



Glossary

An A to Z of HIV-related words and phrases.

We all sometimes see words we don't recognise, or don't understand. If you have suggestions for words or phrases we could add, we would love to hear from you. Get in touch through our [contact us](#) page or email us at info@nam.org.uk.

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2-1-1 In relation to pre-exposure prophylaxis (PrEP), 2-1-1 dosing (and 2+1+1 dosing) are alternative terms for event-based dosing.
Related terms [event based](#)

90-90-90 target A target set by the Joint United Nations Programme on HIV/AIDS (UNAIDS) for 90% of people with HIV to be diagnosed, 90% of diagnosed people to be taking treatment, and 90% of people on treatment to have an undetectable viral load.
Related terms [treatment cascade](#)

abdomen The part of the body below the chest, including the stomach, liver, intestines, kidneys, bladder, ovaries and uterus. The word 'abdominal' relates to pain or other problems in that area.

abscess A collection of pus, caused by a bacterial infection.

absolute risk The chance that a person will experience a specific event during a period of time. It is always between 0 and 1 (when expressed as a probability), or between 0 and 100 (when expressed as a percentage).
Related terms [relative risk](#)

absorption The process (or rate) of a drug or other substances, such as food, entering the blood.

active TB Active disease caused by *Mycobacterium tuberculosis*, as evidenced by a confirmatory culture, or, in the absence of culture, suggestive clinical symptoms.
Related terms [tuberculosis \(TB\)](#), [latent TB](#), [culture](#)

activities of daily living Daily tasks that are key to person's ability to take care of themselves, including eating, bathing, dressing, using the toilet, controlling bladder and bowels, and getting out of bed or a chair without assistance.

acute infection The very first few weeks of infection, until the body has created antibodies against the infection. During acute HIV infection, HIV is highly infectious because the virus is multiplying at a very rapid rate. The symptoms of acute HIV infection can include fever, rash, chills, headache, fatigue, nausea, diarrhoea, sore throat, night sweats, appetite loss, mouth ulcers, swollen lymph nodes, muscle and joint aches – all of them symptoms of an acute inflammation (immune reaction).
Related terms [primary infection](#), [seroconversion](#)

adherence The act of taking a treatment exactly as prescribed. This involves not missing doses, taking doses at the right time, taking the correct amount, and following any instructions about food.

adjusted odds ratio (AOR) See [odds ratio \(OR\)](#)

adjuvant A substance used in conjunction with another to enhance its activity. For example, a substance administered with a vaccine that increases the effectiveness of the vaccine.

- advanced HIV** A modern term that is often preferred to 'AIDS'. The World Health Organization criteria for advanced HIV disease is a CD4 cell count below 200 or symptoms of stage 3 or 4 in adults and adolescents. All HIV-positive children younger than five years of age are considered to have advanced HIV disease.
Related terms [AIDS](#)
- adverse event** An unwanted side-effect of a treatment.
- AIDS** Acquired Immune Deficiency Syndrome. A collection of specific illnesses and conditions which occur because the body's immune system has been damaged by HIV.
Related terms [advanced HIV](#)
- AIDS defining condition** Any HIV-related illness included in the list of diagnostic criteria for AIDS, which in the presence of HIV infection result in an AIDS diagnosis. They include opportunistic infections and cancers that are life-threatening in a person with HIV.
- AIDS dementia complex** See [encephalopathy](#)
- alanine aminotransferase (ALT)** An enzyme found primarily in the liver. Alanine aminotransferase may be measured as part of a liver function test. Abnormally high blood levels of ALT are a sign of liver inflammation or damage from infection or drugs.
Related terms [liver function test \(LFT\)](#)
- alkaline phosphatase (ALP)** An enzyme found throughout the body, especially in the liver and bone. Alkaline phosphatase may be measured as part of a liver function test. When the cells are destroyed in those tissues, more of the enzyme leaks into the blood, and levels rise in proportion to the severity of the condition.
Related terms [liver function test \(LFT\)](#)
- alternative therapy** Healthcare practices that are used instead of conventional and proven medical treatments. In general, alternative therapies have not been proven to be safe and effective in scientific research.
Related terms [complementary therapy](#)

amylase	An enzyme produced in the pancreas and saliva which assists in the digestion of starch.
anabolic	Anabolic processes build organs and tissues, including the growth and mineralisation of bone and increases in muscle mass. Anabolic steroids are synthetic forms of male sex hormones.
anaemia	A shortage or change in the size or function of red blood cells. These cells carry oxygen to organs of the body. Symptoms can include shortness of breath, fatigue and lack of concentration.
anal intraepithelial neoplasia (AIN)	An abnormal growth on the surface of the rectum or anal canal which, when observed with a microscope, suggests that the cells could be malignant (cancerous).
analytical treatment interruption (ATI)	As part of a research study, when study participants are requested to interrupt their antiretroviral therapy (ART) and be closely monitored. Most of these studies are in the field that aims to eventually achieve 'ART-free remission' or 'HIV cure'. They usually look at the time it takes for the viral load to rebound after the interruption, following which ART is restarted.
anergy	Lack of reaction by the body's defence mechanisms when foreign substances come into contact with the body. This may indicate the inability of the immune system to mount a normal allergic response.
anonymised data	Information about a patient from which the name, address and other identifying information has been removed.
anorexia	Loss of appetite.
anoscopy	Examination of the anal canal and lower rectum using a short speculum (anoscope).
antenatal	The period of time from conception up to birth.

antibiotics Antibiotics, also known as antibacterials, are medications that destroy or slow down the growth of bacteria. They are used to treat diseases caused by bacteria.

antibody A protein substance (immunoglobulin) produced by the immune system in response to a foreign organism. Many diagnostic tests for HIV detect the presence of antibodies to HIV in blood.

anticoagulants Drugs that prevent the clotting of blood.

anticonvulsants Drugs used to prevent seizures (fits).

antigen Something the immune system can recognise as 'foreign' and attack.

antihistamines Drug used to treat a number of allergic health conditions.

antioxidant A vitamin, mineral or drug which can reduce the activity of free radicals, the unpaired electrons produced as a consequence of burning energy in a cell.

antiretroviral (ARV) A substance that acts against retroviruses such as HIV. There are several classes of antiretrovirals, which are defined by what step of viral replication they target: nucleoside reverse transcriptase inhibitors; non-nucleoside reverse transcriptase inhibitors; protease inhibitors; entry inhibitors; integrase (strand transfer) inhibitors.

antiretroviral resistance See [resistance](#)

antiviral A drug that acts against a virus or viruses.

anxiety A feeling of unease, such as worry or fear, which can be mild or severe. Anxiety disorders are conditions in which anxiety dominates a person's life or is experienced in particular situations.

arm	<p>In a clinical trial, a group or subgroup of participants that receives a specific intervention/treatment, or no intervention, according to the trial's protocol.</p> <p>Related terms clinical trial, protocol, randomisation</p>
ART	<p>Acronym for antiretroviral therapy. Antiretroviral therapy usually includes at least two antiretroviral drugs.</p> <p>Related terms antiretroviral (ARV)</p>
arthralgia	<p>Severe ache or pain in a joint, without swelling or other signs of arthritis.</p>
arthritis	<p>Inflammation of one or more joints, characterised by pain, swelling, warmth, redness of the overlying skin, and diminished range of joint motion.</p>
assay	<p>A test used to measure something.</p>
association	<p>An association means that there is a statistical relationship between two variables. For example, when A increases, B increases. An association means that the two variables change together, but it doesn't necessarily mean that A causes B. The relationship isn't necessarily causal.</p>
asymptomatic	<p>Having no symptoms.</p>
ataxia	<p>A lack of muscular co-ordination.</p>
atherogenic	<p>Producing the most degenerative changes in artery walls.</p>
atherosclerosis	<p>A disease of the arteries in which fatty plaques develop on the inner walls, eventually leading to obstruction of blood flow.</p>
atrophy	<p>Wasting away of a normally developed organ or tissue. Can occur due to nutritional imbalance, e.g. due to absorption problems caused by chronic diarrhoea.</p>

attenuated

Weakened. Attenuated viruses are often used as vaccines because they no longer cause disease but may still stimulate a strong immune response.

autonomic nervous system

The part of the nervous system that controls involuntary bodily actions, such as beating of the heart, sweating and intestinal movements.

B cell

A type of immune cell, responsible for making antibodies.

Related terms **lymphocyte**

bacteraemia

The presence of bacteria in the blood.

bacteria

Single-celled micro-organisms.

bacterial vaginosis

A condition caused by the overgrowth of certain species of the bacteria that are normally present in the vagina.

baseline

At the beginning of a study. Baseline measurements (for example, of CD4 counts) may be considered the 'known value' against which later measurements in the trial can be compared.

basophil

A type of white blood cell, also called a granular leukocyte, filled with granules of toxic chemicals, that can digest micro-organisms. Basophils are responsible for some of the symptoms of an allergy.

bd

Abbreviation of a Latin term meaning twice daily.

behaviour change interventions

Health promotion campaigns and programmes which aim to influence people's behaviour. Programmes may seek to change a wide range of behaviours, including HIV testing, condom use, uptake of PrEP, partner numbers and drug use.

bias

When the estimate from a study differs systematically from the true state of affairs because of a feature of the design or conduct of the study.

bid See **bd**

bile A fluid secreted by the liver which aids digestion by breaking down fats and assisting the absorption of nutrients.

bilirubin A substance produced during the normal breakdown of red blood cells. Bilirubin passes through the liver and is excreted in faeces. Elevated levels of bilirubin (jaundice) may indicate liver damage or disease.

binary endpoint An endpoint in a trial where there is only one of two options (e.g. yes/no, viral load under or over 50 copies/ml).
Related terms **endpoint**

bioavailability Bioavailability refers to how much of a drug is absorbed into the bloodstream.

biomarker Genes, proteins or chemicals that can act as signals for certain diseases.

biopsy A procedure to remove a small sample of tissue so that it can be examined for signs of disease.

blinding When a clinical trial is blinded, the participants are unaware as to whether they are receiving the experimental drug or a placebo (or another drug). Double blinding refers to the participant, their doctor and researchers running the trial not knowing which treatment is received by each group until all data have been recorded. Blinding is done to reduce bias in clinical trials.

blip A temporary, detectable increase in the amount of HIV in the blood (viral load) that occurs after antiretroviral therapy (ART) has effectively suppressed the virus to an undetectable level. Isolated blips are not considered a sign of virologic failure.

bloating A sensation that the abdomen (stomach) is full or under pressure, sometimes causing pain.

blood-borne virus (BBV)

A virus transmitted through contact with infected blood. Hepatitis B, hepatitis C and HIV are BBVs. (Note that hepatitis B and HIV may also be transmitted through other body fluids).

blood-brain barrier

The name for the body's defence system which makes it hard for many substances in the blood to get into the central nervous system. Certain antiretroviral drugs can cross the blood-brain barrier and may help stop or slow HIV damage to the brain.

body mass index (BMI)

Body mass index, or BMI, is a measure of body size. It combines a person's weight with their height. The BMI gives an idea of whether a person has the correct weight for their height. Below 18.5 is considered underweight; between 18.5 and 25 is normal; between 25 and 30 is overweight; and over 30 is obese. Many BMI calculators can be found on the internet.

bone marrow

Cells in the middle of bones which are responsible for producing blood cells.

bone mineral density (BMD)

The higher your bone mineral content, the denser your bones are. And the denser your bones, the stronger they are and the less likely they are to break. A bone density test uses X-rays to measure how many grams of calcium and other bone minerals are packed into a segment of bone. The bones that are most commonly tested are in the spine, hip and sometimes the forearm.

Related terms [dual energy x-ray absorptiometry scan \(DXA or DEXA\)](#)

boosting agent

Booster drugs are used to 'boost' the effects of protease inhibitors and some other antiretrovirals. Adding a small dose of a booster drug to an antiretroviral makes the liver break down the primary drug more slowly, which means that it stays in the body for longer times or at higher levels. Without the boosting agent, the prescribed dose of the primary drug would be ineffective.

broadly neutralising antibodies (bNAbs)

A neutralising antibody (NAb) is an antibody that fully defends its target cell from an antigen. A broadly neutralising antibody (bNAb) is a neutralising antibody that has this effect against a wide range of antigens. A number of broadly neutralising antibodies have been isolated from persons living with HIV. Some of them are being studied and, in some cases, used in clinical trials, to defend humans against HIV infection, treat HIV infection, and kill HIV-infected CD4+ T cells in latent reservoirs.

Related terms [antibody](#), [neutralising antibody](#)

bronchoscopy

A medical procedure using a flexible fibre-optic tube that enables examination and biopsy of the lungs.

buffalo hump

Fat accumulation on the back of the neck and shoulders associated with hormonal changes and lipodystrophy.

Related terms [lipodystrophy](#), [lipohypertrophy](#)

caesarean section

Method of birth where the child is delivered through a cut made in the womb.

cancer

A collection of related diseases that can start almost anywhere in the body. In all types of cancer, some of the body's cells divide without stopping (contrary to their normal replication process), become abnormal and spread into surrounding tissues. Many cancers form solid tumours (masses of tissue), whereas blood cancers such as leukaemia do not. Cancerous tumours are malignant, which means they can spread into, or invade, nearby tissues. In some individuals, cancer cells may spread to other parts of the body (a process known as metastasis).

Related terms [metastasis](#)

candidiasis

A common yeast infection of moist areas of the body, caused by the fungi of the candida family such as *Candida albicans*. Most common in the vagina, where it is known as thrush, but also occurs in the mouth and skin folds.

- capacity** In discussions of consent for medical treatment, the ability of a person to make a decision for themselves and understand its implications. Young children, people who are unconscious and some people with mental health problems may lack capacity. In the context of health services, the staff and resources that are available for patient care.
- carcinoma** A type of cancer that starts in the cells of the skin or the tissues that cover and line the body cavities and organs. At least 80% of all cancers are carcinomas.
Related terms [cancer](#)
- cardiovascular** Relating to the heart and blood vessels.
- cardiovascular disease** Disease of the heart or blood vessels, such as heart attack (myocardial infarction) and stroke.
- care cascade** See [treatment cascade](#)
- case report** Describes the medical history of a single patient.
- case-control study** An observational study in which a group of people with an infection or condition (called 'cases') are compared with a group of people without the infection or condition (called 'controls'). The past events and behaviour of the two groups are compared. Case-control studies can help us understand the risk factors for having an infection or a condition. However, it is difficult both to accurately collect information about past events and to eliminate bias from case-control studies.
Related terms [confounding](#), [matched](#)
- CAT scan** A computerised axial tomography (CAT) or computed tomography (CT) scan is a type of specialised X-ray that gives a view of a 'slice' through the body, and is used to help detect tumours, infections and other changes in anatomy.

catheter A tube that is implanted with one end within the body and the other remaining outside, to make it easier to get drugs into, or waste products out of the body.

CCR5 A protein on the surface of certain immune system cells, including CD4 cells. CCR5 can act as a co-receptor (a second receptor binding site) for HIV when the virus enters a host cell. A CCR5 inhibitor is an antiretroviral medication that blocks the CCR5 co-receptor and prevents HIV from entering the cell.

CD4 cell count A test that measures the number of CD4 cells in the blood, thus reflecting the state of the immune system. The CD4 cell count of a person who does not have HIV can be anything between 500 and 1500. When the CD4 count of an adult falls below 200, there is a high risk of opportunistic infections and serious illnesses.

CD4 cell percentage The CD4 cell percentage measures the proportion of all white blood cells that are CD4 cells.

CD4 cells The primary white blood cells of the immune system, which signal to other immune system cells how and when to fight infections. HIV preferentially infects and destroys CD4 cells, which are also known as CD4+ T cells or T helper cells.

CD4 receptor A molecule on the surface of some cells onto which HIV can bind. To enter a host cell, HIV binds to a CD4 receptor and a coreceptor (either CCR5 or CXCR4) on the host cell. CD4 receptors are found on CD4 cells, other types of T cells, macrophages, monocytes, and dendritic cells.

