

Propranolol Side Effects

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Applies to propranolol: **oral capsule extended release, oral solution, oral tablet**. Other dosage forms:

- intravenous solution

Serious side effects of Propranolol

Along with its needed effects, propranolol may cause some unwanted effects. Although not all of these side effects may occur, if they do occur they may need medical attention.

Check with your doctor immediately if any of the following side effects occur while taking propranolol:

More common

- *in children*

- Chest tightness
- cough producing mucus
- difficulty with breathing

Incidence not known

- Black, tarry stools
- blistering, peeling, or loosening of the skin
- blood in the urine
- bloody nose
- bloody stools
- blurred or loss of vision
- body aches or pain
- burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- chest pain or discomfort
- confusion about identity, place, and time

- congestion
- constipation
- cough
- cracks in the skin
- crying
- decreased awareness or responsiveness
- decreased urine output
- depersonalization
- diarrhea
- difficulty with swallowing
- dilated neck veins
- disturbed color perception
- dizziness, faintness, or lightheadedness when getting up suddenly from a lying or sitting position
- double vision
- dryness or soreness of the throat
- dysphoria
- euphoria
- fast, pounding, slow, or irregular heartbeat
- fever and chills
- general feeling of discomfort, illness, or weakness
- hair loss
- halos around lights
- headaches
- heavier menstrual periods
- hoarseness
- irregular breathing
- lightheadedness, dizziness, or fainting
- loss of heat from the body

- mental depression
- mimicry of speech or movements
- muscle or joint pain
- mutism
- nausea
- negativism
- night blindness
- noisy breathing
- overbright appearance of lights
- paleness or cold feeling in the fingertips and toes
- paranoia
- peculiar postures or movements, mannerisms, or grimacing
- pinpoint red or purple spots on the skin
- puffiness or swelling of the eyelids or around the eyes, face, lips, or tongue
- quick to react or overreact emotionally
- rapidly changing moods
- rectal bleeding
- red skin lesions, often with a purple center
- red, irritated eyes
- red, swollen skin
- reddening of the skin, especially around the ears
- runny nose
- scaly skin
- seeing, hearing, or feeling things that are not there
- severe sleepiness
- short-term memory loss
- skin irritation or rash, including rash that looks like psoriasis
- skin rash, hives, or itching

- stomach pain and tenderness
- sores, ulcers, or white spots in the mouth or on the lips
- sweating
- swelling of the eyes, face, fingers, feet, or lower legs
- swollen glands
- tender, swollen glands in the neck
- tingling or pain in fingers or toes when exposed to cold
- tunnel vision
- unusual bleeding or bruising
- unusual tiredness or weakness
- voice changes
- vomiting
- weight gain

Other side effects of Propranolol

Some side effects of propranolol may occur that usually **do not need medical attention**. These side effects may go away during treatment as your body adjusts to the medicine. Also, your health care professional may be able to tell you about ways to prevent or reduce some of these side effects.

Check with your health care professional if any of the following side effects **continue or are bothersome** or if you have any questions about them:

More common

- in children

- Anxiety
- dry mouth
- hyperventilation
- irritability
- restlessness
- shaking
- sleepiness or unusual drowsiness

- trouble sleeping
- unusual dreams

Less common

- *in children*

- Decreased appetite

Incidence not known

- Dry eyes
- heartburn
- loss of strength or energy
- muscle weakness
- pain or discomfort in the chest, upper stomach, or throat
- stomach cramps
- unusual drowsiness, dullness, or feeling of sluggishness
- vivid dreams

For Healthcare Professionals

Applies to propranolol: **intravenous solution, oral capsule extended release, oral concentrate, oral liquid, oral solution, oral tablet.**

Cardiovascular

Common (1% to 10%): Hypotension, cold extremities, Raynaud's phenomenon

Uncommon (0.1% to 1%): Heart failure, precipitation of heart block

Rare (less than 0.1%): Exacerbation of claudication, postural hypotension (which may be associated with syncope)

Frequency not reported: Bradycardia, congestive heart failure^[Ref]

Use of a nonselective beta-blocker like propranolol may at least blunt cardiac output in some patients, especially those with preexisting left ventricular systolic dysfunction and during exertion. Data have shown that cardiac conditioning can delay or attenuate this side effect of propranolol.

Abrupt cessation of propranolol therapy may result in hypertension, myocardial infarction, and angina pectoris in some patients.

Paradoxical hypertension may occur in patients with pheochromocytoma, unless alpha-adrenergic blockade is already instituted.

At least two cases of electrical alternans associated with propranolol are reported from pediatric cases. In one case, electrical alternans was clearly not rate-related (since it occurred during propranolol therapy at a slower rate than the patient's "native" ventricular tachycardia) and was associated with echocardiographically-demonstrated mechanical alternans.^[Ref]

Nervous system

Common (1% to 10%): Fatigue and/or lassitude (often transient), sleep disturbances, nightmares, sleep disorder, agitation, somnolence, irritability

Rare (less than 0.1%): Dizziness, paresthesia (especially of the hands)

Very rare (less than 0.01%): Seizure (linked to hypoglycemia)

Frequency not reported: Reduction or loss of libido, lightheadedness, mental depression (manifested by insomnia), weakness, catatonia, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium^[Ref]

Rare cases of paresthesias and myasthenia gravis have been associated with propranolol.^[Ref]

Renal

Uncommon (0.1% to 1%): Renal insufficiency (related to lowering of systemic blood pressure)^[Ref]

