



National Institute of Mental Health and Neurosciences, Bangalore-560029

ECT-PATIENT INFORMATION LEAFLET

This provides information about electroconvulsive therapy (ECT), a treatment method to those suffering from severe forms of psychiatric conditions. ECT is known as 'shock treatment' in the common parlance. People have some concerns regarding this treatment method. This leaflet is designed to answer some common questions which, you and your family may have about ECT.

(Please do not hesitate to ask the member of your treatment team to help you, if you have any further queries)

Q) What is Electroconvulsive Therapy or ECT?

- * Electroconvulsive therapy (ECT) is a safe, efficient and sometimes life-saving treatment used to treat specific mental health conditions. It has been practised for last 75 years. During ECT, a small dose of well-controlled electric current is administered near the forehead of a patient to stimulate your brain cells. This produces convulsions (seizures) of a few seconds. This procedure is done under anaesthesia so that the person is unaware of the passage of the electrical current and the convulsions are suppressed. The entire process lasts for a few minutes; and he/she generally regains awareness in about 15 – 20 minutes.

Q) How commonly is it used?

- * ECT is practiced in several countries across the world including USA, Europe and several Australasian countries. It is estimated that about 1 – 5 individuals for every 10,000 receive ECT every year. In the National Institute of Mental Health & Neurosciences (NIMHANS), Bangalore, on an average, 600-700 patients receive ECT every year; i.e., about 10% of admitted patients. Each patient receives about 6-8 sessions.

Q) Who benefits from ECT?

- * Doctors consider ECT as an option for a patient with a severe mental disorder like depression, schizophrenia or mania. They do so after taking into account many issues including its safety, patient's or relatives' preference, need for quick relief from the psychiatric condition and lack of response to psychiatric medications. Generally, ECT is used for following situations:

1. When the psychiatric condition (particularly depression) is severe and there is high risk that the patient would attempt suicide.
2. When patients, due to severe psychiatric conditions, refuse food and fluids leading to risk to their physical health
3. When patients become so ill that they become mute and immobile – a condition called catatonia.
4. When patients become highly excited or agitated endangering their own or others' safety.
5. When medications are unable to relieve psychiatric symptoms.
6. The required medications causes serious side effects and hence, cannot be continued.



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Q) Is consent of yours or relatives taken, before ECT is administered?

- * When a psychiatrist opines that ECT is needed for you, along with providing this information leaflet he/she would explain the procedure, its advantages and disadvantages and alternative approaches to the you and your relatives. ECT is administered only after you and your relative have provided written consent for the procedure. When you are so ill that you cannot comprehend the details and provide valid consent, the consent of your family member is sought. You and your relatives can refuse to provide consent and can also withdraw your consent before starting the treatment or at any point during the course of the treatment. In such a case, you would receive the next best possible treatment.

Q) What is done if I don't provide consent for ECT?

- * Psychiatrists respect the decision of yours and your relatives'. They would manage the psychiatric condition with other available methods. However, these treatments may take longer time to show their effect, resulting in longer hospital stay; doctors may have to use higher doses of medications to control excitement, agitation or other symptoms.

Q) Is ECT safe in old people and children as well?

- * ECT can safely be given in elderly persons when due precautions are taken. In fact, in some countries, majority of the patients that receive ECT are elderly. In children, it is considered as a last option and is used only after discussion among a panel of doctors. In NIMHANS, more than 100 children have received ECT without serious adverse effects.

Q) Can ECT be used if I have medical conditions like hypertension or heart disease?

- * In such cases, psychiatrists make detailed assessment of yours medical condition and obtain opinions from different experts, including that of the anaesthesiologists. They also monitor yours condition closely during the ECT procedure. Most patients with cardiac, neurological and respiratory problems have received ECT without adverse effects.

Q) Can ECT be used in pregnant women or in nursing mothers?

- * When proper precautions are taken, ECT is a safe procedure in pregnant and nursing women. In fact, since a number of psychiatric medications cannot be used in such women, ECT is actually preferred when the psychiatric condition needs to be treated urgently in pregnant women and nursing mothers.

Q) If ECT is given once to me, would I require ECT every time I become ill?

- * It is wrongly believed that once a person receives ECT, he / she would need it every time he / she falls ill. This is not true. In most cases, after you have received ECT, psychiatrist would treat you with medications to prevent relapse of the condition. Even if there is a



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relapse, if the condition is treated when symptoms are mild, ECT would not be administered. There are rare instances, where the psychiatric condition responds only to ECT and no other interventions. It is only in such cases that ECT is administered repeatedly.

Q) Would ECT cure my illness? Is there a need to take medications during or after the course of ECT?

- * The effect of ECT is not permanent. You would need medications to maintain the improvement achieved by the use of ECT. Rarely, despite the use of medications, the improvement achieved with ECT is ill-sustained – in such cases, ECT may have to be continued, albeit less frequently – about once in a fortnight or once in a month.

Q) When I am prescribed ECT, what should I do?

