

# Modified Barium Swallowing Study (MBS)



## Frequently Asked Questions (FAQ)

Carolina Pediatric Dysphagia

A modified barium swallow study can feel like a very intimidating study; but it is not. This study is usually more stressful for parents than their children. When finished, most parents report that it was a really easy study, not nearly as stressful as anticipated. This is probably the easiest test your child will ever take. All they need to do is eat or drink. The camera takes the pictures and the test will be finished before you know it.

### **What is a modified barium swallow study?**

A modified barium swallowing study (MBS) is a very specialized study of your child's feeding and swallowing skills that can only be completed by a speech pathologist that has the expertise and experience to complete and read the study. Carolina Pediatric Dysphagia is the only independent feeding program in the triangle that can perform a modified barium swallow study. It is a videotaped real time x-ray view of your child's oral (mouth) and pharyngeal (throat) mechanism during eating. It is completed in a hospital or an outpatient imaging center with a pediatric radiologist.

### **What happens during a modified bariums swallow study?**

You will be asked to bring typical foods and drinks that your child consumes. Your child will be placed in a typical feeding position (either a feeder seat, high chair, wheel chair or your child's specially designed feeding seat). Food coated with barium will be presented.

### **Why is my child referred for a modified barium swallow study?**

A modified barium swallow study is recommended by your speech pathologist specializing in feeding and swallow disorders and ordered by your physician to determine the risk of or to "rule out" aspiration or airway obstruction. In addition to this very medically important information, it helps identify ways to safely feed your child and ways to compensate for any swallowing dysfunction.

### **What feeding issues warrant a modified barium swallow study?**

When infants and children present with feeding issues that place them at risk for aspiration and/or airway obstruction, a modified barium swallow study is recommended. Reasons for referral may include some or all of the following significant risk factors: congestion during feeding, coughing and or choking, color changes, uncoordinated suck/swallow/breathe patterns, hard swallows, squeaky swallows, vomiting during feeding, painful swallowing, inspiratory stridor, swallowing food whole or incompletely manipulated, gagging, feeling that food is stuck, fear of swallowing, feeding refusals and nasopharyngeal regurgitation.

If my child does not choke or cough during feeding do I still need to have the study completed?

Yes. When 94-97% of infants and children aspirate, they do so silently. Silent aspiration (when food or liquid penetrates the airway below the level of the vocal folds) means that the aspiration episode occurred without the production a cough within 10 seconds. The production of a cough is the way the body protects the airway from a foreign body (anything that is not air). When a cough is not produced, the foreign body (in this case the food or liquid) is not expelled from the airway and could result in a bacterial infection, cold, congestion and worst-case scenario, aspiration pneumonia. Silent aspiration is very dangerous and can cause serious medical complications for your child.

**Is this study safe?**

Yes. It is a very safe procedure and provides very valuable information for you, the referring physician and other members of your child's feeding team.

**What about the X-ray?**

Your child's modified barium swallow study is a very short test (often less than a minute of X-ray exposure). A lot of people confuse our study with a barium swallow study, which is vastly different, and a more lengthy procedure. As with all medical procedures, one must proceed responsibly. We work with a pediatric radiologist that has studied the differences in procedures for pediatrics vs. adults and incorporate procedures that minimize radiation exposure but still allow for a thorough study. You will wear a lead shield and your child will have a lead shield on the table where the X-ray is emitted. Some say that the amount of exposure that your child will receive is less radiation than when flying over Colorado in an airplane. Everyone receives some radiation exposure on an airplane due to the altitude.

**Is barium safe?**

Barium is on the periodic table. It is the perfect medium to allow you to see the food or liquid that your child is eating. The body does not absorb the barium and it comes out in the same form it went in. That is a good thing.

**How much barium does my child have to eat?**

Again, this is where people confuse a barium swallow study with our modified barium swallow study. In a barium swallow study, you would have to consume 1-2 of the containers of barium that take us 5-6 months to use with our children. We incorporate the barium in what your child eats whether is a bottle or gummy bears. We are creative. Based on our experience, we have become experts in hiding the barium in the food you bring for testing.

**Will my child become constipated?**

Some older adults that have a barium swallow may complain about constipation after the study. We use minimal amounts of barium to contrast the food. In 25 plus years, we have not had a child that has become constipated or had any other complications due to the modified barium swallow study.