

# Neisseria

Meningitis; gonorrhoea; respiratory  
infections



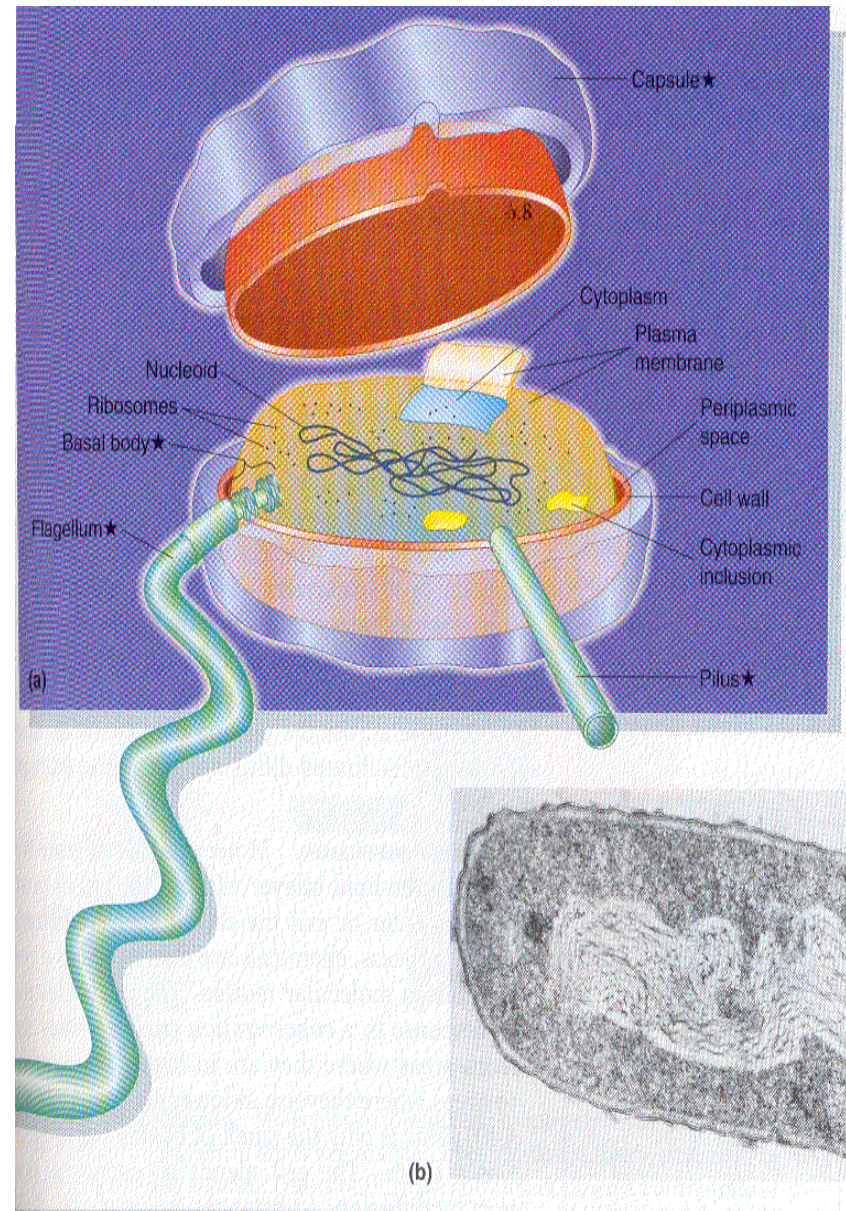
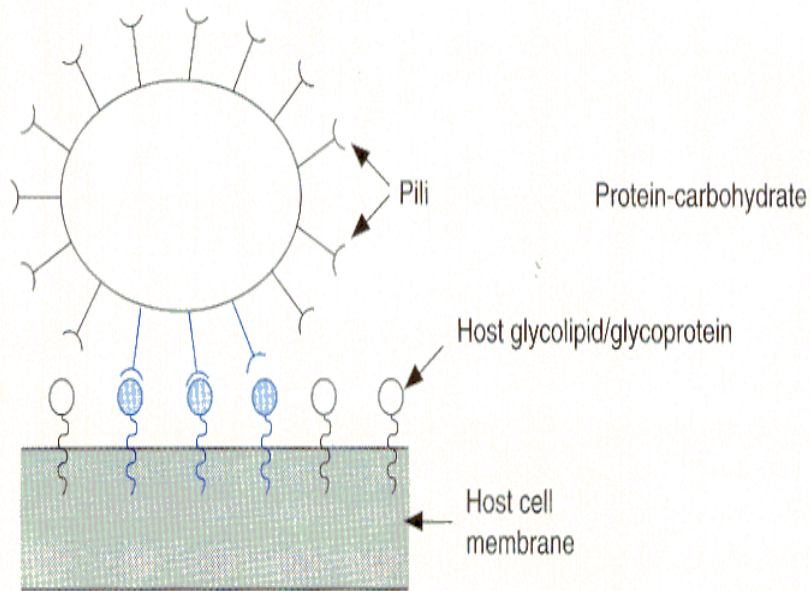
*Neisseria* spp. em photo magnification unknown

