

Listen to the associated podcast episodes available at [theradiologyreview.com](http://theradiologyreview.com) or on your favorite podcast directory.

**What are advantages of fluoroscopy compared to other medical imaging techniques?**

Fluoroscopy allows real-time imaging via x-rays of internal structures, often used to evaluate fluid moving through various organs like the esophagus, stomach, bowel, and bladder as well as blood vessels. Fluoroscopy is also helpful for procedures to allow real-time guidance of catheters, and needles.

**Esophageal fluoroscopy:**

**How can gastroesophageal reflux disease and Barrett's esophagus classically look on a barium swallow study?**

With most pathologic entities that cause inflammation of the GI tract, thickened folds can be seen on barium studies due to edema within the normal folds of the GI tract, and this is also true for reflux esophagitis. If there is co-existent Barrett's esophagus, this could appear as a reticular mucosal pattern on a dual contrast esophagram which may have associated stricturing. Risk factors include a hiatal hernia with associated gastroesophageal reflux disease.

**Is gastroesophageal reflux disease with Barrett's esophagus most classically associated with development of esophageal adenocarcinoma, or esophageal squamous cell carcinoma?**

Barrett's esophagus is most classically associated with development of esophageal adenocarcinoma.

**What are classic risk factors for esophageal squamous cell carcinoma?**

Heavy alcohol use and chronic smoking are both classic risk factors for esophageal squamous cell carcinoma.

**What are classic esophageal locations (i.e., proximal, mid, or distal esophagus) for esophageal squamous cell carcinoma, and esophageal adenocarcinoma?**

Esophageal squamous cell carcinoma classically develops in the mid esophagus.

Esophageal adenocarcinoma classically develops in the distal esophagus, often near the gastroesophageal junction.

**What is the so-called Schatzki ring?**

Notable narrowing of the B ring which demarks the gastroesophageal junction is termed a Schatzki ring. Note that the B ring normally demonstrates slight constriction, but excessive narrowing beyond physiologic levels would qualify it for a Schatzki ring, with some also saying that symptoms of esophageal dysfunction must also be present to diagnose a Schatzki ring. Schatzki rings are commonly seen in association with a hiatal hernia and with gastroesophageal reflux.

**True or false? Barium fluoroscopy of the esophagus is more sensitive than endoscopy for detection of a Schatzki ring.**

True.

Listen to the associated podcast episodes available at [theradiologyreview.com](http://theradiologyreview.com) or on your favorite podcast directory.

**True or false? Single-contrast fluoroscopy is more sensitive for detection of a Schatzki ring than a dual-contrast fluoroscopy technique.**

True. Single contrast barium opacifies the entire esophageal lumen and allows improved visualization of narrowing associated with a Schatzki ring.

**How is a Schatzki ring commonly treated?**

If severe enough to require treatment, a Schatzki ring can be treated by pneumatic dilatation or performance of multiple biopsies or other mechanical disruption around the ring to open the narrowed tissues.

**True or false? Chronic reflux esophagitis is a major risk factor for esophageal pseudodiverticulosis.**

True. As the name would suggest, this looks like multiple small outpouchings of the esophagus. These outpouchings can have a floating appearance, as if they are floating next to the esophageal wall.

**What is the classic pharyngeal or esophageal pathology to suspect on board exams if you are given a clinical history of a wind instrument performer or a glass blower?**

A lateral pharyngeal pouch which is a protrusion of the lateral pharyngeal wall that can fill with barium. This is admittedly not in the esophagus, but this is pathology that can be seen in the hypopharynx on an upper GI study including an esophagram.

**True or false? A Killian-Jamieson diverticulum arises from the hypopharynx?**

False. This arises from the anterolateral cervical esophagus.

**True or false? A Zenker diverticulum arises from the hypopharynx?**

True. This diverticulum arises from the posterior hypopharynx.

**True or false? A Zenker diverticulum is a false diverticulum.**

It is true that a Zenker diverticulum is a false diverticulum. This means that the diverticulum does not contain all three esophageal layers, but rather the mucosa and submucosa are the layers that herniate through the muscularis layer.

**True or false? A Zenker diverticulum is considered a pulsion diverticulum?**

True.

**What is a pulsion diverticulum, and how does this vary from a traction diverticulum?**

A pulsion diverticulum results because of herniation of the esophagus through the muscular layer due to increased intraluminal pressure. Because there is no muscularis in the diverticulum, once barium enters, they tend not to readily empty the barium again unlike a traction diverticulum. A traction diverticulum results from external pulling on the outer layer of the esophagus, does contain all 3 layers of the esophageal wall (therefore is a true diverticulum) and can empty barium due to constriction of the diverticulum due to presence of muscle in the diverticulum wall. The traction or pulling of the esophagus in a traction diverticulum can result from processes such as tuberculosis of the mediastinum that can tether and pull the esophageal wall.

Listen to the associated podcast episodes available at [theradiologyreview.com](http://theradiologyreview.com) or on your favorite podcast directory.

**True or false? A traction diverticulum most commonly arises from the hypopharynx.**

False. This arises most classically from the mid esophagus.

**Is an epiphrenic diverticulum typically a traction or pulsion diverticulum?**

Pulsion. As the name would suggest, these arise from the distal esophagus just above the level of the diaphragm.

**What is the classic appearance of candida esophagitis on a barium swallow study?**

The main presentation I would remember is discrete plaque-like lesions which can be separated by normal mucosa and may also show areas of ulceration which are typically small. The alternative presentation is a shaggy and irregular mucosal surface which is an advanced presentation that occurs when the otherwise discrete plaques coalesce.

**What is a classic clinical history for a patient with candida esophagitis?**

With candida esophagitis on a multiple-choice exam, you may be prompted to consider this entity after being provided with a clinical history of AIDS or other immunocompromised state in a patient with dysphagia and/or shown an image of oral thrush, though the presence of oral thrush is not obligatory.

**Whereas AIDS is classic for a person with candida esophagitis, what are potential manifestations of HIV in the esophagus?**

HIV of the esophagus can manifest as long and shallow esophageal ulcers without the classic plaque-like thickening and typical small ulcers that are often seen with AIDS and candida esophagitis.

**True or false? CMV esophagitis can appear very similar to HIV esophagitis.**

True. Although ulcers can also be small, the longer yet shallow ulceration typical of HIV esophagitis are also classic for CMV esophagitis. CMV gastritis is also possible and classically shows luminal narrowing and nodular mucosal thickening on a barium study involving the gastric antrum. Expect a history of immunocompromised state with CMV esophagitis, gastritis, or enterocolitis.

**True or false? Herpes esophagitis is also an opportunistic infection in patients who are immunocompromised.**

True. Herpes esophagitis is also classically seen in patients who are immunocompromised.

**What is the classic appearance of herpes esophagitis on a barium esophagram?**

Think multiple small ulcers with a classic lucent halo surrounding the ulcers most classically in the mid esophagus.