cyamopsis tetragonolobus</i> | | | Lowers lipid levels+Glucose, anti-diarrheal, tablet binder ,slimming effects | |
| Artichoke | <i>Cynara scolymus</i> | | | lower cholesterol levels, decrease risk of cardiovascular diseases | |
| Psyllium | <i>Plantago ovata</i> | | | Lowers cholesterol levels/ for constipation | |
| Oat brans | <i>Avena sativa</i> | | | lowering cholesterol levels | |
| Pear | <i>Pyrus syriaca</i> | Fruit | | source of fiber, antioxidants/Reduce risk of cardiovascular diseases,cancer,diabetes/ infections | |

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| Almond | Prunus amygdalus | | Amygdalin, anticancer | Reduce blood pressure and cardiovascular diseases/Anti Aging benefits/Immune boostingAmygdalin, anticancer | |
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