# *Neisseria* spp

- *N. gonorrhoeae* → gonococcus
- *N. meningitidis* → meningococcus
  
- Location:

# Fimbriae

A Pili



Genus: Neisseriae

# Neisseria spp. growth requirements

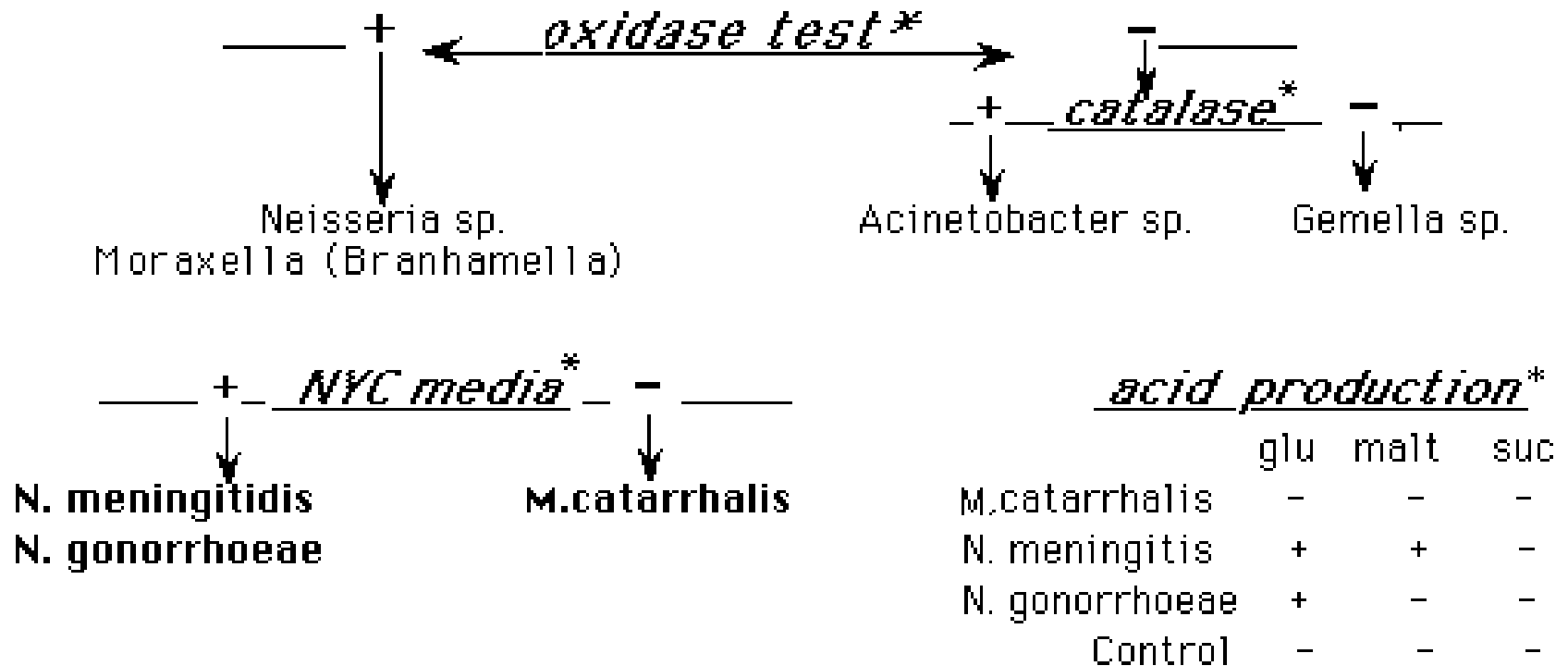
- Exacting
- 35-36°C
- 5-10% carbon dioxide