CD8 A molecule on the surface of some white blood cells. Some of these cells can kill other cells that are infected with foreign organisms.

central nervous system (CNS) The brain and spinal cord. CNS side-effects refer to mood changes, anxiety, dizziness, sleep disturbance, impact on mental health, etc.

cerebral Involving the brain.

cerebrospinal fluid (CSF)	The liquid surrounding the brain and spinal cord.
cerebrovascular	Involving the brain and the blood vessels supplying it.
cervical intraepithelial neoplasia (CIN)	Changes to cervical tissue which can be seen on visual examination through a colposcope. These are graded CIN1 to 3 according to severity. CIN1 is often left untreated; higher-grade lesions will probably need removing.
cervix	The cervix is the neck of the womb, at the top of the vagina. This tight 'collar' of tissue closes off the womb except during childbirth. Cancerous changes are most likely in the transformation zone where the vaginal epithelium (lining) and the lining of the womb meet.
chancroid	A bacterial infection that is sexually transmitted. It attacks tissue in the genital area and produces an open sore that's sometimes referred to as a chancroid or ulcer. The ulcer may bleed or produce a fluid that can spread bacteria during oral, anal, or vaginal intercourse. Chancroid may also spread through skin-to-skin contact.
chemotherapy	The use of drugs to treat an illness, especially cancer.
chemsex	The use of recreational drugs such as mephedrone, GHB/GBL and crystal meth before or during sex.
chi-squared test	A statistical test used when comparing two proportions (e.g. percentages with viral load below 50 copies/ml).
Child-Pugh score	A classification system used to measure liver function, especially in people with chronic liver disease. The score includes 5 clinical measures of liver disease, including ascites, encephalopathy, serum bilirubin level, serum albumin level, and prothrombin time.

chlamydia

Chlamydia is a common sexually transmitted infection, caused by bacteria called *Chlamydia trachomatis*. Women can get chlamydia in the cervix, rectum, or throat. Men can get chlamydia in the urethra (inside the penis), rectum, or throat. Chlamydia is treated with antibiotics.

cholesterol

A waxy substance, mostly made by the body and used to produce steroid hormones. High levels can be associated with atherosclerosis. There are two main types of cholesterol: low-density lipoprotein (LDL) or 'bad' cholesterol (which may put people at risk for heart disease and other serious conditions), and high-density lipoprotein (HDL) or 'good' cholesterol (which helps get rid of LDL).

chromosome

A threadlike structure of nucleic acids and protein found in the nucleus of most living cells, carrying genetic information in the form of genes.

chronic infection

When somebody has had an infection for at least six months. See also 'acute infection'.

Related terms [acute infection](#)

chronic obstructive pulmonary disease (COPD)

Chronic obstructive pulmonary disease (COPD) is a chronic inflammatory lung disease that causes obstructed airflow from the lungs. Symptoms include difficulty breathing, cough, mucus (sputum) production and wheezing. It is caused by long-term exposure to irritating gases or particulate matter, most often from tobacco smoking (active or passive).

circumcision

See [voluntary male medical circumcision \(VMMC\)](#)

cirrhosis

Severe fibrosis, or scarring of organs. The structure of the organs is altered, and their function diminished. The term cirrhosis is often used in relation to the liver.

Related terms [fibrosis](#), [compensated cirrhosis](#), [decompensated cirrhosis](#)

cisgender (cis)

A person whose gender identity and expression matches the biological sex they were assigned when they were born. A cisgender person is not transgender.

clades	The term for the different sub-types of HIV.
clinical	A term referring to the nursing or medical care of patients.
clinical event	The occurrence of a physical sign or symptom, rather than an abnormality that can only be detected by laboratory tests.
clinical trial	A research study involving participants, usually to find out how well a new drug or treatment works in people and how safe it is.
clinician	A doctor, nurse or other healthcare professional who is active in looking after patients.
codon	A position within a gene.
cognitive impairment	<p>Loss of the ability to process, learn, and remember information. Potential causes include alcohol or drug abuse, depression, anxiety, vascular cognitive impairment, Alzheimer's disease and HIV-associated neurocognitive disorder (HAND).</p> <p>Related terms HIV-associated neurocognitive disorder (HAND)</p>
cohort study	<p>An observational study in which a group of people (called a cohort) is followed over a period of time and their medical history recorded. Cohort studies can help us understand the risk factors for having an infection or a condition. Prospective cohort studies (which track participants forward in time) are more reliable than retrospective cohort studies. However, it is difficult to eliminate bias from cohort studies.</p> <p>Related terms confounding</p>
coinfection	Having more than one infection at the same time. For example, when a person with HIV has hepatitis B or C. This can make disease worse and treatment more difficult.
colitis	Inflammation of the bowels.
colonoscopy	Examination of the large bowel using a video camera device.

colposcopy	Examination of the surface of the cervix under magnification to identify the location and extent of abnormal lesions.
combination therapy	A therapy composed of several drugs available either as separate tablets, or as fixed-dose combination (FDC).
community acquired	A community-acquired infection occurred outside of a hospital.
community setting	In the language of healthcare, something that happens in a “community setting” or in “the community” occurs outside of a hospital.
comorbidity	The presence of one or more additional health conditions at the same time as a primary condition (such as HIV).
compassionate use	The release of an experimental drug by its manufacturer to people who are unable to obtain it in a clinical trial.
compensated cirrhosis	The earlier stage of cirrhosis, during which the liver is damaged but still able to perform most of its functions. Related terms cirrhosis , decompensated cirrhosis
complementary therapy	Treatments and interventions that are used in addition to conventional medical treatments, such as antiretroviral therapy. Complementary therapies include acupuncture, massage, osteopathy relaxation techniques and herbal medicines. A distinction can be made between complementary therapies (used alongside conventional medicine) and alternative therapies (used instead of conventional medicine).
compliance	An alternative term for ‘adherence’. Related terms adherence

composite endpoint

An endpoint in a trial that includes several component parts; an individual is deemed to have met the criteria for the composite endpoint as soon as they meet the criteria for at least one of the components.

Related terms [endpoint](#)

concentration (of a drug)

The level of a drug in the blood or other body fluid or tissue.

condomless

Having sex without condoms, which used to be called 'unprotected' or 'unsafe' sex. However, it is now recognised that PrEP and U=U are effective HIV prevention tools, without condoms being required. Nonetheless, PrEP and U=U do not protect against other STIs.

Related terms [pre-exposure prophylaxis \(PrEP\)](#), [Undetectable = Untransmittable \(U=U\)](#)

confidence interval (CI)

A range of values that gives us an indication of how precise an estimate is - if the confidence interval is wide, the estimate is imprecise. The 'true' result could be as low or as high as the lower and upper values that are given. A 95% confidence interval (95% CI) suggests that there is a 95% probability that the true result is within the range given. Confidence intervals give similar information to p-values but are easier to interpret.

Related terms [p-value](#)

confirmatory test

A second test, to show that the result of a previous test was correct. Because the diagnosis of HIV infection is so important, a second (confirmatory) test, is done. The confirmatory test should be of a different type than the first test.

confounding Confounding exists if the true association between one factor (Factor A) and an outcome is obscured because there is a second factor (Factor B) which is associated with both Factor A and the outcome. Confounding is often a problem in observational studies when the characteristics of people in one group differ from the characteristics of people in another group. When confounding factors are known they can be measured and controlled for (see 'multivariable analysis'), but some confounding factors are likely to be unknown or unmeasured. This can lead to biased results. Confounding is not usually a problem in randomised controlled trials.

Related terms [multivariable analysis](#)

consent A patient's agreement to take a test or a treatment. In medical ethics, an adult who has mental capacity always has the right to refuse.

Related terms [capacity](#), [informed consent](#)

contagious An infection that can be spread easily, by casual contact.

continuous endpoint An endpoint in a trial that captures a measurement which can have any value in a range, e.g. CD4 count.

Related terms [endpoint](#)

continuum of care See [treatment cascade](#)

contraindication A specific situation or circumstance which means that a drug or medical procedure should not be used because it may be harmful. For example, it may be contraindicated to provide drug A to someone who is already taking drug B.

control group A group of participants in a trial who receive standard treatment, or no treatment at all, rather than the experimental treatment which is being tested. Also known as a control arm.

coronary artery disease (CAD) See [coronary heart disease \(CHD\)](#)

coronary heart disease (CHD) Occurs when the walls of the coronary arteries become narrowed by a gradual fatty build-up. It may lead to angina or heart attack.

- cost-effective** Cost-effectiveness analyses compare the financial cost of providing health interventions with their health benefit in order to assess whether interventions provide value for money. As well as the cost of providing medical care now, analyses may take into account savings on future health spending (because a person's health has improved) and the economic contribution a healthy person could make to society.
- creatine kinase** An enzyme (a protein that speeds up a chemical reaction) found mainly in the heart, brain, and skeletal muscle. Raised levels can indicate there has been muscle damage.
- creatine phosphate** Substance derived from creatine that helps stock energy in muscles.
- creatinine** Breakdown product of creatine phosphate in muscle, usually produced at a fairly constant rate by the body (depending on muscle mass). As a blood test, it is an important indicator of the health of the kidneys because it is an easily measured by-product of muscle metabolism that is excreted unchanged by the kidneys.
Related terms [creatine phosphate](#)
- criminalisation** In HIV, usually refers to legal jurisdictions which prosecute people living with HIV who have – or are believed to have – put others at risk of acquiring HIV (exposure to HIV). Other jurisdictions criminalise people who do not disclose their HIV status to sexual partners as well as actual cases of HIV transmission.
- cross resistance** The mechanism by which a virus that has developed resistance to one drug may also be resistant to other drugs from the same class.
Related terms [resistance](#)
- cross-sectional study** A 'snapshot' study in which information is collected on people at one point in time. See also 'longitudinal'.
Related terms [longitudinal study](#)
- crossover trial** A clinical trial where participants are switched from one arm to the other part way through.

cryptococcosis

A type of fungal infection usually affecting the membrane around the brain, causing meningitis. It can also affect the lungs and chest.

cryptosporidiosis

Infection with the gut parasite *Cryptosporidium parvum* and other species, causing severe diarrhoea.

culture

In a bacteria culture test, a sample of urine, blood, sputum or another substance is taken from the patient. The cells are put in a specific environment in a laboratory to encourage cell growth and to allow the specific type of bacteria to be identified. Culture can be used to identify the TB bacteria, but is a more complex, slow and expensive method than others.

cure

To eliminate a disease or a condition in an individual, or to fully restore health. A cure for HIV infection is one of the ultimate long-term goals of research today. It refers to a strategy or strategies that would eliminate HIV from a person's body, or permanently control the virus and render it unable to cause disease. A 'sterilising' cure would completely eliminate the virus. A 'functional' cure would suppress HIV viral load, keeping it below the level of detection without the use of ART. The virus would not be eliminated from the body but would be effectively controlled and prevented from causing any illness.

Related terms [remission](#), [reservoir](#), [shock and kill](#)

cystoisosporiasis

See [isosporiasis](#)

cytokines

Chemical "messengers" exchanged between immune cells that affect the function of the immune system. Interleukins such as IL-2 are a particular type of cytokine.

Cytomegalovirus (CMV)

A virus that can cause blindness in people with advanced HIV disease.

cytotoxic

Harmful to cells.

cytotoxic T-lymphocyte

A type of white blood cell which kills virus-infected cells.

D-dimer	D-dimer is one of the protein fragments produced when a blood clot gets dissolved in the body. In case of inflammation (for example, due to HIV) its level in the blood can significantly rise, as inflammation initiates clotting and decreases the activity of natural anticoagulant mechanisms.
data safety monitoring board (DSMB)	An independent committee of clinical research experts that reviews data not available to the study team while a clinical trial is in progress to ensure that participants are not exposed to undue risks. A DSMB can recommend that the study be stopped if the intervention is not effective, is causing harm to participants or the study is not likely to serve its scientific purpose. Also known as an Independent Data Monitoring Committee (IDMC).
decompensated cirrhosis	The later stage of cirrhosis, during which the liver cannot perform some vital functions and complications occur. Related terms cirrhosis , compensated cirrhosis
dementia	See cognitive impairment
Demographic and Health Survey	Nationally representative cross-sectional surveys collecting data on a wide range of health issues in low- and middle-income countries.
demonstration project	A project that tests and measures the effect of a treatment or prevention approach in a 'real world' setting. Usually done after clinical trials have shown that the intervention is efficacious, but while there are outstanding questions about how it can be best implemented.
deoxyribonucleic acid (DNA)	The material in the nucleus of a cell where genetic information is stored. Related terms proviral DNA
depression	A mental health problem causing long-lasting low mood that interferes with everyday life.
dermatitis	Inflammation of the skin.

detectable viral load	<p>When viral load is detectable, this indicates that HIV is replicating in the body. If the person is taking HIV treatment but their viral load is detectable, the treatment is not working properly. There may still be a risk of HIV transmission to sexual partners.</p> <p>Related terms undetectable viral load</p>
diabetes	<p>A group of diseases characterized by high levels of blood sugar (glucose). Type 1 diabetes occurs when the body fails to produce insulin, which is a hormone that regulates blood sugar. Type 2 diabetes occurs when the body either does not produce enough insulin or does not use insulin normally (insulin resistance). Common symptoms of diabetes include frequent urination, unusual thirst and extreme hunger. Some antiretroviral drugs may increase the risk of type 2 diabetes.</p>
diagnosis	<p>The determination that a patient has a particular disease or condition, through evaluation of their medical history, clinical symptoms and/or laboratory test results.</p>
dialysis	<p>Dialysis is a type of treatment that is used when the kidneys are not working properly. The dialysis machine acts as an artificial kidney, filtering excess fluid and waste products from the blood.</p>
diarrhoea	<p>Abnormal bowel movements, characterised by loose, watery or frequent stools, three or more times a day.</p>
diastolic blood pressure	<p>The lowest level of blood pressure – when the heart relaxes between beats. It is the second of the two numbers in a blood pressure reading (above 140/90 mmHg is high blood pressure).</p> <p>Related terms systolic blood pressure, high blood pressure</p>
direct-acting antiviral (DAA)	<p>Modern drugs for the treatment of hepatitis C, which work directly against the hepatitis C virus. They stop the virus from reproducing by blocking certain steps in its lifecycle.</p>
directly observed therapy (DOT)	<p>When a health care professional watches as a person takes each dose of a medication, to verify that all doses are taken as prescribed.</p>

disability-adjusted life year (DALY)	<p>A method for measuring disease burden, often used in cost-effectiveness analyses, expressed as the number of years lost due to ill-health, disability or early death. A DALY represents one year of healthy life, and is usually expressed as DALYs lost compared with a life with maximum achievable life-expectancy and no disability or disease.</p> <p>Related terms quality adjusted life year (QALY), cost-effective</p>
disclosure	<p>In HIV, refers to the act of telling another person that you have HIV. Many people find this term stigmatising as it suggests information which is normally kept secret. The terms 'telling' or 'sharing' are more neutral.</p>
discordant	<p>See serodiscordant</p>
disease progression	<p>The worsening of a disease.</p>
dose	<p>Measured amount of a drug to be taken at one time.</p>
dose-ranging trial	<p>A clinical trial where two or more doses of a drug are compared to see which works best and is least harmful, usually done at an early stage of drug development.</p>
double-blind	<p>A clinical trial where neither the researchers nor participants know which assigned treatment an individual participant in the trial is taking until after the end of the trial. This reduces the risk of biased results.</p> <p>Related terms single-blind, blinding</p>
douching	<p>Using water, soapsuds or another liquid to cleanse the vagina or rectum before sex.</p>
drug interaction	<p>A risky combination of drugs, when drug A interferes with the functioning of drug B. Blood levels of the drug may be lowered or raised, potentially interfering with effectiveness or making side-effects worse. Also known as a drug-drug interaction.</p>
drug resistance	<p>See resistance</p>

drug-sparing regimen

A drug combination that omits the use of a particular class of antiretrovirals so they can be saved for use in later treatment or to avoid side-effects associated with a specific class.

dual energy x-ray absorptiometry scan (DXA or DEXA)

A test that uses low-dose x-rays to measure bone mineral density, including calcium content, in a section of bone. They are used to detect osteoporosis and predict the risk of bone fracture.

Related terms [bone mineral density \(BMD\)](#)

dyslipidemia

Abnormal levels of lipids (fats), including cholesterol and triglycerides, in the blood.

Related terms [lipid](#)

dysplasia

Cells that look abnormal under a microscope but are not cancer.

early intervention

Starting HIV treatment relatively early in the course of disease.

effectiveness

How well something works (in real life conditions). See also 'efficacy'.

Related terms [efficacy](#)

efficacy

How well something works (in a research study). See also 'effectiveness'.

