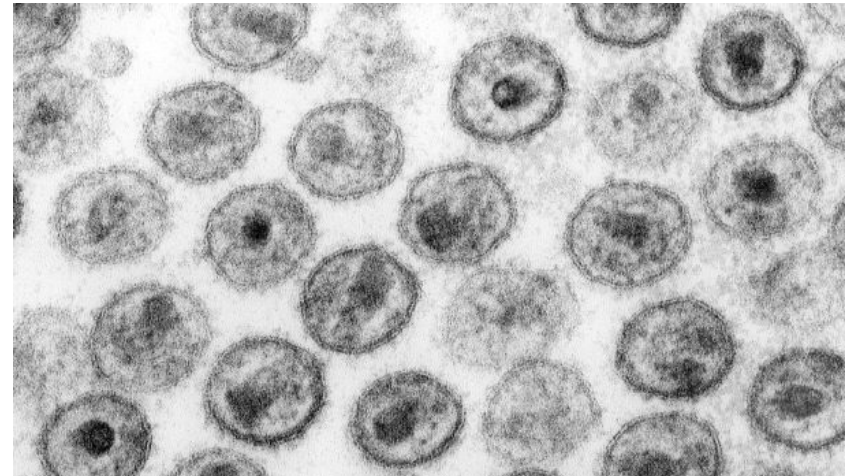


UNIT#5 MINI LESSON#4
AIDS&ALLERGY

AIM: How does HIV cause someone to get sick?



A pathogen is an microbe that causes disease

An antigen is the protein receptor on the surface of the pathogen

An antibody is produced by our white blood cells in response to an antigen, it marks the pathogen to be destroyed.

What is HIV?

- “Human Immunodeficiency Virus” virus
- HIV invades white blood cells (T cells,) which normally activate immune response.

Human Immunodeficiency Virus (HIV) Anatomy

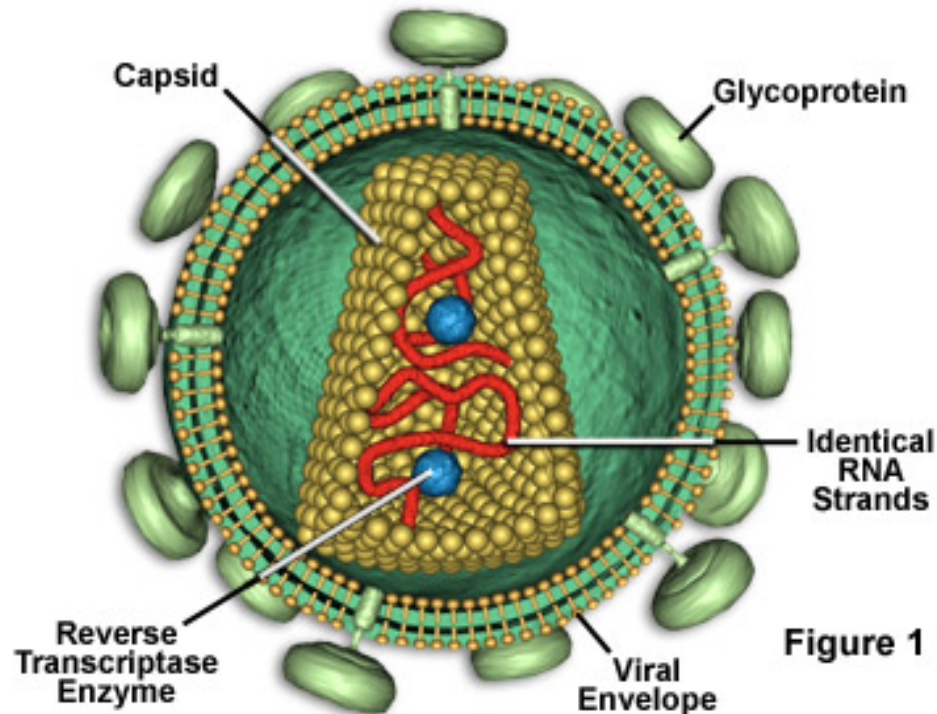
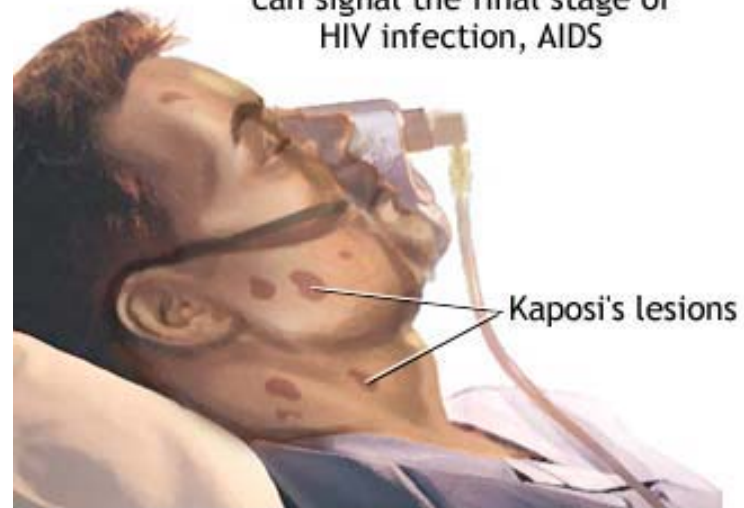


