

Electroconvulsive Therapy ECT Service

What is Electroconvulsive Therapy?

The brain functions by complex electrical and chemical processes, which may be impaired by certain types of mental illness. It is believed Electroconvulsive Therapy (ECT) acts by temporarily altering some of these processes, thereby returning function towards normal.

ECT is a treatment performed under the direct supervision of a psychiatrist. The psychiatrist is assisted by a consultant anaesthetist and a team of nurses. During ECT a small electrical current is applied to the scalp, which induces a seizure.

Evidence indicates that for uncomplicated cases of severe depression, ECT will produce a substantial improvement in at least 80% of patients.

This information is designed to provide you with a description of ECT, to assist your understanding of the procedure and to answer some of the questions you may have.

This material is not a substitute for advice from your psychiatrist.

Why is ECT used?

ECT is used for severe depression, mania and schizophrenia, and when counselling and medications are ineffective.

The decision to use ECT is based upon a thorough physical and psychiatric evaluation, taking into account your illness, degree of suffering, expected result and prognosis (outlook) if ECT is not given.

ECT seems to work quicker and more effectively than medications for some mental health disorders. ECT will not cure you. If ECT is recommended, it is expected that ECT will help your current episode of illness and may help maintain improvement.

Who can have ECT?

Inform your psychiatrist and anaesthetist if you have had problems with anaesthetics, have diabetes, heart problems or other major illness. Cardiac monitoring and additional medications may be necessary in order to minimise risk. Cardiac pacemakers are normally not affected by ECT but some may need adjustment before treatment. You must tell your psychiatrist if you have a pacemaker.

You may need to have blood tests, and an electrocardiogram (ECG) and sometimes a chest x-ray, and/or computerised axial tomography (CT) or other scans of your brain.

Your current medications must be reviewed. Most treatments for medical conditions should be continued. If you have high blood pressure you should have your blood pressure stabilised prior to ECT. Medications for high blood pressure may be taken with sips of water an hour before morning ECT.

Unnecessary medications and those which might interfere with ECT may be reduced and stopped. Antidepressants, benzodiazepines and anti-epileptics (when used as mood stabilisers) are usually reduced and stopped. Sometimes this has to occur during the early phase of ECT as abruptly reducing some medications can lead to serious withdrawal adverse effects.

Most patients needing an acute course of ECT are much better treated as inpatients. Day patient ECT may be considered for patients in the latter stages of treatment or for those having maintenance ECT. You will need to give informed written consent for ECT.

Number and Frequency of Treatments

The average number of ECT treatments to recovery is about 10 to 12. The number depends on the progress of your recovery. While most patients start to improve after 4 to 6 treatments, some do not show a response until 10 to 12 treatments and occasionally some may need 20 to 25 treatments. Treatments are usually given two or three times a week.

For unipolar depression an antidepressant is normally commenced towards the end of the course to reduce the risk of relapse. There is approximately a 70% chance of remaining well over the following year and about a 30% chance of relapse. Counselling and help with getting back to your normal life with family, friends and work will often be provided. Other medicine may be used after ECT to help maintain improvement for other disorders.

The few patients who do not remain well on medications may be offered maintenance ECT. This is given on a gradually extended basis starting with weekly treatment and stretching out to monthly or thereabouts. Maintenance ECT may need to be continued for a year or more.

What are the risks?

Any medical procedure entails a certain amount of risk. ECT is no more risky than minor surgery under general anaesthesia and may be safer than antidepressants. This is in spite of its frequent use in the elderly and those with coexisting medical conditions.

Are there any side effects?

ECT itself is not painful as you will have an anaesthetic and will be asleep. It is common to feel muscular pain and jaw pain following your first ECT treatment, and you may experience a headache in the first few hours after each ECT. This is usually because of the type of muscle relaxant used. If it occurs, muscle pain is usually more marked after the first treatment and less subsequently. If headache or muscle pain causes discomfort, nursing staff can be asked to give you an analgesic (painkiller).

Nausea

Nausea is uncommon with modern anaesthetics. If it occurs, inform your nurse at once as anti-nausea medications may help. If it recurs, anti-nausea medications may be given before the anaesthetic.

Disorientation

You may feel disorientated on awakening. This has been described as like the first feelings on waking in an unfamiliar bed. The confusion you may experience will normally settle within a few minutes or hours and you will recall where you are and that you have just had ECT.

Attention, Concentration and Memory Impairment

Patients with severe depression commonly experience impaired concentration and attention, which usually improves with ECT.

Most patients will have some memory impairment of the time they were having ECT and the associated period in hospital. Some of this will be from being depressed as memories are not well formed when you have poor concentration.

Even though some patients recover with little or no awareness of any memory difficulties, some will experience some memory problem. New memories after ECT will not be affected.

Can ECT cause brain damage?

There is no proof that ECT causes any structural brain damage. Epilepsy causes spontaneous seizures, which unless complicated or prolonged do not harm the brain. ECT artificially stimulates a seizure. This seizure occurs under controlled conditions and is safe. Studies have found no changes in brain structure with ECT and that the electrical current which actually enters the brain is a fraction of that which is applied to the scalp, is lower in intensity and shorter in duration than would be necessary to damage brain tissue.

What about pregnancy?

The decision to treat pregnant women needs to take into account the risks associated with other treatments. ECT does not produce abnormal uterine contractions and appears to be safe even in complicated pregnancies. Foetal monitoring during ECT has not revealed any untoward effects on the foetus.

Patient Responsibilities

To achieve the best outcome for yourself, please ask your doctor or a clinical staff member if you have any questions about ECT, about your medicine, the recovery process and to explain your responsibilities regarding your treatment.