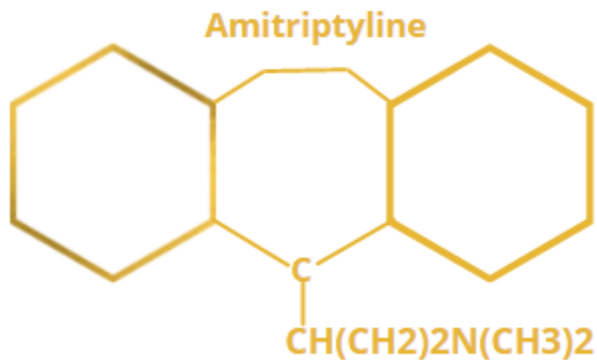


Overview of amitriptyline side effects

Amitriptyline [amee-TRIP-ti-leen] is a group of tricyclic antidepressants. There are various amitriptyline side effects seen in the treatment of depressed people.



Brand names or other names: Alin, AMWEL, AMIPRES QMED (elite, DEPTYLINE, TRIAD, etc.

Amitriptyline Side effects

There are the following amitriptyline side effects;

- Hypotension
- Tachycardia
- Palpitation
- Arrhythmias
- Heart block
- Stroke
- Changes in AV conduction & ECG
- Myocardial infarction
- Confusional state with hallucinations, disorientation, restlessness, insomnia, anxiety, excitement, nightmares, disturbed concentration, numbness, tingling, and paresthesia
- Ataxia, incoordination, and tremors
- Dysarthria, peripheral neuropathy, and extrapyramidal symptoms (for example, tardive dyskinesia)
- Seizures
- Dry mouth and tinnitus
- Blurred vision

- Increased intraocular pressure
- Mydriasis
- Hyperpyrexia
- Paralytic ileus
- Urinary retention
- The urinary tract dilation.
- Skin rashes, urticaria, & photosensitization
- Edema mainly in the face and tongue
- Bone marrow depression including eosinophilia, agranulocytosis, thrombocytopenia, and leukopenia
- Blood dyscrasias
- Nausea, vomiting, [diarrhea](#), epigastric distress, anorexia, peculiar taste, stomatitis
- Increased frequency of urination
- Escalate perspiration
- Drowsiness
- Parotid swelling
- Dizziness
- Weakness
- Fatigue
- Headache
- Alopecia
- Gynaecomastia (abnormal enlargement of non-cancerous breast in males)
- Enlargement of the breast
- Impotence
- Galactorrhoea
- Libido decreased or increased.
- Swelling of testicular
- Elevation or lessen of the blood sugar levels.
- Inappropriate (unsuitability) antidiuretic hormone(ADH) secretion syndrome
- Gain or loss of the Weight
- Rarely seen amitriptyline side effects are: hepatitis include altered liver functions and jaundice, Coma, or death.

If various amitriptyline side effects present after use, consult your doctor or pharmacist.

Amitriptyline Indications (Uses)

- Depression (Mild to severe)

- Unlabeled uses of amitriptyline medications are listed below;
 - Anxiety conditions
 - Insomnia (sleep disorder)
 - Treatment-resistant depressed patients
 - Chronic pain syndromes include
 - Fibromyalgia (musculoskeletal or muscular pain with localized tenderness and stiffness)
 - Neuropathic pain/ chronic pain conditions, migraine headache in the patients, low back pain in a patient's body.

Dosage (oral) in depression:

In adults:

- Initially, range between (50-75) mg/day as a single dose taken at bedtime or in divided doses;
- It may be increasing up to 150 mg per day or range 50 to 100 mg at bedtime
- It may be increasing by dose range from 25-50 mg up to 150 mg in the hospitalized patients,
- It may initiate with a dose of 100 mg/day, increasing the total daily up to 300 mg is the maximum dose of amitriptyline.

In geriatric (oldage) patients or adolescents:

- Dose 10 mg TID (3 times a day) and dose 20 mg at bedtime, or dose 25 mg at bedtime
- Initially, slowly or steadily increased to 100 mg/day as a single dose or divided dose at bedtime

Mechanism of action

- It inhibits norepinephrine transporter (NET)
- leads to blocking the reuptake of noradrenaline (NA) into the neuron.
- It enhances the availability of noradrenaline/norepinephrine at the receptors in the central nervous system (CNS).

TCAs (Amitriptyline) inhibit serotonin transporter (SERT) that lead to block the reuptake of 5-HT into neurons & enhance the availability of serotonin (5-HT) at the receptors in the central nervous system (CNS).

TCAs (Amitriptyline) blockade muscarinic (atropine-like actions), alpha-1 adrenergic, and H1 receptors.

Pharmacokinetics

- Absorption: Orally taken this medication well absorbed from the Gastrointestinal tract.
- Distribution: Distributed widely throughout the body
- Plasma protein binding (PPB) capacity is about 95%
- Metabolism/ excretion:
 - Extensively, metabolized in the organ liver because of the cytochrome P450 2D6 enzyme.
 - Few metabolites have antidepressant actions.
 - It goes through enterohepatic recirculation & is secreting into gastric juices in the body.
 - Probably, it crosses the placenta in the mother & enters breast milk.
- Plasma half-life: 10-50 hours.

Contraindications

This medication (amitriptyline) is not using in those patients who have already followed clinical abnormalities because this medication increases the severity of the present such clinical abnormalities in the patients.

- Glaucoma (angle-closure glaucoma)
- Epilepsy
- Ischaemic heart disease
- Arrhythmia
- Mania
- Enlarged prostate
- Known history of QTc prolongation
- Recent MI
- Concomitant use with Monoamine oxidase inhibitors (MAOIs) or within 14 days discontinuing the MAOIs; Linezolid drug, IV methylene blue, etc.

Used cautiously in:

- The risk may be greater in adolescents or children.
- Patients with cardiovascular disease.
- Prostatic hyperplasia (due to increased risk of retention of the urine)
- Chronic constipation

- History of seizures
- Renal and hepatic impairment
- Obesity: It uses if needed & maternal benefits outweigh the risk to the fetus
- Lactation: It may cause sedation in infants
- Pediatrics: The safety not established in children under 12 years
- Geriatrics: Geriatric (elderly) patients are at increased risk of side effects secondary to sedative effects & anticholinergics side effects.

Drugs interactions

- The risk of serotonin syndrome increases with SSRIs, TCAs drugs, Lithium, fentanyl, Triptans, tramadol medicine.
- May lessen plasma levels with barbiturates, other convulsants, & rifampicin
- May increase plasma levels with methylphenidate, cimetidine, calcium channel blockers, and antipsychotics drugs
- May precipitates cardiac arrhythmias with the hormone of the thyroid gland.
- May lessen the antihypertensive effects of debrisoquine, clonidine, and guanethidine.
- May increased pressor effects of epinephrine & norepinephrine (NE)
- May increased ventricular arrhythmias with
 - Antiarrhythmic drugs such as amiodarone, quinidine
 - Antihistamines drugs
 - Terfenadine
 - Some antipsychotic drugs (pimozide, thioridazine, & sertindole)
 - Sotalol, cisapride, & halofantrine.
- The risk of serotonin syndrome increased with MAOIs, methylene blue, and linezolid drugs.