HIV infection can generally be broken down into four distinct stages: primary infection, clinically asymptomatic stage, symptomatic HIV infection, and progression from HIV to AIDS.

**STAGE 1: Primary HIV Infection**

This stage of infection lasts for a few weeks and is often accompanied by a short flu–like illness. In up to about 20% of people the symptoms are serious enough to consult a doctor, but the diagnosis of HIV infection is frequently missed.

During this stage there is a large amount of HIV in the peripheral blood and the immune system begins to respond to the virus by producing HIV antibodies and cytotoxic lymphocytes. This process is known as seroconversion. If an HIV antibody test is done before seroconversion is complete then it may not be positive.

**STAGE 2: Clinically Asymptomatic Stage**

This stage lasts for an average of ten years and, as its name suggests, is free from major symptoms, although there may be swollen glands. The level of HIV in the peripheral blood drops to very low levels but people remain infectious and HIV antibodies are detectable in the blood, so antibody tests will show a positive result.

Research has shown that HIV is not dormant during this stage, but is very active in the lymph nodes. A test is available to measure the small amount of HIV that escapes the lymph nodes. This test which measures HIV RNA (HIV genetic material) is referred to as the viral load test, and it has an important role in the treatment of HIV infection.

**STAGE 3: Symptomatic HIV Infection**

Over time the immune system becomes severely damaged by HIV. This is thought to happen for three main reasons:

- The lymph nodes and tissues become damaged or 'burnt out' because of the years of activity.
- HIV mutates and becomes more pathogenic, in other words stronger and more varied, leading to more T helper cell destruction.
- The body fails to keep up with replacing the T helper cells that are lost.

As the immune system fails, so symptoms develop. Initially many of the symptoms are mild, but as the immune system deteriorates the symptoms worsen.

**STAGE 4: Progression from HIV to AIDS**

As the immune system becomes more and more damaged the illnesses that occur become more and more severe leading eventually to an AIDS diagnosis. A healthy person usually has a CD4, (white blood cells) count of between 600 and 1,200. When the CD4 count drops below
Stages of HIV Infection

200, a person’s immune system is severely weakened, and that person is then diagnosed with AIDS, even if he or she has not become sick from other infections.

**WHO clinical staging of HIV disease in adults and adolescents**

In resource–poor communities, medical facilities are sometimes poorly equipped, and it is not possible to use CD4 and viral load test results to determine the right time to begin treatment. The World Health Organization has therefore developed a staging system for HIV disease based on clinical symptoms.

**Clinical Stage I:**

- Asymptomatic.
- Persistent generalized lymphadenopathy.

**Clinical Stage II:**

- Moderate unexplained* weight loss (under 10% of presumed or measured body weight)**
- Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis)
- Herpes zoster.
- Angular cheilitis.
- Recurrent oral ulceration.
- Papular pruritic eruptions.
- Seborrhoeic dermatitis.
- Fungal nail infections.

**Clinical Stage III:**

- Unexplained* severe weight loss (over 10% of presumed or measured body weight).**
- Unexplained* chronic diarrhea for longer than one month.
- Unexplained* persistent fever (intermittent or constant for longer than one month).
- Persistent oral candidiasis.
- Oral hairy leukoplakia.
- Pulmonary tuberculosis.
- Severe bacterial infections (e.g. pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia).
- Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis.
- Unexplained* anaemia (below 8 g/dl), neutropenia (below 0.5 billion/l) and/or chronic thrombocytopenia (below 50 billion/l)
Clinical Stage IV: ***

- HIV wasting syndrome.
- Pneumocystis pneumonia.
- Recurrent severe bacterial pneumonia.
- Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration or visceral at any site).
- Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs).
- Extrapulmonary tuberculosis.
- Kaposi sarcoma.
- Cytomegalovirus infection (retinitis or infection of other organs).
- Central nervous system toxoplasmosis.
- HIV encephalopathy.
- Extrapulmonary cryptococcosis including meningitis.
- Disseminated non–tuberculous mycobacteria infection.
- Progressive multifocal leukoencephalopathy.
- Chronic cryptosporidiosis.
- Chronic isosporiasis.
- Disseminated mycosis (extrapulmonary histoplasmosis, coccidiomycosis).
- Recurrent septicaemia (including non–typhoidal Salmonella).
- Lymphoma (cerebral or B cell non–Hodgkin).
- Invasive cervical carcinoma.
- Atypical disseminated leishmaniasis.
- Symptomatic HIV–associated nephropathy or HIV–associated cardiomyopathy.

Footnotes:

- * Unexplained refers to where the condition is not explained by other conditions.
- ** Assessment of body weight among pregnant woman needs to consider the expected weight gain of pregnancy.
- *** Some additional specific conditions can also be included in regional classifications, such as the reactivation of American trypanosomiasis meningoencephalitis and/or myocarditis in the WHO Region of the Americas and penicilliosis in Asia.