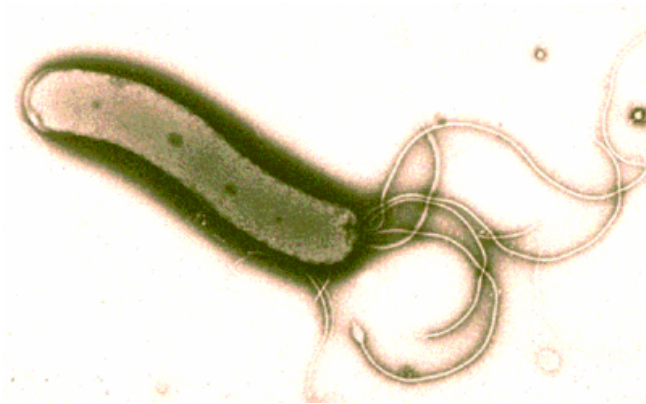




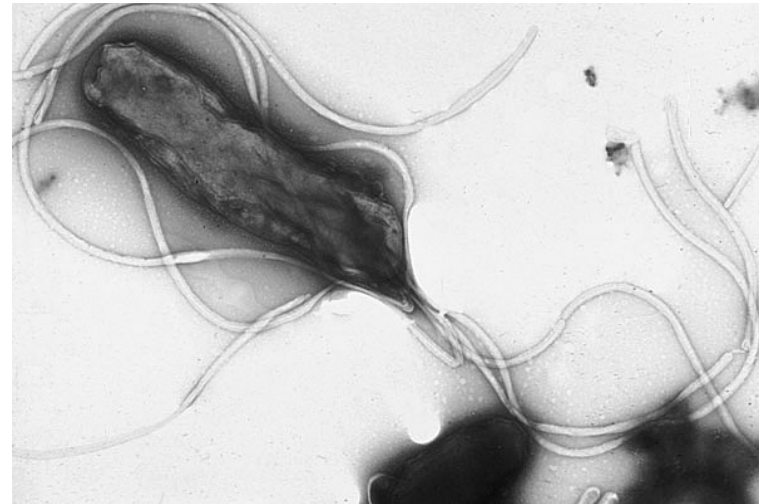
Spiral and Curved Bacteria

<i>Helicobacter pylori</i> <i>H. pylori</i> (formerly <i>Campylobacter pylori</i>) (Gram negative)		<ul style="list-style-type: none">□ esophagitis, gastritis,□ duodenal ulcers, gastric ulcers□ gastric adenocarcinoma
<i>Campylobacter jejuni</i> <i>C. jejuni</i> (Gram negative)	animal reservoirs - cattle, sheep, rodents poultry, dogs cats infection due to infected food or pets	<ul style="list-style-type: none">□ one of most common bacterial causes of diarrhea
<i>Vibrio cholera</i> <i>V. cholera</i> (Gram negative)	infected water supplies & asymptomatic carriers	<ul style="list-style-type: none">□ cholera toxin produces severe watery diarrhea particularly in S. E. Asia, Africa and South America <p>affects Na⁺ pump & dec. H₂O retention</p>

