The background is a solid blue gradient. At the top, there are several wavy, horizontal lines in shades of light blue and cyan, creating a layered, water-like effect. The main body of the slide is a darker, uniform blue.

# Diseases caused by Bacteria



# Who do they affect?

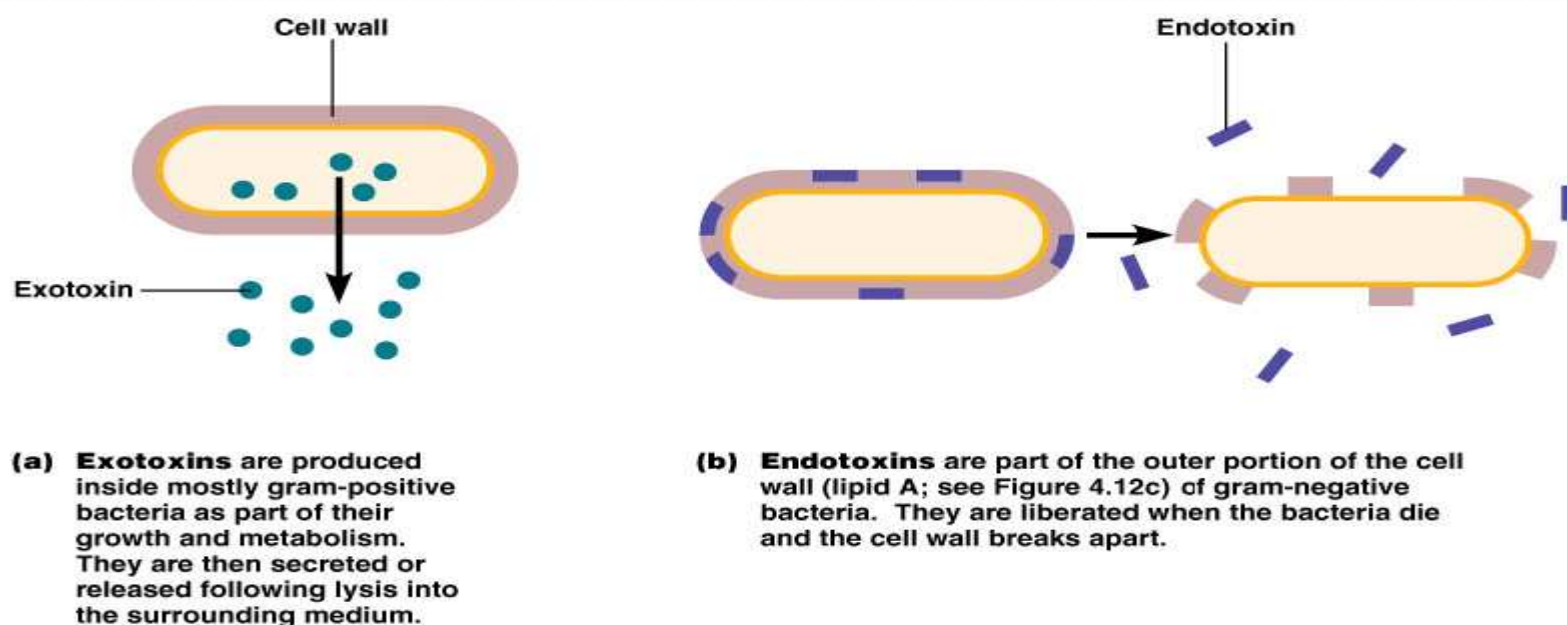
- Bacteria cause half of all human diseases
- Bacteria are carried in air, food, water, and can invade wounds

# How are they identified?

- Bacteria are classified by shapes - spheres, rods, and spirals.
- Bacteria cell walls are made up of different arrangements of sugars and amino acids and react differently to gram stains
- Gram + stain purple and Gram - stain pink

# Disease Mechanisms

- Bacteria produce disease in one of two general ways.
- Some bacteria destroy living cells and tissues of the infected organism directly, while some cause tissue damage when they provoke a response from the immune system.
- Other bacteria release toxins (poisons) that interfere with the normal activity of the host.



