

Mucus as One of the Defensive Factors in the Stomach

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Mucus is produced by the mucosa as a barrier to microorganisms, toxic and irritative materials in the gastric lumen. In healthy people, mucus can protect the gastric mucosa from aggressive factors. Mucus, one of the extrinsic gastrointestinal barrier, synthesized by the epithelial cells of gastric mucosa (mucous neck cell).^{1,2} Mucus production by gastric mucosal epithelial cells is stimulated by prostaglandins, mucosal blood flow, epidermal growth factor (EGF) and transforming growth factor-alpha (TGF-alpha).² Some aggressive factors and diseases can damage the mucus and reduce the production of gastric mucus. Aggressive factors that damage and disrupt the mucus production such as bacterial infection (*Helicobacter pylori*, etc), virus infection (influenza, etc), consumption of nonsteroidal anti inflammatory drug (NSAID), alcohol, stress, etc. Some diseases that disrupt production of mucus and thinning the gastric mucus include diabetes mellitus, gastric mucosal ischemia, shock, stress ulcer in stroke or trauma, etc.³

Albertus et al in his study found that the thickness of the mucus is thinner in diabetes mellitus and *Helicobacter pylori* infection patients. These results are in accordance with the literature that achieves the same results. *Helicobacter pylori* produces products that damage the mucus, while diabetes mellitus cause gastric mucosal ischemia and decreases gastric mucus production.

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