



## **Epilepsy Monitoring Patient Information Guide**



## Phase 1 Admission

The phase 1 evaluation is a series of tests aimed at determining your child's type of seizures or epilepsy syndrome. The goal of this phase is to locate, as best as possible from scalp recordings, where in the brain the seizure activity starts.

Typically children will stay from three to seven days in our Epilepsy Monitoring Unit (EMU). While there, they will wear standard EEG electrodes attached to the scalp. These electrodes are kept in place with a gauze wrap.

Your child may also undergo some of the following tests to assist in locating the source of the seizure activity.

- High Density scalp EEG
- Magnetic Resonance Imaging (MRI)
- Magnetoencephalography (MEG)
- Neuropsychology Testing
- Single Photon Emission Computerized Tomography (SPECT)

The tests results provide important information that will help your doctor determine how best to treat your child.

## EEG Monitoring

An EEG is a neurophysiologic technique primarily used in the diagnosis or evaluation of epilepsy. It could also be recommended for attention disorders, fainting spells, developmental delay, headaches, or learning problems.

The EEG records ongoing electrical activity generated by the neurons in the brain which is why it is also called a "brain wave" test. Abnormal EEG signals have electrical spikes and waves in the brain that are common in epilepsy even if the child does not show physical signs of having a seizure.

During EEG testing, a process called Evoked Potentials (EPs) might be done. This measures the electrical activity produced by external stimulation such as light flashes or sound clicks.

## High Density EEG monitoring (HD EEG)

High density EEG monitoring is similar to EEG monitoring in that it records the electrical activity of the brain. It is done utilizing a cap which has a very large number of scalp electrodes. 128 or 256 electrodes are placed compared to 26 – 28 with regular EEG monitoring. The average monitoring time with HD EEG is approximately one to two hours.



## **Magnetic Resonance Imaging (MRI)**

A MRI provides a detailed, physical picture of the brain. Sometimes, the cause of seizures is associated with a physical abnormality that is visible with a MRI.

This test requires the child to lay still for approximately 45 minutes. Some children may need sedation or sleep medicine to be able to complete this scan. We have a specially trained doctor who will give your child this medicine should they need it.

It is very important that you let us know if your child has any metal objects in their body as this could interfere with the MRI testing process. Metal objects include a VNS (vagal nerve stimulator), Baclofen pumps, pins, or pacemakers.

## **Magnetoencephalography (MEG)**

This is a new type of brain scan that allows doctors to see certain signals from the brain. It can improve the detection of potential sources of seizures by revealing the exact location of the abnormality. It may also be able to confirm brain waves typical of epilepsy in a lesion. It can also help give important information prior to a surgical procedure. The MEG scan is safe and painless.

## **Neuropsychology Testing**

Neuropsychological testing involves a battery of standardized tests given by a neuropsychologist to measure the way the brain functions. These evaluations are often used to detect neurologic diseases or the impact of epilepsy to the brain functioning. The typical evaluation takes 3 –6 hours to perform. There is no invasive procedure involved. After testing is completed, the results will be discussed with your Neurologist who referred you and a report will be prepared and forwarded to your doctor's office.

## **Single Photon Emission Computerized Tomography (SPECT)**

The brain SPECT is a diagnostic imaging technique, providing images of blood flow in the brain. This technique is very sensitive and can detect changes in brain blood flow associated with seeing, hearing and thinking. It is used to help localize the region of the brain responsible for seizures, even if the patient has a normal MRI or CT scan.

The scan is done approximately 30 minutes after a radiotracer is given through your child's IV line. The total scan takes approximately 30 – 45 minutes to complete. Once the testing is completed, your child will be taken back to the EMU.



## **Commonly asked questions:**

### **Where do I park?**

Parking is located in the parking garage beside the Physician's Office Building, across the street from the hospital. The garage is monitored by security personnel and cameras 24 hours a day. Please bring your parking ticket in to exchange for a token required for exit from the parking garage. Please refer to the enclosed map for detailed driving instructions.

### **Where do I check in?**

Check in is done at the Welcome Center on the first floor of the hospital. After parking, take the elevators to the ground floor. Walk through the tunnel. You will find the Welcome Center at the top of the escalators. If you enter through the front door circle drive, the Welcome Center is located just inside on the right.

### **Can a member of my family stay with me in the hospital?**

Yes. We ask that a parent (or other adult) be present throughout the entire hospital stay. You know your child best and can help our staff by identifying events as they occur. Other ways you may help are:

- Asking for your child's favorite foods
- Feeding your child
- Going with your child for tests and procedures to comfort them
- Changing diapers
- Bathing your child
- Putting your child to bed

### **How long will I be in the hospital?**

The phase 1 evaluation usually takes 4 – 7 days. The time needed for a full evaluation may be shorter or longer, depending on the number of events/seizures your child has during the stay.