Helicobacter pylori

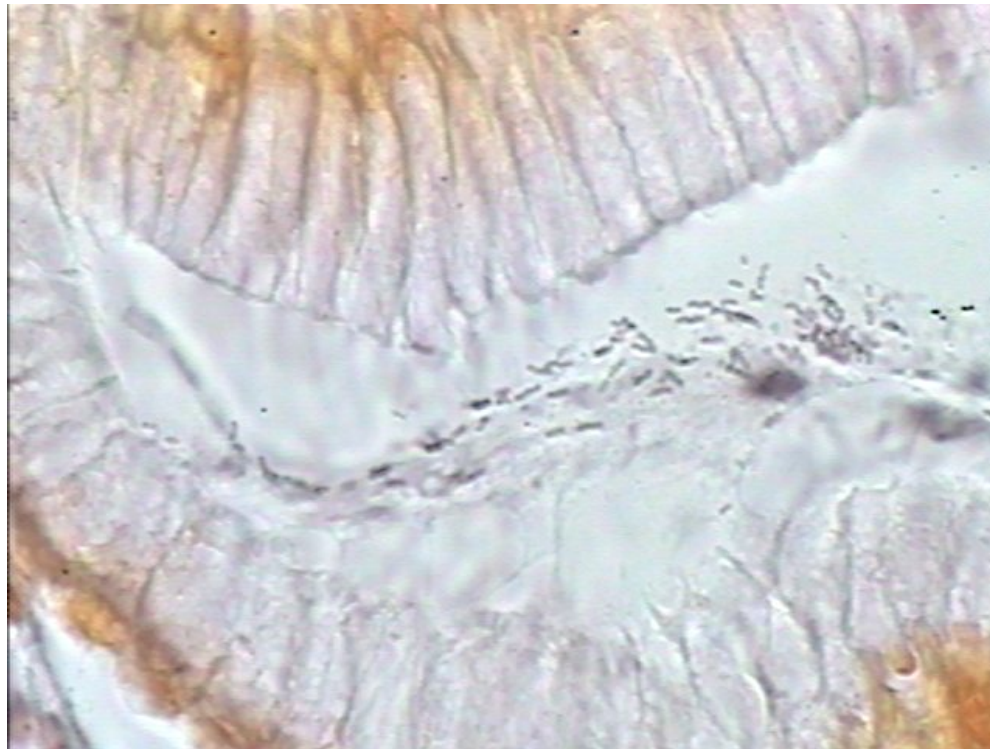


humanhealth.com



[en.wikipedia.org/wiki/
Helicobacter_pylori](http://en.wikipedia.org/wiki/Helicobacter_pylori)

Helicobacter pylori gastritis



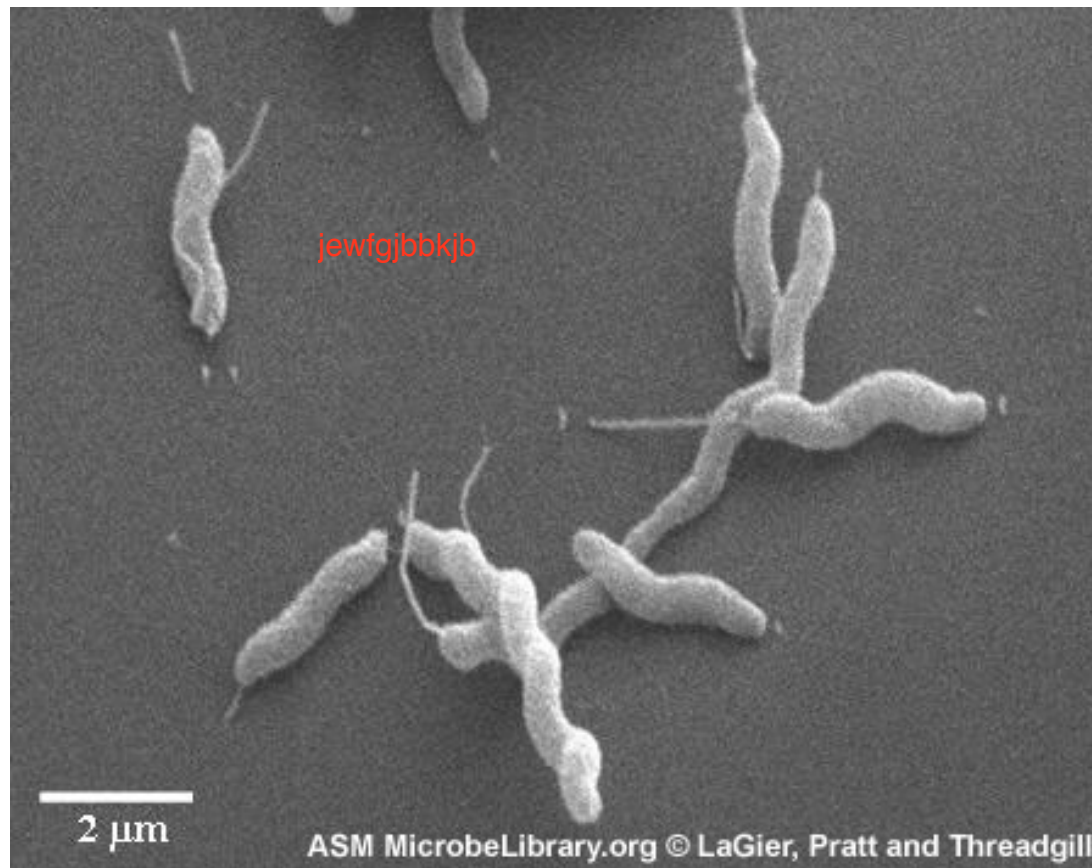
H. Pylori and stomach mucosal – Warthin Starry Stain