Related terms [effectiveness](#)

elite controllers

A small subset of people living with HIV who are able to control HIV replication in the absence of antiretroviral treatment for an unusually long period of time. Definitions vary, but an elite controller is usually defined as a person whose viral load has remained below 50 copies. However, because HIV continues to replicate even in elite controllers, ART is recommended for elite controllers who have declining CD4 counts or who develop HIV-related complications. Elite controllers and viraemic controllers are members of a larger group known as HIV controllers. Around half of HIV controllers can also be described as long-term non-progressors.

Related terms [long-term non-progressor](#), [HIV controllers](#), [viraemic controllers](#)

encephalopathy

A disease or infection affecting the brain. HIV-encephalopathy (also called AIDS dementia complex) is the result of damage to the brain by advanced HIV disease.

end-stage disease	Final period or phase in the course of a disease leading to a person's death.
endogenous	Coming from within the body. Related terms exogenous
endoscopy	Viewing the inside of the body cavity with a flexible instrument using fibre optics.
endpoint	In a clinical trial, a clearly defined outcome which is used to evaluate whether a treatment is working or not. Trials usually have a single primary endpoint (e.g. having an undetectable viral load) as well as a few secondary endpoints, covering other aspects of treatment safety, tolerability and efficacy.
enteric	Associated with the gut.
entry inhibitors	A group of antiretroviral medications that block HIV from entering a host CD4 cell. Includes both CCR5 inhibitors and fusion inhibitors. Related terms CCR5 , fusion inhibitor
env	One of the three proteins encoded within the retroviral genome.
envelope	The outer surface of a virus, also called the coat. Not all viruses have an envelope. In the case of HIV, the envelope contains two viral proteins (gp120 and gp41), which are initially produced as a single, larger protein (gp160) that is then cleaved in two. Related terms host cell
enzyme	A protein which speeds up a chemical reaction.
enzyme-linked immunosorbent assay (ELISA)	A diagnostic test in which a signal produced by an enzymatic reaction is used to detect and quantify the amount of a specific substance in a solution. Can be used to detect antibodies to HIV, p24 antigen or other substances. Related terms antibody , p24

epidemiology	The study of the causes of a disease, its distribution within a population, and measures for control and prevention. Epidemiology focuses on groups rather than individuals.
epidermis	The outer layers of the skin.
epilepsy	A condition where someone tends to have recurrent seizures (fits).
epitope	The part of an antigen which the immune system recognises. Related terms antigen
Epstein-Barr virus	A type of herpes virus that is the causative agent of glandular fever (mononucleosis). It is also involved in cases of Hodgkin disease, non-Hodgkin lymphoma and oral hairy leukoplakia.
equivalence trial	A clinical trial which aims to demonstrate that a new treatment is no better or worse than an existing treatment. While the two drugs may have similar results in terms of virological response, the new drug may have fewer side-effects, be cheaper or have other advantages. Related terms non-inferiority trial , superiority trial
eradication	The total elimination of a pathogen, such as a virus, from the body. Eradication can also refer to the complete elimination of a disease from the world.
erectile dysfunction (ED)	A man's inability to have or maintain an erection, also known as ED or impotence.
erythema	A red skin eruption or rash.
erythropoietin	A natural hormone made in the kidneys to stimulate the production of red blood cells by the bone marrow.
ethics committee	A panel of people which reviews any proposed clinical trial to ensure that the participants are protected from any foreseeable exploitation or harm. In the US, known as the Institutional Review Board.

European Medicines Agency (EMA)	Regulatory agency that evaluates medicines for safety and efficacy in Europe, performing a similar role to the Food and Drug Administration (FDA) in the United States. The EMA recommends to the European Commission that a medicine can be marketed in the European Union and European Economic Area.
event based	In relation to pre-exposure prophylaxis (PrEP), this dosing schedule involves taking PrEP just before and after having sex. It is an alternative to daily dosing that is only recommended for people having anal sex, not vaginal sex. A double dose of PrEP should be taken 2-24 hours before anticipated sex, and then, if sex happens, additional pills 24 hours and 48 hours after the double dose. In the event of sex on several days in a row, one pill should be taken each day until 48 hours after the last sexual intercourse.
event driven	See event based
exclusion criteria	Defines who cannot take part in a research study. Eligibility criteria may include disease type and stage, other medical conditions, previous treatment history, age, and gender. For example, many trials exclude women who are pregnant, to avoid any possible danger to a baby, or people who are taking a drug that might interact with the treatment being studied.
exclusive breastfeeding	Feeding an infant only breast milk, with no other liquids or solids, for the first six months of life.
exogenous	Coming from outside the body.
expanded access scheme	A programme that allows access to an experimental drug outside clinical trials for people in particular need.
experimental arm	In a clinical trial, the group of participants that is given the experimental intervention being studied. Outcomes in the experimental arm are compared with those in the control arm to determine any differences, for example, in safety and effectiveness. Related terms control group

experimental study

A study design in which researchers provide treatment in a pre-planned, experimental way and record the outcome. Clinical trials, such as randomised controlled trials, are experimental studies.

extensively drug-resistant TB (XDR-TB)

A form of drug-resistant tuberculosis in which bacteria are resistant to isoniazid and rifampicin, the two most powerful anti-TB drugs, plus any fluoroquinolone and at least one injectable second-line drug.

Related terms [multidrug-resistant tuberculosis \(MDR-TB\)](#)

extra-pulmonary TB

Tuberculosis involving organs other than the lungs, such as pleura, lymph nodes, abdomen, genitourinary tract, skin, joints and bones or meninges.

Related terms [tuberculosis \(TB\)](#)

false negative

When a person has a medical condition but is diagnosed as not having it.

Related terms [window period](#)

false positive

When a person does not have a medical condition but is diagnosed as having it.

fatigue

Tiredness, often severe (exhaustion).

fatty liver disease

See [non-alcoholic fatty liver disease \(NAFLD\)](#)

fibrosis

Thickening and scarring of connective tissue. Often refers to fibrosis of the liver, which can be caused by an inflammatory reaction to long-term hepatitis infection. See also 'cirrhosis', which is more severe scarring.

Related terms [cirrhosis](#)

Fiebig stages

A classification system used to describe the stages of early HIV infection, based on the timing and results of diagnostic tests. During the eclipse phase, no markers of HIV can be identified. This is followed by Fiebig stage I (HIV RNA can be detected in a viral load test), stage II (p24 antigen can also be detected) and stage III (HIV antibodies detectable for the first time). Stages IV, V and VI correspond with the evolution of results on the Western Blot test. The eclipse phase may last around ten days; Fiebig stage III is reached in most individuals within one month; and it may take around three months to reach stage VI.

Related terms [window period](#), [p24](#)

first-line therapy

The regimen used when starting treatment for the first time.

fixed-dose combination (FDC)

Two or more drugs contained in a single dosage form, such as a capsule or tablet. By reducing the number of pills a person must take each day, fixed-dose combination drugs may help improve adherence.

flatulence

Passing gas from the digestive system out of the anus, or back passage (also called 'passing wind' or 'farting').

focus group

A group of individuals selected and assembled by researchers to discuss and comment on a topic, based on their personal experience. A researcher asks questions and facilitates interaction between the participants.

foetus

An unborn baby.

folliculitis

Infection of the follicles, small sacs or glands in the skin such as those found at the base of hairs.

follow-up

The period of time that a person takes part in a study or is followed in care (medical check-ups, visits, etc.)

Food and Drug Administration (FDA)

Regulatory agency that evaluates and approves medicines and medical devices for safety and efficacy in the United States. The FDA regulates over-the-counter and prescription drugs, including generic drugs. The European Medicines Agency performs a similar role in the European Union.

Forced expiratory volume (FEV1)

A test used to diagnose or monitor lung disease, measuring how much air a person can force out of their lungs in one second.

Forced vital capacity (FVC)

A test used to diagnose or monitor lung disease, measuring the maximum amount of air that can be exhaled when blowing out as fast as possible.

formulation

The physical form in which a drug is manufactured or administered. Examples of formulations include tablets, capsules, powders, and oral and injectable solutions. A drug may be available in multiple formulations.

frailty

Describes a general decline in physical health and a loss of reserves, most often seen in older people. Frailty leads to a person being less robust and less able to bounce back after an adverse event. A person with frailty may move more slowly, have lost some of their physical strength, have less energy and be less mentally agile.

functional cure

Also known as remission, a 'functional' cure would not eradicate all HIV, but would enable the body to stop HIV proliferating and causing illness, without the need for any further treatment. It is a goal of research.

Related terms [cure](#), [sterilising cure](#)

fungi

A group of organisms, including the yeasts which cause candidiasis and cryptococcosis.

fusion inhibitor

Anti-HIV drug targeting the point where HIV locks on to an immune cell.

gag

One of the three proteins encoded within the retroviral genome.

gait speed The time it takes to walk a specified distance.

gall bladder The organ connected to the liver which stores bile. It releases bile in the small intestine to help with digestion, especially of fats.

gastrointestinal (GI) symptoms Relating to or affecting the gut, stomach or bowel. GI symptoms include diarrhoea, abdominal pain (cramps), constipation, gas in the gastrointestinal tract, nausea, vomiting and GI bleeding. Among several possible causes of GI symptoms are infections and antiretroviral medicines.

gastroscopy Examination of the stomach using a fibre optic device (gastroscope).

gene A unit of heredity, that determines a specific feature of the shape of a living organism. This genetic element is a sequence of DNA (or RNA, for viruses), located in a very specific place (locus) of a chromosome.

gene editing Gene editing refers to a set of techniques employed to make changes to specific parts of a genome. One way gene editing might be used in humans is gene therapy: for example, editing a person's immune cells may help them better fight cancer.

gene therapy A type of experimental treatment in which foreign genetic material (DNA or RNA) is inserted into a person's cells to prevent or fight disease.

generic In relation to medicines, a drug manufactured and sold without a brand name, in situations where the original manufacturer's patent has expired or is not enforced. Generic drugs contain the same active ingredients as branded drugs, and have comparable strength, safety, efficacy and quality.

genes Genes are instruction manuals for our bodies. They determine characteristics like our eye and hair colour. Every human has a set of around 20,000 genes. We get one copy of each gene from each of our parents. Genes can also play a part in our health and may affect our risk of developing some health condition.

genetics The science of inheritance: the study of how genes are passed down throughout generations, as well as the study of individual genes and how they affect the body.

genital ulcer disease Any of several diseases that are characterised by genital sores, blisters or lesions. Genital ulcer diseases (including genital herpes, syphilis and chancroid) are usually sexually transmitted.

genome The complete set of genes or genetic material (information) present in a cell or organism.

genotype The genotype of an organism (such as HIV) is the set of genes that it carries and define this organism. When treating hepatitis C, identifying which genotype the patient has may be important as some medications are only effective against certain genotypes. In contrast, the phenotype of an organism is all of its observable characteristics, defined by the genotype and the environment.

genotypic resistance testing In HIV, genotypic resistance tests are assays that identify mutations of the virus that can confer antiretroviral drug resistance. Resistance testing can be used to guide selection of an HIV regimen when initiating or changing antiretroviral therapy (ART).

Related terms [phenotypic resistance testing](#), [genotype](#)

giardiasis An illness caused by the gut parasite *Giardia lamblia*. Giardiasis is contagious and can be found in contaminated food and water.

globulins Proteins found in the blood and cerebrospinal fluid. They carry enzymes, antibodies (immunoglobulins) and other proteins.

glucose A simple form of sugar found in the bloodstream. All sugars and starches are converted into glucose before they are absorbed. Cells use glucose as a source of energy. People with a constant high glucose level might have a disease called diabetes.

glutathione A natural chemical used by the body to work against oxidative stress.

glycogen	Glucose stored in cells, predominantly found in the liver, to be released when the body needs energy.
glycoprotein	A protein molecule with one or more branches of sugar molecules attached to it. Many cellular and viral proteins are glycoproteins, including the outer coat proteins of HIV. A number after the gp (e.g., gp160, gp120, gp41) is the molecular weight of the glycoprotein.
gp120	A glycoprotein on the HIV envelope. gp120 binds to a CD4 receptor on a host cell, such as a CD4 T lymphocyte (CD4 cell). This starts the process by which HIV fuses its viral membrane with the host cell membrane and enters the host cell. Related terms glycoprotein
gp160	A glycoprotein on the HIV envelope. gp160 is a precursor glycoprotein that is processed into gp120 and gp41. Related terms glycoprotein
gp41	A glycoprotein on the HIV envelope. HIV enters a host cell by using gp41 to fuse the HIV envelope with the host cell membrane. Related terms glycoprotein
granulocytes	See neutrophils
granulocytopenia	A shortage of granulocytes.
grip strength	Muscular strength in the hand and forearm, assessed by gripping a measuring instrument in the hand.
gut-associated lymphoid tissue (GALT)	Immune cells lining the gut that are a critical component of the immune response to pathogens (microbes). The GALT is usually severely depleted very early in the course of HIV infection, a depletion that is believed to be mostly irreversible.
gynaecology	Study of medical conditions specific to women's reproductive organs.
haematocrit	Proportion of red cells in the blood.

haematology	Study of blood conditions. Also commonly used to describe a range of biochemical tests carried out on the blood.
haemoglobin (HB)	Red-coloured, oxygen-carrying chemical in red blood cells.
haemophilia	Inherited illness in which the blood does not always clot, often requiring injections of blood clotting agents.
half-life	The amount of time it takes for a concentration in blood to be reduced by 50%. After one half-life, the concentration of a drug in the body amounts to half the starting dose of any drug to be eliminated from the body.
harm reduction	Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use (including safer use, managed use and abstinence). It is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.
hazard	Expresses the risk that, during one very short moment in time, a person will experience an event, given that they have not already done so.
hazard ratio	Comparing one group with another, expresses differences in the risk of something happening. A hazard ratio above 1 means the risk is higher in the group of interest; a hazard ratio below 1 means the risk is lower. Similar to 'relative risk'. Related terms relative risk
heartburn	A burning chest pain or discomfort that occurs after eating, when stomach acid backs up into the oesophagus.
helper cell	An alternative name for a CD4 T cell or T helper cell.
hepatic	To do with the liver.

hepatitis

Inflammation of the liver, which can be caused by hepatitis viruses (A, B, C etc), alcohol or some drugs. If not treated, hepatitis can lead to hepatic fibrosis and/or cirrhosis.

hepatitis A virus (HAV)

The hepatitis A virus is transmitted through contaminated food and water, as well as human faeces. It can be passed on during sex, particularly rimming (oral-anal contact). Symptoms usually last less than two months, although they continue in some people for up to six months. Drug treatment is not needed. A vaccine is available to prevent hepatitis A.

hepatitis B virus (HBV)

The hepatitis B virus can be spread through sexual contact, sharing of contaminated needles and syringes, needlestick injuries and during childbirth. Hepatitis B infection may be either short-lived and rapidly cleared in less than six months by the immune system (acute infection) or lifelong (chronic). The infection can lead to serious illnesses such as cirrhosis and liver cancer. A vaccine is available to prevent the infection.

hepatitis C virus (HCV)

The hepatitis C virus can be spread through sharing contaminated needles, syringes and other equipment to inject drugs, sharing straws to snort drugs, needlestick injuries, and during childbirth. Sexual transmission does occur, primarily between gay men. Hepatitis C can range from a mild illness lasting a few weeks to a serious, lifelong illness. Untreated chronic hepatitis C can cause serious liver damage, cirrhosis, liver cancer, and even death. While there is no vaccine, treatments are available to clear the virus from the body, leading to its cure.

hepatitis D virus (HDV)

The hepatitis D (or Delta) virus only affects people who are already infected with hepatitis B, as it needs the hepatitis B virus to be able to survive in the body. Coinfection with HBV and HDV results in more severe complications than with HBV alone. The HBV vaccine protects against HDV because of the latter's dependence on the former.

hepatitis E virus (HEV)	The hepatitis E virus is primarily transmitted through contaminated food and water, as well as human faeces. It may be passed on through rimming (oral-anal contact). The virus can be found in some animals and can sometimes be passed from the animal to humans (for example by eating undercooked meat). Chronic infection (over six months) with HEV is very rare.
hepatotoxicity	Side-effects of drugs of medicines affecting the liver.
herpes simplex virus (HSV)	A viral infection which may cause sores around the mouth or genitals.
herpes viruses	Family of viruses which can cause disease in advanced HIV infection, e.g. cytomegalovirus, varicella-zoster, herpes simplex and Epstein-Barr virus.
heterogeneous or heterogeneity	Diverse in character or content. For example, the 'heterogeneity' of clinical trials means that they, and their results, are so diverse that comparisons or firm conclusions are difficult.
high blood pressure	See hypertension
Highly Active Antiretroviral Therapy (HAART)	A term used to describe HIV combination therapy with three or more drugs.
histology	Examining a sample of cells under a microscope to determine if they are normal or if there is evidence of infections or tumours.
historical control	A comparison group of people not taking an experimental drug, taken from previous clinical trials (when old data is compared to new data).
HIV	Human immunodeficiency virus, the virus which causes AIDS. There are two variants: HIV-1, and HIV-2. HIV-1 is by far the most common worldwide. See 'subtype' for more information.

