

Viral Replication: Lytic and Lysogenic Cycles

- Process takes about 25-45 minutes and produces 100's of new viruses.
- There are four steps in the **Lytic Cycle**:
 1. **ATTACHMENT AND INJECTION**
 - Virus attaches and enters host cell
 - Either whole virus or only its genetic material enters the host cell
 2. **MANUFACTURING**
 - Viral DNA directs the host cell to replicate (make copies) of the virus parts
 3. **ASSEMBLY**
 - Viral nucleic acid and proteins are assembled together
 4. **LYSIS**
 - Newly formed viruses are released from the host cell
 - Host cell dies off
- Certain types of viruses (like the ones that cause cancer or those that infect bacteria go through the **Lysogenic Cycle**.
- The virus does not kill the cell, but co-exists and may be carried through many generations.
- The genetic material enters host cell, but adds additional DNA to pass on to daughter cells of the host.
- Material lays dormant until a stimulus triggers the lytic cycle.