

# Electroencephalogram (EEG)



Patient and Family Education

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**This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.**

## What is an Electroencephalogram (EEG)?

An electroencephalogram (EEG) is a test that records electrical signals in the brain. An EEG can help your child's doctor learn about how your child's brain works.

## What should I do to help my child prepare for the test?

Below are some general guidelines to follow for the test:

- Your child needs to be sleepy for the test.
  - Keep your child up 2 to 3 hours later than usual the night before the test.
  - Get him up 2 to 3 hours earlier than usual the morning of the test.
  - Children over 3 years of age should not sleep more than 5 hours the night before the test.
- Your child may eat or drink a regular diet before the test but may not have foods or drinks with caffeine or a high sugar content. If your baby still takes a bottle, please bring full bottles with you.
- Wash and rinse your child's hair the night before the test. Do not use any conditioners, hair sprays or any other hair products.
- Bring a comfort item, such as a pacifier or blanket, if needed.
- If your child is a baby or toddler, bring diapers with you.
- If your child is on any medicines:
  - Please bring a list of them with you.
  - Give them at the regular times unless your child's doctor gives you specific instructions otherwise.

## What will the test be like?

- This test is done by placing wires called electrodes (small, flat, round discs) on your child's scalp. We may wrap your child's head in gauze to hold the electrodes in place. The electrodes do not hurt or shock your child.
- Colored wires attach the electrodes to a machine. The machine records the electrical activity of the brain.
- Photo activation (light stimulation) may be done for children 6 months and older. A strobe light is connected to the machine.
- During the test, your child:
  - Will need to sleep.
  - Should not feel any pain.
  - Will not have his hair cut or shaved.
  - May be asked to blow on a pinwheel if 5 years of age or older.

**In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.**

# **Electroencephalogram (EEG), continued**

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## **What happens after the test?**

After the test, the technologist will:

- Remove the electrodes and wires.
- Give you any special instructions you may need and tell you when you may leave.

## **When do I get the results?**

The technologist cannot provide you with results. The test needs to be read by one of the neurologists (a doctor who cares for the nervous system). The results are then sent to your child's doctor.

## **What else do I need to know?**

In some cases, your child may also need a Dense Array EEG. Dense Array EEG is an important test used to find abnormal electrical activity in the brain. It is used with patients who are being considered for epilepsy surgery.

Dense Array EEG:

- Measures and records the brain's electrical activity.
- Uses up to 256 electrodes. (A traditional EEG uses 19 to 21 electrodes.)
  - The electrodes are arranged on the scalp in a web-like structure.
  - They can be applied in about 30 minutes.
- Is painless.
- Provides better accuracy and localization at the source of seizure activity.
  - This means the doctor will have a better idea of where your child's seizures are happening in the brain.

The doctor or nurse will talk with you if your child needs a Dense Array EEG.

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