HIV controllers

A small subset of people living with HIV who are able to control HIV replication in the absence of antiretroviral treatment for an unusually long period of time. However, because HIV continues to replicate in HIV controllers, ART is recommended for controllers who have declining CD4 counts or who develop HIV-related complications. HIV controllers include sub-groups known as elite controllers and viraemic controllers. Around half of HIV controllers can also be described as long-term non-progressors.

Related terms [elite controllers](#), [viraemic controllers](#), [long-term non-progressor](#)

HIV-associated neurocognitive disorder (HAND)

HIV-associated neurocognitive disorder (HAND) describes the spectrum of neurocognitive dysfunction associated with HIV infection. HIV can enter the central nervous system (CNS) during early stages of infection, and persistent CNS HIV infection and inflammation probably contribute to the development of HAND. Cognitive impairment in people with HIV is not necessarily due to HAND; other possible causes include alcohol or drug abuse, depression, anxiety, vascular cognitive impairment and Alzheimer's disease.

Related terms [cognitive impairment](#)

Hodgkin disease

A type of lymphoma. Lymphoma is a cancer of a part of the immune system called the lymph system. The first sign of Hodgkin disease is often an enlarged lymph node. The disease can spread to nearby lymph nodes, the lungs, liver, or bone marrow. The exact cause is unknown. See also non-Hodgkin lymphoma.

Related terms [non-Hodgkin lymphoma](#)

home testing

The term may be used to describe either self-testing or self-sampling.

Related terms [self-testing](#), [self-sampling](#)

homeopathy

A therapy which aims to treat illness using tiny quantities of the substance that caused the illness, or of a substance that causes similar symptoms.

hormone

A chemical messenger which stimulates or suppresses cell and tissue activity. Hormones control most bodily functions, from simple basic needs like hunger to complex systems like reproduction, and even the emotions and mood.

host cell A host cell is a living cell invaded by, or capable of being invaded by, an infectious agent (such as a bacterium or a virus).

human papilloma virus (HPV) Some strains of this virus cause warts, including genital and anal warts. Other strains are responsible for cervical cancer, anal cancer and some cancers of the penis, vagina, vulva, urethra, tongue and tonsils.

hyper Prefix meaning higher than usual.

hyperglycaemia An excess of glucose (sugar) in the bloodstream. It may occur in a variety of diseases, including diabetes, due to insufficient insulin in the blood and excessive intake of carbohydrates.

hyperlipidaemia High levels of lipids (fat) in the blood, such as cholesterol and triglycerides, which raises the risk of cardiovascular disease.
Related terms [lipid](#)

hypersensitivity An allergic reaction.

hypertension When blood pressure (the force of blood pushing against the arteries) is consistently too high. Raises the risk of heart disease, stroke, kidney failure, cognitive impairment, sight problems and erectile dysfunction.

hypertriglyceridaemia High levels of triglycerides in the blood.
Related terms [triglycerides](#)

hypo Prefix meaning lower than usual.

hypothesis A tentative explanation for an observation, phenomenon, or scientific problem. The purpose of a research study is to test whether the hypothesis is true or not.

hypothesis test Any statistical test that aims to assess whether the differences observed are likely to have occurred by chance.

hypoxaemia	Reduced amounts of oxygen in the blood, usually caused by pneumonia.
IC50	The concentration of a drug needed to inhibit viral replication by 50%. IC stands for 'inhibitory concentration'.
IC90	The concentration of a drug needed to inhibit viral replication by 90%. IC stands for 'inhibitory concentration'.
idiopathic	Disorder whose cause is unknown or that arises spontaneously.
IDU	Injecting drug user.
immediate release	Medication where the active ingredient is released quite quickly, usually in less than 30 minutes.
immune modulator	A substance that changes an aspect of the way the immune system is working.
immune reconstitution	Improvement of the function of the immune system as a consequence of anti-HIV therapy.
immune reconstitution inflammatory syndrome (IRIS)	A collection of inflammatory disorders associated with paradoxical worsening (due to the 'waking' and improvement of the immune system) of pre-existing infectious processes following the initiation of antiretroviral therapy.
immune response	The immune response is how your body recognises and defends itself against bacteria, viruses and substances that appear foreign and harmful, and even dysfunctional cells.
immune system	The body's mechanisms for fighting infections and eradicating dysfunctional cells.

immunisation	Immunisation is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease.
	Related terms vaccine
immunocompromised	Having a weakened immune system, therefore, a reduced ability to fight infections and other diseases.
immunogenic	A substance that is able to produce a response from the immune system.
immunoglobulin	Another name for antibodies. An antibody is a protein substance produced by the immune system in response to a foreign organism (such as bacteria, virus or parasite).
immunologic response	The effect of treatment on the immune system, particularly on the CD4 cell count.
immunosuppressant	Drug that reduces or prevents immune system activity. Some drugs used for cancer chemotherapy are immunosuppressant.
immunosuppression	A reduction in the ability of the immune system to fight infections or tumours.
immunotherapy	Use of immunologic agents such as antibodies, growth factors, and vaccines to modify (activate, enhance, or suppress) the immune system in order to treat disease. It is applied in the cancer field and in HIV research (attempts to eliminate the virus). Immunotherapy is also used to diminish adverse effects caused by some cancer treatments or to prevent rejection of a transplanted organ or tissue.
implant	Something (such as a graft or device) implanted in a body tissue. In a context of prevention (such as contraception), the word refers to a device that will deliver an active agent slowly, over several months or years. This technique might be used one day to deliver antiretrovirals in the body for HIV prevention (PrEP) or treatment.

in utero Latin term meaning in the womb.

in vitro Latin term for experiments conducted in artificial environments, e.g. in test-tubes.

in vivo Latin term for experiments conducted in humans or animals.

incidence The proportion of people who acquire an infection or develop a condition during a specified period of time. Incidence reflects newly acquired infections and conditions. See also 'prevalence'.

Related terms [prevalence](#)

inclusion criteria The conditions which a person must meet to join a research study.

Independent Data Monitoring Committee (IDMC) See [data safety monitoring board \(DSMB\)](#)

indeterminate test result 'Indeterminate' means that the test didn't provide a clear negative or positive result. Someone with an indeterminate HIV test result could be in the early stages of HIV infection, a time during which an HIV test might show a result somewhere between negative and positive. Or the person may not have HIV, with the indeterminate result caused by a different viral infection, or just non-specific antibodies in the blood.

indigestion Pain or discomfort in the chest or stomach caused by eating or drinking.

infection control See [infection prevention and control](#)

infection prevention and control Infection prevention and control (IPC) aims to prevent or stop the spread of infections in healthcare settings. Standard precautions include hand hygiene, using personal protective equipment, safe handling and disposal of sharp objects (relevant for HIV and other blood-borne viruses), safe handling and disposal of waste, and spillage management.

inflammation	The general term for the body's response to injury, including injury by an infection. The acute phase (with fever, swollen glands, sore throat, headaches, etc.) is a sign that the immune system has been triggered by a signal announcing the infection. But chronic (or persisting) inflammation, even at low grade, is problematic, as it is associated in the long term to many conditions such as heart disease or cancer. The best treatment of HIV-inflammation is antiretroviral therapy.
informed consent	A patient's agreement to continue with a clinical trial, a treatment or a diagnostic test after having received a full written or verbal explanation of the risks, benefits and the possible alternatives. Related terms consent
insertive	Insertive anal intercourse refers to the act of penetration during anal intercourse. The insertive partner is the 'top'. Related terms receptive
insomnia	Sleeplessness.
Institutional Review Board (IRB)	The US term for ethics committee, a panel of people which reviews any proposed clinical trial to ensure that the participants are protected from any foreseeable exploitation or harm.
insulin	A hormone produced by the pancreas that helps regulate the amount of sugar (glucose) in the blood. Related terms diabetes
integrase inhibitors (INI, INSTI)	A class of antiretroviral drugs. Integrase strand transfer inhibitors (INSTIs) block integrase, which is an HIV enzyme that the virus uses to insert its genetic material into a cell that it has infected. Blocking integrase prevents HIV from replicating.
intent to treat analysis	All participants in a clinical trial are included in the final analysis, in the groups they were originally assigned to, whether or not they actually completed their course of treatment. This method provides a better estimate of the real-world effect of a treatment than an 'on treatment' analysis. Related terms on treatment analysis

inter-quartile range	See range
interferon alfa	<p>A natural protein produced by the human body in response to infection. Manufactured interferon alfa is a treatment against hepatitis B, hepatitis C, genital warts and some cancers. See also ‘pegylated interferon’ – this is the form of the most commonly used drug.</p> <p>Related terms pegylated interferon</p>
Interleukin	<p>A type of cytokine.</p> <p>Related terms cytokines</p>
intramuscular	Injected into a muscle.
intrapartum	During the birth of a baby; the time between labour and delivery.
intravenous	Injected into a vein.
intravitreal	Injected into the eye.
invasive	In medical terms, going inside the body.
investigational	<p>In medicine, a drug that is approved by the regulatory authorities (Food and Drug Administration, European Medicines Agency) for testing in clinical trials, but not yet approved for commercial marketing and sale. Also called experimental drug, investigational agent, and investigational new drug (IND).</p>
investigator	Scientific researcher.
isoniazid	<p>An antibiotic that works by stopping the growth of bacteria. It is used with other medications to treat active tuberculosis (TB) infections, and on its own to prevent active TB in people who may be infected with the bacteria without showing any symptoms (latent TB).</p> <p>Related terms latent TB, active TB</p>

isosporiasis

Also known as cystoisosporiasis, an illness caused by the intestinal parasite *Isospora belli* (or *cystoisospora belli*).

jaundice

A yellowing of the skin and whites of the eyes associated with liver or gall bladder problems.

Kaposi's sarcoma (KS)

Lesions on the skin and/or internal organs caused by abnormal growth of blood vessels. In people living with HIV, Kaposi's sarcoma is an AIDS-defining cancer.

Karnofsky score

A number between 0 and 100 which is assigned by a doctor to describe a patient's ability to function, as measured by the performance of common tasks.

key populations

Groups of people who are disproportionately affected by HIV or who are particularly vulnerable to HIV infection. Depending on the context, may include men who have sex with men, transgender people, sex workers, people who inject drugs, adolescent girls, prisoners and migrants.

kick and kill

See **shock and kill**

kidney

The body's two kidneys keep fluids balanced by filtering the blood. Waste products are then excreted as urine.

kidney stone

Stone-like lumps that develop in the kidneys. Made up of crystals which form as the kidneys clear waste products from the blood.

Related terms **lithiasis**

killer T cells

See **T killer cell**

lactate

Another name for lactic acid.

lactic acidosis

High blood levels of lactic acid, a substance involved in metabolism. Lactic acidosis is a rare side-effect of nucleoside analogues.

latency reversing agents

Small pharmacological molecules that could help uncover where HIV is hiding in the cells of HIV-positive persons whose viral load had been suppressed below the level of detection (or reverse HIV latency). Researchers are investigating these molecules hoping they may be part of a combination approach to eradicating HIV ('kick HIV out' of latently infected cells to suppress it with ARVs).

Related terms [reservoir](#), [shock and kill](#)

latent reservoir

See [reservoir](#)

latent TB

A form of TB that is not active. Persons with latent TB are infected with *M. tuberculosis* but do not have any symptoms and they cannot spread TB infection to others. Only specific tests will tell if anyone has latent TB. Treatment for latent TB is recommended in people living with HIV.

Related terms [active TB](#), [tuberculosis \(TB\)](#), [mycobacteria](#)

lesions

Small scrapes, sores or tears in tissue. Lesions in the vagina or rectum can be cellular entry points for HIV.

leukocytes

Any of the various white blood cells that together make up the immune system. Neutrophils, lymphocytes, and monocytes are all leukocytes.

leukopenia

Fewer than normal white cells in the blood, usually due to bone marrow damage.

leukoplakia

A thickened white patch on a mucous membrane, such as the mouth, that cannot be rubbed off. Hairy leukoplakia appears as white patches on the sides of the tongue and is caused by Epstein-Barr virus in people with low CD4 counts.

libido

Another word for sexual drive.

life cycle In HIV, refers to the series of steps that the virus follows to multiply in the body. The process begins when HIV encounters a CD4 cell. The seven steps in the HIV life cycle are: 1) binding; 2) fusion; 3) reverse transcription; 4) integration; 5) replication; 6) assembly; and 7) budding.

linkage to care Refers to an individual's entry into specialist HIV care after being diagnosed with HIV.

Related terms [retention in care](#)

lipid Fat or fat-like substances found in the blood and body tissues. Lipids serve as building blocks for cells and as a source of energy for the body. Cholesterol and triglycerides are types of lipids.

lipoatrophy Loss of body fat from specific areas of the body, especially from the face, arms, legs, and buttocks.

lipodystrophy A disruption to the way the body produces, uses and distributes fat. Different forms of lipodystrophy include lipoatrophy (loss of subcutaneous fat from an area) and lipohypertrophy (accumulation of fat in an area), which may occur in the same person.

lipohypertrophy Abnormal accumulation of fat.

lipoprotein Any member of a group of substances containing both lipid (fat) and protein. Lipoproteins are found in both blood plasma and cell membranes. They are the mode of transport for cholesterol through the bloodstream and lymphatic fluid.

Related terms [cholesterol](#)

lithiasis The formation of stony concretions (calculi) in the body, most often in the gall bladder or urinary system.

Related terms [kidney stone](#)

- live vector vaccine** A vaccine made by using a virus or bacteria that cannot cause disease to transport genes from HIV (or some other pathogen) into the body. Once inside cells, the genes produce proteins, which in turn induce immune responses. This type of vaccine often generates cellular immunity. Examples include vaccines based on adenovirus vectors or the bacteria *Salmonella*.
- live-attenuated virus** A weakened live virus used in vaccines to provoke an immune response.
- liver** An essential organ involved in digestion of food and excretion of waste products from the body.
- liver function test (LFT)** A test that measures the blood serum level of any of several enzymes (eg, AST and ALT) produced by the liver. An elevated liver function test result is a sign of possible liver damage.
- localised** Affecting a specific body site, organ or system.
- log** Short for logarithm, a scale of measurement often used when describing viral load. A one log change is a ten-fold change, such as from 100 to 10. A two-log change is a one hundred-fold change, such as from 1,000 to 10.
- long-acting** In pharmacology, a medication which maintains its effects over a long period of time, such as an injection or implant.
- long-term non-progressor** An HIV-infected person who remains free of AIDS symptoms (such as immune system decline or opportunistic diseases) for an unusually long period of time in the absence of treatment. These individuals typically have strong CD8+ T-cell responses, minimal lymph node damage and a relatively low viral load. About 10% of HIV-positive people seem to be long-term non-progressors. Most, but not all, are elite (or HIV) controllers.
Related terms [elite controllers](#)

longitudinal study	A study in which information is collected on people over several weeks, months or years. People may be followed forward in time (a prospective study), or information may be collected on past events (a retrospective study).
loss to follow up	In a research study, participants who drop out before the end of the study. In routine clinical care, patients who do not attend medical appointments and who cannot be contacted.
low income countries	The World Bank classifies countries according to their income: low, lower-middle, upper-middle and high. While the majority of the approximately 30 countries that are ranked as low income are in sub-Saharan Africa, many African countries including Kenya, Nigeria, South Africa and Zambia are in the middle-income brackets.
lumbar puncture	A small hole made in the spinal column to take out spinal fluid for tests or to inject drugs. Also called a spinal tap. It involves the insertion of a needle through the tissue between the vertebrae to access the spinal canal.
lymph nodes	Bean-sized structures throughout the body's lymphatic system, where immune cells congregate to fight infections. Clusters of lymph nodes are found in the underarms, the groin, and the neck.
lymphadenopathy	A swelling of the lymph nodes.
lymphatic system	The lymphatic system is made up of lymphoid tissues (lymph nodes, spleen, tonsils, adenoids, gut-associated lymphoid tissue (GALT), Peyer's patches, and local immune cells in many other tissues) and lymphatic vessels, leading from lymphatic tissues toward the heart. The lymphatic system is essential to fighting infections.
lymphocyte	A type of white blood cell that is important in the immune system. Includes B cells (B lymphocytes, which produce circulating antibodies) and T cells (T lymphocytes, which are responsible for cell-mediated immunity).

