

---

## GALANTAMINE (Razadyne, Razadyne ER) Fact Sheet [G]

---

### Bottom Line:

Galantamine has no appreciable benefit over donepezil; however, its availability in a liquid formulation is helpful for patients who have difficulty swallowing pills.

### FDA Indications:

**Mild to moderate dementia due to Alzheimer's.**

### Off-Label Uses:

Other memory disorders; mild cognitive impairment.

### Dosage Forms:

- **Tablets (G):** 4 mg, 8 mg, 12 mg.
- **ER capsules (Razadyne ER, [G]):** 8 mg, 16 mg, 24 mg.
- **Oral solution (G):** 4 mg/mL.

### Dosage Guidance:

- IR: Start 4 mg BID (breakfast and dinner), ↑ by 4 mg BID increments every four weeks.
- ER: Start 8 mg QAM (breakfast), ↑ by 8 mg/day every four weeks.
- For both, max 24 mg/day (target dose: 16–24 mg/day).
- If using oral solution, mix dose with three to four ounces of any nonalcoholic beverage; mix well and drink immediately.
- If therapy is interrupted for three or more days, restart at the lowest dose and increase to current dose.

**Monitoring:** No routine monitoring recommended unless clinical picture warrants.

**Cost:** \$; liquid: \$\$\$

### Side Effects:

- Most common: Diarrhea, nausea, vomiting, weight loss, anorexia, insomnia, abnormal dreams.
- Serious but rare: Cholinesterase inhibitors may have vagotonic effects that may cause bradycardia and/or heart block with or without a history of cardiac disease; syncope reported.

### Mechanism, Pharmacokinetics, and Drug Interactions:

- Acetylcholinesterase (AChE) inhibitor and cholinergic nicotinic receptor modulator.
- Metabolized primarily through CYP2D6 and CYP3A4;  $t_{1/2}$ : 7 hours.
- Avoid use with anticholinergic agents as they will diminish therapeutic effects; avoid beta blockers due to risk of bradycardia. CYP450 interactions not usually clinically important.

### Clinical Pearls:

- Galantamine's claim to fame is that it has a "dual" mechanism of action, modulating cholinergic nicotinic receptors in addition to inhibiting AChE. The manufacturer may use this factoid to argue that galantamine is more effective than the other cholinesterase inhibitors. However, accumulating evidence seems to show no difference in efficacy (Birks J, *Cochrane Database Syst Rev* 2006;(1):CD005593).
- ER formulation seems to be used more often due to ease of once-daily dosing.

### Fun Fact:

Razadyne was approved in 2001 with its original name, Reminyl. However, pharmacists sometimes confused written scripts for Reminyl with Amaryl, a diabetes medication. In April 2005, the trade name was changed to Razadyne to avoid future dispensing errors.