

# **Barrett's Esophagus**

Barrett's esophagus is a syndrome which refers to an abnormal change in the distal esophagus. Cells undergo metaplasia, replacing the normal stratified squamous epithelium with columar epithelium (which are found in the lower GI tract). This is precipitated by GERD. It is associated with esophagitis and esophageal ulcer, as well as an increased risk of esophageal adenocarcinoma.<br/>

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## Histological findings

## Metaplasia in Lower Esophagus

Metal-plates changing in Lower Sarcophagus

Barrett's esophagus is a syndrome described by glandular metaplasia. The cells in the distal esophagus, which are normally stratified squamous epithelium, are replaced with intestinal epithelium. These new cells are nonciliated columnar with goblet cells.

## Columnar Epithelium

**Epithelial Columns** 

The normally squamous epithelium is replaced with nonciliated columnar epithelium with goblet cells, which is lower intestinal epithelium.

#### **Associated Pathologies**

#### Gastroesophageal Reflux Disease (GERD)

Girdle-girl

Barrett's esophagus is caused by chronic acid reflux from GERD (gastroesophageal reflux disease).

## **Esophagitis**

Sarcophagus-on-fire

Due to chronic exposure to acid reflux, this condition is associated with development of esophagitis, or inflammation of the esophagus.

## **Esophageal Ulcers**

Sarcophagus Ulcer-volcano

As Barrett's esophagus occurs from chronic exposure to refluxed acid, it is associated with esophageal ulcer development in patients.

## **Increased Risk of Esophageal Adenocarcinoma**

Up-arrow Risk of Sarcophagus Add (+) car-gnome

As this is a syndrome of metaplasia, there is always an increased risk of malignancy. Patients with Barrett's esophagus are placed at a higher risk of developing esophageal adenocarcinoma.