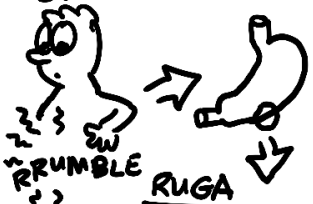
ANATOMY SKETCHBOOK

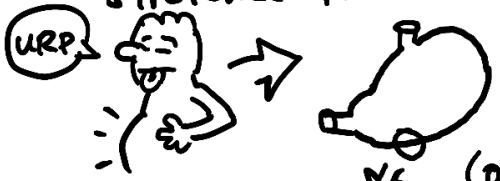
Leif Saul

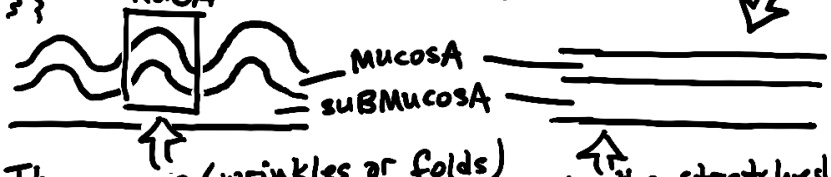
STOMACH WALL

When empty, the stomach shrinks:



When full, the stomach expands, and its wall is stretched flat:

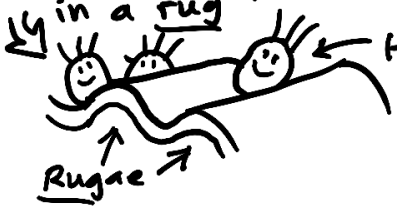




The rugae (wrinkles or folds) consist of both mucosa and submucosa

In the stretched stomach, the submucosa is stretched flat due to its elasticity, and the extra surface area allows the mucosa to lie flat

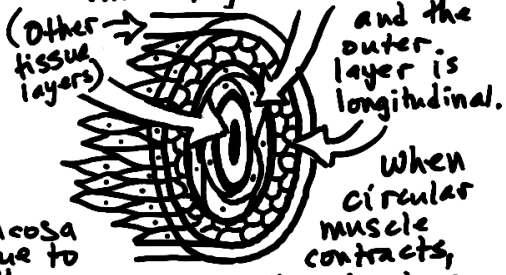
"As snug as a bug in a rug"



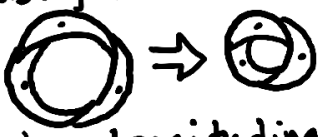
Helicobacter pylori, the "bug" that causes peptic ulcers

SMOOTH MUSCLE LAYERS

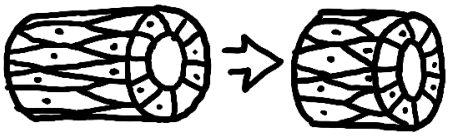
Sheets of smooth muscle tissue form a major part of the walls of most hollow organs. In general, the inner layer is circular and the outer layer is longitudinal.



When circular muscle contracts, the cells shorten (just like skeletal or cardiac muscle cells), which reduces the circumference, which means the tube gets narrower:

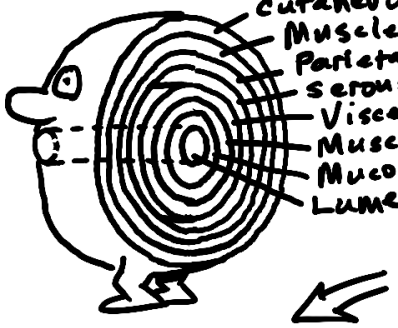


When longitudinal muscle contracts, the shortening of the cells is along the axis of the tube, so the tube gets shorter:



LAYERS OF THE GI TRACT WALL

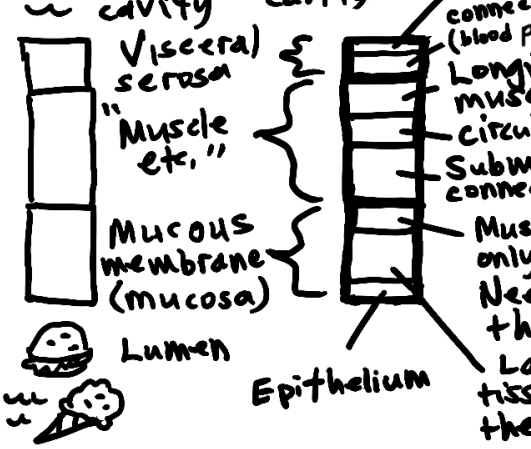
We discussed earlier the basic topology of the human body:



These three basic layers make up the digestive tract wall, where we find additional detail (sublayers).

Serous cavity = peritoneal cavity

Mesothelium (for slippery surface)



Circular muscle pinches food behind...

...while longitudinal m. reaches behind food like a snake swallowing a mouse...

So food moves down.

Muscularis mucosae contracts

Fish bone ejected