
PROPRANOLOL (Inderal) Fact Sheet [G]

BOTTOM LINE:

May be effective and safe for use in performance anxiety, particularly when the sedating or cognitive side effects of benzos could interfere with an individual's performance, but there are no data in kids.

PEDIATRIC FDA INDICATIONS:

None.

ADULT FDA INDICATIONS:

Hypertension; angina; post-MI cardioprotection; atrial fibrillation; migraine prophylaxis; essential tremor.

OFF-LABEL USES:

Performance anxiety; tremor due to medication side effects (especially lithium); akathisia.

DOSAGE FORMS:

Tablets (G): 10 mg, 20 mg, 40 mg, 60 mg, 80 mg (all scored).

PEDIATRIC DOSAGE GUIDANCE:

- Minimal guidance on dosing in children and adolescents.
- Start 5–10 mg QD, increase by 5 mg/day increments as needed to response; max dose 20 mg/day. May divide dose BID.
- Performance anxiety (off-label use): Give 10 mg about 60 minutes prior to performance; usual effective dose for most is 10–20 mg.
- Medication-induced tremor: Start 10 mg BID as needed, can go up to 30–120 mg daily in two or three divided doses. Can also use Inderal LA, long-acting version of propranolol, 60–80 mg once a day.

MONITORING: BP/P.**COST:** \$**SIDE EFFECTS:**

- Most common: Dizziness, fatigue, bradycardia, hypotension.
- Theoretically may exacerbate asthma symptoms, although studies are equivocal.

MECHANISM, PHARMACOKINETICS, AND DRUG INTERACTIONS:

- Non-selective beta-1 and beta-2 adrenergic receptor antagonist.
- Metabolized primarily through CYP2D6, also CYP1A2 and CYP2C19; $t_{1/2}$: 3–6 hours. Be careful about inadvertent increase with fluoxetine leading to fatigue that might be misinterpreted as increased depression.
- Caution with other antihypertensives (additive effects). CYP2D6 inhibitors, and CYP1A2 and CYP2C19 inhibitors or inducers, may affect propranolol levels.

EVIDENCE AND CLINICAL PEARLS:

- No data for treating anxiety in children.
- With beta-blockade, propranolol reduces some of the somatic symptoms of anxiety (tremor, sweating, flushing, tachycardia).

FUN FACT:

The list of notable people who suffer or have suffered from performance anxiety or stage fright is long. It includes Barbra Streisand, Carly Simon, Van Morrison, Frédéric Chopin, Renée Fleming, Jay Mohr, Hugh Grant, Laurence Olivier, Mahatma Gandhi, and Thomas Jefferson, among others.