



## Understanding How HIV is transmitted

### How does HIV infection occur?

For infection to occur two things must happen.

- The virus must find a way to enter your bloodstream.
- The virus must “take a hold” (find a T/cell with a CD4 and CCR5 receptor which the virus needs to enter the bodies cells)

### Think of it with the word SAD

S = Sufficient quantities of the virus  
A = Access into the body  
D = Duration

There must be sufficient quantity of the virus to infect you, and it must enter your body in an efficient manner, and their needs to be enough time for this to happen.

#### THE KEY TO PREVENTION LIES HERE.

- Being exposed to the virus is different from infection with the virus. Some people can be exposed to the virus, but not be infected.
- Remember that the skin linings of the body are different:
  - The skin on the back of your hands is different to the
  - Skin in the mouth for e.g.
- The thin, moist membranes of skin found in the mouth, vagina, and anus and on the head of the penis have receptors which allow the HIV virus to enter the body.
- The vaginal wall, the rectum and the tip of the penis in particular are sensitive skin areas.

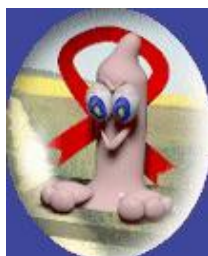
### There are only three ways in which this can happen:

- Unprotected sexual acts with an infected person
- Through infected blood e.g. in sharing needles
- Prenatally from mother to child during pregnancy or at birth, and through breast milk.

### Body fluids!

Body fluids can be divided into those, which contain sufficient quantities of the virus to be infectious. These are:

Semen  
Vaginal secretions  
Blood  
Breast milk



For transmission of HIV to happen, body fluids infected with the virus must pass from the already infected person into the bloodstream of another. HIV can do this through contact with the thin linings of various openings in the body and openings in the skin. These linings contain concentrations of the cells to which HIV attaches to enter the body. The sexual organs of both men and women have such linings.

This is why unprotected sexual acts are the most common route for HIV transmission. The chance of transmission is greatly increased if the lining or skin is inflamed or damaged, for example when another sexually transmitted disease is present.

*On the other hand there are other body fluids, which do not contain sufficient quantities of the virus to be infectious.*

These are:

Saliva  
Sweat  
Tears  
Urine

### How do you get HIV?

- Infection through sexual practices.
  - Semen / vaginal fluid coming into contact with the thin linings of various openings in the body and openings in the skin.
- Infection through blood. (Blood products)
  - Intravenous drug users.
  - Blood transfusions. (Since 1985 all blood is tested for HIV)
  - Needles, ear piercing, razor blades, dental tools, (unsterilized)
- Infection from mother to child.
  - Across the placenta: - during pregnancy.
  - During birth: damaged lining/skin
  - Breast milk:

### What is “SAFER SEX”?

“Safer Sex” Means:

Sexual practices, which involve the use of condoms for penetrative anal or vaginal sex, and the use of many different forms of experiencing sexual pleasure without placing people at risk of HIV transmission.

Always talk to your regular or potential sexual partner about safe sex.

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