# Streptococcus mutans

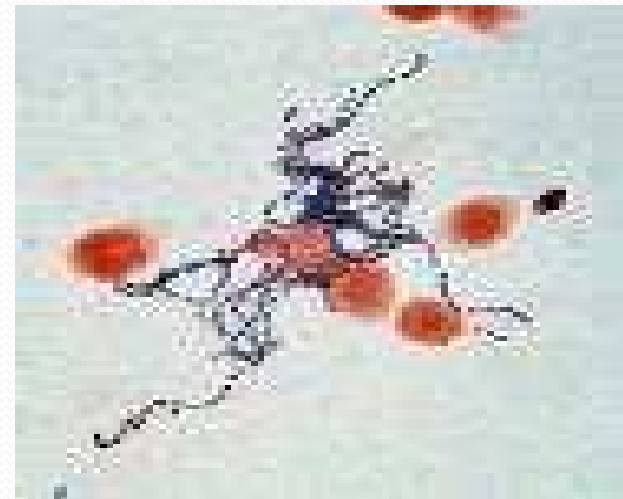
Causes **tooth decay**

- Bacteria lives in mouth
- Destroys enamel
- Causes toothache/loss
- Area removed and filled



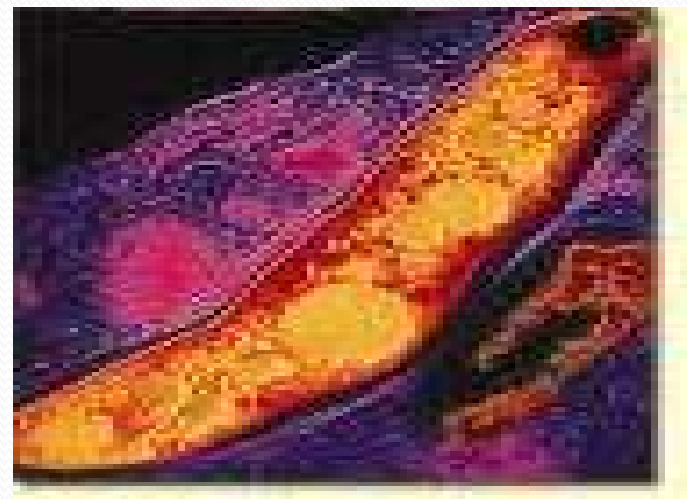
# Group A beta-hemolytic Streptococcus

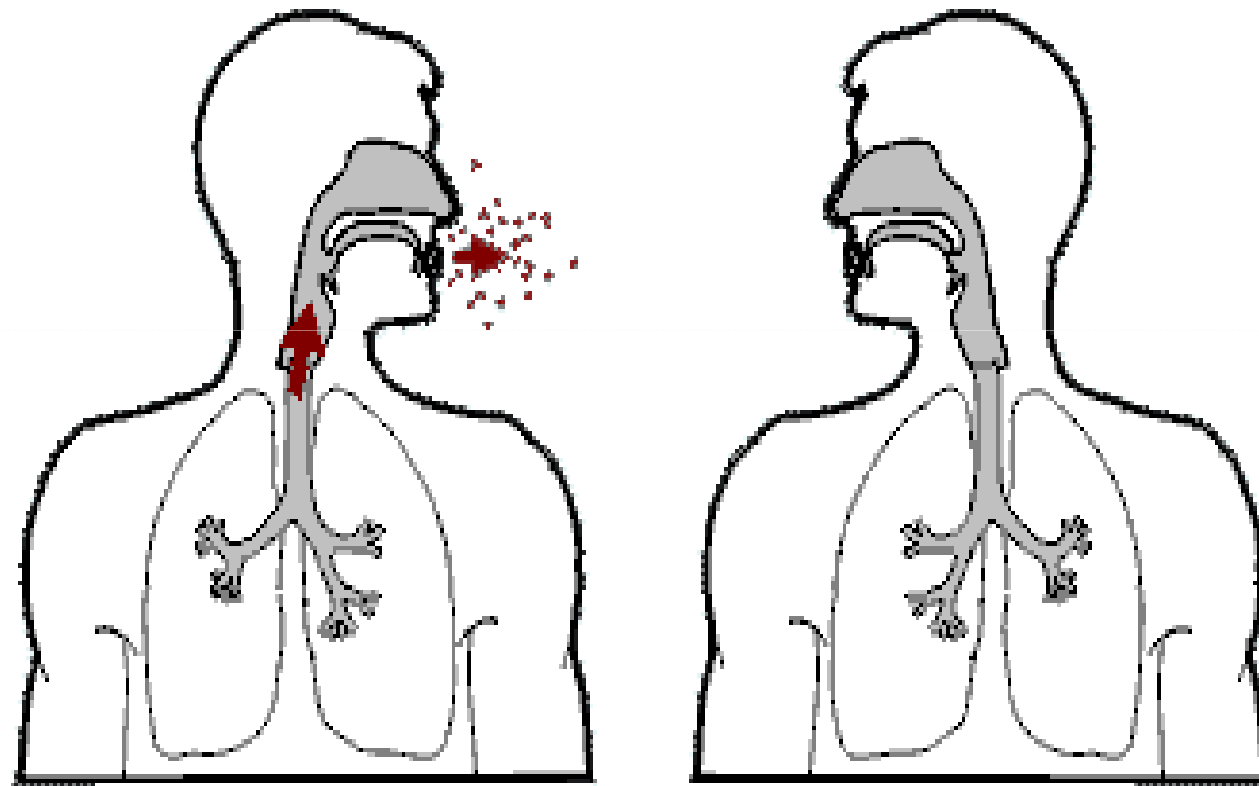
- Causes **strep throat**
- Symptoms: fever, sore throat, swollen neck glands
- Inhaled or ingested
