

Is ECT for you?

IS ECT FOR YOU?

The decision to undergo ECT requires understanding of the treatment by you and your loved ones. If ECT is offered to you as a treatment for your illness, it is because your physician believes you will benefit. Hopefully, after reviewing this material and talking with professional staff, you will be more comfortable in weighing the risks and benefits of ECT so you can make a decision that is right for you.



Electroconvulsive Therapy Program

© 2003-2013 Regents of the University of Michigan
The University of Michigan Department of Psychiatry web site does not provide specific medical advice and does not endorse any medical or professional service obtained through information provided on this site or any links to this site. [Complete disclaimer and Privacy Statement.](#)

Contact Web Developer

A Brief History of ECT

Electroconvulsive therapy, commonly called ECT, was developed in 1938. During the period following its introduction, ECT was found effective for treating multiple psychiatric illnesses, especially depression. With the development of psychiatric medications and stigma associated with ECT in the 1960's, the use of ECT treatment declined. The use of ECT has increased since the 1970's because of improved treatment delivery methods, increased safety and comfort measures, and enhanced anesthesia management. ECT is the most effective treatment for severe mental illness and is an extremely safe treatment.

ECT is most commonly used to treat patients with severe depression who fail to respond to medications or who are unable to tolerate the side effects associated with the medications. ECT may also be the treatment of choice for patients who need a more rapid response than medications can provide. This would include those who are severely agitated, delusional, suicidal, not eating or drinking, as well as those who suffer from catatonia (a potentially life threatening trance-like state).

The use of ECT is not limited to the treatment of depression. It may also be used to stabilize bipolar illness during extreme episodes of mania or depression. Additionally, ECT can be used to halt psychotic episodes associated with schizophrenia. Once these individuals are stabilized, medications are started or resumed.

How does the ECT staff decide who get treated first?

The ECT department sees both inpatients (patients who are currently staying in a hospital) and outpatients who come in from home or from other facilities and then return after their treatment. Also, there are several psychiatrists at the Arbour who administer ECT. The order in which these physicians are available to treat their patients will vary depending on the doctor's schedule, and the time of arrival of that doctor's patients from outside and from the inpatient units. Also, each patient has different clinical needs which may impact on the treatment schedule. For example, some patients may require a physical exam, or may need special medications before their treatment.

How will I know the date of my next appointment?

If you are going to be receiving another ECT treatment, your doctor or another ECT department staff will give you or your family an appointment card with the date of your next scheduled treatment.

ECT Patients FAQ

(Frequently Asked Questions)

What time should I be here for my ECT Treatments?

The Arbour's ECT department is open every Monday, Wednesday, and Friday morning from 8:00AM until about Noon (except for some holidays). Usually, your doctor, therapist, or social worker will tell you when your ECT appointment is. Most doctors prefer that their patients arrive at the Arbour no later than 8:30 or 9:00AM on the day of their treatment.

I know I can't eat anything after Midnight in the morning of my ECT treatment, but what about my morning medications?

You will need to ask your doctor if and how you should take your morning medications on the day of your treatment.

Where do my family and I go for my ECT treatment?

When you come into the Arbour for your treatment, just give the receptionist at the front desk your name, and let him or her know that you are here for ECT and then have a seat in the waiting area. The receptionist will call the ECT department and let the staff know you are here. They will call the receptionist and have him or her direct you to the Treatment Room when your doctor is ready to see you.

How long will I have to wait?

All ECT treatments are done in the morning, no earlier than 8:00AM and no later than 11:30AM. Patients are not seen on a "first come, first serve" basis. Instead, the order of treatment is determined by the ECT staff based on the number of treatments, availability of beds, the length of recovery time of each previous patient and the order in which the psychiatrists arrive to treat their patients. If you like, you may want to bring a book or a magazine along to read while you are waiting.

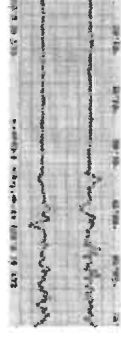
How Does ECT Work?