What happens if my child doesn't have any events/seizures while in the EMU?

Your doctor may request several different things to be done to help document seizure activity. This includes decreasing or stopping your child's medicine or sleep deprivation. It is rare that a patient leaves the hospital without enough documented events.



## **When will I see my doctor?**

Every effort is made to have your child's evaluation completed during their doctor's on call rotation for the EMU. However, there are times that a request is made for your child be evaluated at a different time. Your doctor will discuss your child with the doctor on call so they are familiar with your child and the treatment received prior to admission.

The doctor on call will be in the EMU each day you are there and will give you updates. Once a week all of the doctors, with the rest of the EMU team, meet to discuss the results of the testing completed that week. At this time, treatment plans are finalized. Your doctor will discuss this treatment plan with you and your child.

## **Can I use my cell phone?**

Yes. Cell phone use is permitted in your room.

## **Is there computer access available?**

Yes. There is a parent resource center located on the ground floor that has computers available for parents to use. There is also a wireless network available for use with your laptop. Please ask a staff member for the login codes.

## **Do I need to bring food?**

Your child's meals will be provided by our Dining On Call cafeteria service. A room service type menu is provided in each room. Your child (or the parent) will make a choice of what they would like to eat. You call the number provided to place the order. The meal is then delivered directly to the patient's room.

Parents can purchase their meals from the cafeteria located on the first floor of the hospital. You are also welcome to bring special diet foods, favorite snacks or drinks. There is a refrigerator and microwave available for your use. Coffee is also provided in the parent kitchen located on the floor.

There are also many local restaurants that will deliver to the hospital. Please ask one of the staff for suggestions.

Please note: We do not allow personal coffee makers or other small appliances to be used in the patient rooms.

If your child has a special diet restriction or requires a special formula or food, please notify us as soon as possible so that we may have it available on admission.



## What do I bring?

Here is a checklist of typical items you will want to include when you plan your stay:

- Comfortable clothing, hospital gowns are provided but not required to wear
- Tops that button up the front—this is ESSENTIAL so electrodes are not pulled off
- Shorts
- Socks
- Toothbrush, toothpaste, shampoo, lotion
- Books
- Games
- Video game systems/games
- Movies – there is a DVD/VHS player on the TV in each room
- Favorite toy
- Favorite blanket or pillow
- Homework



## Questions for the EMU staff or my doctor:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.



## **Other information:**

### **CarePages:**

CarePages is a service for our patients and families that will allow family and friends to stay in touch before, during and after a hospital stay. Our patients and families can create and update a free, private and personalized web page where they can share their latest news with friends and family, and receive messages of support.

CarePages let patients and families:

- Update everyone at the same time without repeated phone calls or emails
- Create a web page that is private and not open to the general public
- Create web pages that they can update themselves, without the help of our staff
- Send complements to caregivers

CarePages are fully secure, password protected and comply with all patient privacy regulations.

Help is available for CarePages by contacting [support@carepages.com](mailto:support@carepages.com) or by calling 1-888-852-5521

Monday through Friday from 8 a.m. to 6 p.m., Central time.

### **Child Life Services:**

Hospitals can be scary places for children - that is why we have one department whose sole purpose is to help children overcome their fears and provide comfort and security. It's called the Child Life department. Their entire focus is children.

Developmental activities need to continue even when the child is hospitalized. Child life specialists and hospital volunteers work to help children understand hospital routines and feel more at home in the hospital. These attendants are usually by a child's side to help the child through procedures, which may be frightening.

The staff uses play, art and music therapy to help children deal with their questions and emotions. Watching bingo and trivia games on Le Bonheur's own Channel 8 is just one way a child can pass the time. A newly renovated teen room is also available for patients and their siblings over 13 years old.





