

Electroconvulsive Therapy (ECT)



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Ramsay
Mental Health

What you need to know about Electroconvulsive Therapy (ECT)

Electroconvulsive therapy or ECT is a treatment performed under the direct supervision of a psychiatrist. The psychiatrist is assisted by an anaesthetist and a team of nurses. During ECT a small electrical current is applied to the scalp, which induces a seizure. The effectiveness of ECT in severe mental illness is recognised by the Royal Australian and New Zealand College of Psychiatrists and similar organisations in the USA, Canada, Britain and many other countries.

Benefits of ECT

ECT seems to work quicker and more effectively than drugs for some mental 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.

How does ECT work?

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

When is ECT used?

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

Efficacy of ECT

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

Consent

Mental health legislation determines that ECT may be performed in an approved facility, on a voluntary patient capable of giving written consent. Your doctor will explain the treatment, answer questions and request written consent.

Before consenting to ECT, you have the right to obtain a second opinion from another doctor of your choice or one recommended to you. You can also seek legal advice and you have the right to be represented by another person of your choice before consenting. This representative is permitted to be with you when the doctor explains the treatment.

Written consent may be withdrawn at any time. You should understand the risks of prematurely stopping ECT and be informed of other treatments. When ECT is stopped prematurely there is a high risk of relapse and a likelihood that the entire treatment will need to be repeated.

You should read any local information about your rights and discuss further concerns with your psychiatrist. Written consent for ECT is required. In NSW, written consent is valid for 12 months. The average number of treatments to recovery is about nine but commonly ranges from 6 to 12.

Assessments before ECT

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

Your current drugs will 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. Drugs for high blood pressure may be taken with sips of water an hour before morning ECT.

Unnecessary drugs and those which might interfere with ECT may be reduced and stopped. Antidepressants, benzodiazepines and antiepileptics (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 drugs can lead to serious withdrawal adverse effects.

Inform your psychiatrist and anaesthetist if you have had problems with anaesthetics, have diabetes or heart problems. Cardiac monitoring and additional drugs 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.

Preparation for ECT

You should not eat or drink from midnight before morning treatment (or six hours before treatment at other times). You will be given a hospital gown to wear whilst you are having treatment, so that it is easy to apply monitoring electrodes. Your hair should be washed, clean and dry. Hair conditioners and other hair/scalp treatments containing waxes or oils should not be used as they can interfere with treatment.

All jewellery should be removed to prevent interference with treatment and monitoring electrode connections. Any nail polish should be removed, as this can interfere with some monitoring devices.

Treatment

In the morning, nursing staff will take your general observations and accompany you to the pre-treatment waiting area.

You will meet the anaesthetist and they will then show you into the treatment room.

You will be met by the psychiatrist and the treatment nurse, who will make you comfortable on the treatment bed.

Cardiac monitoring electrodes will be attached to your chest and a limb, monitors for oxygen and carbon dioxide placed over a finger or attached to an earlobe and recording electrodes will be attached to your forehead, behind each ear and near your right shoulder to help monitor the outcome of the treatment using an electroencephalogram (measuring brainwaves).

You will be given an injection of two drugs, an anaesthetic that will put you to sleep for a few minutes and a muscle relaxant. The relaxant prevents excessive muscle contractions or movement during the procedure. You will be given extra oxygen to breathe by mask just before the anaesthetic works.

Whilst you are asleep and relaxed a small electric current will be passed (for about three seconds) between two treatment electrodes placed on your scalp.

After the Treatment

You will wake up within a few minutes after treatment and not remember anything about what happened after the anaesthetic. You will then be moved to the recovery room. The nurse in the recovery room will take your general observations and monitor your recovery. After about 20 minutes you will be transported by wheelchair back to your own room, where the nursing staff will complete the final stage of ECT post recovery observations. If you are a day patient you may stay in the ECT suite, in a supervised area or in a ward. You will be given a breakfast tray and may choose to rest in bed for an hour or two after treatment.

Though the treatment itself only lasts a few moments, the process of preparation for ECT through to recovery typically lasts 15 to 30 minutes.

Number and Frequency of Treatments

The average number of treatments to recovery is about nine. The number depends on the progress of your recovery. While most patients start to improve after three to four 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.