**lymphocytic
interstitial
pneumonitis**

A type of lung problem, most commonly seen in children with HIV infection.

**lymphogranuloma
venereum (LGV)**

A sexually transmitted infection that can have serious consequences if left untreated. Symptoms include genital or rectal ulcers.

lymphoid tissue

Tissue involved in the formation of lymph fluid, lymphocytes and antibodies.

lymphoma

A type of cancer that starts in the tissues of the lymphatic system, including the lymph nodes, spleen, and bone marrow. In people who have HIV, certain lymphomas, such as Burkitt lymphoma, are AIDS-defining conditions.

macrophage

A white blood cell that roams the body tissues engulfing foreign organisms. Macrophages can hide large quantities of HIV without being killed, acting as reservoirs of the virus.

magnetic couple

A couple in which one partner is HIV-positive, and the other HIV-negative. Also called a serodifferent or serodiscordant couple.

**magnetic resonance
imaging (MRI)**

A non-invasive, non-x-ray diagnostic technique that provides computer-generated images of the body's internal tissues and organs.

**maintenance
therapy**

Taking drugs for a period of time after an infection has been treated, to stabilise the condition or prevent a re-occurrence or deterioration.

malabsorption

Failure of the gut to absorb food, resulting in weight loss, diarrhoea and decreased effectiveness of drugs taken orally.

malaise

A general feeling of illness or discomfort, whose exact cause is difficult to identify.

malaria

A serious disease caused by a parasite that commonly infects a certain type of mosquito which feeds on humans. People who get malaria are typically very sick with high fevers, shaking chills, and flu-like illness.

malignant Describes tumours which grow rapidly, infiltrate surrounding tissues and spread around the body.

Related terms [cancer](#), [metastasis](#)

mane Latin term meaning day.

matched In a case-control study, a process to make the cases and the controls comparable with respect to extraneous factors. For example, each case is matched individually with a control subject on variables such as age, sex and HIV status.

Related terms [case-control study](#)

mathematical models A range of complex mathematical techniques which aim to simulate a sequence of likely future events, in order to estimate the impact of a health intervention or the spread of an infection.

mean A measure of the 'average' value (the sum of the observed values divided by their number).

median The central value in a data set, with an equal number of values on either side.

Medicaid In the United States, a programme providing health insurance to people on low-incomes of all ages. Provision varies from state to state, although some types of care are covered in all states.

Related terms [Medicare](#)

Medicare In the United States, a federal health insurance programme that guarantees health coverage for people aged 65 and over and some younger people with disabilities.

Related terms [Medicaid](#)

medication assisted treatment (MAT) See [opioid substitution therapy \(OST\)](#)

memory cell

A long-lived lymphocyte that carries the antibody or receptor for a specific antigen (after a first exposure to this antigen) and remains in a less than mature state until a second exposure to the antigen, at which time it mounts a more effective immune response than a cell which has not been exposed previously.

Related terms [lymphocyte](#), [antibody](#), [receptor](#), [antigen](#) , [immune response](#)

men who have sex with men (MSM)

Men who have sexual contact with other men, regardless of whether or not they identify as gay or bisexual, or also have sex with women. May include men who self-identify as heterosexual but have sex with other men.

meningitis

Inflammation of the outer lining of the brain. Potential causes include bacterial or viral infections.

meta-analysis

When the statistical data from all studies which relate to a particular research question and conform to a pre-determined selection criteria are pooled and analysed together.

Related terms [systematic review](#)

metabolic syndrome

A condition in which a person has insulin resistance (or type 2 diabetes) in combination with abdominal obesity, high blood pressure and raised lipids. It is associated with an increased risk of heart disease and stroke.

metabolism

The physical and chemical reactions that produce energy for the body. Metabolism also refers to the breakdown of drugs or other substances within the body, which may occur during digestion or elimination.

metabolite

Any chemical resulting from the process of metabolism.

metastasis

The process by which cancer cells break away from where they first formed (primary tumour), travel through the blood or lymph system, and form new tumours in other parts of the body. The metastatic tumour is the same type of cancer as the primary tumour.

Related terms [cancer](#), [tumour](#)

microbicide	A product (such as a gel or cream) that is being tested in HIV prevention research. It could be applied topically to genital surfaces to prevent or reduce the transmission of HIV during sexual intercourse. Microbicides might also take other forms, including films, suppositories, and slow-releasing sponges or vaginal rings.
microbiome	<p>The collection of microbes (bacteria, viruses, protozoa etc.) that inhabits the human body. Although bacteria are often associated with infections, those that colonise the surface and insides of our bodies are essential for life. The gut microbiome is known to be disrupted by HIV.</p> <p>Related terms gut-associated lymphoid tissue (GALT)</p>
microsporidiosis	Infection with the gut parasite <i>Microsporidia</i> .
middle income countries	The World Bank classifies countries according to their income: low, lower-middle, upper-middle and high. There are around 50 lower-middle income countries (mostly in Africa and Asia) and around 60 upper-middle income countries (in Africa, Eastern Europe, Asia, Latin America and the Caribbean).
mitochondria	Structures in cells that are the sites of the cell's energy production.
mitochondrial toxicity	<p>Mitochondria are structures in human cells responsible for energy production. When damaged by anti-HIV drugs, this can cause a wide range of side-effects, including possibly fat loss (lipoatrophy).</p> <p>Related terms lipoatrophy</p>
molecular surveillance	<p>The use of data collected during routine drug resistance testing to compare the genetic sequence of the virus in a population and identify transmission clusters. This may allow public health officials to identify populations where transmission is occurring rapidly, indicating gaps in health services that need be addressed.</p> <p>Related terms transmission cluster</p>
monoclonal antibody	<p>Monoclonal antibodies are antibodies that are made by identical immune cells, which are all clones of a unique parent cell. Some of them have an effect on the immune system.</p> <p>Related terms antibody</p>

monocyte	A white blood cell that roams the body tissues engulfing foreign organisms.
monotherapy	Taking a drug on its own, rather than in combination with other drugs.
morbidity	Illness.
mortality	Death.
mother-to-child transmission (MTCT)	Transmission of HIV from a mother to her unborn child in the womb or during birth, or to infants via breast milk. Also known as vertical transmission.
mucosa	See mucous membrane
mucosal tissue	See mucous membrane
mucous membrane	Moist layer of tissue lining the body's openings, including the genital/urinary and anal tracts, the gut and the respiratory tract.
multidrug-resistant tuberculosis (MDR-TB)	<p>A specific form of drug-resistant TB, due to bacilli resistant to at least isoniazid and rifampicin, the two most powerful anti-TB drugs. MDR-TB usually occurs when treatment is interrupted, thus allowing organisms in which mutations for drug resistance have occurred to proliferate.</p> <p>Related terms extensively drug-resistant TB (XDR-TB)</p>
multivariable analysis	<p>Statistical technique often used to reduce the impact of confounding factors, in order to attempt to identify the real association between a factor of interest and an outcome.</p> <p>Related terms confounding</p>
multivariate analysis	<p>An extension of multivariable analysis that is used to model two or more outcomes at the same time.</p> <p>Related terms multivariable analysis</p>

mutation	A single change in gene sequence. Some HIV mutations cause the virus to become resistant to certain antiretroviral (ARV) drugs. Related terms resistance
myalgia	Muscle pain.
mycobacteria	Family of bacteria that includes the causes of tuberculosis and MAI.
Mycobacterium avium complex (MAC)	Infections caused by a micro-organism related to TB which can cause disease in people with advanced HIV.
Mycobacterium Avium-Intracellulare (MAI)	See Mycobacterium avium complex (MAC)
mycosis	Any fungal disease.
myelotoxic	Damaging to the bone marrow.
myocardial infarction	Heart attack. Myocardial refers to the muscular tissue of the heart. An infarction is the obstruction of the blood supply to an organ or region of tissue.
myopathy	Muscle wastage or disease.
nadir	Lowest of a series of measurements. For example, an individual's CD4 nadir is their lowest ever measured CD4 count.
naive	In HIV, an individual who is 'treatment naive' has never taken anti-HIV treatment before.
named patient basis prescribing	A means of access to an unlicensed drug, in which a doctor requests supplies from its manufacturer for a specific individual.
natural history	The natural development of a disease or condition over time, in the absence of treatment.

natural killer cells	Cells in the immune system which attack and destroy infected cells or cancerous cells. NK cells are part of the body's natural (or innate) immunity.
nausea	The feeling that one is about to vomit.
needle-stick injury	Accidental injury with a needle or syringe used for injection.
nef	An HIV gene that influences viral replication and may help the virus evade host defences.
negative predictive value	When using a diagnostic test, the percentage of those testing negative who really don't have the medical condition. This will vary according to the prevalence in the local population.
negotiated safety	'Negotiated safety' is a form of serosorting between regular partners involving an agreement about which sexual practices are allowed within and outside the main relationship, taking into account the HIV status of both partners. It is most often given this name when both partners are HIV negative. Related terms serosorting
neoplasm	An abnormal and uncontrolled growth of tissue; a tumour.
nephrotoxic	Damaging to the kidneys.
neural tube defect	Abnormalities of the skull or back bone of a developing baby that happen during the first three months of pregnancy and which will affect the baby from birth. Taking folic acid before becoming pregnant and for the first three months of pregnancy can help to prevent neural tube defects.
neuralgia	A sharp pain along the path of a nerve.
neurological	Relating to the brain or central nervous system.

neuropathy Damage to the nerves.

neutralising antibody An antibody that neutralises (renders harmless) an infectious microorganism.

Related terms [broadly neutralising antibodies \(bNAbs\)](#)

neutropenia A shortage of neutrophils, a type of white blood cell that fights bacterial infections.

neutrophils Immune cells in the blood which can attack bacterial and fungal infections.

nocte Latin term meaning night.

non-alcoholic fatty liver disease (NAFLD) Non-alcoholic fatty liver disease (NAFLD) is a very common disorder and refers to a group of conditions where there is accumulation of excess fat in the liver of people who drink little or no alcohol. The most common form of NAFLD is a non-serious condition called fatty liver, by which fat accumulates in the liver cells. A small group of people with NAFLD may have a more serious condition named non-alcoholic steatohepatitis (NASH).

non-alcoholic steatohepatitis (NASH) In NASH, fat accumulation is associated with liver cell inflammation and different degrees of scarring. NASH is a potentially serious condition that may lead to severe liver scarring and cirrhosis. It sometimes affects older people living with HIV.

Related terms [non-alcoholic fatty liver disease \(NAFLD\)](#)

non-Hodgkin lymphoma A group of lymphomas (cancers of the lymphatic system). The many types of non-Hodgkin lymphoma (NHL) are classified according to how fast the cancer spreads. Although the symptoms of NHLs vary, they often include swollen lymph nodes, fever, and weight loss. Certain types of NHLs, such as Burkitt lymphoma and immunoblastic lymphoma, are AIDS-defining cancers in people with HIV.

Related terms [Hodgkin disease](#)

non-inferiority trial

A clinical trial which aims to demonstrate that a new treatment is not worse than another. While the two drugs may have comparable results in terms of virological response, the new drug may have fewer side-effects, be cheaper or have other advantages.

Related terms [equivalence trial](#), [superiority trial](#)

non-nucleoside reverse transcriptase inhibitor (NNRTI)

Non-nucleoside reverse transcriptase inhibitor, the family of antiretrovirals which includes efavirenz, nevirapine, etravirine, doravirine and rilpivirine. Non-nucleoside reverse transcriptase inhibitors (NNRTIs) bind to and block HIV reverse transcriptase (an HIV enzyme), preventing HIV from replicating.

non-small cell lung cancer

The most common type of lung cancer, described as such because the cancer cells are not smaller than normal cells. Non-small cell lung cancer includes adenocarcinoma of the lung and squamous cell carcinoma of the lung.

not significant

Usually means 'not statistically significant', meaning that the observed difference between two or more figures could have arisen by chance.

Related terms [statistical significance](#)

nucleic acid amplification testing (NAAT)

A technology that allows detection of very small amounts of genetic material (DNA or RNA) in blood, plasma, and tissue. The viral load (HIV RNA) test is a type of nucleic acid amplification test (NAAT).

nucleic acid test (NAT)

See [nucleic acid amplification testing \(NAAT\)](#)

nucleoside

A precursor to a building block of DNA or RNA. Nucleosides must be chemically changed into nucleotides before they can be used to make DNA or RNA.

Related terms [nucleotide](#), [nucleoside reverse transcriptase inhibitor \(NRTI\)](#)

nucleoside reverse transcriptase inhibitor (NRTI)	<p>In a process called reverse transcription, HIV copies its genetic material from RNA to DNA before inserting the proviral DNA in the host cell genome. Nucleoside reverse transcriptase inhibitors insert a nucleoside into the proviral DNA of HIV, terminating the chain of proviral DNA and preventing the incorporation of proviral DNA into the genome of a host cell. NRTIs (also known as ‘nukes’) include abacavir, emtricitabine, lamivudine and zidovudine.</p> <p>Related terms nucleoside, reverse transcriptase</p>
nucleotide	<p>A building block of DNA or RNA, chemical structures that store genetic information.</p> <p>Related terms nucleoside</p>
nucleotide reverse transcriptase inhibitor	<p>Family of antiretrovirals which includes tenofovir disoproxil and tenofovir alafenamide. It may be abbreviated to NtRTI or NRTI. It is often said that nucleotide reverse transcriptase inhibitors work in a similar way to nucleoside reverse transcriptase inhibitors, but approach from a different angle.</p> <p>Related terms nucleotide, nucleoside reverse transcriptase inhibitor (NRTI)</p>
null hypothesis	<p>The starting point for any hypothesis test, which assumes no effect.</p> <p>Related terms hypothesis</p>
number needed to treat	<p>The average number of patients who need to be given a treatment in order to prevent one patient from having a bad outcome (e.g. AIDS or death).</p>
observational study	<p>A study design in which patients receive routine clinical care and researchers record the outcome. Observational studies can provide useful information but are considered less reliable than experimental studies such as randomised controlled trials. Some examples of observational studies are cohort studies and case-control studies.</p>
obstetric	<p>Relating to pregnancy, childbirth and the first few weeks after birth.</p>
occupational exposure	<p>Exposure to HIV as a result of work (job) activities. Exposure may include accidental exposure to HIV-infected blood following a needlestick injury or cut from a surgical instrument</p>

ocular Relating to the eye.

od Abbreviation of a Latin term meaning every day.

odds ratio (OR) Comparing one group with another, expresses differences in the odds of something happening. An odds ratio above 1 means something is more likely to happen in the group of interest; an odds ratio below 1 means it is less likely to happen. Similar to 'relative risk'.
Related terms [relative risk](#)

oedema Accumulation of fluid below the skin or in the cavities of the body.

oesophagus The tube leading from the throat to the stomach.

off label Use of a drug for a condition other than that for which it received regulatory approval.

om Abbreviation of a Latin term meaning every morning.

on Abbreviation of a Latin term meaning every night.

on demand In relation to pre-exposure prophylaxis (PrEP), on-demand dosing is an alternative term for event-based dosing. See 'event based'.
Related terms [event based](#)

on treatment analysis Participants in a clinical trial are only included in the final analysis if they complete the full course of treatment they were originally assigned to.
Related terms [intent to treat analysis](#)

open-label A clinical trial where both the researcher and participants know who is taking the experimental treatment.
Related terms [blinding](#)

opioid agonist therapy (OAT) See [opioid substitution therapy \(OST\)](#)

opioid substitution therapy (OST)

Providing users of an illegal drug (such as heroin) with a replacement drug (such as methadone, buprenorphine or naltrexone) under medical supervision. This helps the person reduce the frequency of injections and their dependency on illegal drugs. It is part of a harm reduction approach.

opportunistic infection (OI)

An infection that occurs more frequently or is more severe in people with weakened immune systems, such as people with low CD4 counts, than in people with healthy immune systems. Opportunistic infections common in people with advanced HIV disease include Pneumocystis jiroveci pneumonia; Kaposi sarcoma; cryptosporidiosis; histoplasmosis; other parasitic, viral, and fungal infections; and some types of cancer.

optimised background therapy

When a new drug is added to a failing HIV regimen, the other drugs in the regimen (the 'background therapy') may also be changed. Any changes are based on a person's resistance test results and treatment history. Optimised background therapy gives a new HIV regimen (or an experimental HIV drug being studied in a clinical trial) the best chance of succeeding.

oral

Refers to the mouth, for example a medicine taken by mouth.

oral fluid

In HIV testing, refers to moisture obtained by swabbing an absorbent pad around the outer gums. Some tests require a sample of oral fluid, which in a person living with HIV is likely to contain HIV antibodies.

oral sex

Kissing, licking or sucking another person's genitals, i.e. fellatio, cunnilingus, a blow job, giving head.

osteopenia

A condition in which bone mineral density is lower than normal, but less severe than osteoporosis.