MECHANISMS OF ECT

Electroconvulsive therapy involves applying a brief electrical pulse to the scalp while the patient is under anesthesia. This pulse excites the brain cells causing them to fire in unison and produces a seizure.



EEG Seizure Activity



EEG Seizure Termination

The specific reason for the positive action of ECT is unknown, but this treatment appears to have many effects. There are multiple theories to explain why ECT is effective. One theory suggests that the seizure activity itself causes an alteration of the chemical messengers in the brain known as neurotransmitters. Another theory proposes that ECT treatments adjust the stress hormone regulation in the brain, which may affect energy, sleep, appetite, and mood.

THE NUMBER OF TREATMENTS NEEDED

Treatments are normally administered three times a week on Monday, Wednesday, and Friday. A course of ECT normally ranges from six to twelve treatments. The average number of treatments is nine. The number of treatments that you need will be determined by the severity of your symptoms and how rapidly you respond.

It usually takes six treatments before major improvements in your symptoms are noted. However, family members, friends, and caregivers may begin to see mild improvements following the first 3 to 6 treatments. These improvements may include an increase in your activity level, improved sleeping patterns, and a mild increase in your appetite.

Your psychiatric care providers will monitor your response to the treatments. This information combined with your input will be used to determine how many treatments you will receive.

RIGHT UNILATERAL TREATMENT VERSUS BILATERAL ECT TREATMENTS

There are primarily two types of electrode placements used for the delivery of ECT. Differences between these two techniques include the area of the brain stimulated, timing of response and potential side effects.



Right Unilateral Placement

To generate a seizure with a right unilateral treatment, one electrode is placed on the crown of the head and the other on the right temple. Those receiving the right unilateral treatments may respond somewhat more slowly than those who receive bilateral treatments. This difference is usually no greater than 1 to 2 treatments. Right unilateral treatment is typically associated with less memory side effects. Patients who do not respond to right unilateral treatments may require a switch to bilateral placement.



Bilateral Placement

Safety and Other Issues

THE SAFETY OF ECT

Any medical procedure involving anesthesia carries some risks. The potential risks include cardiac or respiratory arrest. The risk of respiratory or cardiac arrest resulting in death during ECT is negligible (less than 1 in 10,000 cases). This risk is typically regarded as being similar to the risks of having an outpatient surgical procedure under anesthesia. ECT treatments are extremely safe and severe medical complications are rare. You will be monitored constantly during the procedure by a team of medical professionals in the event of a complication.

MAINTENANCE ECT

Because depression is often a relapsing illness, patients may experience repeated episodes of depression even if they respond very well to ECT. Patients often have failed numerous medications prior to ECT, and their illness may be significantly resistant medications. When repeated episodes of depression occur, your doctors may recommend a taper of ECT over a course of several weeks to months. Modern clinical practice and recent research have found that Maintenance ECT is often very effective in keeping patients well. A common taper of ECT is treatments once a week for a month, once every 2 weeks for two months, once every 3 weeks for two months, and once every month for two-four months. Although there is a considerable commitment by patients and families to undergo Maintenance ECT, the avoidance of lengthy re-hospitalizations and undergoing more medication trials is often worth any inconveniences.



WHAT TO EXPECT AFTER ECT

ECT is an extremely effective treatment, but ECT treatment is only one component of a complete treatment regimen. After your ECT course, medications will likely be required as maintenance therapy to prevent a return of your illness. ECT also cannot resolve other problems associated with personal relationships or how an individual copes with the stressors of life. Other interventions such as psychotherapy may be recommended. Hopefully, because you are being relieved of the severe symptoms of your illness, you will be able to participate more effectively with other therapies that are recommended.

Common Side Effects

COMMON SIDE EFFECTS AFTER TREATMENT

Occasionally, a patient may have a headache, muscle aches, or nausea after the treatment. These side effects can be treated with medications before or after the ECT. If you experience any of these side effects please inform your doctor and nurse. Once the staff is aware of these side effects, measures can be taken to prevent them.

