

# Electroconvulsive Therapy (ECT)

Information for patients, carers,  
family and support persons



Community  
of Care



The Melbourne Clinic  
by Healthscope

# Electroconvulsive Therapy

Electroconvulsive Therapy (ECT) is a procedure used to treat certain psychiatric conditions. It involves passing a carefully controlled electrical current through the brain, which affects the brain's electrical activity and produces an improvement in depressive and psychotic symptoms.

ECT may be recommended when symptoms are severe or other forms of treatment are ineffective. For some people, other forms of treatment such as medication and counselling have little or no effect on the symptoms of depression or psychosis. This is particularly concerning where symptoms are causing severe distress and the person may even be suicidal. In these cases, ECT seems to be especially helpful, with over 80% of people with depression who receive ECT reporting an improvement in their mood and functionality.

The brain works through complex electrical and chemical processes, and these may be affected by mental illness. ECT works on these processes so that they operate more normally again and symptoms are reduced.

## Why do I need ECT?

ECT is effective for major depression, mania and some forms of schizophrenia. It is particularly effective for people who are very depressed and who may be suicidal. ECT is often prescribed in the treatment of depression when medications have not worked, or for people who have experienced bad side effects from medications, or whose medical condition prevents them from taking medications safely.

Your doctor will discuss with you why ECT is the suggested treatment for you and what other treatment options are available.

There is strong evidence that ECT is effective in treating severe depression in the short term. However, as with other therapies for depression, relapse may occur. Repeated courses of ECT may be considered for individuals with severe depressive illness who have previously responded well to ECT. ECT is not effective in all cases.

Where this occurs, your psychiatrists will discuss different treatment options with you and develop a new treatment plan.

## What happens during ECT?

You will be brought into the treatment area and asked to lie on a trolley where staff will attach some medical equipment to you, including a small device over one of your fingers to check the pulse and oxygen levels in your blood. Small stick-on electrodes are placed on your forehead and behind your ears to record the brains electrical activity during the treatment, others are placed on your chest, and your leg to record the hearts electrical activity.

A facemask is then placed over your nose and mouth to give you oxygen; this is to prepare your body and brain for the extra activity that will happen briefly with treatment. You will have a short general anaesthetic by the anaesthetist so that you will be asleep and not feel or remember the treatment. You will also be given a muscle relaxant to modify seizure to avoid musculoskeletal injury. A bite block will be used to protect your teeth.

A psychiatrist who has specialised training in ECT performs the treatment in our suite. The ECT doctor places the treating electrodes to your scalp and passes a measured amount of electricity on one (unilateral) or both (bilateral) sides of the scalp and a small electric current is passed between these until a brief generalised seizure occurs. You will not feel anything due to the anaesthetic, and do not convulse due to the muscle relaxant.

During the treatment, the anaesthetist continues to monitor you, give you oxygen via your mask and monitor your heart rate and oxygen levels. Within a few minutes, the anaesthetic drugs will wear off and you will wake up. During this time, you will be moved to the recovery room where you will be monitored until you are fully awake.

You will wake up within a few minutes of treatment and not remember anything of it. You may feel a little disorientated initially on waking and have a slight 'fuzzy' feeling or headache. However, these feeling will soon pass. When you have woken sufficiently, the staff will assist you to sit up and into a wheelchair.

You will be collected by a nurse from your unit, or moved to the day recovery area where you will rest until you are accompanied home by a carer or support person.

You may be ready for a meal about half an hour after treatment. After a short period of time it is normal to recommence your usual activity level for the day. Report any nausea, aches or pains to your nurse and remain in the clinic on the day of your procedure unless you are accompanied by another adult (who is not a co-patient).

Typically, treatments are given two to three times a week for three to six weeks, although the exact course of treatment depends on the nature of the illness and the person's response to treatment. You will be re-assessed by your psychiatrist after every session of ECT and you should see improvements in your symptoms after two sessions.

## What do I need to do before having ECT?

Prior to your ECT treatment a 'Consent for Treatment' form must be completed by yourself and your psychiatrist. If you are a day patient you may be asked to bring this to the clinic with you.

Before your course of ECT, you will be reviewed physically to ensure you are able to have a short general anaesthetic and ECT. You must notify your doctor if there is a change in your medical status, for example, if you have a respiratory infection, a cough, or other physical illness. Your doctor may have to change the medications you were taking before ECT, as some medications can effect how well the ECT works.

On the morning of the treatment, some medications may still be given, but with a sip of water only.

You must fast from midnight before your treatment. Do not eat, drink, smoke, suck on lollies or chew gum six hours prior to treatment, this is to make sure your stomach is empty so that if you vomit under the anaesthetic there will be nothing to go up into the lungs. On the day of your procedure it is important you maintain personal hygiene (shower and dental care prior to each treatment), and hair should be clean and dry with no additional product added.