egrfkbrfejfdblkjre

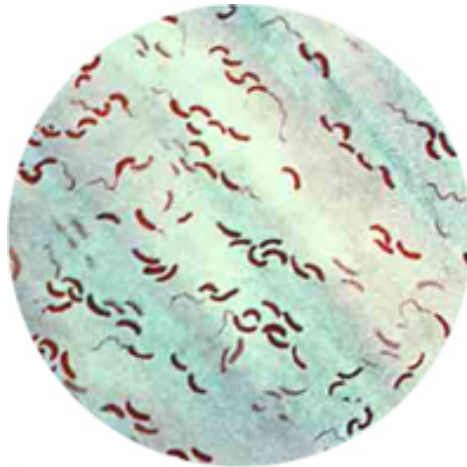


Campylobacter

also has flagella

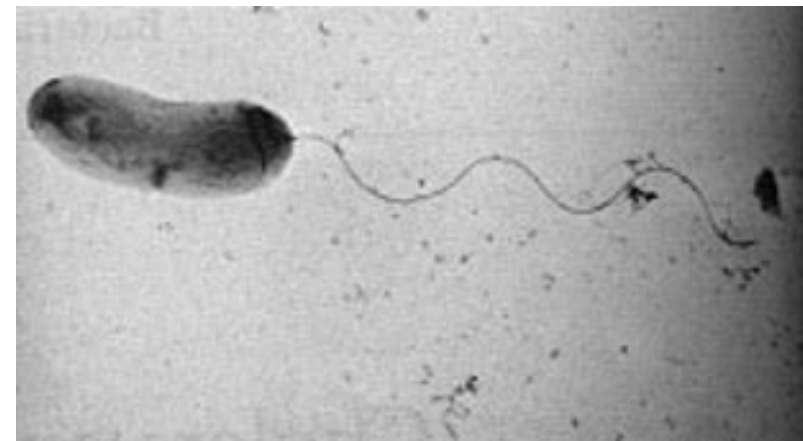


Vibrio cholerae



publications.nigms.nih.gov

Virulence factors: flagella & toxins



http://microbewiki.kenyon.edu/images/a/a8/V_cholerae

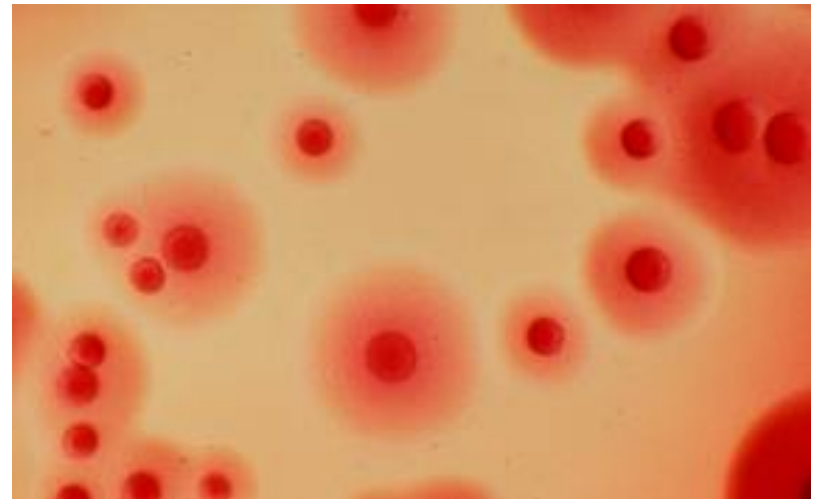


Mycoplasmas (no cell wall)

Diffuse pattern in lung unlike "lobar pneumonia"

<i>Mycoplasma pneumoniae</i> <i>M. pneumoniae</i>	person to person spread	<ul style="list-style-type: none">□ "atypical" pneumonia in young healthy people low grade, ongoing pneumonia complain of headache, pains, not feeling well, but not pneumonia (low grade)
<i>Mycoplasma hominis</i> <i>Ureaplasma urealyticum</i>	person to person spread Vaginal normal flora	<ul style="list-style-type: none">□ STIs – urethritis□ Post-partum fever Doesn't have cell wall & therefore we can't treat it with antibiotics that affect cell wall (cephalosporins, penicillins, etc)

Mycoplasmas (no cell wall)





