
FLUOXETINE (Prozac, Prozac Weekly) Fact Sheet [G]

BOTTOM LINE:

Consider fluoxetine a first-line agent for kids with depression and anxiety disorders.

PEDIATRIC FDA INDICATIONS:

Major depression (8+ years); **OCD** (7+ years).

ADULT FDA INDICATIONS:

Major depression; OCD; panic disorder; bulimia; PMDD (as Sarafem).

OFF-LABEL USES:

PTSD; social anxiety; cataplexy.

DOSAGE FORMS:

- **Capsules (G):** 10 mg, 20 mg, 40 mg.
- **Tablets (G):** 10 mg, 20 mg, 60 mg.
- **Delayed-release capsules (Prozac Weekly, [G]):** 90 mg.
- **Oral solution (G):** 20 mg/5 mL.

PEDIATRIC DOSAGE GUIDANCE:

- Ages 6–7: Start 5 mg QD, increase by 5 mg/day increments weekly; max 30 mg/day.
- Ages 8–17: Start 10 mg QD, increase by 10 mg/day increments weekly; max 60 mg/day.
- Many children and adolescents will show good treatment response at 10 mg/day.
- Most will respond best to morning dosing given its activating effects.

MONITORING: No routine monitoring recommended unless clinical picture warrants.

COST: \$; DR capsule: \$\$

SIDE EFFECTS:

- Most common: Nausea, insomnia, anxiety, sexual side effects, apathy, headache.
- Serious but rare: Hyponatremia, mainly in the elderly; gastrointestinal bleeding, especially when combined with NSAIDs such as ibuprofen.

MECHANISM, PHARMACOKINETICS, AND DRUG INTERACTIONS:

- Selective serotonin reuptake inhibitor.
- Metabolized primarily through CYP2D6; potent CYP2C9/19 and 2D6 inhibitor; moderate CYP3A4 inhibitor; t_{1/2}: 4–6 days (9 days for norfluoxetine metabolite).
- Avoid use with MAOIs (allow a five-week washout period if switching to MAOI); avoid other serotonergic agents (serotonin syndrome). Caution with substrates of 2C9/19 and 2D6.

EVIDENCE AND CLINICAL PEARLS:

- Most studied SSRI in kids and the only antidepressant approved for treating depression in younger children.
- Two large randomized double-blind placebo-controlled trials that showed significantly greater efficacy for depression compared to placebo led to FDA indication in kids 8 and older.
- Fluoxetine is favored in patients who could use some activation; it is most likely to cause insomnia, anxiety, and decreased appetite.
- Generally, higher doses of SSRIs are required for treating OCD.

FUN FACT:

According to *National Geographic*, shrimp exposed to traces of fluoxetine swim in brighter areas, making them more vulnerable to predators. This fact is not so fun for the shrimp.