

## HEALTH & SAFETY: ASPIRATION PREVENTION

### “Modified Barium Swallow Study/Videofluoroscopy”

*BQIS/Outreach Fact Sheets provide a general overview on topics important to supporting an individual's health and safety and to improving their quality of life. This document provides general information on the topic and is not intended to replace team assessment, decision making or medical advice. This is the fifth of ten Fact Sheets regarding Aspiration Prevention.*

#### Objectives

Readers will learn the definition and process of a Videofluoroscopy or Modified Barium Swallow Study, items to bring to the study, and what constitutes a referral for such a study.

#### Definitions

**Videofluoroscopy (VFS) or Modified Barium Swallow Study (MBSS):** A moving x-ray study that is useful in evaluating how food/liquid moves from the mouth to the esophagus. A physician orders this type of test to evaluate, diagnose, and treat specific swallowing problems.

**Penetration:** Food, liquid or material reaches but does not pass through the vocal folds.

**Aspiration:** Passage of food, liquid or material through the vocal folds.

**Vocal Folds/Vocal Cords:** Fold-like soft tissue that is the main vibrating component of the larynx.

#### Facts

- A MBSS or VFS is recommended for people with suspected swallowing disorders in order to rule out aspiration or airway obstruction. This test is often indicated by suspicions noted in the clinical (bedside or tableside) evaluation. Clinical signs of swallowing dysfunction/problems include: coughing, choking, gagging, wet vocal quality, color changes, congestion, weight loss, and/or failure to thrive.
- VFS and MBSS allows the professional to actually see “material” being swallowed, it provides information that cannot be obtained from a clinical (bedside or tableside) evaluation of the person.
- VFS and MBSS shows where the swallowing difficulty is occurring, how changes in positioning and consistency of food affect swallowing and if the person is penetrating or aspirating. Specific swallowing guidelines and treatment techniques can be devised from the obtained information.
- A MBSS or VFS takes place in the Radiology department of a hospital.

- A team of specialists performs the MBSS or VFS:
  - A **Speech-Language Pathologist** specializing in dysphagia coordinates the event and decides the course of actions to take during the process.
  - A **Radiologist** operates the x-ray equipment and aids in interpreting results.
  - A **Radiology Technician** is also present to help set up the room and aid with equipment.

## Recommended Actions and Prevention Strategies

1. If applicable, take all adaptive equipment to the VFS or MBSS that is usually used during mealtime (i.e., small bowled spoon, nosey cups, mealtime seating equipment, etc.).
2. Familiar staff accompany the individual to the study.
3. Take any foods that the individual is known to have problems tolerating.
4. Use adaptive equipment as ordered.
5. Position individual according to his/her individual plan.
6. Provide diet texture and fluid consistency as ordered.
7. Assist in explaining the procedure to the person.
8. Be reassuring to the person before, during and after the study.

## Learning Assessment

Questions that can be used to verify a person's competency in the material contained in this Fact Sheet:

1. Samples of fluid consistencies include:
  - A. A swallow evaluation that occurs at bedside or tableside in the person's home?
  - B. An x-ray that looks at the effects of aspiration on the person's lungs
  - C. A moving x-ray study that is useful in evaluating how food/liquid moves from the mouth to the esophagus.
  - D. A static x-ray study that is useful in evaluating how food/liquid moves from the mouth to the esophagus.
2. True or False: A MBSS or VFS occurs at your local hospital in the Radiology Department.
3. What specialist will be present during the MBS/VFS?
  - A. Radiologist
  - B. Radiology Technician
  - C. Speech Pathologist
  - D. All of the above
4. True or False: Adaptive equipment and foods which are known to cause difficulties should not be brought to the MBSS/VFS.
5. What are some signs or symptoms that may indicate the need for a MBSS/VFS?
  - A. Giggling
  - B. Coughing
  - C. Weight loss
  - D. Wet vocal quality
  - E. B, C, and D

## References

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Martin-Harris, Bonnie, Logemann, Jeri A., McMahon, Steven, Schleicher Melanie, and Sandidge, John. (2000) Clinical Utility of the Modified Barium Swallow Study. *Dysphagia*. 15:3 pp. 136-141.

## Related Resources

Aspiration Prevention Series Fact Sheets: “Food Texture and Fluid Consistency Modification”, “Management of Constipation”, “Management of Oral Health”, “Dysphagia”, “Management of Gastroesophageal Reflux Disease (GERD)”, “Positioning”, “Management of Residuals”, “Feeding Tubes and Feeding/Medication Administration Options”, and “Choice Considerations Relevant to the Use of Enteral Nutrition”

“General Description of Diet Textures” Handout

## Learning Assessment Answers

1. C
2. True
3. D
4. False
5. E

## Outreach Services

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