Related terms [osteoporosis](#), [bone mineral density \(BMD\)](#)

osteoporosis

Bone disease characterised by a decrease in bone mineral density and bone mass, resulting in an increased risk of fracture (a broken bone).

Related terms [bone mineral density \(BMD\)](#), [osteopenia](#)

p-value The result of a statistical test which tells us whether the results of a study are likely to be due to chance and would not be confirmed if the study was repeated. All p-values are between 0 and 1; the most reliable studies have p-values very close to 0. A p-value of 0.001 means that there is a 1 in 1000 probability that the results are due to chance and do not reflect a real difference. A p-value of 0.05 means there is a 1 in 20 probability that the results are due to chance. When a p-value is 0.05 or below, the result is considered to be 'statistically significant'. Confidence intervals give similar information to p-values but are easier to interpret.

Related terms [confidence interval \(CI\)](#), [statistical significance](#)

p24 An HIV antigen that makes up most of the HIV viral core. High levels of p24 are present in the blood during the short period between HIV infection and seroconversion, before fading away. Since p24 antigen is usually detectable a few days before HIV antibodies, a diagnostic test that can detect p24 has a slightly shorter window period than a test that only detects antibodies.

paediatric Of or relating to children.

palliative care Palliative care improves quality of life by taking a holistic approach, addressing pain, physical symptoms, psychological, social and spiritual needs. It can be provided at any stage, not only at the end of life.

pancreas A glandular organ situated behind the stomach that secretes insulin and pancreatic digestive enzymes.

pancreatitis Inflammation of the pancreas.

pancytopenia Low numbers of all blood cells.

Pap smear A specimen of cells from the cervix, usually obtained in scrapings from the opening, which may be examined by microscope to look for abnormalities.

paraesthesia Abnormal sensations of touch on the skin.

parenteral

Any route of administration, such as for a drug, into the body other than through the digestive system. For example, through the veins (intravenous), into the muscles (intramuscular), or through the skin (subcutaneous).

passive immunity

The body's ability to prevent or fight a specific infection after receiving antibodies from another person. The most common example of passive immunity is when an infant receives the mother's antibodies by consuming her breast milk.

pathogen

Any micro-organism which can cause disease. There are four main types: bacteria, fungi, protozoa, viruses. Parasitic worms are sometimes described as pathogens.

pathogenesis

The origin and step-by-step development of disease.

pathology

The study of disease, focusing on causes, development and progression.

pc

Abbreviation of a Latin term meaning after food.

peer review

The process of subjecting a scientist's research to the scrutiny of other scientists working in the same field. Studies published in medical journals are usually peer reviewed, whereas conference presentations are not.

pegylated interferon

Pegylated interferon, also known as peginterferon, is a chemically modified form of the standard interferon, sometimes used to treat hepatitis B and C. The difference between interferon and peginterferon is the PEG, which stands for a molecule called polyethylene glycol. The PEG does nothing to fight the virus. But by attaching it to the interferon (which does fight the virus), the interferon will stay in the blood much longer.

Related terms [interferon alfa](#)

pelvic inflammatory disease	An infection of the upper female genital tract affecting the uterus, fallopian tubes and ovaries, commonly caused by the bacteria responsible for the sexually transmitted infections including gonorrhoea and chlamydia. If left untreated, pelvic inflammatory disease can cause pain, tubal pregnancy and infertility. Severe cases may even spread to the liver and kidneys, causing internal bleeding and death.
perianal	Around the anus.
perinatal	Relating to the period around the time of birth. Perinatal transmission is when HIV is passed on during pregnancy, childbirth or breastfeeding. People with perinatally-acquired HIV have been living with HIV since birth or infancy. Related terms vertical transmission
perinatal	Relating to the period starting a few weeks before birth and including the birth and a few weeks after birth.
perinatally acquired	A person with perinatally acquired HIV has been living with the virus since birth.
perinatally infected	A person who was perinatally infected with HIV has had the virus since birth.
peripheral blood mononuclear cells (PBMCs)	Any blood cell having a round nucleus (e.g., a lymphocyte, a monocyte or a macrophage). These blood cells are a critical component in the immune system.
peripheral neuropathy	Damage to the nerves of the hands and/or feet, causing symptoms ranging from numbness to excruciating pain.
person years	In a study “100 person years of follow-up” could mean that information was collected on 100 people for one year, or on 50 people for two years each, or on ten people over ten years. In practice, each person’s duration of follow-up is likely to be different.

**pharmacodynamics
(PD)**

The biochemical and physiological effects of drugs and their mechanisms of action in the body.

Related terms [pharmacokinetics \(PK\)](#)

**pharmacokinetics
(PK)**

How drugs are processed and used in the body, including how they are absorbed, metabolised, distributed and eliminated.

Related terms [pharmacodynamics \(PD\)](#)

phase I

The first stage of human testing of a new drug or intervention, typically involving a small number (10-100) of participants who do not have the condition the drug is intended to treat. Phase I clinical trials evaluate safety, side-effects, dosage and how a drug is metabolised and excreted in the body.

phase II

The second stage in the clinical evaluation of a new drug or intervention, in which preliminary data on effectiveness and additional information about safety is collected among a few hundred people with the disease or condition.

phase III

The third and most definitive stage in the clinical evaluation of a new drug or intervention, typically a randomised control trial with the new intervention compared to an existing therapy or a placebo, in large numbers of participants (typically hundreds or thousands). Trial results are used to evaluate the overall risks and benefits of the drug and provide the information needed for regulatory approval.

phase IV

Studies conducted after the effectiveness of a drug has been established and the drug marketed, typically to establish the frequency of uncommon or unanticipated toxic effects. May be described as a phase IV study or as postmarketing surveillance.

phenotype

The phenotype of an organism is all of its observable characteristics, defined by the genotype and the environment.

Related terms [genotype](#)

phenotypic resistance testing

A type of resistance test that measures the extent to which a person's strain of HIV will multiply in different concentrations of antiretroviral drugs (as an expression of accumulated resistance mutations, detected with genotypic testing). Resistance testing can be used to guide selection of an HIV regimen when initiating or changing antiretroviral therapy.

Related terms [genotypic resistance testing](#), [phenotype](#)

phosphate

Phosphorus combined with oxygen in the blood forms a variety of phosphates, vital for energy production, muscle and nerve function, and bone growth. Raised levels can be a sign of conditions such as kidney disease and diabetes.

phosphorylation

Process by which the NRTI drugs are converted within human cells into forms that inhibit HIV.

phylogenetic analysis

The comparison of the genetic sequence of the virus in different individuals in order to determine the likelihood that two or more samples are related. This involves creating a hypothetical diagram (known as a phylogenetic tree) that estimates how closely related the samples of HIV taken from different individuals are. Phylogenetic analysis is not a reliable way to prove that one individual has infected another, but may identify transmission clusters, which can be useful for public health interventions.

Related terms [transmission cluster](#)

pill burden

The number of tablets, capsules, or other dosage forms that a person takes on a regular basis. A high pill burden can make it difficult to adhere to an HIV treatment regimen.

pilot study

Small-scale, preliminary study, conducted to evaluate feasibility, time, cost, adverse events, and improve upon the design of a future full-scale research project.

placebo

A pill or liquid which looks and tastes exactly like a real drug, but contains no active substance.

placebo effect

A commonly observed phenomenon, in which patients given a placebo have better clinical results than patients given no treatment at all (even though there is no active drug in a placebo). This may be because patients expect to get better because they think they are receiving an effective treatment.

plasma

The fluid portion of the blood.

PLWH

Short for people living with HIV.

pneumococcal disease

Disease caused by the bacterial infection *Streptococcus pneumoniae*. In most people, it causes relatively minor health problems (called 'non-invasive' infections) such as bronchitis, sinusitis (sinus inflammation) and middle-ear infections. It can also cause serious pneumococcal diseases including severe bacterial pneumonia, sepsis (blood poisoning) or meningitis (inflammation of the brain lining).

Pneumocystis carinii pneumonia (PCP)

Pneumocystis carinii pneumonia is a form of pneumonia that is an AIDS defining illness.

pneumonia

Any lung infection that causes inflammation. The infecting organism may be bacteria (such as *Streptococcus pneumoniae*), a virus (such as influenza), a fungus (such as *Pneumocystis pneumonia* or PCP) or something else. The disease is sometimes characterised by where the infection was acquired: in the community, in hospital or in a nursing home.

point-of-care test

A test in which all stages, including reading the result, can be conducted in a doctor's office or a community setting, without specialised laboratory equipment. Sometimes also described as a rapid test.

pol

The HIV gene that encodes a group of enzymes needed for viral replication (called protease, integrase and reverse transcriptase).

polymerase chain reaction (PCR)

A method of amplifying fragments of genetic material so that they can be detected. Some viral load tests are based on this method.

Related terms [viral load](#)

poppers

Amyl, butyl or isobutyl nitrite, are recreational drugs sniffed during sex to both intensify the experience and relax anal sphincter muscles.

positive predictive value

When using a diagnostic test, the percentage of those testing positive who are correctly diagnosed. This will vary according the prevalence in the local population.

post-exposure prophylaxis (PEP)

A month-long course of antiretroviral medicines taken after exposure or possible exposure to HIV, to reduce the risk of acquiring HIV.

postmarketing surveillance study

See [phase IV](#)

powered

A study has adequate statistical power if it can reliably detect a clinically important difference (i.e. between two treatments) if a difference actually exists. If a study is under-powered, there are not enough people taking part and the study may not tell us whether one treatment is better than the other.

pre-exposure prophylaxis (PrEP)

Antiretroviral drugs used by a person who does not have HIV to be taken before possible exposure to HIV in order to reduce the risk of acquiring HIV infection. PrEP may either be taken daily or according to an 'event based' or 'on demand' regimen.

Related terms [event based](#)

preclinical

In vitro research or research involving animals, undertaken prior to research in humans.

prevalence

The proportion of people who currently have an infection or a condition. This will include people who acquired the infection or condition several years ago and still have it.

Related terms [incidence](#)

primary endpoint	<p>The main result that is measured at the end of a clinical study to see if a given treatment worked (e.g., proportion of participants with viral suppression). The choice of primary endpoint is decided before the study begins.</p> <p>Related terms endpoint</p>
primary infection	<p>In HIV, usually defined as the first six months of infection.</p> <p>Related terms acute infection</p>
prime-boost	<p>A strategy of administering one vaccine dose (or one type of vaccine) to elicit certain immune responses, followed by or together with a booster, a second vaccine dose (or second type of vaccine). The prime-boost strategy may be used to strengthen the initial immune response or to elicit different types of immune response.</p>
pro-drug	<p>A drug that is broken down into another active form inside the body.</p>
proctitis	<p>Inflammation of the rectum.</p>
proctitis	<p>Inflammation of the lining of the rectum. It can cause rectal pain, diarrhoea, bleeding and discharge, as well as the continuous feeling that you need to go to the toilet.</p>
prognosis	<p>The prospect of survival and/or recovery from a disease as anticipated from the usual course of that disease or indicated by the characteristics of the patient.</p>
progression	<p>In medicine, this usually refers to advancement or worsening of a disease.</p>
progressive multifocal leukoencephalopathy (PML)	<p>A serious brain infection.</p>
proliferation	<p>Multiplication (e.g. of immune system cells) to control an infection.</p>

prolonged release	Medication where the active ingredient is released at a controlled rate over a period of time, usually up to 24 hours.
prophylaxis	Taking a drug to prevent an illness. Primary prophylaxis is the use of drugs to prevent a first occurrence of illness. Secondary prophylaxis is the use of drugs to prevent re-occurrence of illness. Pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) for HIV are both forms of primary prophylaxis.
prospective study	<p>A type of longitudinal study in which people join the study and information is then collected on them for several weeks, months or years.</p> <p>Related terms retrospective study</p>
protease	An enzyme that HIV uses to break up large proteins into smaller ones from which new HIV particles can be made.
protease inhibitor (PI)	Family of antiretrovirals which target the protease enzyme. Includes amprenavir, indinavir, lopinavir, ritonavir, saquinavir, nelfinavir, and atazanavir.
protein	A substance which forms the structure of most cells and enzymes.
protocol	A detailed research plan that describes the aims and objectives of a clinical trial and how it will be conducted.
proton-pump inhibitor	A drug for the treatment of heartburn and acid reflux, which works by blocking the enzyme system in the stomach that produces acid.
protozoa	A group of single-celled animals, a few of which cause human disease.
proviral DNA	<p>The chemical form in which HIV's genetic information is stored within infected cells.</p> <p>Related terms deoxyribonucleic acid (DNA)</p>
psoriasis	A disease in which the skin develops raised, rough, reddened areas.

psychiatry A branch of medicine focused on the diagnosis, treatment and prevention of mental, emotional and behavioral disorders. Psychiatrists are doctors who trained in general medicine before specialising in mental health. They can prescribe medication.

psychology The study of the way people think, behave and interact. Psychological therapies are based on talking and working with people to understand the causes of mental health problems and develop strategies to deal with them. Psychologists have specialist training but are not medical doctors.

psychosis Mental health problems that stop someone from thinking clearly and telling the difference between reality and their imagination.

pulmonary Affecting the lungs.

PWH Short for people with HIV.

PWID Short for people who inject drugs.

q4h Abbreviation of a Latin term meaning every four hours.

qd Abbreviation of a Latin term meaning once every day.

qualitative Qualitative research is used to explore and understand people's beliefs, experiences, attitudes or behaviours. It asks questions about how and why. Qualitative research might ask questions about why people find it hard to use HIV prevention methods. It wouldn't ask how many people use them or collect data in the form of numbers. Qualitative research methods include interviews, focus groups and participant observation.

quality adjusted life year (QALY) Used in studies dealing with cost-effectiveness and life expectancy, this gives a higher value to a year lived with good health than a year lived with poor health, pain or disability.

Related terms [disability-adjusted life year \(DALY\)](#)

quantitative Quantitative research involves precise measurement and quantification of data, using methods like clinical trials, case-control studies, longitudinal cohorts, surveys and cost-effectiveness analyses.

qw Abbreviation of a Latin term meaning every week.

radiotherapy A medical treatment using radiation (also known as radiation therapy). Beams of radiation may be produced by a machine and directed at a diseased area from a distance. Alternatively, radioactive material, in the form of needles, wires or pellets may be implanted in the body. Many forms of cancer can be destroyed by radiotherapy.

randomisation A process by which interventions are allocated to patients in a clinical trial on the basis of chance alone. This means that the characteristics of the people receiving each intervention should be similar at the start of the trial, so if there are any differences in outcomes at the end of the trial, it can be assumed that these are due to the intervention itself.

Related terms [randomised controlled trial \(RCT\)](#)

randomised controlled trial (RCT) The most reliable type of clinical trial. In a trial comparing drug A with drug B, patients are split into two groups, with one group receiving drug A and the other drug B. After a number of weeks or months, the outcomes of each group are compared.

Related terms [randomisation](#)

range The spread of values, from the smallest to the largest. The inter-quartile range (IQR) only includes the middle 50% of values and measures the degree of spread of the most common values.

rash A rash is an area of irritated or swollen skin, affecting its colour, appearance, or texture. It may be localised in one part of the body or affect all the skin. Rashes are usually caused by inflammation of the skin, which can have many causes, including an allergic reaction to a medicine.

rate In statistics, the number of events that we would expect to occur during a specified period of follow-up (e.g 100 person-years).