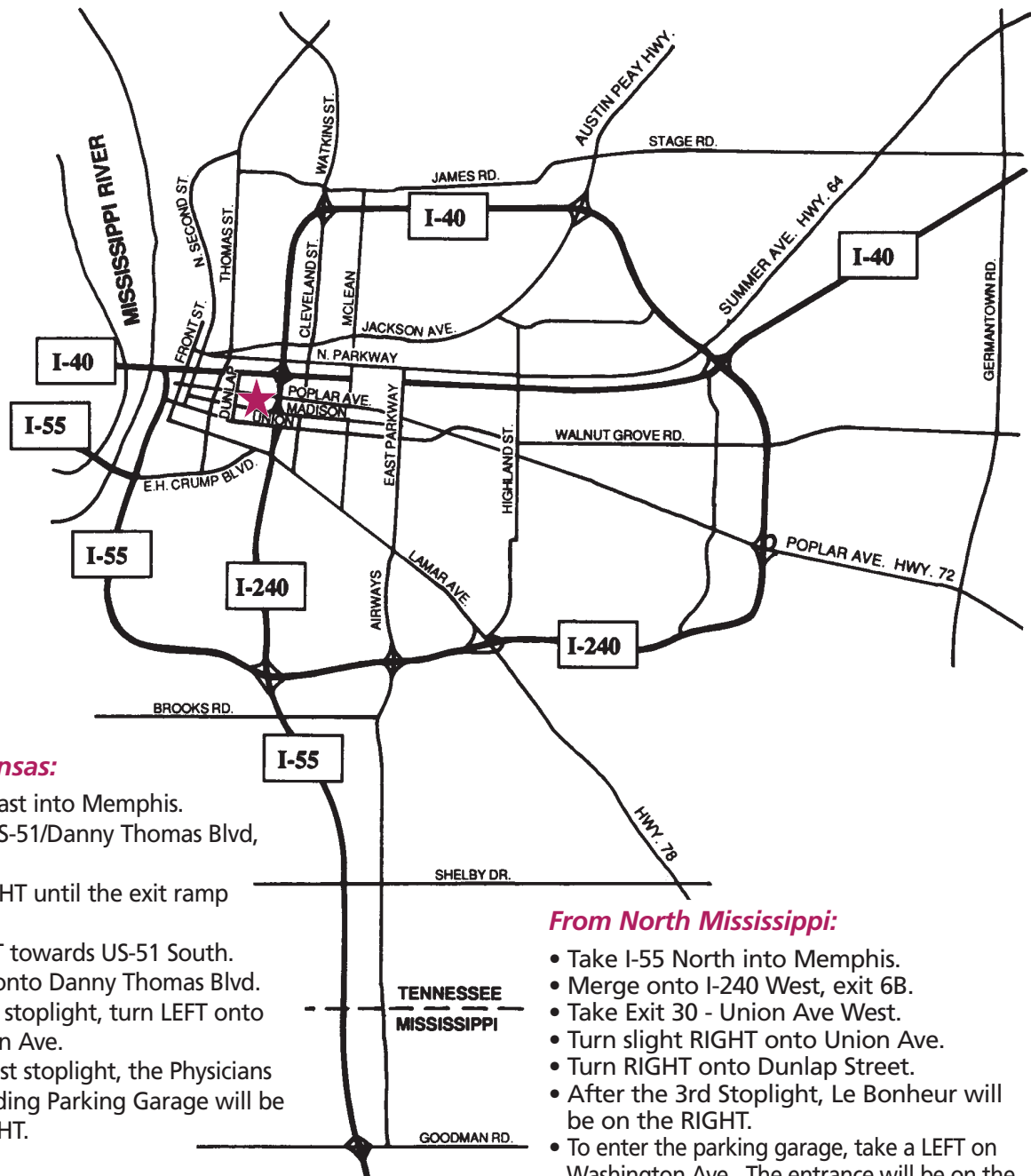
# Directions to Le Bonheur Children's Medical Center

## From Millington:

- Take US-51 South into Memphis.
- US-51 will become Danny Thomas Blvd.
- Continue on Danny Thomas Blvd. until you reach Washington Ave.
- Turn LEFT on Washington Ave.
- After the 1st stoplight, the Physicians Office Building Parking Garage will be on the RIGHT.

## From West Tennessee:

- Take I-40 West towards Memphis.
- Merge onto Sam Cooper Blvd.
- At the end of Sam Cooper Blvd., turn LEFT onto East Parkway.
- Take the first RIGHT on Poplar Ave.
- Continue on Poplar Ave.
- Turn LEFT at the 12th stoplight onto Dunlap St.
- Le Bonheur will be on your LEFT.
- To enter the parking garage, take a RIGHT on Washington Ave. The entrance will be on the LEFT.



## From Arkansas:

- Take I-40 East into Memphis.
- Take the US-51/Danny Thomas Blvd, exit 1B.
- Go STRAIGHT until the exit ramp deadends.
- Turn RIGHT towards US-51 South.
- Turn LEFT onto Danny Thomas Blvd.
- At the 2nd stoplight, turn LEFT onto Washington Ave.
- After the 1st stoplight, the Physicians Office Building Parking Garage will be on the RIGHT.

## From North Mississippi:

- Take I-55 North into Memphis.
- Merge onto I-240 West, exit 6B.
- Take Exit 30 - Union Ave West.
- Turn slight RIGHT onto Union Ave.
- Turn RIGHT onto Dunlap Street.
- After the 3rd Stoplight, Le Bonheur will be on the RIGHT.
- To enter the parking garage, take a LEFT on Washington Ave. The entrance will be on the LEFT.

