

### **ECT** (Electroconvulsive Therapy)

#### What is ECT?

ECT (electroconvulsive therapy) is a treatment designed to ease severe depression, bipolar disorder, and some other mental illnesses. For many patients, this therapy gives significant relief.

In ECT, an electrical energy device sends electric pulses to the brain. This causes a brief seizure in the brain (a period of rapid nerve impulses) that lasts about 30 seconds to 2 minutes. During ECT treatments, you will receive general anesthesia — medication that causes you to sleep through the treatment and feel no sensation. Medication is also used to prevent or suppress the muscle movements that otherwise come with seizures.

While ECT doesn't work for everyone, research shows it is usually more effective than other treatment methods for severe depression, with fewer side effects overall. Of course, as with any medical treatment or procedure, ECT also has side effects and risks. This fact sheet answers common questions about ECT, explains the risks, and describes what to expect.

#### When is ECT recommended?

ECT may be recommended to treat severe depression, bipolar disorder, or certain other mental illnesses in these situations:

- When you've tried medication, but it has not worked
- When your symptoms are too dangerous or difficult to wait for medication to work (for example, a strong desire for suicide)
- When medication side effects must be avoided, such as during pregnancy



ECT (electroconvulsive therapy) is a treatment that can give relief from depression, bipolar disorder, and some other mental illnesses.

### Other common questions about ECT

Below are some questions people often ask about ECT:

- How does ECT work? No one knows precisely how ECT works to ease symptoms. However, ECT appears to restore or reset chemical processes in the brain to normal function.
- What does an ECT treatment feel like? During ECT you'll have anesthesia (medication that blocks sensation and makes you sleep), so you won't feel anything during the procedure. See pages 2 and 3 to learn what happens before, during, and after an ECT treatment.
- How many treatments will there be? A course of ECT can vary from person to person, but it usually involves a series of 6 to 12 treatments, given every other day. Treatments may be more often or less often, depending on your situation and response to treatment.

- **Is ECT guaranteed to work?** No. Studies show that ECT is helpful 70% to 90% of the time, but each person's experience is unique. The response to ECT can differ in two ways:
  - The degree of improvement. The treatments may bring a full recovery, a partial recovery, or in some cases, no benefit at all.
  - The duration of improvement (how long recovery lasts). The benefits of ECT may last for years or they may disappear in a matter of weeks. After a series of ECT treatments, your doctor may prescribe medication to help prevent symptoms from returning.
- Can ECT affect my memory? Yes. Some memory loss is an expected side effect. Each person's experience is unique. Here's how:
  - The degree of memory loss. Some people have no memory loss. Most people only lose memory of events close to the time of the ECT series. However, in rare cases (about 1 in 200 patients), memory loss can be substantial.
  - The duration of memory loss. The loss is usually temporary, lasting several days to several weeks before memories return. Some memories, usually for events right around the time of ECT treatment, may not come back. In infrequent cases, memory loss is prolonged or even permanent. Are there other side effects or risks? Yes. These are listed on page 4.

### How do I prepare for ECT?

Before receiving ECT treatments, here's how you need to prepare:

- Your doctor will explain the ECT procedure to you — including its benefits, risks, and alternatives.
- Talk with your doctor about all medications you take. This includes prescription medications, over-thecounter drugs, and herbal supplements. You may need to stop certain medications before starting a series of ECT treatments.
- You will have tests to make sure ECT is safe for you. You may have blood tests, a check of your heart and lungs, and a heart rhythm test (electrocardiogram).

- With each ECT treatment, do not eat or drink
   after midnight the night before. Your doctor may
   tell you to take some medications with a sip of water
   on the morning of your treatment.
- If you are having ECT as an outpatient, arrange for a ride home. You should not drive at any time during a course of treatment.

## What happens before an ECT treatment?

ECT treatment is given at the hospital. Here's what happens when you arrive:

- Talking with the healthcare team. You'll be able to ask healthcare providers any questions you have. At that time, you will sign a consent form for the ECT treatment series. You may withdraw your consent at any time during the course of treatment.
- Getting ready. You'll change into a gown. You should also go to the bathroom at this time.
- **Removing items.** You'll need to remove the items listed below (you can keep them with you during the treatment, in a purse or pocket). Valuable items should be left at home. Remove all:
  - jewelry, glasses, or contacts
  - dentures, bridges, or other dental equipment (tell your doctor if you have any loose teeth or other tooth problems)
- Inserting an IV line. A healthcare provider will put an intravenous (IV) line in a vein in your arm so medication can be injected.
- **Meeting your anesthesiologist.** You will be taken to the treatment room, where the anesthesiologist will talk to you about your health. You will sign a consent for the anesthesia.
- · Connecting equipment to monitor you:
  - Electrode patches will be attached to your chest to check your heart rhythm.
  - Electrode patches will be attached to your head to monitor your brain activity.
  - A blood pressure cuff will be put on your arm, and a clip will be put on your finger to monitor your oxygen level.