Figure 1

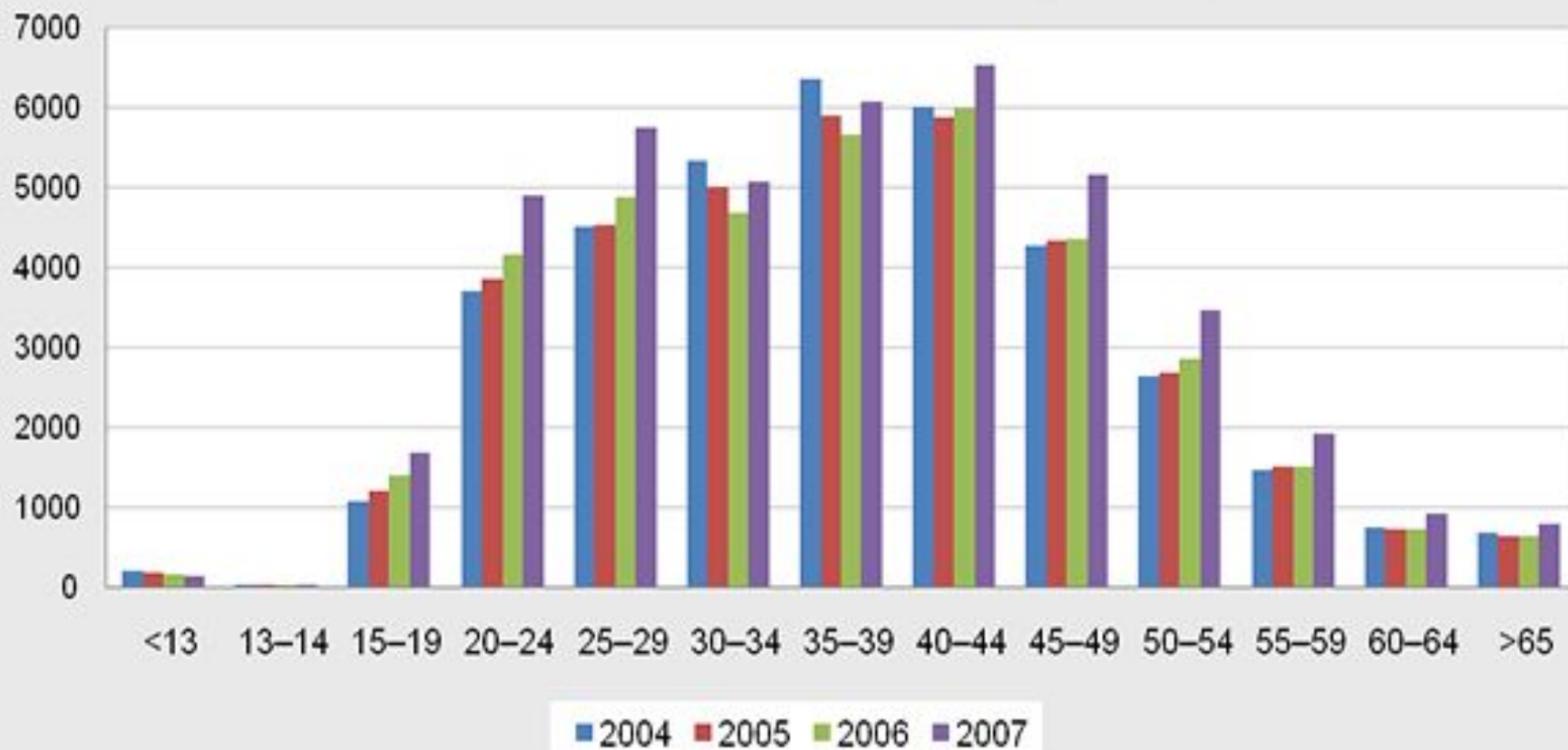
What is AIDS?

