



ECT INFORMATION BOOKLET

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INFORMATION ON ECT

This information booklet is for anyone who wants to know more about ECT (Electro-convulsive therapy). In this booklet it is discussed how ECT works, why is it used, its effects and side-effects, and alternative treatments.

ECT remains a controversial treatment and some of the conflicting views about it are described. If your questions are not answered in this leaflet, please ask your treating psychiatrist.

Where there are areas of uncertainty, we have listed other sources of information that you can use. Important concerns are the effectiveness and side-effects of ECT and how it compares with other treatments.

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What is ECT?

ECT is a treatment for severe mental illnesses. Electroconvulsive therapy (or ECT for short) is a treatment that has been used in the treatment of Depressive illness, Mania, Catatonia and Schizophrenia. It was originally developed in the 1930s and was used widely during the 1950s and 1960s for a variety of conditions. It is now clear that ECT should only be used in a smaller number of more serious and acute conditions.

How is ECT given?

ECT is usually used to treat severe mental illnesses, for which person having it will be in hospital, although a few people have found it helpful to have ECT on Out patient basis.

During ECT, electrodes are put onto the head (temples - midway between the angle of the eye and ear) and an electric current is passed briefly through the electrodes to the brain, This current causes a seizure (a 'fit') - hence the name, electroconvulsive (ECT). This electrical current across the person's brain is carefully controlled by a special ECT machine.

An anaesthetic and muscle relaxant are given so that the patient is not conscious when the ECT is given. The muscle spasms that would normally be part of a fit and which could produce serious injuries are reduced to a flicker of the eyelids. By adjusting the dose of electricity, the doctor will try to cause a seizure between 20 and 50 seconds long.

Is there any preparation?

In the days before a course of ECT is started, your doctor will arrange for you to have some tests to make sure it is safe for you to have a general anaesthetic. These may include:

- Complete Blood Count (CBC)
- Blood sugars, Renal and liver function test
- Electrolytes
- Chest X-ray
- ECG
- CT Brain (optional)

You will be asked not to have anything to eat or drink for 6 hours before the ECT. This is so that the anaesthetic can be given safely.

Where is ECT done?

ECT is done in a special set of rooms that are not used for any other purpose, usually called the “*ECT suite*” in a psychiatric hospital/nursing home. If it is given in a general hospital set up it is given in the Operation theater / minor OT and treated on par with any minor surgical procedure. This is called modified ECT.

Direct ECT is the same procedure done without any general anaesthesia. This is opted if the patient is not fit for anaesthesia or allergic to anaesthetic drugs or muscle relaxants or opted by the patient.

What happens during ECT?

ECT can be done as a outpatient or inpatient procedure. You will be escorted to the ECT suite / Operation Theater with a nurse or ward boy. It is better that a family member accompanys you, who can come till the entrance .

The anaesthetist and anaesthetic assistant will connect monitoring equipment to check your heart rate, blood pressure, oxygen levels, etc. You may also be connected to an EEG machine, to check the brain waves.

An IV access is sort, through which the anaesthetist will give the anaesthetic drug and, once you are asleep, a muscle relaxant is given. While you are going off to sleep, the anaesthetist will also give you oxygen to breathe.

Once you are asleep and fully relaxed a doctor will give the ECT treatment. The muscle relaxant wears off quickly (within a couple of minutes) and, as soon as the anaesthetist is satisfied on your recovery from anaesthesia (waking up) , you will be taken through to the recovery area or your room.

When you wake up, you will be in the recovery room/ room with a nurse take your blood pressure and ask you simple questions to check on how awake you are. There will be a small monitor on your finger to measure the oxygen in your blood (pulseoxy meter) and you may wake up with an oxygen mask.

You will probably take a while to wake up and may not know quite where you are at first and little confused. You may feel a bit sick. After half an hour or so, these effects should have worn off. You can leave the suite when their physical state is stable and they feel ready to do so.

The whole process usually takes around 30 min to 45 min.

What are bilateral and unilateral ECT?

In bilateral ECT, the electrical current is passed across the whole brain; in unilateral ECT, it is just passed across one side. Both of them cause a seizure in the whole of the brain.

Bilateral ECT seems to work more quickly and effectively and it's probably the most widely used in India, US & Britain; however, it seems to cause more side effects. **Unilateral ECT** has fewer side-effects, but may not be as effective; it is also more difficult to do properly.

Sometimes you may be start a course of treatment with bilateral ECT and switch to unilateral or start with unilateral and switch to bilateral based on the clinical condition.

How often and many times is ECT given?

Most units give ECT twice to three per week, often on alternative days.

In general, it will take 3 to 4 treatments before any effect is seen, and 4 to 5 treatments for noticeable improvement.

It is impossible to predict how many treatments someone will need. A course will, on average, be 6 to 8 treatments, although as many as 10 to 15 may be needed. If someone has shown no response at all after 15 treatments it is unlikely that ECT is going to help.

What happens after a course of ECT?

Electricity that is delivered by the ECT machine causes all the neurons in the brain to fire at one shot, as this impulses travel down through the muscles it is seen as seizures. This firing of neurons may cause the release of several neurotransmitters which can improve depression.

Like antidepressants or antipsychotics, it can help to ease problems and control the psychiatric symptoms. Psychotherapy and counselling can help and many sufferers find their own ways to help themselves.

