

Digital FEES® System

Model 7209



Fiberoptic Endoscopic Evaluation of Swallowing (FEES)

FEES is a standard technique for evaluating patients with swallowing problems. It is also used in therapy by speech-language pathologists (SLP) as a visual display to help patients learn various swallowing maneuvers.

The **KayPENTAX Digital FEES System, Model 7209**, is a complete FEES system configured for digital recording, storage, and playback of FEES exams. It features high-quality endoscopy components, excellent image quality, built-in patient database and exam management, patient report generation, DVD creation, and networking capability. This system is ideal for the speech clinic or office setting, and can also be used in a hospital setting or rolled to patient bedside.

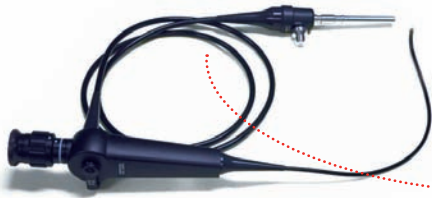
The FEES Procedure

In the FEES procedure, a flexible endoscope is passed transnasally to the patient's hypopharynx where the clinician can clearly view laryngeal and pharyngeal structures. KayPENTAX's system contains a halogen light source along with a high-resolution camera and monitor to provide ample illumination and excellent image clarity of anatomic structures. The SLP normally performs a variety of physiologic testing with non-swallowing tasks. Then, the clinician observes swallowing function by feeding the patient various bolus consistencies and volumes, each colored with food dye to help with exam interpretation. The procedure provides a real-time visual display of swallowing function, and is digitally recorded to allow the exam to be reviewed subsequently. A color printer is included so that still images and reports can be printed and placed in the patient's chart.

In addition to its assessment function, FEES can be utilized to help educate patients, and their family members, about swallowing problems. The FEES display can also be used to effectively demonstrate how a therapy maneuver "works" to enhance learning and carryover of therapy goals.

FEATURES

- Complete FEES system, with digital recording, playback, and storage of exams
- Quality endoscopic components for optimal image quality
- Halogen light source providing excellent illumination of anatomic structures
- Built-in patient database
- Automatic patient report generator
- DVD creation of full exams or exam segments, for patients or referring physicians
- Compatible with KayPENTAX's DICOM, *endoPortal*, and *endoServer* network solutions
- Can also be used to record fluoroscopic studies (scan converter may be required for high-line fluoroscopic systems)
- Upgradeable to KayPENTAX's Digital Swallowing Workstation, with addition of the Swallowing Signals Lab



The FNL-10RP3 flexible fiber endoscope with 3.4-mm outer diameter is included with the Digital FEES System.

Description of Digital FEES System

The Digital FEES System is supplied with a 3.4-mm diameter flexible endoscope, light source, camera, color printer, and the Digital Video Recording Module computer. Exam video and audio are captured concurrently and recorded directly to computer storage for instantaneous exam retrieval and playback. Playback features include quick and easy access to any exam segment, frame-by-frame jogging, real-time and slow-motion playback rates, and side-by-side playback of two different exams for comparison of patient performance over time. Still images can be captured and stored with each exam, and patient data and exam findings can be entered and stored in the built-in patient database.

The system has an automatic report generator using Microsoft Word, supplied with the system. Report templates allow the user to define which patient and exam data is included in the report, along with still images from the exam. A hard copy of the report can be printed in the system's printer to place in the patient's chart or to use for insurance filing. The system also has a convenient utility to create a DVD of the exam (or edited segments) that can be given to patients or referring physicians. These can be played on a home DVD player or a computer with a DVD drive.

The Digital FEES system works in conjunction with all of the network solutions from KayPENTAX: the DICOM Compliance Module, endoPortal, and endoServer (see separate brochures on these products). The system is also compatible with videoscopes (i.e., chip-tip camera endoscopes) and esophagoscopes. These, and other, imaging tools can be conveniently integrated with the Digital FEES system as a complete endoscopic imaging platform. In addition, the Digital FEES system can be used to record fluoroscopic studies (a scan converter may be required for high-line fluoroscopic systems).

COMPONENTS

- Flexible endoscope (3.4-mm diameter)
- Halogen light source
- Video camera
- Lens adapter
- Digital Video Recording Module computer
- High-resolution color monitor
- Lapel microphone for recording exam commentary
- Color printer
- Cart with isolation transformer to house all components

Advantages of FEES Procedure

FEES and modified barium studies each have advantages for patient assessment. KayPENTAX's swallowing systems can record either of these procedures. A number of the commonly cited advantages of the FEES procedure are listed below:

- Procedure can be performed at patient bedside
- No radiation exposure to patient
- Exam duration can be longer allowing experimentation with swallowing maneuvers and therapy planning
- Foods that the patient typically eats can be used during the FEES procedure
- Fatigue, which may lead to aspiration, can be assessed over an entire meal
- Excellent visualization of secretions and penetration

Summary FEES is an important instrumental assessment and therapy tool for dysphagia clinicians. The KayPENTAX Digital FEES System is ideally suited to the clinician who requires a quality, cost-effective system with all components supported by one company with a long history as the leader in imaging and swallowing instrumentation.

FEES® is a registered trademark of Susan Langmore, Ph.D.

For more information about this and other KayPENTAX products, contact:



World Leaders in Speech, Voice, and Swallowing Instrumentation

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