- reactive** Because of the possibility that a positive result from a single HIV test is, in fact, a false positive, the result is described as 'reactive' rather than 'positive'. If the result is reactive, this indicates that the test has reacted to something in the blood and needs to be investigated with follow-up tests.
Related terms [false positive](#)
- receptive** Receptive anal intercourse refers to the act of being penetrated during anal intercourse. The receptive partner is the 'bottom'.
Related terms [insertive](#)
- receptor** In cell biology, a structure on the surface of a cell (or inside a cell) that selectively receives and binds to a specific substance. There are many receptors. CD4 T cells are called that way because they have a protein called CD4 on their surface. Before entering (infecting) a CD4 T cell (that will become a "host" cell), HIV binds to the CD4 receptor and its coreceptor.
Related terms [host cell](#), [T cell](#), [CD4 receptor](#)
- recombinant** An organism, cell or genetic material formed by genetic recombination (or reconstruction).
- reconstitute** Mixing something which is in powder form (for example a drug) with water or another liquid to make a liquid form of the substance.
- rectum** The last part of the large intestine just above the anus.
- referral** A healthcare professional's recommendation that a person sees another medical specialist or service.
- regimen** A combination of medications and the way it is taken.
- regression** Improvement in a tumour. Also, a mathematical model that allows us to measure the degree to which one of more factors influence an outcome.

reinfection In HIV, synonym for superinfection. In hepatitis C, used when someone who has been cured of the virus is infected with hepatitis C again.

Related terms [superinfection](#)

relapse The return of signs and symptoms of a disease after a patient has been free of those signs and symptoms.

relative rate Comparing one group with another, expresses differences in the rate at which something occurs. A relative rate above 1 means the rate is higher in the group of interest; a relative rate below 1 means the rate is lower. Similar to 'relative risk'.

Related terms [relative risk](#)

relative risk Comparing one group with another, expresses differences in the risk of something happening. For example, in comparison with group A, people in group B have a relative risk of 3 of being ill (they are three times as likely to get ill). A relative risk above 1 means the risk is higher in the group of interest; a relative risk below 1 means the risk is lower.

Related terms [absolute risk](#)

remission The disappearance of signs and symptoms of a disease, usually in response to treatment. The term is often used in relation to cancer, indicating that there is no evidence of disease, although the possibility of cancer remaining in the body cannot be ruled out. In HIV, remission is an alternative term for 'functional cure'. A sustained ART-free remission would boost the immune system to induce long-term control of HIV, allowing a person living with HIV to maintain an undetectable viral load without daily medication.

renal Relating to the kidneys.

replication The process of viral multiplication or reproduction. Viruses cannot replicate without the machinery and metabolism of cells (human cells, in the case of HIV), which is why viruses infect cells.

replication competent

The reservoir contains both replication-competent HIV, which has all necessary components to be able to replicate once emerging from the latent stage, and replication-defective HIV.

Related terms [reservoir](#)

representative sample

Studies aim to give information that will be applicable to a large group of people (e.g. adults with diagnosed HIV in the UK). Because it is impractical to conduct a study with such a large group, only a sub-group (a sample) takes part in a study. This isn't a problem as long as the characteristics of the sample are similar to those of the wider group (e.g. in terms of age, gender, CD4 count and years since diagnosis).

reservoir

The 'HIV reservoir' is a group of cells that are infected with HIV but have not produced new HIV (latent stage of infection) for many months or years. Latent HIV reservoirs are established during the earliest stage of HIV infection. Although antiretroviral therapy can reduce the level of HIV in the blood to an undetectable level, latent reservoirs of HIV continue to survive (a phenomenon called residual inflammation). Latently infected cells may be reawakened to begin actively reproducing HIV virions if antiretroviral therapy is stopped.

residual inflammation

HIV-associated inflammation that persists at very low, undetectable levels, in the HIV reservoir and might reactivate HIV replication.

Related terms [inflammation](#)

resistance

A drug-resistant HIV strain is one which is less susceptible to the effects of one or more anti-HIV drugs because of an accumulation of HIV mutations in its genotype. Resistance can be the result of a poor adherence to treatment or of transmission of an already resistant virus.

resistance testing

Laboratory testing to determine if an individual's HIV strain is resistant to anti-HIV drugs.

Related terms [genotypic resistance testing](#), [phenotypic resistance testing](#)

resource-limited settings

Lower income countries with limited financial resources for healthcare.

- response rate** The proportion of people asked to complete a survey who do so; or the proportion of people whose health improves following treatment.
- retention in care** A patient's regular and ongoing engagement with medical care at a health care facility.
Related terms [linkage to care](#)
- retinitis** Damage to the retina, the light-sensitive surface at the back of the eye.
- retrospective study** A type of longitudinal study in which information is collected on what has previously happened to people - for example, by reviewing their medical notes or by interviewing them about past events.
Related terms [prospective study](#)
- retrovirus** A type of virus that uses of RNA as its genetic material. After infecting a cell, a retrovirus uses an enzyme called reverse transcriptase to convert its RNA into DNA (the hereditary material in humans). The retrovirus then integrates its viral DNA into the DNA of the host cell, which allows the retrovirus to replicate. HIV is a retrovirus.
Related terms [reverse transcriptase](#), [ribonucleic acid \(RNA\)](#), [deoxyribonucleic acid \(DNA\)](#), [host cell](#)
- reverse transcriptase** A retroviral enzyme which converts genetic material from RNA into DNA, an essential step in the lifecycle of HIV. Several classes of anti-HIV drugs interfere with this stage of HIV's life cycle: nucleoside reverse transcriptase inhibitors and nucleotide reverse transcriptase inhibitors (NRTIs) and non-nucleoside reverse transcriptase inhibitors (NNRTIs).
Related terms [retrovirus](#), [nucleoside reverse transcriptase inhibitor \(NRTI\)](#), [nucleotide reverse transcriptase inhibitor](#), [non-nucleoside reverse transcriptase inhibitor \(NNRTI\)](#)
- ribonucleic acid (RNA)** The chemical structure that carries genetic instructions for protein synthesis. Although DNA is the primary genetic material of cells, RNA is the genetic material for some viruses like HIV.
Related terms [deoxyribonucleic acid \(DNA\)](#)

risk See [absolute risk](#)

Related terms [relative risk](#)

risk factor An aspect of personal behaviour or lifestyle, an environmental exposure, or a personal characteristic that is thought to be associated with an infection or a medical condition.

risky behaviour In HIV, refers to any behaviour or action that increases an individual's probability of acquiring or transmitting HIV, such as having unprotected sex, having multiple partners or sharing drug injection equipment.

Ryan White HIV/AIDS Program In the United States, the largest federally funded programme providing HIV-related services to low-income, uninsured, and underinsured people with HIV/AIDS.

safer sex Sex in which the risk of HIV and STI transmission is reduced or is minimal. Describing this as 'safer' rather than 'safe' sex reflects the fact that some safer sex practices do not completely eliminate transmission risks. In the past, 'safer sex' primarily referred to the use of condoms during penetrative sex, as well as being sexual in non-penetrative ways. Modern definitions should also include the use of PrEP and the HIV-positive partner having an undetectable viral load. However, some people do continue to use the term as a synonym for condom use.

salvage therapy Any treatment regimen used after a number of earlier regimens have failed. People with HIV who have experienced side-effects and/or developed resistance to many HIV drugs receive salvage therapy, sometimes consisting of a large number of medications.

sample See [representative sample](#)

sample size See [powered](#)

seborrhoeic dermatitis A chronic inflammatory disease of the skin, characterised by dry, moist or greasy scaling, and yellow crusted patches.

second-line treatment The second preferred therapy for a particular condition, used after first-line treatment fails or if a person cannot tolerate first-line drugs.

secondary endpoints Endpoints in a trial that provide supportive evidence to the primary endpoint.
Related terms [endpoint](#)

self-sampling In HIV testing, when the person testing collects their own sample and sends this to a laboratory for analysis. The lab makes the results available by phone or text message a few days later.
Related terms [self-testing](#), [home testing](#)

self-testing In HIV testing, when the person testing collects their own sample and performs the whole test themselves, including reading and interpreting the result.
Related terms [home testing](#), [self-sampling](#)

sensitivity When using a diagnostic test, the probability that a person who does have a medical condition will receive the correct test result (i.e. positive).
Related terms [specificity](#)

sensitivity analysis An additional analysis of data, also known as a “what-if” analysis, which indicates how robust the study’s results are. Specific assumptions or variables may be changed, to estimate the outcome in a range of scenarios.

sepsis Sepsis is a potentially life-threatening condition caused by the body's response to an infection. The body normally releases chemicals into the bloodstream to fight an infection. Sepsis occurs when the body's response to these chemicals is out of balance, triggering changes that can damage multiple organ systems. Also known as septicemia.

seroconversion The transition period from infection with HIV to the detectable presence of HIV antibodies in the blood. When seroconversion occurs (usually within a few weeks of infection), the result of an HIV antibody test changes from HIV negative to HIV positive. Seroconversion may be accompanied with flu-like symptoms.

Related terms [acute infection](#)

serodifferent A serodifferent couple is one in which one partner has HIV and the other has not.

Related terms [serodiscordant](#)

serodiscordant A serodiscordant couple is one in which one partner has HIV and the other has not. Many people dislike this word as it implies disagreement or conflict. Alternative terms include mixed status, magnetic or serodifferent.

seronegative Negative antibody result in a blood test. Has the same meaning as HIV negative.

seropositioning A sexual risk reduction strategy for gay men having anal sex without a condom. Different sexual positions are adopted according to HIV status: the HIV negative man takes the insertive role ('top') and the HIV-positive man the receptive role ('bottom').

seropositive Positive antibody result in a blood test. Has the same meaning as HIV positive.

serosorting Choosing sexual partners of the same HIV status, or restricting condomless sex to partners of the same HIV status. As a risk reduction strategy, the drawback for HIV-negative people is that they can only be certain of their HIV status when they last took a test, whereas HIV-positive people can be confident they know their status

serostatus The presence or absence of detectable antibodies against an infectious agent, such as HIV, in the blood. Often used as a synonym for HIV status: seronegative or seropositive.

serum Clear, non-cellular portion of the blood, containing antibodies and other proteins and chemicals.

set point The viral load that the body settles at within a few weeks to months after infection with HIV. Immediately after infection, a person's viral load is typically very high. After a few weeks to months, this rapid replication of HIV declines and the person's viral load drops to its set point. A higher viral set point suggests that, in the absence of treatment, disease will progress faster than in a person with a lower set point.

sexually transmitted diseases (STDs) See [sexually transmitted infections \(STIs\)](#)

sexually transmitted infections (STIs) Although HIV can be sexually transmitted, the term is most often used to refer to chlamydia, gonorrhoea, syphilis, herpes, scabies, trichomonas vaginalis, etc.

shedding Viral shedding refers to the expulsion and release of virus progeny (offspring such as competent particles, virions, etc.) following replication. In HIV this process occurs in the semen, the vaginal secretions and other bodily fluids, making those fluids more infectious.

shigella A bacterial infection causing severe, prolonged diarrhoea and stomach cramps. It is transmitted by contact with very small amounts of human faeces and can be successfully treated with antibiotics.

shingles Condition caused by a herpes virus infection, involving painful blisters on the skin.

shock and kill

An experimental strategy to cure HIV infection that is currently under investigation. Finding a cure for HIV is challenging because the virus can remain hidden and inactive (latent) inside certain cells of the immune system (such as CD4 cells) for months or even years. While HIV is in this latent state, the immune system cannot recognise the virus, and antiretroviral therapy has no effect on it. The shock and kill strategy is a two-step process. First, drugs called latency-reversing agents are used to reactivate latent HIV hiding in immune cells (the 'shock'). The reactivated cells can then be targeted and killed by the body's immune system or anti-HIV drugs.

Related terms [reservoir](#), [latency reversing agents](#)

side-effect

Any additional, unwanted, effect caused by a drug.

sigmoidoscopy

Examination of the rectum and lower bowel with a flexible viewing device.

significant

See [statistical significance](#)

simian

Related to or affecting monkeys.

simian human immunodeficiency virus (SHIV)

An artificial form of HIV adapted to cause infection and disease in monkeys. It combines elements of a virus that affects monkeys (SIV) with the envelope protein of HIV itself. Researchers study SHIV as a way to learn more about HIV.

simian immunodeficiency virus (SIV)

An HIV-like virus that can infect monkeys and apes and can cause a disease similar to AIDS. Because HIV and simian immunodeficiency virus (SIV) are closely related viruses, researchers study SIV as a way to learn more about HIV. However, SIV cannot infect humans, and HIV cannot infect monkeys.

single-blind

A type of clinical trial in which the participants do not know what treatments they are getting, but their doctors do.

Related terms [double-blind](#), [blinding](#)

sinusitis Inflammation or infection of the sinuses, which are cavities behind the forehead and cheekbones.

small cell lung cancer One of the two main types of lung cancer, described as such because the cancer cells are smaller than normal cells. The two types of lung cancer behave in different ways and respond to treatment differently.
Related terms [non-small cell lung cancer](#)

smear A specimen of tissue or other material taken from part of the body and smeared onto a microscope slide for examination. A Pap smear is a specimen of material scraped from the cervix (neck of the uterus) examined for precancerous changes.

specificity When using a diagnostic test, the probability that a person without a medical condition will receive the correct test result (i.e. negative).
Related terms [sensitivity](#)

speculum An instrument for enlarging the opening of any canal or cavity in order to inspect its interior, e.g. vagina, rectum, ear or nose.

spinal tap See [lumbar puncture](#)

spleen Organ which produces white blood cells and acts as a reservoir for red blood cells.

splenomegaly Enlarged spleen.

spontaneous controllers See [elite controllers](#)

sputum Material coughed up from the lungs, which can be examined to help with diagnosis and management of respiratory diseases.

sputum smear	A diagnostic test in which a sample of spit is examined under the microscope for the presence of micro-organisms.
squamous intraepithelial lesion (SIL)	This term is used to describe the detection of abnormal cells that have been 'transformed' by HPV into a possibly pre-cancerous state. According to the degree of cell change this will be called low-grade or high-grade SIL (LSIL or HSIL). If SIL is detected, a colposcopy will usually be ordered.
standard deviation	Provides a measure of the spread of values.
standard of care	Treatment that experts agree is appropriate, accepted, and widely used for a given disease or condition. In a clinical trial, one group may receive the experimental intervention and another group may receive the standard of care.
standard precautions	Infection control measures used in health care settings aimed at preventing the transmission of HIV and other blood-borne pathogens. These include the use of gloves and other protective gear, and the safe disposal of needles to prevent exposure to blood and other body fluids. Related terms infection prevention and control
statin	Drug used to lower cholesterol (blood fats).
statistical significance	Statistical tests are used to judge whether the results of a study could be due to chance and would not be confirmed if the study was repeated. If result is probably not due to chance, the results are 'statistically significant'. Related terms p-value , confidence interval (CI)
stem cells	Cells from which all blood cells derive. Bone marrow is rich in stem cells.
sterilising cure	See cure

steroids Hormones which may be used to suppress the body's immune response or to reduce inflammation.

stigma Social attitudes that suggest that having a particular illness or being in a particular situation is something to be ashamed of. Stigma can be questioned and challenged.

strain A variant characterised by a specific genotype.

