

The most serious side effect of ECT is the potential for cognitive side effects like confusion or memory loss, which can be minimised by using Ultrabrief Right Unilateral ECT and tailoring the energy dosing to the individual patient. Most patients getting ECT for schizophrenia or bipolar disorder experience an improvement of their cognition.^[8-10]

The risk of ECT is mostly due to the anesthesia rather than the ECT. However, special care needs to be taken for those at risk – i.e. balance the risks vs. benefits of having ECT, delaying ECT or not having ECT for patients with the following high risk conditions:

1. Recent heart attack (<3 months), or uncontrolled heart conditions
2. Recent abnormalities in the brain (e.g. stroke) (<3 months)
3. Lung problems
4. High anesthetic risk
5. Pregnancy (this needs to be discussed with the anesthetist and the obstetrician)



How many sessions of ECT are required?

The treatment is typically done one to three times a week in both outpatient and inpatient settings. A typical course of treatment for depression or bipolar disorder is six to 12 sessions and between nine to 18 sessions for schizophrenia. Sessions are available on Mondays, Tuesday afternoons, Wednesdays, and Friday afternoons, excluding weekends and public holidays.

In IMH, we constantly monitor and improve the effectiveness of ECT for our patients.

- Schizophrenia: 64.5% of patients respond well to ECT^[8]
- Depression: 70% of patients are in remission of their symptoms with ECT^[9]
- Mania: 84% - 94% of patients obtain remission of their symptoms with ECT^[10]

This brochure is for information only and should not be used for the diagnosis or treatment of medical conditions. Please consult your doctor for more information on ECT.

References

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Electroconvulsive Therapy



What is Electroconvulsive Therapy?

Electroconvulsive Therapy (ECT) is a medical treatment for severe mental illness, such as depression, bipolar disorder, and schizophrenia that are not responding well to medications. It consists of inducing a brief medically-controlled seizure under general anaesthesia.

What types of ECT are available?

Four types of ECT are offered in IMH and tailored to suit each patient. This is done by determining each patient's seizure threshold (the level at which a patient develops a seizure).



Who should consider ECT?

ECT can be considered as an alternative treatment for patients who have not responded well to medications, or who are unable to tolerate medications. ECT is also very useful in patients with severe life threatening psychiatric conditions like depression with risk of suicide or catatonia.

1

Bitemporal ECT

This type of ECT is the strongest type of ECT, with the fastest response rate. It also has the highest chance of cognitive side effects^[1, 2]. Some examples of cognitive side effects include confusion or memory loss.

2

Bifrontal ECT

This type of ECT is also a very strong type of ECT with a fast response rate but with a lower chance of cognitive side effects. It may also be more effective in patients with schizophrenia or psychosis^[2, 3].

3

Right Unilateral ECT

This is a milder type of ECT that avoids directly stimulating the left side of the brain which is responsible for memory and cognition. This type of ECT has a much lower chance of cognitive side effects and may require one to two more sessions of ECT to reach the same effect as Bitemporal or Bifrontal ECT^[4].

4

Right Unilateral Ultrabrief ECT

This is the mildest type of ECT with the lowest chance of cognitive side effects and may take one to two more sessions than standard Right Unilateral ECT to reach the same effect. It is most useful for patients who are sensitive to the possible cognitive side effects of ECT^[5, 6].

How is the ECT procedure performed?

The patient will have to avoid eating for six hours before the ECT. In the ECT room a small needle is inserted into a vein in the patient's arm. The medication is then injected by an anaesthetist to help the patient fall asleep. The doctor then applies the ECT electrodes to the patient's head and applies the electrical current to induce the seizure. The patient's heart rate, respiratory rate, blood pressure and body temperature are monitored constantly during the procedure.

The seizure is monitored using brain monitoring equipment (electroencephalogram). Once the seizure is complete and the anesthetic wears off, the patient is moved to the observation bay. The ECT nurses will monitor the patient until the patient is fully awake and ready to be discharged from the ECT room. The entire procedure usually takes about one hour for inpatients and two hours for outpatients.



Are there any possible complications from an ECT procedure?

ECT is a safe treatment method with a mortality rate of <2 per 100,000^[7] treatments. There may be some minor common side effects like headache, muscle ache and nausea that often resolve by itself or with simple over-the-counter medication.