# Other indicative tests

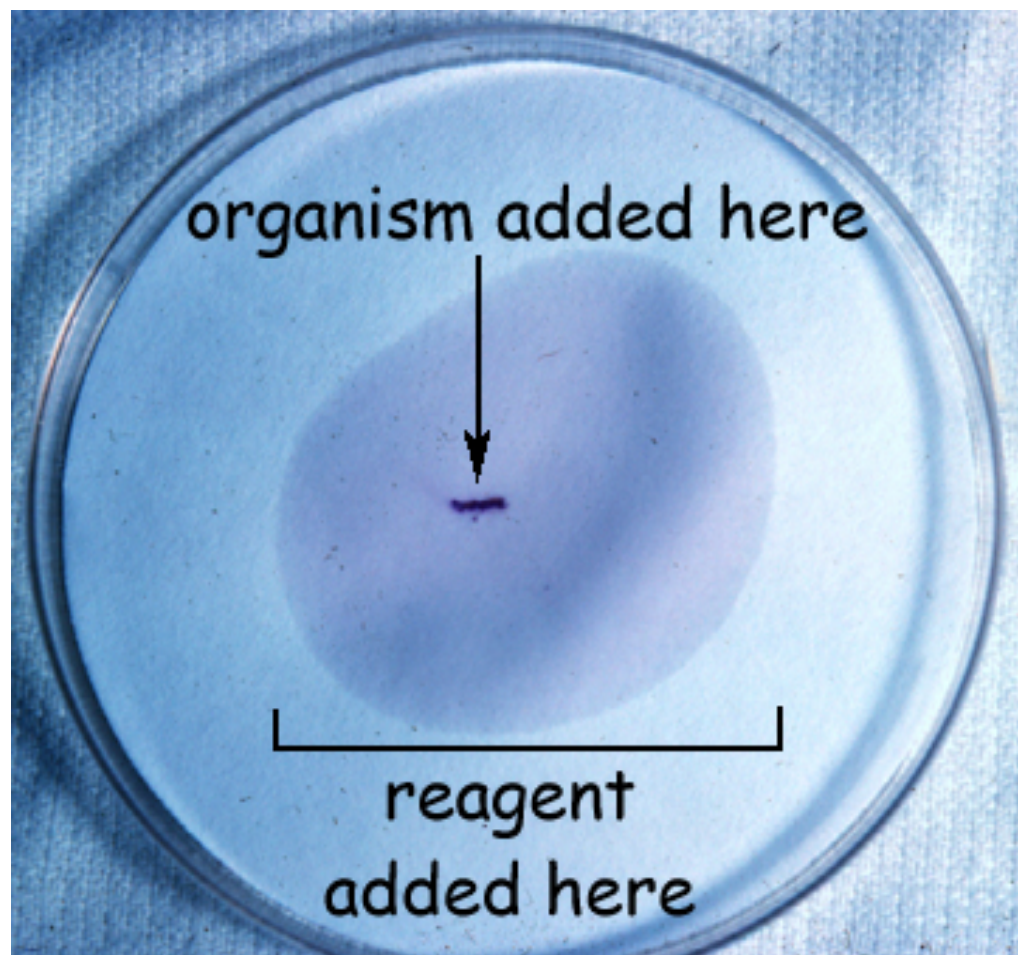
- Oxidase test
- Carbohydrate utilization
- <http://www.cat.cc.md.us/courses/bio141/labmanual/lab16/ctang.html>

