What is the Wada Test?

Different parts of the brain control talking, thinking, and remembering. Your doctor uses the “Wada Test” to find each part. We do this test to see if seizure surgery will change your child’s speech or memory.

The Wada Test includes:
1. Neuroimaging
2. EEG
3. Neuropsych testing

First Visit:

1. Baseline Visit & Study

Your child will meet with the neuropsychologist for a baseline study. This includes speech, thinking, and memory tests. Your child must be able to follow simple directions.

2. Risks

The Wada Test is a safe procedure and complications are rare. As with all procedures, certain risks are present. Your child’s doctor will explain these risks. The risks are stated on the “Permit for Treatment” form.

3. Allergies

Please bring a list of all your child’s allergies. We ask questions about:
1. Foods, especially shell fish.
2. Any local anesthetics or medicines such as Phenobarbital or Mysoline (primidone), Amytal (Amobarbital), Mebaral, Nembutal, Seconal, or Tuinal.
3. X-ray dyes that contain iodine.
4. Any related allergic conditions such as eczema, asthma or hay fever.

4. Inpatient or Outpatient

Your child may not need to spend the night. Your child’s doctor will decide if this is an inpatient or outpatient study. Usually the test begins in the morning. Your child may be ready to return home by mid to late afternoon. Your child may bring a book or a radio with earphones to help pass the time.
DAY OF THE WADA TEST

Your doctor will meet with you and answer any last minute questions. Your child will:

- Put on a hospital gown
- Enter an X-ray room
- Lie down on a firm bed

Numbing Medicine

Your doctor gives your child a small shot of numbing medicine on the top part of the leg (called the groin). Your child may feel slight pressure and a sting, but it only lasts a few seconds. Most children say that this doesn’t hurt.

Placing the Catheter

When the groin is numb, the doctor makes a small incision and places a tiny, flexible tube (catheter) into the artery.

- The doctor gently guides the catheter into the arteries.
- A television-like screen called fluoroscopy shows us where the catheter is going.
- When the catheter reaches the right artery, we give the first medicine.
- This medicine goes into the catheter and flows into your arteries.
- We can then see the arteries on the fluoroscopy screen.
- Your child may have a warm feeling for about 10 to 20 seconds.

At the same time, there might be a loud clicking sound. This is the x-ray machine taking pictures of the medicine as it flows in the arteries. It is very important to lie very still at this time.

During the Wada Test

Right & Left Sides of Brain

The brain is divided into the right and left side. Each side controls the opposite side of the body.
- Right side of brain controls left side of body.
- Left side of brain controls right side of body.

Medicine

The first medicine only goes to one side of your brain.
- This side of the brain will fall asleep.
- This causes the opposite side of the body to fall asleep. The non-medicine side stays awake and you stay awake too.
- You cannot move your arms or legs on the sleeping side until the medicine wears off.
- If this side of the brain controls speech, you may not be able to talk.
- This weakness is temporary, usually lasting only 5 to 15 minutes.
- During this time, when the arm and leg are asleep, we ask simple questions.
Questions

1. **Testing Speech**: We ask your child to read words and name objects, pictures, shapes and colors. Your child answers simple questions about the objects and repeats brief sentences. (is it round, do you eat this, etc.).

2. **Testing Memory**: Later in the test, we ask the child to name the objects shown at the beginning of the test.

Sometimes we test only one side of the brain. Sometimes we need to wait a few minutes for the arm and leg to wake up, and then test the other side. We use hand and arm strength to measure how sleepy your child has become.

**HOW LONG DOES WADA TEST TAKE?**

You can expect your child to stay on the X-ray table for 1 to 2 hours. The picture-taking process can be as little as 15 minutes.

**After Wada Test**

- There are no Stitches.
- We remove the catheter
- We press on the catheter site for 10 to 15 minutes.
- We cover the site with a small bandage.

**Inpatient**

Your child returns to the hospital room by stretcher. It is very important to lie flat during this time. This keeps the catheter site from bleeding. Your child will need to keep their legs straight with no bending. We help your child do this. For the next few hours your nurse will:

- Check your child’s blood pressure and pulse
- Look at the bandage.
- Bring your child something to eat and drink if they are hungry

**Outpatient**

You stay in the recovery area of the Radiology Department for about 4 to 5 hours. Your child must lie flat during this time: this is very important! This keeps the catheter site from bleeding. Your child will need to keep their legs straight with no bending. We help you do this. For the next few hours your nurse will:

- Check your child’s blood pressure and pulse
- Look at the bandage.
- Bring your child something to eat and drink if they are hungry
**Going Home**

If your child continues to do well, you will be sent home. A nurse will explain what to do at home and will give you written instructions for home care.

- After the test, the catheter site may be tender and bruised.
- You may apply ice packs and elevate your child’s leg with a pillow to ease any pain.
- Always tell the nurse or doctor immediately of any pain or unusual feelings or concerns.

**Test Results**

The result of the test will be sent to your doctor. Please check with your doctor for a time to discuss the results. Information from the WADA test helps us decide on the best type of surgery.

**No Driving Home for Teens**

Even if you have a driving teen, please do not drive home after the Wada Test

**My Notes:**

These instructions are only general guidelines. Your doctors may give you special instructions. If you have any questions or concerns, please call your doctor.