



# Cognex (tacrine)

Generic name: Tacrine

Available strengths: 10 mg, 20 mg, 30 mg, 40 mg capsules

Available in generic: No

Drug class: Cognitive enhancer/cholinesterase inhibitor

## General Information

---

**Cognex (tacrine)** is a cognitive-enhancing medication for treating mild-to-moderate dementia of Alzheimer's disease. Deterioration of cognition and memory in Alzheimer's disease, and in other forms of dementia, may be associated with degeneration of **cholinergic neurons**. Cognex inhibits the **cholinesterase enzyme** that breaks down **acetylcholine**, a neurotransmitter. This increases brain acetylcholine levels, optimizing the function of intact cholinergic neurons and improving memory and overall cognitive functioning.

## Dosing Information

---

The usual starting dosage for Cognex is 10 mg four times a day (40 mg/day). The patient should receive this dosage for a minimum of 4 weeks before the dosage is increased. Laboratory tests should be obtained to monitor liver function in the fourth week after initiation of therapy and then every other week for the next 4 months. If the results of liver function tests are normal, the dosage may be increased to 20 mg four times a day (80 mg/day). In another 4–6 weeks, the dosage may be increased to 30 mg four times a day (120 mg/day) and again in 4–6 weeks, if tolerated, to 160 mg/day. The optimal target dosage is 120–160 mg/day, but the daily dosage should not exceed 160 mg/day.

## Common Side Effects

---

The most common side effects associated with Cognex are nausea, vomiting, diarrhea, indigestion, insomnia, tremors, muscle cramps, loss of appetite, and weight loss. These effects are more frequent at the higher dosages, but in most cases the side effects are generally mild and transient and usually resolve after 1–3 weeks with continued therapy.

## Adverse Reactions and Precautions

---

Cognex is associated with liver toxicity. Individuals with a history of liver disease should not receive Cognex but may benefit from one of the other cognitive enhancers. Therapy with Cognex requires close monitoring of liver function. Blood tests to measure liver enzymes (called **transaminase** levels) are necessary for detecting early signs of liver toxicity. Elevation of liver transaminase enzymes provides an indication of liver injury. Blood tests are obtained to measure liver enzymes 4 weeks after initiation of Cognex, and the tests are repeated every other week for the next 4 months. Thereafter, transaminase levels are obtained every 3 months for as long as the patient continues to receive Cognex. Elevated liver enzymes or other abnormal liver function test results may require reduction of the daily dosage of Cognex or discontinuation of therapy.

Patients who are undergoing surgery should let their physician know that they are taking Cognex, because it can interact with any muscle-relaxing type of anesthesia that they may receive.

Cognex may have a slowing effect on heart rate. Patients who have a history of slow heart rate (bradycardia), who are taking medications for cardiac conduction problems, or who have a history of dizziness related to cardiac problems must be monitored closely while taking Cognex.

Cognex may cause seizures in susceptible individuals, although this adverse reaction is very rare. However, seizure activity may also be a manifestation of Alzheimer's disease.

Patients with a history of asthma or chronic obstructive pulmonary disease should be monitored closely while taking Cognex. Cognex may exacerbate pulmonary diseases.

Cognex may increase gastric acid secretions. Patients who have a history of ulcers or who are taking non-steroidal anti-inflammatory medications, such as ibuprofen or naproxen, should be monitored closely for signs of gastrointestinal bleeding.

## Possible Drug Interactions

---

Few significant drug interactions are associated with Cognex. The clinically significant drug interactions reported with Cognex are summarized in the table below.

|  |  |
|--|--|
| Anticholinergic agents (e.g., Cogentin)  | Anticholinergic agents and Cognex, when used in combination, may oppose each other's action, reducing their effectiveness.   |
| Nonsteroidal anti-inflammatory drugs (NSAIDs) (e.g., aspirin, ibuprofen, naproxen) | Because NSAIDs are associated with an increased risk of gastrointestinal ulcers and Cognex may increase gastric acid secretions, this combination may enhance the risk of gastrointestinal bleeding. |
| Tagamet (cimetidine)   | Tagamet may inhibit the metabolism of Cognex and increase its blood levels and pharmacological actions, potentially producing adverse effects.   |

Patients taking Cognex should not consume alcohol because the combination may increase sedation and drowsiness. Moreover, the sedative effects of alcohol may act as a depressant, obscuring the therapeutic effects of Cognex and complicating treatment.

## Overdose

---

Overdose with Cognex may result in a **cholinergic crisis** resulting from high levels of acetylcholine. The symptoms of a cholinergic crisis include severe nausea, vomiting, salivation, slow heart rate, sweating, low blood pressure, muscle weakness, respiratory depression, and convulsions. Overdose with Cognex can be life threatening.

Any suspected overdose should be treated as an emergency. The person should be taken to the emergency department for observation and treatment. The prescription bottle of medication (and any other medication suspected in the overdose) should be brought as well, because the information on the prescription label can be helpful to the treating physician in determining the number of pills ingested.

## Special Considerations

---

- If you miss a dose, take it as soon as possible, but if it is close to the next scheduled dose, skip the missed dose and continue on your regular dosing schedule. Do not take double doses.
- To be effective, Cognex should be taken at regular intervals during waking hours, separated by 3–4 hours. For example, take the medication at mealtimes and bedtime.
- Take Cognex with food to avoid stomach upset.
- Prolonged vomiting and diarrhea may result in dehydration and loss of electrolytes, and this can be dangerous, especially for seniors. Inform your physician when prolonged vomiting or diarrhea occurs for more than 1 day.
- Cognex may cause dizziness and drowsiness, especially during initiation of therapy, and impair alertness. Use caution when driving or performing tasks that require alertness.
- Store the medication in its originally labeled, light-resistant container, away from heat and moisture. Heat and moisture may precipitate breakdown of your medication.
- Keep your medication out of reach of children.

*If you have any questions about your medication, consult your physician or pharmacist.*