## Identification of Gram Negative Aerobic Cocci

Neisseria/ Moraxella/ Acinetobacter



# Oxidase Test



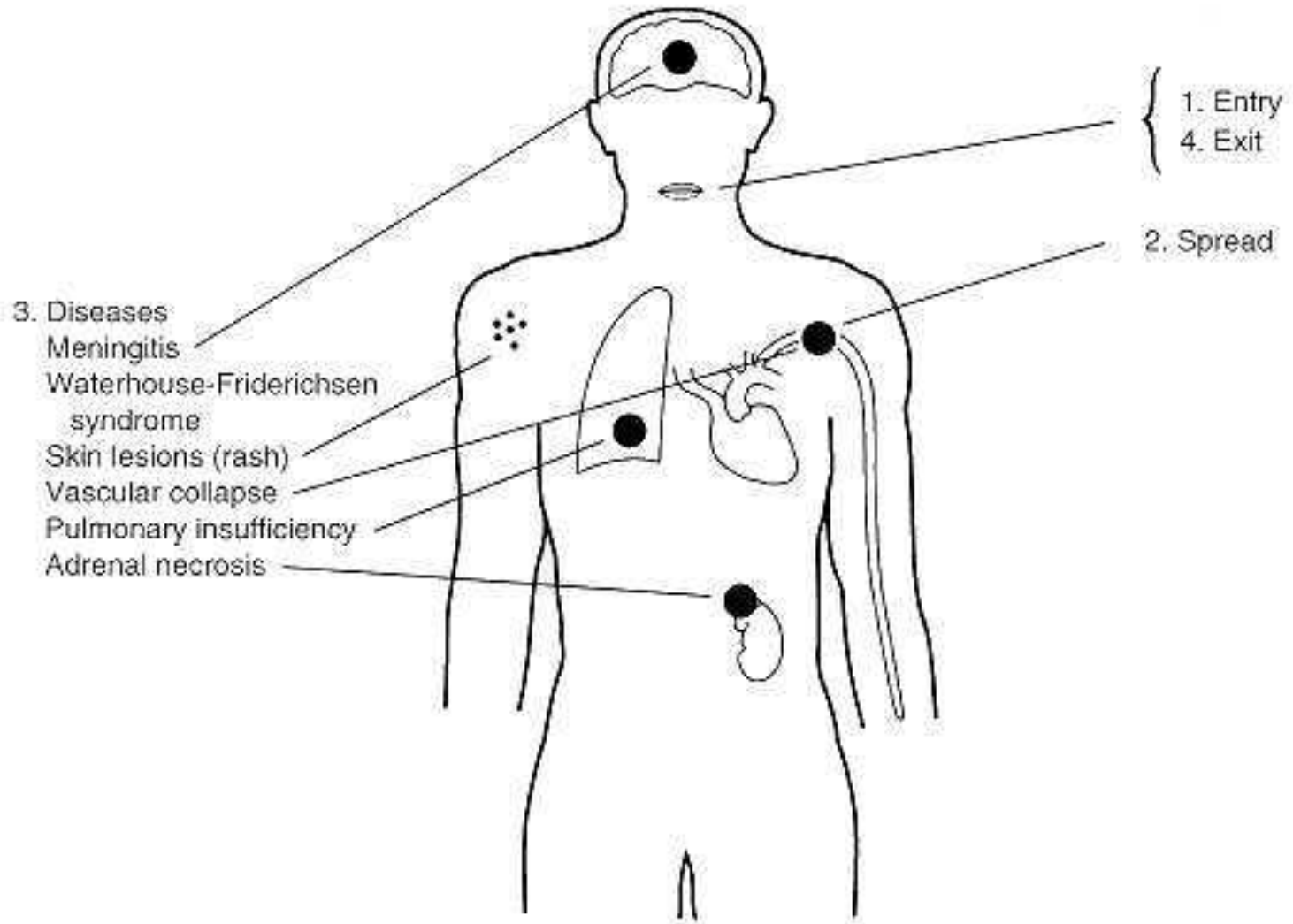
- **Kovac's oxidase reagent** is added to a colony.

