

Electroconvulsive Therapy (ECT)

A Guide for Patients & Families

ECT is a medical treatment for certain serious mental health conditions. It uses a brief, carefully controlled electrical stimulus to produce a short seizure while the person is asleep under general anesthesia. Modern ECT is performed by a specialized team, with monitoring throughout. It is not the unmodified treatment sometimes portrayed in older films.

A Brief History

ECT was introduced in 1938. Early treatment did not routinely use modern anesthesia or muscle relaxation. Over subsequent decades, short-acting anesthesia, muscle relaxants, physiologic monitoring, and refined electrode placement and electrical pulses substantially improved comfort and safety. ECT remains an established treatment when a rapid or substantial response is needed.

When ECT May Help

- Severe major depression, particularly with suicidal thoughts, psychotic symptoms, inability to eat or drink, or poor response to medication.
- Bipolar depression and, in selected circumstances, severe mania.
- Catatonia (a potentially dangerous syndrome involving marked changes in movement, speech, and responsiveness).
- Occasionally other serious psychiatric conditions when a specialist determines that potential benefits outweigh risks.

ECT is not a routine treatment for dementia itself. In selected patients with dementia and a separate severe psychiatric illness, clinicians may consider ECT after careful assessment.

How Effective Is It?

ECT is among the most effective acute treatments for severe depression. Many studies report improvement in roughly 70–80% of patients, although rates vary with diagnosis, previous treatment response, and how improvement is defined. Some clinical series report higher remission rates in selected patients; these figures should not be interpreted as a guarantee. Catatonia also often responds well. Improvement may begin after several treatments and can occur faster than with antidepressant medication.

Symptoms can return after a successful course. A relapse-prevention plan may include medication, psychotherapy, and/or less frequent continuation or maintenance ECT.

ECT Compared with Medication

Consideration	ECT	Medication
Speed	Often improves severe symptoms within days to weeks	Antidepressants often take several weeks for full benefit
Effectiveness	Often effective after several medication trials fail	Effective for many people; response varies by medication and condition
Main side effects	Temporary confusion, headache, nausea, muscle soreness; memory problems can persist	Varies by drug: nausea, sedation, dizziness, weight change, sexual effects, falls, interactions
Medical considerations	Brief general anesthesia; temporary heart-rate and blood-pressure changes	Daily exposure and potential interactions; no procedure/anesthesia for most medications
Ongoing care	Course of treatments, sometimes maintenance sessions	Usually daily medication, monitoring and adjustments

Neither option is universally safer. The best choice depends on the urgency of illness, medical conditions, prior treatment response, personal preferences, and the risks of leaving symptoms untreated.

Side Effects & Safety

- Common, usually short-lived: headache, nausea, jaw or muscle soreness, fatigue, and confusion after awakening.
- Memory: difficulty learning new information during a course and gaps in memories from before treatment. Many problems improve, but some autobiographical memory gaps can persist.
- Medical risks: anesthesia complications, changes in heart rhythm or blood pressure, and other serious events are uncommon but possible.
- Electrode placement and pulse settings can affect both effectiveness and cognitive side effects; ask about options and memory monitoring.

Contraindications & Conditions Requiring Extra Caution

There is no single universally accepted list of absolute medical contraindications to ECT. Some conditions can make treatment particularly high risk or require stabilization, specialist consultation, or a different plan. Examples include:

- Recent heart attack, unstable heart disease, serious arrhythmia, or poorly controlled blood pressure.
- Recent stroke or brain hemorrhage, elevated pressure inside the skull, or certain brain masses or aneurysms.
- Significant lung disease, anesthesia-related problems, or other unstable medical illness.
- Pregnancy: ECT may still be an option in selected circumstances, with obstetric and anesthesia coordination.

Age alone does not rule out ECT. The psychiatrist and anesthesia team review medical history, medications, risks, alternatives, and consent requirements before treatment.

What to Expect: Step by Step

- 1. Consultation and assessment.** Discuss diagnosis, previous treatments, benefits, memory risks, and informed consent. The team may order blood tests, an ECG, and other evaluations.
- 2. Before each session.** Follow fasting and medication instructions from the treatment center. Arrange transportation and an adult to accompany you home if treated as an outpatient.
- 3. Preparation.** Staff place an IV and monitors for heart rhythm, blood pressure, oxygen, and brain activity. You receive short-acting anesthesia and a muscle relaxant.
- 4. Treatment.** While you are asleep, scalp electrodes deliver a brief electrical stimulus. The monitored seizure generally lasts about 20–60 seconds. You do not feel the stimulus.
- 5. Recovery.** You awaken within minutes and are observed until sufficiently alert and medically stable. Temporary grogginess or confusion can occur.

How long does it take?

- The ECT procedure itself generally takes about 5–10 minutes; preparation and recovery take longer.
- Plan on roughly 1–3 hours at the treatment center, depending on local scheduling and recovery needs.
- An acute course commonly involves 6–12 treatments, usually 2–3 times per week; some people need fewer or more.
- Recovery-room observation often takes about 30–60 minutes, but varies; feeling fully back to normal may take longer.

Do I need to stay in the hospital?

Not necessarily. ECT may be given during a hospital admission or as an outpatient procedure. Many people receive treatment and return home the same day. Hospitalization may be appropriate if symptoms are medically or psychiatrically unsafe, home support is inadequate, or closer monitoring is needed. After outpatient ECT, do not drive yourself home; follow the team's instructions about having an adult with you, driving, work, and important decisions.

Questions to Ask Your ECT Team

- Why is ECT recommended for me, and what alternatives are reasonable?
- What improvement should we look for, and after how many sessions will we reassess?
- What are my individual anesthesia, heart, and memory risks?
- Will you use unilateral or bilateral placement, and how will memory be monitored?
- Can I receive outpatient ECT? Who must accompany me, and what are the driving restrictions?
- What is the plan to prevent relapse after the initial course?

Trusted Resources for Patients & Families

- American Psychiatric Association — psychiatry.org/patients-families/ect
- National Institute of Mental Health — nimh.nih.gov/health/topics/brain-stimulation-therapies
- Mayo Clinic — mayoclinic.org/tests-procedures/electroconvulsive-therapy/about/pac-20393894
- MedlinePlus (U.S. National Library of Medicine) — medlineplus.gov/ency/article/007474.htm