- Treated with antibiotics



# Mycobacterium tuberculosis

- Causes tuberculosis
- Symptoms: fatigue, fever, night sweats, cough, weight loss, chest pains
- Inhaled
- Treated with antibiotics







# Clostridium tetani

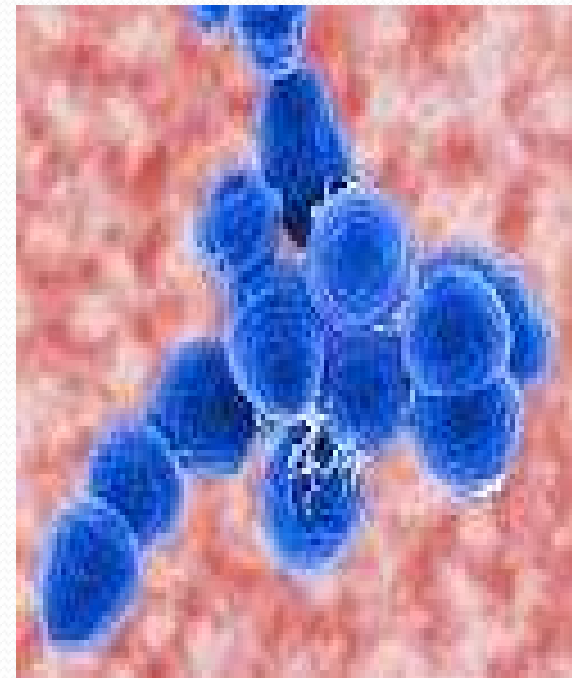
- Causes tetanus
- Symptoms: stiff jaw, muscle spasms, paralysis
- Thru punctures and wounds
- Clean wounds/antibiotics/vaccine