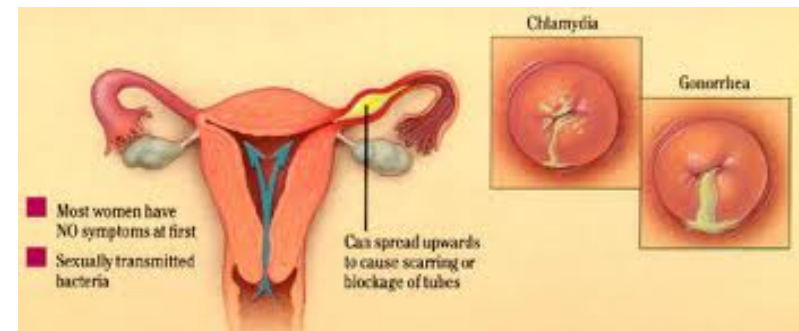
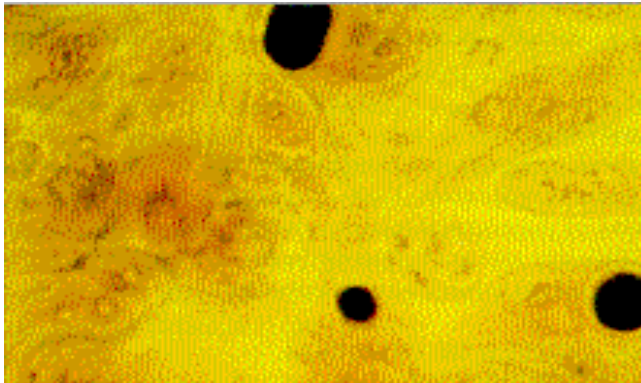
Chlamydiae

urethritis not as bad as gonorrhoea but
can be hard to differentiate

<i>Chlamydia trachomatis</i> (<i>C. trachomatis</i>)	infected individuals (STD)	<ul style="list-style-type: none">□ urethritis, PID□ neonatal trachoma clamydia eye infection□ #1 cause of blindness in the world
<i>Chlamydia pneumophila</i> (<i>C. pneumophila</i>)	infected individuals	<ul style="list-style-type: none">□ atypical pneumonia sometimes can be "typical" pneumonia -- a more aggressive one -- particularly in older patients

Has cell wall, but it's an intracellular organism, so can't use penicillin etc...
erythromycin & tetracycline good for both species