- Acquired Immunodeficiency Syndrome
- A person with AIDS has a very weak immune system and becomes very sick which is caused by common bacteria, virus, or yeast.
- No Cure

Opportunistic infections such as pneumocystosis or malignancies such as Kaposi's sarcoma can signal the final stage of HIV infection, AIDS



Number of Cases Per Year Per Age Group



How do people get HIV?

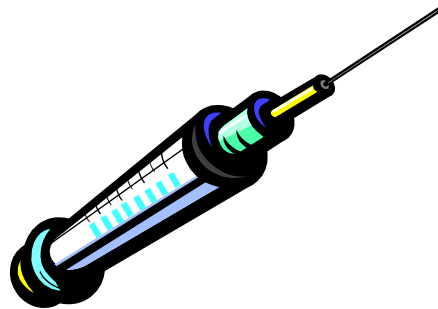


1. Through Bodily Fluids

- Blood products
- Semen
- Vaginal fluids
- Breast Milk

2. Through IV Drug Use

- Sharing Needles
 - Without sterilization
- Increases the chances of contracting HIV



3. Through Sex

- Intercourse (penile penetration into the vagina)
- Oral
- Anal

4. Mother-to-Baby

- Before Birth
- During Birth
- Postpartum
 - After the birth



HOW CAN HIV BE PREVENTED?

- **PREVENTION IS THE ONLY CURE FOR HIV / AIDS**



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SAFE NEEDLES

SAFE BLOOD

SAFE SEX

SAFE MOTHERHOOD

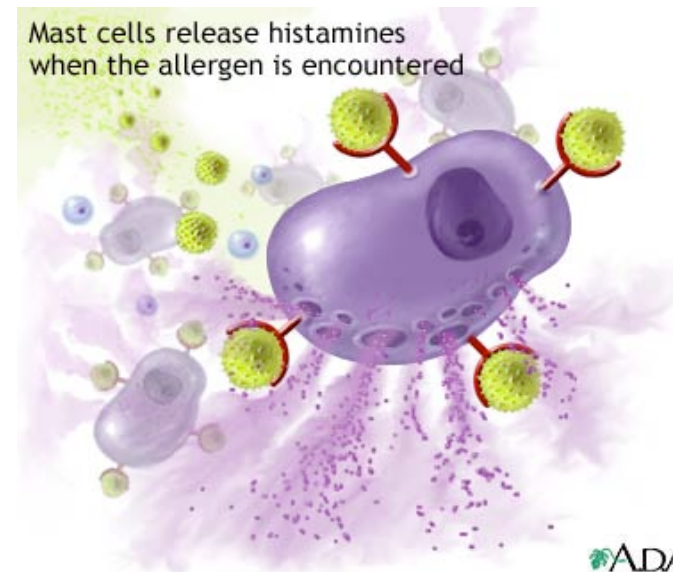
What is Allergy?

Your immune system reacts to the **allergen** (**normally harmless substance**) as if it were an invading **pathogen**



What are allergies? Cont.

- Allergy is a malfunction of the **immune system**.
- Your white blood cells create **antibodies** that match the shape of the **allergen**.
- Your body has memory cells that create the **antibody** whenever you encounter this allergen.



Examples of Popular allergies are

- **Foods** milk, eggs, peanuts, soy, wheat, tree nuts (such as walnuts and cashews), fish, shellfish (such as shrimp)
- **Insect bites and stings.**
- **Airborne particles**
- **Medicines** (penicillin)
- **Chemicals** (detergents, dyes)

