Video Fluoroscopic Swallowing Exam (VFSE)/Esophagram



A video fluoroscopic swallowing exam (VFSE) looks at your ability to swallow safely and effectively. This noninvasive exam uses fluoroscopy to help identify the thicknesses and textures of liquid and food that you can most safely eat.

Tell your doctor if you are pregnant. List any recent illnesses, medical conditions, medications you're taking and allergies, especially to contrast materials. This procedure requires little to no special preparation. Your doctor may tell you not to smoke, chew gum, eat or drink several hours prior to your exam. Leave jewelry at home and wear loose, comfortable clothing. You may need to wear a gown.

What is a Video Fluoroscopic Swallowing Exam (VFSE)?

A VFSE (modified barium swallow) exam looks at how you swallow different liquids and foods. It uses a special real-time form of x-ray called fluoroscopy (http://www.radiologyinfo.org) . The doctor watches as the patient swallows items with different thicknesses and textures. These items may range from thin liquid barium to barium-coated cookies. A VFSE allows the doctor to test your ability to swallow safely and effectively. A speech-language pathologist also often attends the exam.

An x-ray exam helps doctors diagnose and treat medical conditions. It exposes you to a small dose of ionizing radiation (http://www.radiologyinfo.org) to produce pictures of the inside of the body. X-rays are the oldest and most often used form of medical imaging.

Fluoroscopy allows your doctor to look at how your tissues and organs look and operate in real time.

Your doctor may use a VFSE just to look at how your muscles move when you swallow. Or, your doctor may perform a VFSE with an esophagram (http://www.radiologyinfo.org) (barium swallow (http://www.radiologyinfo.org) exam). An esophagram evaluates how the esophagus looks and operates to the level of the stomach. These two exams have similar names. This can sometimes cause confusion when tests are ordered. Therefore, you should always clarify which exam your doctor wants to order.

What are some common uses of the procedure?

VFSE is performed on patients with dysphagia (http://www.radiologyinfo.org) , the technical term for difficulty swallowing. The exam is used primarily for looking at how you swallow and any evidence of aspiration. Aspiration occurs when liquid or food goes into the airway (the trachea and bronchi) instead of staying in the pharynx (http://www.radiologyinfo.org) (throat) and esophagus.

A speech-language pathologist may suggest ways to help improve how you swallow. These methods may include tucking or tilting the chin or turning the head while swallowing. The pathologist may also suggest thickening liquids to help prevent aspiration. Your doctor can also use VFSE to see how effective these methods are.

Your doctor may use VFSE because you have a known or suspected problem with swallowing. Or, because you a condition that is strongly associated with swallowing problems, such as:

Copyright© 2026, RadiologyInfo.org

- coughing and/or choking while eating or drinking
- coughing, choking, or drooling with swallowing
- wet-sounding voice
- changes in breathing when eating or drinking
- frequent respiratory infections
- known or suspected aspiration pneumonia
- masses on the tongue, throat, or larynx
- muscle weakness (myopathy (http://www.radiologyinfo.org)) involving the throat
- neurologic disorders likely to affect swallowing.

How should I prepare?

Tell your doctor about all the medications you take. List any recent illnesses or other medical conditions.

Other than medications, your doctor may tell you to not eat or drink anything for several hours before your procedure.

Your doctor may also tell you not to smoke or chew gum prior to the exam.

You may need to remove some clothing and/or change into a gown for the exam. Remove any metal objects or clothing that might interfere with the x-ray images.

Women should always tell their doctor and technologist (http://www.radiologyinfo.org) if they are pregnant. Doctors will not perform many tests during pregnancy to avoid exposing the fetus (http://www.radiologyinfo.org) to radiation. If an x-ray is necessary, the doctor will take precautions to minimize radiation exposure to the baby. *See the Radiation Safety page (https://www.radiologyinfo.org/en/info/safety-radiation) for more information about pregnancy and x-rays.*

Doctors often use VFSE for infants and children. Your doctor will tell you how to prepare your child. You may need to bring small amounts of the foods and liquids your child can eat and drink as well as those they have difficulty swallowing. You may also need to bring the things your child normally uses to eat or drink. These may include the bottles and nipples you use at home, sipper ("sippy") cups, and/or eating utensils.

The food you bring will be mixed with barium (http://www.radiologyinfo.org) to show up on the x-ray. Explain to your child that barium may change the way the food looks and tastes.

What does the equipment look like?

This exam typically uses a radiographic table, one or two x-ray tubes, and a video monitor. Fluoroscopy converts x-rays into video images. Doctors use it to watch and guide procedures. The x-ray machine and a detector suspended over the exam table produce the video.

During VFSE, the patient usually sits or stands upright in front or to the side of the x-ray camera.

How does the procedure work?

X-rays are a form of radiation like light or radio waves. X-rays pass through most objects, including the body. The technologist carefully aims the x-ray beam at the area of interest. The machine produces a small burst of radiation that passes through your body. The radiation records an image on photographic film or a special detector.

