Let’s Talk About...

Modified Barium Swallow Studies (MBS) for Children

What is it?
A Modified Barium Swallow Study (MBS) is a test of swallowing. It provides information about a child’s mouth and the throat or “pharyngeal” parts of the swallow.

How is MBS done?
The MBS takes place in a radiology room. The child sits in a comfortable seat and is given food and or drink. Moving x-ray pictures are taken from the side as the child swallows. The x-ray images show food or drink as it moves through the mouth and is swallowed through the throat.

What information comes from the MBS?
MBS tests swallow safety. It shows if any food or liquid is “penetrated” or “aspirated” when your child eats or drinks.

Penetration is when some of the drink or food starts to go into the airway but moves back out during the swallow and goes the correct direction to the stomach.

Aspiration occurs during swallowing when a portion of drink or food goes the wrong way toward the lungs and goes lower than the vocal cords.

Who will be there during my child’s test?
Radiologist: Physician who will operate the x-ray equipment and diagnose the swallow function.

Speech and Feeding Therapist: Therapist trained in swallowing and feeding who will gather information from the caregiver, guide the test process, diagnose the swallow function, and provide information and recommendations to the caregiver.

Radiology Technician: Professional who will assist with the test process.

Child Life (optional): Professional who will facilitate your child’s comfort during the study.

What should I bring?
Please bring complete information about your child’s medications.

Also bring the following familiar items if your child uses them:
- pacifier/binky
- bottles and nipples
- sippy or straw cups
- spoons or utensils
- a few favorite foods

Remember: If your child wears earrings or necklaces, please remove these items for the study.

What foods and drinks will my child be given?
In order to see the food and drink, it must contain “barium” which is a chemically inactive material visible during X-ray. Usually the barium is mixed into a food such as pudding or your child dips a favorite food into the barium. Liquid barium for drinking is pre-measured for thickness. It is sweet in flavor and additional fruit flavors can be added. Most children who are used to eating and drinking find the barium different but okay in taste.

Can my child eat and drink before the test?
We ask your child to fast (no eating or drinking) for 3 hours before the test. This is done to increase hunger and encourage participation during the test.
How long does the test take?
The entire process may take 30 to 60 minutes. The time your child is actually eating or drinking is usually five to ten minutes. Please arrive 15 minutes before your child’s appointment in order to check in.

Can I be with my child during the test?
Yes, we encourage family involvement. You may stay in the room if you are not pregnant. You will be asked to wear a lead vest. Or, you may stand behind a protective wall and view the study process through a window and see the x-ray images on a screen.

My child is used to certain things that help with feeding. Will I be able to feed my child during the test?
Please tell the speech and feeding therapist information about the way your child prefers to eat or be fed. We aim to keep your child as comfortable as possible as they swallow. We will work with you and your child so we can get important information to guide treatment.

When will I know the results of my child’s MBS study?
You will be given information immediately following the test regarding results and recommendations.

What should I expect after the MBS?
Depending on the MBS results, you may receive recommendations to:

1. Continue feeding your child.
2. Modify the textures of foods or drinks. For example, use thicker liquids.
3. Modify the way you feed your child. For example, use a different cup or bottle nipple.
4. Sometimes MBS may show that your child needs additional feeding support. This may result in recommendations for placement of a feeding tube through the nose into the stomach. This procedure is done in the Rapid Treatment Unit.

What else should I know after the MBS?

1. Barium may cause your child’s stool to temporarily turn white in color.
2. If barium is spilled on your child’s clothing, wash it as soon as possible in order to avoid stains.

How will my child’s doctor know about the MBS results?
A report will be sent to the ordering physician after the test is completed.