Chlamydia

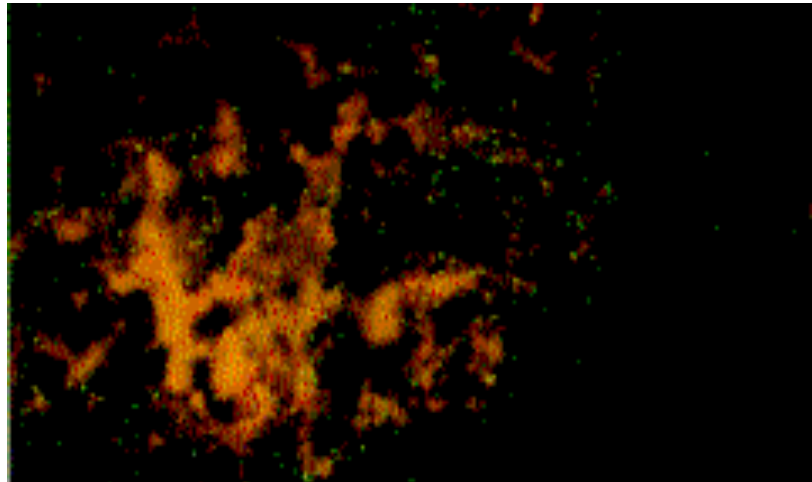


http://chesilparent.com/?page_id=106





Chlamydia trachomatis DFA



Trachoma



eyeatlas.com



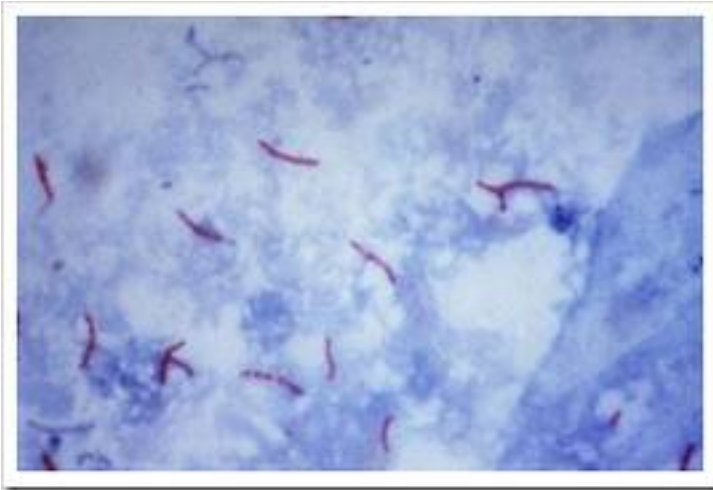
cartercenter.org



Mycobacterium

<i>Mycobacterium tuberculosis</i> <i>M. tuberculosis</i>	infected humans, animals	<ul style="list-style-type: none">▣ tuberculosis▣ pulmonary lesions▣ miliary TB (disseminated)
<i>Mycobacterium avium</i> intracellulare Complex (MAI, MAC, MAIC) <i>M. avium</i>	infected humans	<ul style="list-style-type: none">▣ diarrhea, pneumonia in immunocompromised - particularly patients with HIV and transplant patients
<i>Mycobacterium leprae</i> <i>M. leprae</i>	infected humans	<ul style="list-style-type: none">▣ Leprosy

Mycobacterium tuberculosis



Wikipedia

Acid fast stain
Ziehl-Neelson Stain



Tuberculosis



Bed rest and fresh air were important parts in the treatment of tuberculosis.

Leprosy

Mycobacterium leprae



Nose

S. aureus

S. epidermidis

Diphtheroids

Streptococci

Skin

S. epidermidis

S. aureus

Diphtheroids

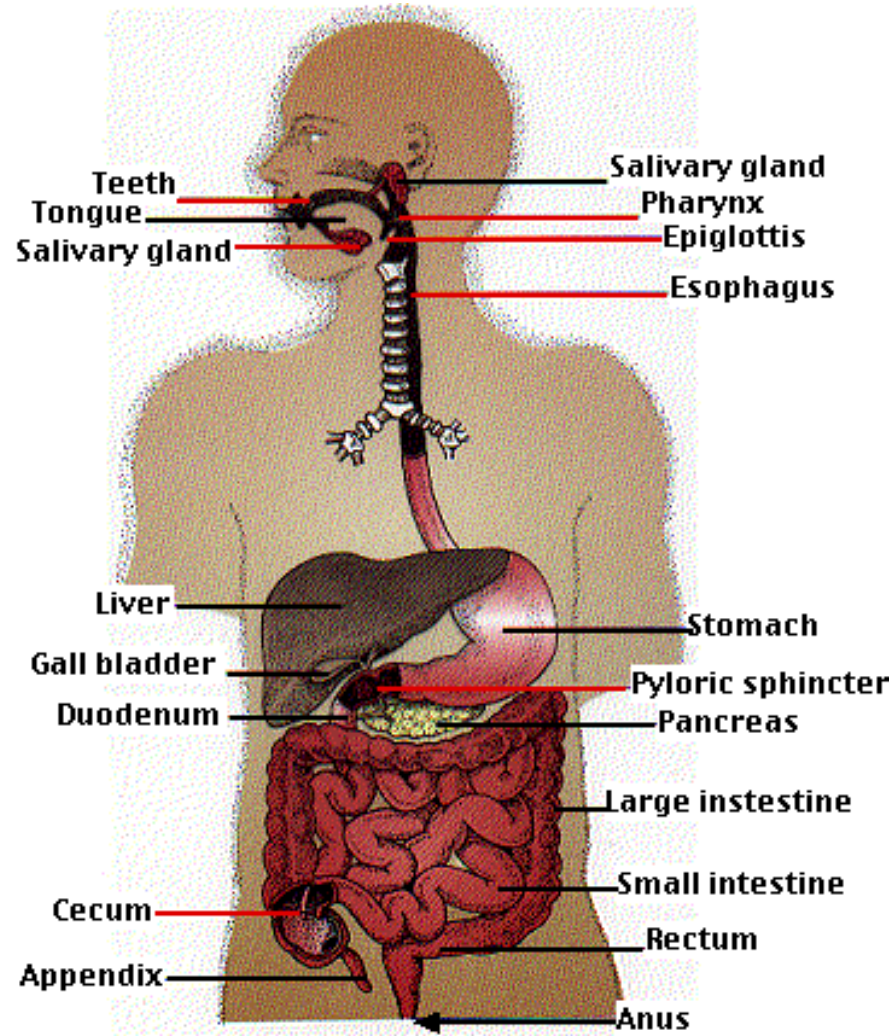
Streptococci

P. aeruginosa

Anaerobes

Candida

Normal Flora



Groin / perineum

As skin

Urethra & Vagina

S. epidermidis

Diphtheroids

Streptococci

Gram negative rods

Normal Flora GI Tract

Mouth

Streptococcus spp.