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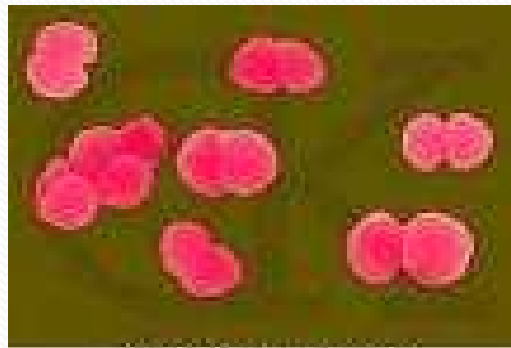
# Streptococcus pneumoniae

- Causes pneumonia
- Symptoms: cough, fever, weight loss, chest pain
- Inhaled
- Treated with antibiotics



# Neissereria gonorrhoeae

- Causes gonorrhea
- Symptoms: open sores and painful urination
- Thru sexual contact
- Treated with antibiotics



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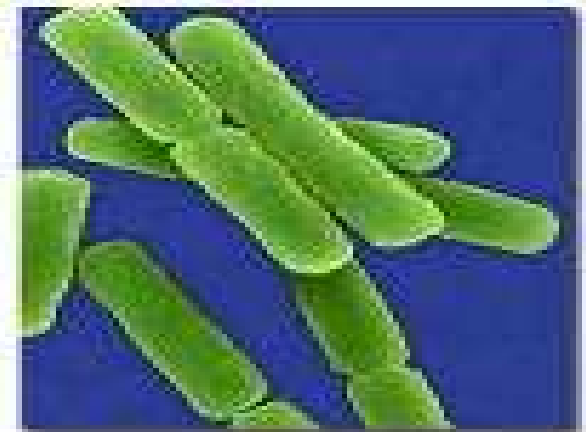
# Treponema pallidum

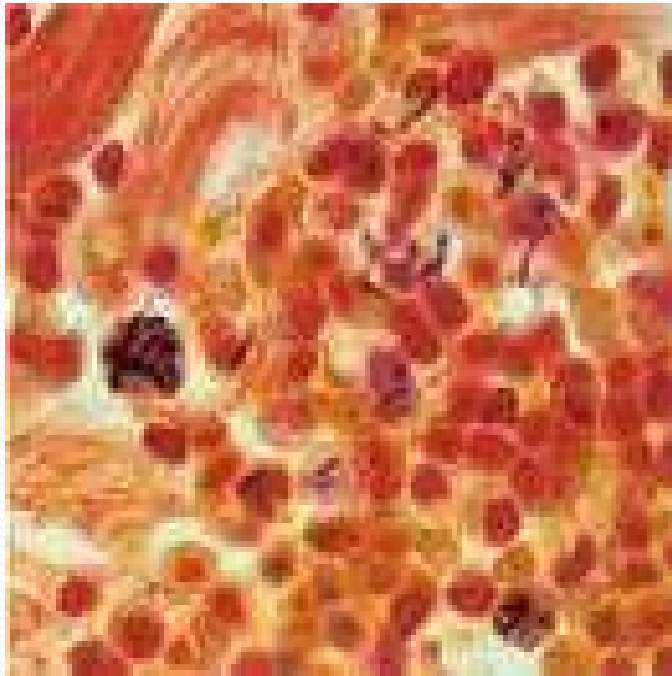
- Causes syphilis
- Symptoms: open sores, painful urination, rash, aches/pains, damage to brain and spinal cord
- Thru sexual contact
- Treated with antibiotics



# Bacillus anthracis

- Causes anthrax
- Symptoms: rash, difficulty breathing and seeing
- Thru inhalation, ingestion, cuts/wounds
- Treated with antibiotics





# Vibrio cholerae

- Causes cholera
- Symptoms: diarrhea, vomiting, dehydration
- Thru drinking contaminated water
- Treated with antibiotics

