# Fiberoptic Endoscopic Evaluation of Swallowing (FEES): Assessing Swallowing Cincinnati Children's

Parameters in Infants and Children



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# WHAT IS FEES?

Fiberoptic Endoscopic Evaluation of Swallowing (FEES), is a multidisciplinary procedure whereby a patient's swallowing function can be observed. An endoscope is passed through the nasal cavity and into the pharynx, allowing the patient's larynx and surrounding structures to be viewed clearly.

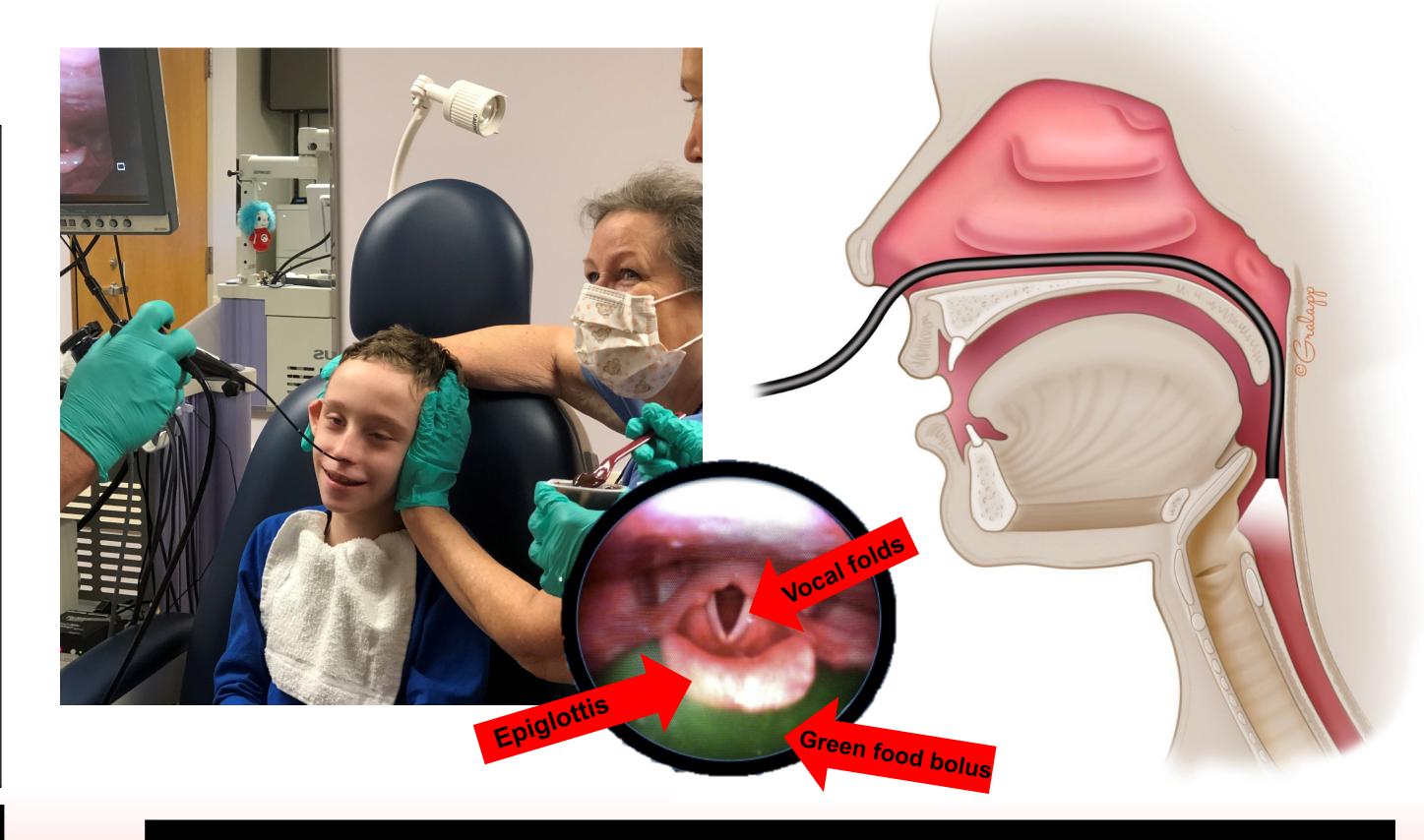
FEES can be used to assess airway protection and swallowing in infants, children, and adults. FEES can be used to confirm suspected swallowing dysfunction, and helps to define what treatment strategies might help improve the swallow.

## WHAT ARE THE INDICATIONS OF FEES?

If a patient is experiencing coughing, gagging, regurgitation, choking, a change in color while feeding, or other indications of aspiration, the patient may benefit from a FEES procedure to address possible swallowing dysfunction.

## WHO IS ON THE FEES TEAM?

FEES is considered a multidisciplinary procedure and includes the expertise of a physician (typically an otolaryngologist), a speech-language pathologist, and a registered nurse.



#### FEES PROCEDURE

During FEES, a flexible endoscope is passed transnasally to allow viewing of the pharynx and larynx. Prior to the insertion of the scope, the patient is administered a nasal anesthetic for comfort during insertion. A lubrication numbing jelly is also applied to the scope. After the scope is passed, the patient is given food and/or drink materials of different consistencies such as crackers, applesauce, milk, or juice. The food materials are mixed with green food color for visibility purposes. The patient's swallowing safety and efficiency is observed and recorded as a video. If the patient has swallowing dysfunction, therapeutic strategies such as postural maneuvers or changes in liquid viscosity can be tried. The scope is then removed, and the video recording is reviewed by the speech-language pathologist and the physician. The video can be referenced in order to create a feeding plan which is shared with the patient/caregiver following the procedure.

## ASSESSED PARAMETERS

**Pooling of Secretions**: a buildup of oral secretions such as saliva in the hypopharynx without triggering the swallow reflex

Premature Spillage: the unintended spilling of material over the tongue base and into the hypopharynx without purposeful oral transfer

Laryngeal Penetration: food materials or secretions spilling into the endolarynx and coming in contact with the endolaryngeal surface of the epiglottis, AE folds, or arytenoids

**Aspiration:** secretions or food materials passing below the level of the true vocal folds

**Residue:** food materials or secretions remaining after a swallow

These parameters are assessed in order to determine the safety and efficiency of the client's swallow.

#### REFERENCES

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