Candida

Gingiva

Prevotella

Porphyromonas

Teeth

S. mutans

Bacteroides

Fusobacterium

Streptococci

Actinomyces

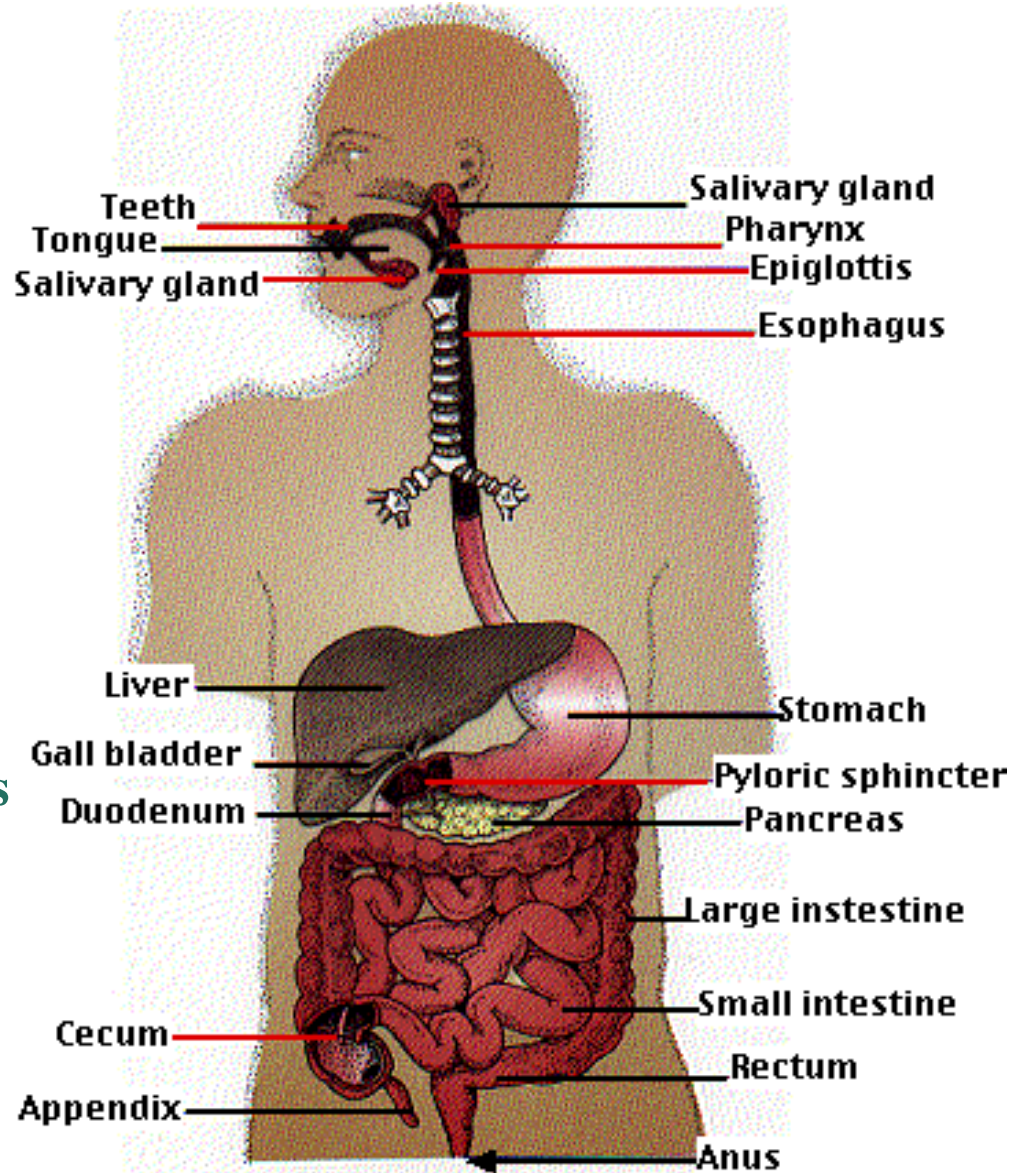
Stomach/Esophagus

Lactobacilli

Duodenum

Lactobacilli

Streptococci spp.



Jejunum/Ileum

Enterobacteriaceae

Bacteroides spp.

Large Bowel

Bacteroides spp.

Fusobacterium spp

E. faecalis

E. coli

Enterobacteriaceae

Clostridium spp.

Pseudomonas