The heart and blood pressure can be affected by ECT, but the most common problem people report after ECT is short-term or long-term memory loss, which can be very distressing.

How does ECT work?

No-one is certain how ECT works, and there are a number of theories.

There are evidences that psychiatry illness are caused by problems with certain brain chemicals (neurotransmitters). These brain chemicals/neurotransmitters have a role to play in the modulation of our normal emotions. This is faulty in many of the mental illnesses. It is thought that ECT causes the release of these chemicals and, probably more importantly, makes the chemicals more likely to work and so as to help recovery. Recent research has suggested that ECT can stimulate the growth of new blood vessels in certain areas of the brain.

Does ECT really work?

Several studies have compared standard ECT with "sham" or placebo ECT. Patients who had standard ECT were much more likely to recover quickly. ECT has been shown to have an extra effect in severe depression – it seems, in the short term, to be more helpful than medication.

Pros & Cons of ECT

Who is ECT likely to help?

Ect helps in patients with severe depression, severe mania, Chronic Schizophrenia or catatonia. ECT is most often used for severe depression, and patients with suicidal ideas.

Who is ECT unlikely to help?

ECT is unlikely to help those with other psychiatric conditions than the ones mentioned above.

Why is it given when there are other treatments available?

It would normally be offered if:

several different medications have been tried but have not helped (treatment resistant)

Not able to tolerate the side-effects of antidepressants

ECT was found to be helpful in the past

Patients life is in danger because you are not eating or drinking enough

suicidal ideas and attempts.

What are the side effects of ECT?

As with any treatment, ECT has side-effects. Some of these are mild and some are more severe.

◆ Short-term

Headache, muscle aches, Dizziness , Nausea , vomiting , Fear, confusion immediately after ECT, these effects settle within a few hours.

Temporary loss of memory (Amnesia) for the time immediately before and after the ECT.

There is a small physical risk from having a general anaesthetic – death or serious injury occurs in about 1 in 50,000 treatments – less than the risks in childbirth.

◆ **Long-term**

Most common is *Memory Loss* which occurs , maybe around 1 in 10 patients undergoing ECT. Memory loss may be to some events in the recent past Most people find these memories

return when the course of ECT has finished and a few weeks have passed. It is not clear how much of this is due to the ECT and how much is due to the depressive illness or other factors.

Personality Change is also noted in some patients .

 **What if ECT is not given?**

You may take longer to recover.

In Severe depressed patients may refuse to eat or drink and may become physically ill or die.

There is an increased risk of suicide in severe depression .

 **What are the alternatives?**

If someone with severe depression refuses ECT there are a number of possibilities. The medication may be changed, new medication added or intensive psychotherapy offered, although this should already have been tried. Given time, some episodes of severe depression will get better on their own, although being severely depressed carries a significant risk of suicide.

Deciding to Have (or not to have) ECT

Giving consent to having ECT

Like any significant treatments in medicine or surgery, you will be asked to give consent, or permission for the ECT to be done. If you decide to go ahead, you then sign a consent form.

What if I really don't want ECT?

If you have very strong feelings about ECT, you should make them known to the doctors and nurses caring for you, but also friends or family who can speak for you.

If you have made it very clear that you do not wish to have ECT then you should not receive it. It may be helpful to write an 'advance directive' to make clear how you want to be treated if you become unwell again.

Can ECT be given to me without my permission?

Most ECT treatments are given to people who have agreed to it. This means that they have had:

A full discussion of what ECT involves

Why it is being considered in their case

The advantages and disadvantages

A discussion of side-effects.

Sometimes, however, people become so unwell that they are unable to take on board all of the issues – perhaps because they are severely withdrawn or have ideas about themselves that stop them fully understanding their position. In these circumstances, it may be impossible for them to give proper agreement or consent. When this happens, it is still possible to give ECT. The clinical team should also speak to family and other carers, to consider their views and any views the patient may have expressed before. They give consent on behalf of the patient on the best interest of the patient.

The ECT Controversy

Why is ECT still being given?

ECT is now used much less and is mostly a treatment for severe depression. This is almost certainly because modern treatments for depression like psychotherapy, antidepressants and other psychological and social supports are much more effective than they were in the past.

Even so, depression can for some people still be very severe and life-threatening, with extreme withdrawal and reluctance, or inability to eat, drink or communicate properly. Occasionally people may also develop strange ideas (delusions) about themselves or others. If other treatments have not worked, it may be worth considering ECT. IN some cases if the clinical condition is severe it can also be used as a first choice of treatment.

What do patients think of ECT?

Patients who have undergone ECT report significant improvement of their clinical condition and significant symptom relief and also were very apprehensive before the treatment due to the negative reports and taboo attached to ECT. 30 to 50 % patients complained of memory loss.

What do those in favour of ECT say?

Many doctors will say that they have seen ECT relieve very severe depressive illnesses when other treatments have failed.

Bearing in mind that 15% of people with severe depression will kill themselves, they feel that ECT has saved patients' lives, and so that the overall benefits are greater than the risks. Some people who have had ECT will agree and may even ask for it if they find themselves becoming depressed again.

What do those against ECT say?

Different People have different views and different reasons why they object to ECT. Some say that ECT is an inhumane, degrading, belongs to the past, side-effects are severe, it should be given to “Severe mental illness”, permanently damages both the brain and the mind, does not work at all, & harmful for the patient. Many would want to see it banned.



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