There are reports of patients who experienced reversible renal insufficiency with no decline in systemic blood pressure, but these patients had preexisting renal disease. This may be important in patients with preexisting renal insufficiency. New or worsened renal dysfunction has been reported in patients with underlying renal disease and no decline in systemic blood pressure.^[Ref]

Respiratory

Rare (less than 0.1%): Dyspnea, worsening of reactive airways diseases, bronchospasm in patients with bronchial asthma or a history of asthmatic complaints (sometimes fatal)^[Ref]

Limited data have shown a mean fall in maximal midexpiratory flow rate (MMFR) during propranolol therapy relative to placebo in nine of ten patients whose lung function was assessed. Interestingly, the fall was not related to smoking or to atopic status, suggestive of resting beta-adrenergic bronchodilator activity in nonasthmatic subjects.

Non-selective beta-blockers, such as propranolol, are used with caution in patients with asthma and chronic obstructive pulmonary disease due to inhibition of bronchodilation.^[Ref]

Endocrine

Very rare (less than 0.01%): Hypoglycemia (particularly in neonates, infants, children, elderly patients, patients on hemodialysis, patients on concomitant antidiabetic therapy, patients with prolonged fasting and patients with chronic liver disease), hypertriglyceridemia^[Ref]

Beta-blockers, such as propranolol, are used with caution in patients with diabetes due to masking of the catecholamine response to hypoglycemia. Propranolol may also mask the signs of hyperthyroidism by the same mechanism.

Propranolol has been associated with significant increases in serum triglycerides, fasting blood glucose, and LDL and VLDL cholesterol, and significant decreases in HDL cholesterol.^[Ref]

Gastrointestinal

Uncommon (0.1% to 1%): Anorexia, nausea, vomiting, diarrhea, abdominal pain, flatulence, decreased appetite^[Ref]

Psychiatric

One study of 34 hypertensive patients who were taking propranolol found the incidence of depressive symptoms in this population to be 50% to 74% (depending on the criteria used). Propranolol-induced depression may be more likely in patients with a personal or family history of depression. Of the 34 patients, 12 had a history of depression and 8 had a history of substance abuse, alcoholism, or a family history of psychiatric disorders. Since none of the 12 patients with a history of depression were clinically depressed at the start of propranolol therapy and were comparable by age, diagnosis, and propranolol dosage to the other 22 patients, a comparison was made. Patients with a personal or family history of depression had significantly higher scores on depression scales than those without such histories.

A 72-year-old retired college professor with no history of affective disorders developed progressive sadness, tearfulness, hopelessness, decreased energy, social withdrawal, anhedonia, insomnia, and decreased memory and concentration within two weeks after beginning propranolol monotherapy for hypertension. The signs and symptoms of depression resolved upon substitution with a thiazide diuretic. Interestingly, the patient later was treated for recurrent depression while not receiving propranolol.

Rare cases of psychoses associated with propranolol have been reported.^[Ref]

Rare (less than 0.1%): Depression (dose dependent), hallucinations, psychoses, mood changes, confusion, memory loss

Postmarketing: Hallucinations^[Ref]

Hypersensitivity

Rare (less than 0.1%): Anaphylaxis, contact dermatitis^[Ref]

Hematologic

Uncommon (0.1% to 1%): Reduction of platelet adhesiveness, thrombocytopenic purpura, nonthrombocytopenic purpura, agranulocytosis, eosinophilia

Postmarketing: Agranulocytosis^[Ref]

Dermatologic

Rare (less than 0.1%): Psoriatic flares

Frequency not reported: Stevens - Johnson syndrome, toxic epidermal necrolysis, exfoliative dermatitis, erythema multiforme, urticaria, purpura, alopecia, skin rashes, SLE-like reactions

Postmarketing reports: Dermatitis psoriasiform, purpura^[Ref]

Immunologic

Postmarketing reports: Enhanced immune system^[Ref]

Propranolol can enhance the immune system by causing an increase in the number of circulating T cells, increased interleukin-2 (IL-2) secretion, increased expression of IL-2 receptors, and increased lymphocyte production in response to the T cell mitogen Con A. Interestingly, NK (natural killer) cell activity may be decreased during propranolol therapy, although the number of circulating NK cells may remain unchanged. These results are consistent with previous data showing decreased immunologic function during periods of elevated sympathetic activity, such as congestive heart failure, uremia, or life-threatening events.^[Ref]

Genitourinary

Frequency not reported: Male impotence, Peyronie's disease^[Ref]

Metabolic

Frequency not reported: Weight gain^[Ref]

The mechanism by which propranolol induces weight gain is unknown. Some investigators have reported a 4% to 9% reduction in total energy expenditure and a 25% reduction in thermogenic response to food during beta-blocker treatment.^[Ref]

Musculoskeletal

Very rare (less than 0.01%): Myasthenia gravis like syndrome or exacerbation of myasthenia gravis

Frequency not reported: Myopathy, myotonia^[Ref]

Hepatic

Very rare (less than 0.01%): Elevated liver function tests^[Ref]

Ocular

Rare (less than 0.1%): Dry eyes, visual disturbances^[Ref]

Frequently asked questions

- How quickly does propranolol work?
- What's the maximum dose of propranolol?

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Further information

Always consult your healthcare provider to ensure the information displayed on this page applies to your personal circumstances.

Some side effects may not be reported. You may report them to the FDA.