## What happens during an ECT treatment?

Here's what happens during an ECT treatment:

- Anesthesia and other medication. Through the IV, you'll receive anesthesia and a muscle relaxant. You may also have other medications that make the treatment safer or more effective.
- **Tooth protection.** After you are asleep, we will place a tooth guard to protect your teeth during the treatment.
- Brief seizure. A device will be held against your head to send electrical impulses. This will cause a seizure in the brain (a period of fast nerve impulses). The seizure usually lasts from 30 seconds to 2 minutes. Medication will help prevent the brain seizure from affecting the rest of your body, so body movements should be slight, if any (see page 4 for information on rare exceptions).

## What happens after an ECT treatment?

Here's what happens after the treatment:

- Moving to the recovery area. You will be moved to a recovery area. Healthcare providers will monitor and take care of you as the anesthetic wears off. The monitoring equipment will be removed as soon as it is no longer needed. You'll wake up gradually. As you wake up, you may be a little confused or not sure where you are. This will not last long.
- Leaving. You will be monitored until you are awake enough to return to your room (if you are staying in the hospital) or go home. Some people recover from anesthesia faster than others. The time it takes you to wake up and remember where you are may vary from 30 minutes to several hours.

# How can I take care of myself afterward?

After a treatment, you may notice some side effects. Here's what you might expect:

- **Feeling tired**. Most people feel tired the day of the treatment.
- Temporary headache or muscle soreness that should go away within a couple of days. Use over-the-counter pain medication if needed.
- Temporary nausea. This should also go away within a couple of days. If you have nausea, drink small amounts of fluids and try foods that are easy on your stomach, such as applesauce, jello, puddings, or toast. Stay away from greasy, spicy or acidic foods.
- Memory loss. This side effect varies from person to person (see page 2). To prevent problems caused by memory loss, do NOT sign any legal contracts or make important decisions until you are cleared to do so by your doctor. This could take a few weeks after the entire series of ECT treatments.
- Activities. You can do whatever you feel like doing around your home, as long as it isn't strenuous, dangerous, or complex. On treatment days, make sure someone is with you when you leave home, and do not drive or go to work.

#### When should I call the doctor?

Call your doctor — don't wait for your regular follow-up appointment — if you notice any of these problems after ECT treatment:

- **Difficulty breathing or fever.** These may be signs that material from your stomach entered your lungs during the treatment.
- Headache, muscle pain, or bone pain that doesn't go away after a few days, or gets worse.

**Call your dentist for tooth problems** such as a loose or broken tooth.

#### Talking with your doctor about ECT

As with many medical treatments, ECT can cause side effects and complications. It's important to weigh the benefits of ECT against these risks, and also consider the risks posed by not treating your condition. The table below lists the most common potential benefits, risks, and alternatives for electroconvulsive treatment (ECT). There may be other benefits or risks in your unique medical situation. Talking with your doctor is the most important part of learning about these risks and benefits. If you have questions, be sure to ask your doctor or other healthcare provider.

Potential benefits	Side effects, potential complications, and risks	Alternatives
Potential benefits of ECT include:  Relief from symptoms  A full or partial recovery from depression or another mental health condition  (While ECT is generally effective, there is no guarantee of effectiveness. There is also no guarantee of how long a positive effect will last.)	<ul> <li>Side effects from ECT can include:</li> <li>Memory loss (usually temporary). Most patients have some memory loss, mostly for information and events around the time of the ECT series. The more ECT treatments you have, the stronger the memory loss may be. Memory loss is usually temporary, lasting several days or weeks before memory returns. Some loss can be permanent, especially for events surrounding the time of ECT. Rarely, patients have extensive and prolonged memory loss (around 1 in 200 patients). Do NOT make important decisions or sign legal contracts until you are cleared to do so by your doctor.</li> <li>Muscle soreness, headache, or nausea, usually lasting less than 48 hours. If these side effects occur, they can be treated with medication.</li> <li>Risks and potential complications of ECT are described below.</li> <li>Problems caused by anesthesia:         <ul> <li>The anesthesia can inhibit the reflexes that keep stomach contents from reaching the throat, wind pipe, or lungs. If this happens, it can block your breathing or cause pneumonia. To prevent this, do not eat or drink anything after midnight the night before an ECT treatment.</li> <li>Anesthesia can cause a serious allergic reaction. Tell the doctor about any medication allergies you have.</li> <li>Problems caused by the procedure:</li></ul></li></ul>	Alternatives to ECT include:  • Medication  • Psychotherapy Your doctor may recommend ECT because these alternatives have been tried and they didn't work. Or, your doctor may feel ECT will work better than these alternatives, based on your situation.