Maintenance of Response

An antidepressant or another drug is normally used 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.

Maintaining improvement with extra treatments, drugs, counselling and social rehabilitation will make the return of symptoms less likely.

The few patients who do not remain well on drugs 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.

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. As some medical conditions increase the risk associated with ECT, patients are carefully screened.

Pain

ECT 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. 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 drugs may help. If it recurs, anti-nausea drugs 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.

Over the course of ECT, it may be more difficult to remember newly learned information. This difficulty disappears following completion of the ECT course. Some patients also report a partial loss of memory for events that occurred during the days, weeks or months prior to ECT. While many of these memories typically return after ECT, some patients have reported long lasting memory impairment. Before commencing ECT it may be helpful to keep a journal with important information such as phone and pin numbers, special dates etc.

The extent and duration of memory impairment depends on the type of ECT that is used and is less of a concern with unilateral than with bilateral ECT. It is also less with twice weekly ECT (though the treatment course may take longer and improvement is slower) and with shorter courses of treatment.

Even though some patients recover with little or no awareness of any memory difficulties, most will experience some memory problem. Other individuals report memory improvement because of the ability of ECT to reduce the amnesia that is sometimes associated with severe depression.

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.

Pregnancy

The decision to treat pregnant women needs to take into account the risks associated with other treatments, the risks to the mother and foetus of withholding ECT and any complications of the pregnancy that may increase the risks of ECT or the anaesthetic. ECT may be safely used during the second and third trimesters. Little information is available for its use in the first trimester. 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.

Smoking

Guidelines of the Australian & New Zealand College of Anaesthetists recommend that smoking be ceased for 24 hours prior to having a general anaesthetic.

As the anaesthetic required for ECT is short-acting the Clinic strongly recommends that patients refrain from smoking at least six hours prior to having ECT.

If you are not able to comply with this recommendation, the anaesthetist may decide to cancel your ECT on the day.

Inpatient or Day Patient ECT

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. Arrangements must be made for written consent, as well as ensuring that any drugs you may need before or after ECT are prescribed.

After recovery (a minimum of two hours) day patients will be assessed by clinical staff and when cleared to leave the hospital must be accompanied home by an adult carer.

Under no circumstance are you to travel home by bus or train unaccompanied

The carer must be given specific post-ECT instructions.

Relapse

After recovery, some patients may have a relapse of their depressive illness. Some will be best helped by drugs while others may need a further course of ECT. If there is a relapse it is important to treat it promptly and not endure extended periods of illness. It has been suggested that the more patients can be helped to be well, the lower the risk for relapse. While the more episodes of illness the patient has the higher the risk of subsequent relapse.

Patient Responsibilities

To achieve the best outcome for yourself, please ask your doctor or a clinical staff member to explain your responsibilities regarding your treatment.

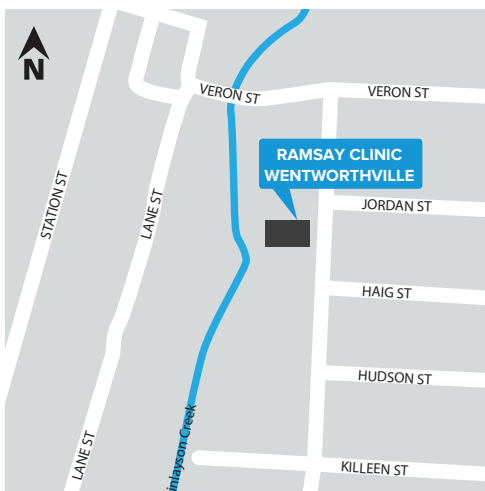
For 24 hours after ECT, do not drive a motor vehicle or operate machinery (including domestic appliances), make any major personal decisions, sign contracts or enter into business arrangements. These matters can be considered after recovery or at least more than a day after maintenance ECT.

Note

- This material is not a substitute for advice from your doctor.
- Let your doctor know if you would like a tour of the ECT suite.
- The book “Electroconvulsive Therapy - An Australian Guide” is available from:
Australian Postgraduate Medicine
C/o Victorian Medical Postgraduate Foundation
Level 8, 27 Victoria Parade
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