## **Positive Result:**

- purple/black colour reaction, indicating oxidation of the reagent

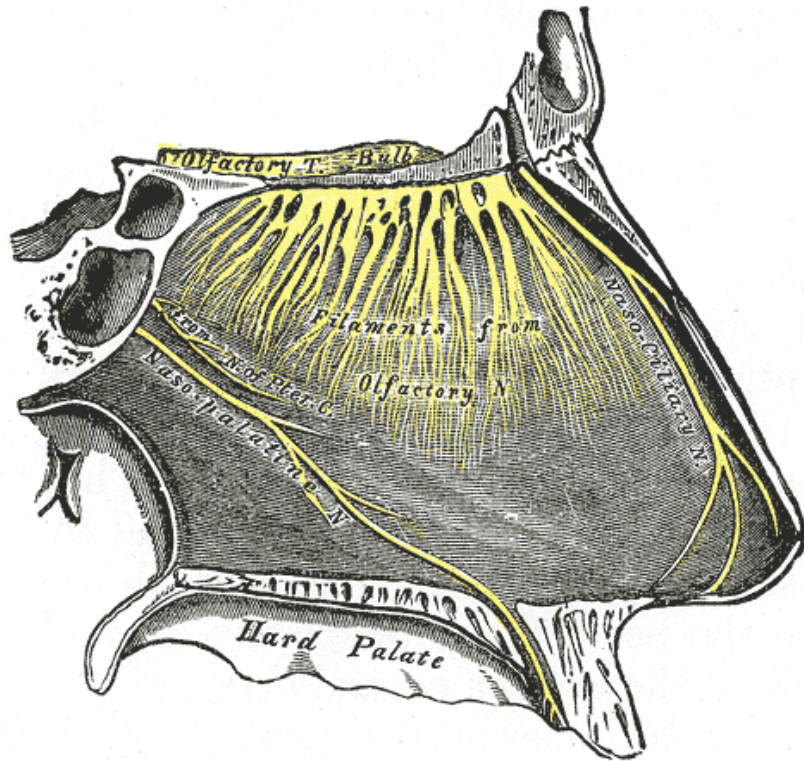


# *N. meningitidis*



Genus: Neisseriae

# Route



- Through the the sheaths of the olfactory nerve
- Nasopharyngeal mucosa

purpuric rash

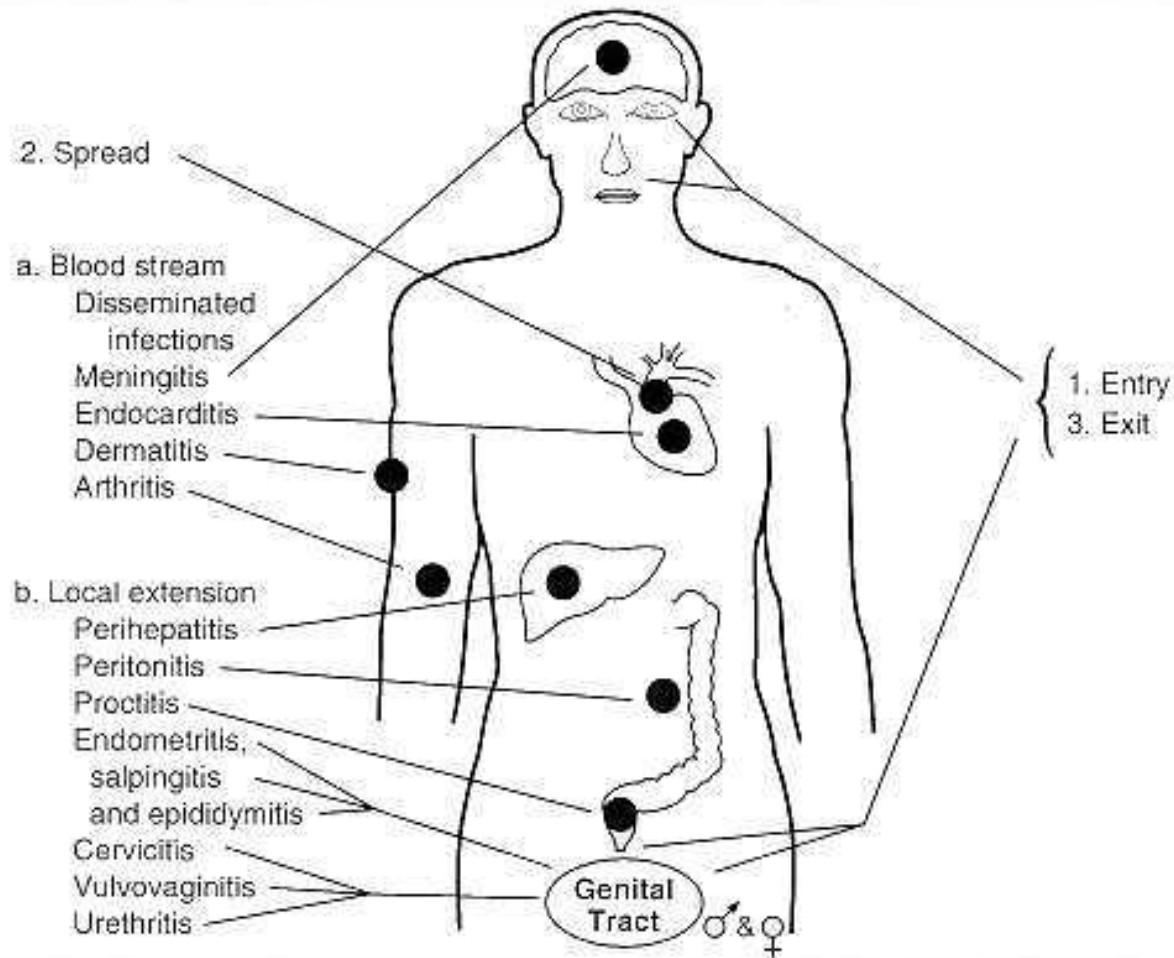
[www.meningitis.org/sect3/subsect2](http://www.meningitis.org/sect3/subsect2)

Nerves of the septum of the nose.  
Right side (Gray's Anatomy)

# Epidemiology

- Worldwide
- Notifiable
- Winter, northern hemisphere

# *N. gonorrhoeae*



*gonos* (seed) and *rhoia* (flow)

Genus: Neisseriae

# *N. gonorrhoeae* Pathogenesis

- Exclusively a human pathogen
- Never found as a normal commensal
- Infected, though asymptomatic
  - ➔ Later disease development

Disease;

LOCALIZED

DISSEMINATED