- * It is important to tell the doctor about your past and current medical illness, especially those related to heart, lungs, blood pressure or bones. Any history of having undergone surgeries under anaesthesia as well as presence of loose teeth or dentures also needs to be provided to the doctor. It is important to let the doctors know about the medications which you are taking. Doctor would examine you patient in detail and perform a few blood tests and ECG. Rarely the doctors may ask for a brain scan.

Q) What preparation is required before every ECT session?

- * The most important thing is to not to have anything to eat or drink for 6 hours before the ECT. The doctors also would ask you to wash hair with shampoo, keep hair oil free, and wear loose fitting clothes. You should also remove ornaments, contact lens, dentures and hearing aids, if there is any. It is also important to void urine just before going to the ECT room. If you are taking medications, the doctor would advise you about which medicines are to be taken before and after the ECT session.

Q) What happens during ECT? How is ECT given? Is it painful?

- * ECT is administered by a team consisting of experienced psychiatrist, anaesthetist and nurses. The person would be first given injection to induce sleep. During this time, oxygen is provided using a mask. Once he/she is sedated an injection is used to relax the muscles in order to make the convulsions mild. A small current is then passed near forehead for about 2-4 seconds. This induces convulsions that last for 20 seconds to about 1 minute. The doctors would assist him/her to breathe till he/she starts breathing on his own. The doctors closely monitor the pulse, blood pressure and oxygen content in the blood throughout this procedure. ECT is not painful because one is under deep sleep when electrical stimulus is administered.



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Q) What care should be taken after ECT session?

- * You would generally become completely alert after a few hours following ECT session. The nursing staff needs to be consulted about when it is OK to have breakfast or morning medications after ECT. It is advisable not to drive any vehicle for a few hours after ECT. Otherwise, you can continue with their daily routine as usual. It is best that you don't make any major decisions such as signing contracts or any business agreements until after full course of treatment is over.

Q) How often is ECT given? How many ECT sessions in general are required?

- * ECT is administered twice or thrice a week. Most patients receive about 6-12 treatment sessions. Depending on the response to ECT, doctors may decide to administer more or less ECT sessions.

Q) Where is ECT administered?

- * ECT is usually administered in the room especially equipped for monitoring of person's condition during anaesthesia and ECT treatment. Separate rooms are there for patients to wait, have their treatment and recover from the procedure.

Q) When can one expect to have the beneficial effect of ECT?

- * Most people start showing improvement after 2 to 4 ECT sessions. However, a few may not get significant benefit until later in the treatment course. Rarely, patients may not experience any improvement.

Q) How does ECT work?

- * It is believed that ECT causes some chemical changes in the brain leading to the development of new connections across different nerve cells. Scientists have found that following ECT there are changes in the levels of neurotransmitters in the brain. These may be responsible for the improvement seen with ECT. However, the exact mechanism about how ECT works is still not clear and is a subject of continued research.

Q) Is ECT safe? What are the side effects of ECT? Would I lose memory with ECT?

- * ECT is a fairly safe procedure as doctors take the necessary precautions. ECT generally causes temporary side effects. One may have headache or body aches, which may require painkiller medications. Some may experience confusion lasting for a few minutes. There may be also some lapse in memory for some events happening immediately before and after the treatment. General intelligence and memory for events and facts learnt long back are not generally affected by ECT. Like with any medical treatment, people receiving ECT differ in the range and extent of side-effects. With proper medical care, serious side effects affecting the heart or nervous system are very rare and are managed by the ECT team even



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if it happens. With the use of modern techniques, dental, bone and joint complications have become extremely rare.

Q) Is there any way to reduce side effects?

- * ECT procedure has been refined to reduce side effects including memory deficits without compromising on efficacy. The selection of those refinements is done based on desired rate of recovery, existing physical illness, age and past experience of ECT.

Here are a few common myths about ECT and correct facts:

<u>MYTH</u>	<u>FACT</u>
* ECT is given to make people forget everything.	* Temporary forgetfulness is a side-effect which is largely mild, reversible and limited to recent events. The ability to remember will remain intact after ECT course is completed
* If someone gets admitted in a psychiatric hospital, he/she would be given ECT without his/her knowledge.	* ECT is always given after the doctor discusses with patient and the family and they agree for it.
* ECT experience is painful and horrifying.	* ECT is given under anaesthesia and so the patient does not feel pain or electric shock.
* ECT causes brain damage and may reduce the intelligence or change the personality	* ECT does not cause brain damage. It may cause temporary memory lapses of events around course of ECT. ECT does not affect personality or overall intelligence.
* ECT is given as a punishment.	* ECT not a punishment. It is administered to treat one's psychiatric condition. Moreover, it is not a painful procedure.
* If ECT has been suggested by the doctor, it means that other treatments are not working and the condition is hopeless.	* ECT is generally suggested by the doctors as, among the available options, it is the best for that patient at that moment. If one does not wish to receive ECT, doctors would suggest next best option.