Fluoroscopy uses a continuous or pulsed x-ray beam to create images and project them onto a video monitor. Your exam may use a contrast material to clearly define the area of interest. Fluoroscopy allows your doctor to view joints or internal organs in

Copyright© 2026, RadiologyInfo.org

motion. The exam also captures still images or movies and stores them electronically on a computer.

Your doctor may record your exam to review the images later.

Most x-ray images are electronically stored digital files. Your doctor can easily access these stored images to diagnose and manage your condition.

How is the procedure performed?

Your doctor and/or speech-language pathologist will take your medical history, including any complaints of problems with swallowing.

The radiologist or technologist and speech-language pathologist will guide you through the exam. A Radiology Assistant, Physician Assistant, or Nurse Practitioner may also be present.

You will sit upright on a chair or stool or stand on a platform. If necessary, you may remain in a wheelchair. Infants and children sit in secure seats.

You will eat and drink controlled amounts of foods and liquids in different thicknesses and textures that have been mixed with barium contrast material (http://www.radiologyinfo.org) . The pathologist may try to help you swallow better by changing cups, utensils, or your body position.

As you eat and drink, the doctor will move the x-ray camera near your throat. The pathologist and radiologist will watch you swallow in real time using a fluoroscope (http://www.radiologyinfo.org) . The images are usually digitally recorded so your doctor can review them later.

The imaging part of this procedure usually takes about 15 minutes.

What will I experience during and after the procedure?

You may find the taste and consistency of the barium unpleasant.

After the exam, resume your usual diet and take oral medications unless told otherwise by your doctor. You may also resume your normal activities.

The barium may make your bowel movements look white for a day or two after your exam. This is normal. Sometimes the barium can cause temporary constipation (http://www.radiologyinfo.org) . You can treat this with an over-the-counter laxative (http://www.radiologyinfo.org) .

Drinking more fluids for several days after the test can also help. Call your doctor if you are unable to have a bowel (http://www.radiologyinfo.org) movement, or if your bowel habits change significantly after the exam.

Who interprets the results and how do I get them?

Speech-language pathologists and radiologists will review your exam. A report of the results will also be sent to the doctor who ordered the test. The pathologist may meet with you later to discuss your results.

A radiologist (https://auth.radiologyinfo.org/en/info/article-your-radiologist) , a doctor trained to supervise and interpret radiology examinations, will analyze the images. The radiologist will send a signed report to your primary care or referring physician who will discuss the results (https://auth.radiologyinfo.org/en/info/article-read-radiology-report) with you.

You may need a follow-up exam. If so, your doctor will explain why. Sometimes a follow-up exam further evaluates a potential

Copyright© 2026, RadiologyInfo.org

issue with more views or a special imaging technique. It may also see if there has been any change in an issue over time. Follow-up exams are often the best way to see if treatment is working or if a problem needs attention.

What are the benefits vs. risks?

Benefits

- VFSE is noninvasive.
- Allergic reactions to barium are extremely rare.
- VFSE can help determine the consistencies of food that you can most safely eat. This can limit your risk of liquid and/or food entering the airway and lungs (aspiration).
- No radiation stays in your body after an x-ray exam.
- X-rays usually have no side effects in the typical diagnostic range for this exam.

Risks

- There is always a slight chance of cancer from excessive exposure to radiation. However, given the small amount of radiation used in medical imaging, the benefit of an accurate diagnosis far outweighs the associated risk.
- The radiation dose for this procedure varies. *See the Radiation Dose (https://www.radiologyinfo.org/en/info/safety-xray) page for more information.*
- Sometimes, patients are allergic to a flavoring added to the barium. Tell your doctor and the technologist before the procedure if you are allergic to chocolate, certain berries, or citrus fruit.
- You may accidentally aspirate the barium into your lungs during the exam. This does not cause any permanent damage. However, barium might be seen on future images.
- There is a small chance that barium could stay in the gastrointestinal tract. This may lead to a blockage. Patients who have a known blockage should not have this exam.
- Women should always tell their doctor and x-ray technologist if they are pregnant. *See the Radiation Safety (https://www.radiologyinfo.org/en/info/safety-radiation) page for more information about pregnancy and x-rays.*

A Word About Minimizing Radiation Exposure

Doctors take special care during x-ray exams to use the lowest radiation dose possible while producing the best images for evaluation. National and international radiology protection organizations continually review and update the technique standards radiology professionals use.

Modern x-ray systems minimize stray (scatter) radiation by using controlled x-ray beams and dose control methods. This ensures that the areas of your body not being imaged receive minimal radiation exposure.

What are the limitations of VFSE?

A VFSE only evaluates the area from the back of the mouth through the throat to the top of the chest. Sometimes, your symptoms are due to problems in the esophagus, which is lower in the chest. If so, your doctor may perform an esophagram (barium swallow exam).

Disclaimer

This information is copied from the RadiologyInfo Web site (http://www.radiologyinfo.org) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

Copyright© 2026, RadiologyInfo.org

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at **http://www.radiologyinfo.org** to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright ® 2026 Radiological Society of North America, Inc.