It is recommended you wear a comfortable loose top with short sleeves and low/loose neckline to allow access for monitoring. You may wear something warm over this, as it is important to keep warm prior to treatment but will be asked to remove it for the procedure. Please also remove all head, face and neck jewelry and any nail polish.

If you are having the procedure as a day patient, you will need to make arrangements for someone to bring you into the clinic by 07:30am so that we can complete the paperwork and prepare you for the procedure. Someone will also need to take you home and stay with you for 24 hours after the ECT procedure.

## Risks and side effects of ECT

Although the exact mechanism of action is not known, the value of this treatment is recognised worldwide and the method has been improved in recent years for better results and fewer side effects. Modern ECT is safe for most people (exceptions are now rare) and for some conditions ECT is the best and safest treatment option.

All treatments have risks and side effects; even no treatment has risks. ECT may improve your ability to think and give you emotions that are more normal.

There is no evidence that ECT causes brain damage or any harmful changes in personality.

It is important to be aware of any risks and side effects associated with ECT before commencing treatment.

### **Immediate side effects:**

- Loss of memory about the events immediately before and after ECT
- Heart rhythm disturbances
- Low blood pressure
- Headaches and nausea
- Sore muscles, aching jaw
- Confusion.

Generally, these resolve within a few hours, although some memory loss may persist. Most research demonstrates that memory loss is very restricted and usually temporary. However, memory changes may last for some weeks after treatment and a few people experience long-term or even permanent loss of memories. The ECT generally does not have an immediate effect on your mood, so don't be worried if you do not feel better after the first few treatments. If you wish to discuss your progress please discuss with your psychiatrist or nursing staff.

People differ in the amount of memory loss they report from ECT and how they feel about it. The more treatments a person has, the greater the effect on their memory and, if the ECT is bilateral rather than unilateral, is likely to affect a person's memory more as well. While some people find ECT to be a beneficial and lifesaving treatment, others find their memory loss distressing and for them, this outweighs any benefit from ECT. Your ECT course will be tailored to minimise this side effect where possible.

## About your Anaesthetic

You will be given a general anaesthetic by a specialist anaesthetist to keep you unconscious and pain free during the procedure. Throughout the procedure different drugs will be administered at particular times for specific purposes. These drugs will be injected into the bloodstream via a vein in your arm.



## Risks associated with Anaesthesia

The greatest risk with ECT is associated with the anaesthetic, which has a very small risk of death (often quoted as one in 100,000). Like any procedure involving an anaesthetic, ECT involves this small amount of risk, but overall, it is regarded as a very safe treatment. Modern anaesthesia is generally very safe. Whilst these events are usually temporary, some may cause long term problems.

### Common side effects:

- Nausea or vomiting
- Headache
- Pain and/or bruising at the injection site
- Sore or dry throat and lips
- Blurred or double vision.

You should tell the staff looking after you if you experience any of these common side effects, they will be able to give you some medications to help you.

### Less common side effects:

- Muscle aches and pains
- Weakness
- Mild allergic reaction – itching or rash.

Muscle aches and pains and weakness will resolve quickly, Please tell your nurse and the anaesthetist about any itching or rash so that this can be treated.

### Uncommon side effects:

- Awareness whilst under an anaesthetic
- Damage to teeth, dental prosthetics and lips
- Damage to the voice box and chords which may cause temporary loss of voice
- Allergic reactions and/or asthma
- Blood clot in the leg
- Damage to nerves and pressure areas
- Epileptic seizure (not from ECT)
- Cardiac arrest and blood clot to the brain.



**What increases your risk:**

- A bad cold or flu, asthma or other chest disease
- Smoking
- Being overweight
- Diabetes
- Heart disease
- Kidney disease
- High blood pressure
- Other serious medical conditions.

## Your responsibilities before Anaesthesia

It is your responsibility to tell your psychiatrist and anaesthetist of any health problems, infectious diseases, past operations, serious illness, dentures/partial dentures, crowns/veneers, loose teeth or other dental problems. You must also tell your anaesthetist if you are pregnant.

You must ensure your psychiatrist and anaesthetist is informed of any medications or drugs you are taking including over the counter herbal remedies. Some medications raise the seizure threshold and should not be taken prior to ECT.

If possible, give up smoking. If this is not possible, do not smoke for at least two hours prior to your procedure, drink less alcohol and stop taking any recreational drugs as these may affect your anaesthetic. If you do have a drug addiction, please tell you anaesthetist and psychiatrist.

## Things to avoid after Anaesthesia

**The anaesthetic will affect your judgment for about 24 hours. During this time you must not:**

- Drive any type of vehicle
- Operate machinery including cooking implements
- Make important decisions or sign a legal document
- Drink alcohol, take other mind altering substances or smoke as they may react with the anaesthetic drugs.

You must have a responsible adult with you for 24 hours following anaesthesia. These instructions are to help you stay safe; if you partake in any of the activities mentioned above, you are doing so against medical advice and therefore may be liable for any damage caused.





  
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