Additionally, some people may exhibit mental confusion resulting from the combination of anesthesia and/or ECT treatment. Acute confusion, if it occurs, typically lasts for 30 minutes to 1 hour. You are closely observed by nursing staff and doctors during this time for your safety.

POSSIBLE MEMORY SIDE EFFECTS

Memory loss is one of the greatest concerns of people who receive ECT. Two different kinds of memory loss may occur during the course of ECT treatments. The first is the loss of short-term memory during the period of time that you are having ECT treatments. Some examples of short-term memory loss include forgetting what you had for lunch or not remembering talking to someone earlier in the day. Your ability to remember new information will generally return to your normal level within a few weeks to a few months after the treatments are finished.

The second type of memory loss that may occur involves memory loss for past events. Recent past events (2 to 6 weeks before treatment) are more sensitive to ECT. However, some patients may describe "spotty" memory loss for events that occurred as far back as 6 months before beginning ECT. This memory impairment is potentially permanent. Although it is rare, some patients have reported a more severe memory loss of events which date back further than the 6 months preceding ECT treatments.

Bilateral ECT treatment involves placing the electrodes on both temples. This treatment may be associated with more acute memory side effects than right unilateral treatments. Bilateral ECT is indicated for severe mental illnesses including depression with psychosis, manic episodes of bipolar disorder, psychosis related to schizophrenia and catatonia.

You and your doctor will work together to determine which treatment option is best for you. Specific recommendations will be made after carefully evaluating your concerns, medical/psychiatric history, and the severity of your symptoms.

ECT Treatment

THE TREATMENT TEAM AND THEIR ROLES

Typically, ECT is performed by a team of medical professionals specifically trained in the delivery of ECT. This team consists of a psychiatrist, anesthesiologist, and nursing staff. The psychiatrist commonly delivers the ECT stimulation. The anesthesia team administers medications and monitors your medical status throughout the procedure. After the treatment, nursing staff will continue to monitor your progress until you return to the inpatient or outpatient unit.

THE TREATMENT

The night before a treatment you will not have anything to eat after midnight but may have clear liquids up until 7AM. Some people may receive medications in the morning with a sip of water for headache, high blood pressure, stomach reflux, or other significant medical conditions.

Shortly after you arrive in the ECT treatment area, an ECT team member will insert a catheter into your vein, often referred to as an IV. The IV will be used to administer medications necessary for both the ECT and your comfort. Pads with monitoring wires will be placed on your head and upper body to monitor your brain waves and your heart during the procedure. Blood pressure cuffs will be placed on both your upper arm and lower right leg. The cuff on your arm will be used to monitor your blood pressure. The cuff on your leg will be used to prevent the muscle relaxant medication from traveling to your foot, allowing the psychiatrist to monitor your motor seizure.



Treatment Preparation and Medication Administration

You will then be given a medication to make you sleepy. At the same time, a mask will be placed over your nose and mouth. The mask is used to provide you with oxygen.

When you are completely asleep, a muscle relaxant will be administered to prevent your muscles from twitching. After your muscles are sufficiently relaxed, two electrodes will be placed on your scalp and a pulse of electricity will be administered. Seizures vary, but are generally in the 25 to 45 second range.



ECT Stimulation

You will be closely monitored during and immediately after this treatment. After you awaken and your vital signs are stable, you will be transferred to the recovery area. The ECT treatment generally lasts only 10 to 20 minutes.

In the recovery area, the nurse will closely monitor your blood pressure and level of consciousness for another 20 to 30 minutes. Once the anesthesiologist is satisfied that you are ready, you will return to the inpatient or outpatient unit.

Upon arrival in the inpatient or outpatient unit, your vital signs and level of consciousness will be checked again. As soon as you are alert, you will be provided with food and beverages and assisted with dressing as needed. At this point, if you are an outpatient, you will be released in the care of the person who accompanied you to the hospital. If you are an inpatient, you will be encouraged to participate in unit activities, or you may continue to rest if you are feeling tired.