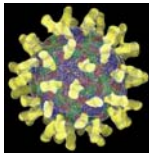
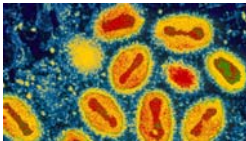
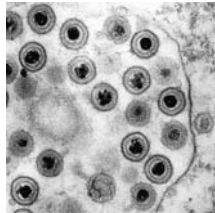


Bacterial & Viral Infections of Humans



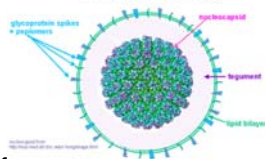
Viral Diseases

- Herpes
- *Variola* (Smallpox)
- Adenovirus & Rhinovirus
- Hepatitis A & B
- Rotavirus & Norwalk Virus
- Ebola
- HIV



Herpes Viruses

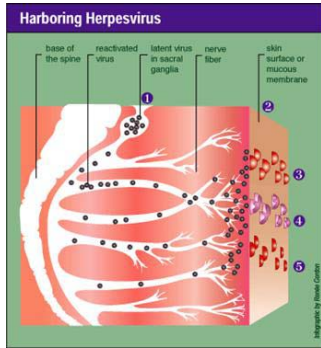
- DS DNA
- Enveloped
- Icosahedral
- Causes a latent lifelong infection
- Contact transmission (virus is shed from sores)



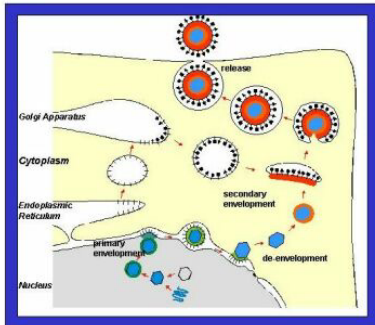
- Chicken Pox & Shingles
- Cold sores
- Genital Herpes



Herpes Viruses



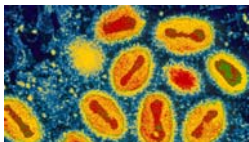
Herpes virogenesis



Variola (Smallpox)



- DS DNA, Enveloped
- Direct contact, fomites and droplet transmission
- 1- 60% fatality depending on strain & rash
- Eradicated worldwide by 1979
- Aching, fever, pustules
- Scabs, scars



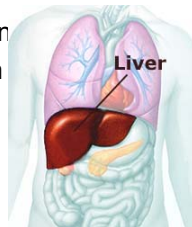
Adenovirus & Rhinovirus

- DS DNA, non-enveloped
- Direct contact, fecal-oral, waterborne
- Accounts for 5–10% of “colds”

- SS RNA, non-enveloped
- Direct contact, fomites, droplets
- Account for 30-50% of “colds”

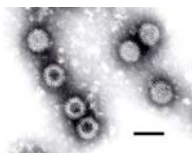
Hepatitis

- Types: A, B, C, D, E, G and T
- Mostly unrelated viruses
- A & E: fecal-oral transmission
- B, C & D: blood transmission
- Cause liver disease, cancer
- Vaccines for A & B



Rotavirus & Norwalk Virus

- RNA, non-enveloped (unrelated)
- Diarrheal diseases
- Common in daycare, eldercare facilities



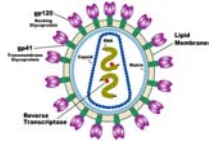
Ebola

- ssRNA, enveloped
- Helical
- Direct contact
- Blood, bodily fluids
- Highly contagious
- High mortality rate



Human Immunodeficiency Virus

- ssRNA, enveloped
- Pandemic– 25 million deaths since 1981
- 33.4 and 46 million current infections
- Blood, semen, vaginal fluid, breast milk
- Causes AIDS
- Treatment is HAART



Epidemiology of HIV