Related terms [subtype](#)

strategic positioning Another term for seropositioning.
Related terms [seropositioning](#)

stroke An interruption of blood flow to the brain, caused by a broken or blocked blood vessel. A stroke results in sudden loss of brain function, such as loss of consciousness, paralysis, or changes in speech. Stroke is a medical emergency and can be life-threatening.

structural factors Social forces which drive the HIV epidemic and create vulnerability to HIV infection. They include gender inequality and violence, economic and social inequality, and discriminatory legal environments.
Related terms [structural interventions](#)

structural interventions Programmes which attempt to alter the social, economic, political or environmental factors which drive the HIV epidemic. Examples include programmes to support female education or gender-based violence, legal changes to support harm reduction, and policy changes to reduce stigma and discrimination against key populations.
Related terms [structural factors](#)

subclinical Describes an infection or disease which is not severe enough to present definite or readily observable symptoms.

subcutaneous	Beneath or introduced beneath the skin, e.g. a subcutaneous injection is an injection beneath the skin.
subtherapeutic	Refers to a dose or blood concentration of a drug that is too low to be effective.
subtype	In HIV, different strains which can be grouped according to their genes. HIV-1 is classified into three 'groups,' M, N, and O. Most HIV-1 is in group M which is further divided into subtypes, A, B, C and D etc. Subtype B is most common in Europe and North America, whilst A, C and D are most important worldwide.
superinfection	When somebody already infected with HIV is exposed to a different strain of HIV and becomes infected with it in addition to their existing virus.
superiority trial	<p>A clinical trial which aims to demonstrate that one treatment is better than another.</p> <p>Related terms non-inferiority trial, equivalence trial</p>
surrogate marker	An indirect indicator of something, such as measuring viral load to assess the treatment effect of a drug.
sustained virological response (SVR)	The continued, long-term suppression of a virus as a result of treatment. In hepatitis C, refers to undetectable hepatitis C RNA after treatment has come to an end. Usually SVR refers to RNA remaining undetectable for 12 or 24 weeks after ending treatment and is considered to be a cure (SVR12 or SVR24).
Swiss statement	<p>A 2008 article by a group of Swiss doctors which asserted that people living with HIV who are taking antiretroviral therapy and have an undetectable viral load, with no sexually transmitted infections, do not pass on HIV to their sex partners. Since then, major scientific studies have proven that the statement was correct.</p> <p>Related terms Undetectable = Untransmittable (U=U)</p>

symptom Any perceptible, subjective change in the body or its functions that signals the presence of a disease or condition, as reported by the patient.

symptomatic Having symptoms.

syndemic The co-occurrence of several diseases and social problems which combine together to have an especially negative impact on risk behaviour and health. For example, researchers have described syndemics of drug use, mental health problems and sexual risk behaviour.

syndrome A group of symptoms and diseases that together are characteristic of a specific condition. AIDS is the characteristic syndrome of HIV.

synergy When two or more drugs produce an effect greater than adding their separate effects.

syphilis A sexually transmitted infection caused by the bacterium *Treponema pallidum*. Transmission can occur by direct contact with a syphilis sore during vaginal, anal, or oral sex. Sores may be found around the penis, vagina, or anus, or in the rectum, on the lips, or in the mouth, but syphilis is often asymptomatic. It can spread from an infected mother to her unborn baby.

systematic review A review of the findings of all studies which relate to a particular research question and which conform to pre-determined selection criteria.

Related terms [meta-analysis](#)

systemic Acting throughout the body rather than in just one part of the body.

systolic blood pressure

The highest level of blood pressure – when the heart beats and contracts to pump blood through the arteries. It is the first of the two numbers in a blood pressure reading (above 140/90 mmHg is high blood pressure).

Related terms [high blood pressure](#), [diastolic blood pressure](#)

T cell

Also known as T lymphocytes, T cells are white blood cells that participate in a variety of cell-mediated immune reactions. Three fundamentally different types of T cells are recognized: helper, killer, and suppressor. CD4 cells are also known as T helper cells, whereas CD8 cells are one type of T killer cells. T cells are essential for a normal functioning immune system. The “T” stands for the thymus, where T-cells mature.

T helper cells

T cells that alert the immune system to produce cytotoxic T lymphocytes against a specific infection. T helper cells are also known as CD4 cells.

T killer cell

A type of immune cell that can kill certain cells, including foreign cells, cancer cells, and cells infected with a virus. A T killer cell is a type of white blood cell and a type of lymphocyte. Also called cytotoxic T cell, cytotoxic T lymphocyte or CD8 T cells.

Related terms [cytotoxic T-lymphocyte](#), [CD8](#)

t-test

A statistical test used to compare two means (e.g. the mean CD4 counts of those in the treatment and control arms).

target cell

Type of cell that HIV or another virus or bacteria infects.

task shifting

The delegation of healthcare tasks usually performed by more highly trained health personnel to those with less training, such as nurses and community health workers. Task shifting has allowed HIV services to be scaled up, especially in resource-limited settings.

teratogenic

Causing physical defects in the foetus.

test and treat	A public health strategy in which widespread HIV testing is facilitated and immediate treatment for those diagnosed with HIV is encouraged.
therapeutic drug monitoring (TDM)	The measurement of plasma drug concentrations in an effort to provide the most effective dosage with the least possible side-effects; TDM can help guide decisions regarding changes in drug dosing.
therapeutic vaccine	A vaccine-like product used with the aim of improving the immune function of someone who already has an infection, rather than of preventing the infection.
therapy	Any form of treatment. Drugs, radiation, and psychiatric counselling are forms of therapy.
thrombocytopenia	A reduction in platelets (blood cells responsible for blood clotting). This results in spontaneous bruising and prolonged bleeding.
thrush	A fungal infection of the mouth, throat or genitals, marked by white patches. Also called candidiasis.
thymidine analogue	A type of nucleoside reverse transcriptase inhibitor. Zidovudine (also known as AZT) and stavudine (also known as d4T) are thymidine analogues. Nucleoside reverse transcriptase inhibitors insert a nucleoside into the proviral DNA of HIV, terminating the chain of proviral DNA and preventing the incorporation of proviral DNA into the genome of a host cell. Thymidine analogues insert an altered thymidine nucleoside into the proviral DNA.
thymus	A gland in the chest where T cells produced in the bone marrow mature into effective immune system components.
tid	Abbreviation of a Latin term meaning three times a day.

time-to-event endpoint	<p>An endpoint in a trial that measures the time taken for the individual to reach some event (e.g. clinical progression, virological suppression).</p> <p>Related terms endpoint</p>
titre	<p>A laboratory measurement of the amount, or concentration, of a given component in solution.</p>
tiw	<p>Abbreviation of a Latin term meaning three times a week.</p>
tolerability	<p>Term used to indicate how well a particular drug is tolerated when taken by people at the usual dosage. Good tolerability means that drug side-effects do not cause people to stop using the drug.</p>
tonsils	<p>Two oval lymph node-like structures situated where the mouth joins the throat.</p>
topical	<p>Applied directly to the affected area, as opposed to systemic. For example, a cream or lotion, applied to body surfaces such as the skin or mucous membranes inside the vagina or rectum.</p>
toxicity	<p>Side-effects.</p>
toxin	<p>A poisonous substance.</p>
toxoplasmosis	<p>A disease due to infection with the protozoa <i>Toxoplasma gondii</i>, usually transmitted through consuming contaminated food and drink or undercooked meat.</p>
traditional risk factors	<p>Risk factors for a disease which are well established from studies in the general population. For example, traditional risk factors for heart disease include older age, smoking, high blood pressure, cholesterol and diabetes. 'Traditional' risk factors may be contrasted with novel or HIV-related risk factors.</p>

- transaminase** An enzyme that can be measured in a blood sample that indicates the health of the liver, such as AST or ALT.
Related terms [liver function test \(LFT\)](#)
- transcription** One of the steps in the HIV life cycle in which the HIV DNA provirus is used as a template to create copies of HIV's RNA genetic material as well as shorter strands of HIV RNA called messenger RNA (mRNA). HIV mRNA is then used in a process called translation to create HIV proteins and continue the virus's life cycle.
Related terms [translation](#), [life cycle](#)
- transgender** An umbrella term for people whose gender identity and/or gender expression differs from the sex they were assigned at birth.
- translation** The step in the HIV life cycle that follows transcription in which the genetic information contained in HIV mRNA is used to build HIV proteins with the host cell's protein-making machinery. Once these HIV proteins are produced, they can combine with copies of HIV's RNA genetic material to form new, complete copies of HIV.
Related terms [transcription](#), [life cycle](#)
- transmission cluster** By comparing the genetic sequence of the virus in different individuals, scientists can identify viruses that are closely related. A transmission cluster is a group of people who have similar strains of the virus, which suggests (but does not prove) HIV transmission between those individuals.
Related terms [phylogenetic analysis](#)
- treatment as prevention (TasP)** A public health strategy involving the prompt provision of antiretroviral treatment in people with HIV in order to reduce their risk of transmitting the virus to others through sex.
Related terms [Undetectable = Untransmittable \(U=U\)](#)
- treatment cascade** A model that outlines the steps of medical care that people living with HIV go through from initial diagnosis to achieving viral suppression, and shows the proportion of individuals living with HIV who are engaged at each stage.
Related terms [care cascade](#), [continuum of care](#)

- treatment effect** In clinical trials that compare treatments, the treatment effect is the additional benefit provided by the new treatment, over and above that which would have been expected by chance or using standard care.
- treatment failure** Inability of a medical therapy to achieve the desired results.
- treatment interruption** Taking a planned break from HIV treatment, sometimes known as a 'drugs holiday'. As this has been shown to lead to worse outcomes, treatment interruptions are not recommended.
Related terms [analytical treatment interruption \(ATI\)](#)
- treatment simplification** Making changes to an HIV treatment regimen to make medication adherence easier. Simplifying an HIV regimen can include reducing the number of antiretroviral (ARV) drugs in the regimen or changing to a combination ARV drug that provides a one-pill, once-daily complete regimen.
- treatment-experienced** A person who has previously taken treatment for a condition. Treatment-experienced people may have taken several different regimens before and may have a strain of HIV that is resistant to multiple drug classes.
- treatment-naive** A person who has never taken treatment for a condition.
- trend** In everyday language, a general movement upwards or downwards (e.g. every year there are more HIV infections). When discussing statistics, a trend often describes an apparent difference between results that is not statistically significant.
Related terms [statistical significance](#)
- trial** A clinical trial is a research study that evaluates a treatment or intervention with human volunteers, in order to answer specific questions about its safety, efficacy and medical effects.
- trial design** How a clinical study or trial is structured to answer the questions being asked, e.g., open-label or double-blind, comparative or observational.

triglycerides	A blood fat (lipid). High levels are associated with atherosclerosis and are a risk factor for heart disease.
tropic	See tropism
tropism	When HIV selectively attaches to a particular coreceptor on the surface of a host CD4 cell. HIV can attach to either the CCR5 coreceptor (R5-tropic) or the CXCR4 coreceptor (X4-tropic) or both (dual-tropic).
trough level	The lowest point to which levels of a drug fall in the blood between doses.
tuberculosis (TB)	<p>A disease caused by the bacterium <i>Mycobacterium tuberculosis</i>. There are two forms of TB: latent TB infection and TB disease (active TB). In people with HIV, TB is considered an AIDS-defining condition.</p> <p>Related terms active TB, latent TB</p>
tumour	<p>Growth of tissues that perform no useful function, sometimes due to cancer (malignant tumour).</p> <p>Related terms cancer</p>
ulcer	A break in the skin or mucous membrane which involves the loss of the surface tissue.
UNAIDS	The Joint United Nations Programme on HIV/AIDS (UNAIDS) brings together the resources of ten United Nations organisations in response to HIV and AIDS.
Undetectable = Untransmittable (U=U)	<p>U=U stands for Undetectable = Untransmittable. It means that when a person living with HIV is on regular treatment that lowers the amount of virus in their body to undetectable levels, there is zero risk of passing on HIV to their partners. The low level of virus is described as an undetectable viral load.</p> <p>Related terms undetectable viral load</p>

undetectable viral load

A level of viral load that is too low to be picked up by the particular viral load test being used or below an agreed threshold (such as 50 copies/ml or 200 copies/ml). An undetectable viral load is the first goal of antiretroviral therapy.

Related terms [Undetectable = Untransmittable \(U=U\)](#)

universal precautions

See [standard precautions](#)

unprotected

In relation to sex, a term previously used to describe sex without condoms. However, we now know that protection from HIV can be achieved by taking PrEP or the HIV-positive partner having an undetectable viral load, without condoms being required. The term has fallen out of favour due to its ambiguity.

Related terms [condomless](#)

unprotected anal intercourse (UAI)

See [unprotected](#)

uveitis

Inflammation of the middle layer of the eye.

vaccine

A substance that contains antigenic components from an infectious organism. By stimulating an immune response (but not disease), it protects against subsequent infection by that organism, or may direct an immune response against an established infection or cancer.

vaginal flora

The bacteria that live inside the vagina, consisting primarily of *lactobacilli*, that aid in forming a natural defense against infections. An imbalance of vaginal flora can allow bad bacteria to take over and lead to infections and other conditions.

vaginal ring

A device that is worn inside the vagina for a month at a time, which women can insert and remove themselves. A vaginal ring for HIV prevention that slowly releases the antiretroviral drug dapivirine is being developed.

VCT

Short for voluntary counselling and testing.

vector A harmless virus or bacteria used as a vaccine carrier to deliver pieces of a disease-causing organism (such as HIV) into the body's cells to stimulate a protective immune response.

vertical transmission Transmission of an infection from mother-to-baby, during pregnancy, childbirth, or breastfeeding.

viraemia The presence of virus in the blood.

Related terms [viral load](#)

viraemic controllers A small subset of people living with HIV who are able to control HIV replication in the absence of antiretroviral treatment for an unusually long period of time. Definitions vary, but a viraemic controller is usually defined as a person whose viral load has remained below 2000 copies. However, because HIV continues to replicate in viraemic controllers, ART is recommended for controllers who have declining CD4 counts or who develop HIV-related complications. Viraemic controllers and elite controllers are members of a larger group known as HIV controllers. Around half of HIV controllers can also be described as long-term non-progressors.

Related terms [elite controllers](#), [HIV controllers](#), [long-term non-progressor](#)

viral breakthrough An increase in viral load while on antiretroviral treatment.

viral core The internal portion of the HIV particle, containing proteins encoded by the gag gene.

viral envelope See [envelope](#)

viral load Measurement of the amount of virus in a blood sample, reported as number of HIV RNA copies per milliliter of blood plasma. Viral load is an important indicator of HIV progression and of how well treatment is working.

Related terms [undetectable viral load](#)

viral rebound	When a person on antiretroviral therapy (ART) has persistent, detectable levels of HIV in the blood after a period of undetectable levels. Causes of viral rebound can include drug resistance, poor adherence to an HIV treatment regimen or interrupting treatment.
virion	A virus particle existing freely outside a host cell.
virologic response	Reduction in viral replication in response to treatment, especially achievement of an undetectable viral load. Related terms sustained virological response (SVR)
virological relapse	When viral load can be measured after previously being undetectable.
virological suppression	Halting of the function or replication of a virus. In HIV, optimal viral suppression is measured as the reduction of viral load (HIV RNA) to undetectable levels and is the goal of antiretroviral therapy. Related terms undetectable viral load
virulence	The power of bacteria or viruses to cause a disease. Different strains of the same micro-organism can vary in virulence.
virus	A micro-organism composed of a piece of genetic material (RNA or DNA) surrounded by a protein coat. To replicate, a virus must infect a cell and direct its cellular machinery to produce new viruses.
visceral	Pertaining to the internal organs. Visceral fat is fat tissue that is located deep in the abdomen and around internal organs.
voluntary male medical circumcision (VMMC)	The surgical removal of the foreskin of the penis (the retractable fold of tissue that covers the head of the penis) to reduce the risk of HIV infection in men.
vomiting	Being sick.

vulva The external female genitals.

wart A growth on the skin caused by *human papillomavirus* (HPV). Although some strains of HPV can cause cancer, warts are not cancerous.

washout period The time it takes for a drug to be completely cleared from the body after its use is discontinued. In cross-over trials, participants typically have a washout period after they have completed a course of treatment with one study drug before beginning the course with a second study drug.

Related terms [crossover trial](#)

wasting Muscle and fat loss.

white blood cell The cells of the immune system, including basophils, lymphocytes, neutrophils, macrophages and monocytes. Also known as a leukocyte.

WHO stage A simplified system to describe four clinical stages of HIV-related disease, based on clinical parameters (symptoms, weight loss and different opportunistic infections) rather than decreasing CD4 cell count. Stage I is asymptomatic, stage II mild symptoms, stage III advanced symptoms and stage IV severe symptoms (an AIDS diagnosis).

wild-type virus The naturally occurring, non-mutated strain of a virus. When exposed to antiretroviral (ARV) drugs, wild-type HIV can develop mutations that make the virus resistant to specific HIV drugs.

Related terms [resistance](#)

window period

In HIV testing, the period of time after infection and before seroconversion during which markers of infection are still absent or too scarce to be detectable. All tests have a window period, the length of which depends on the marker of infection (HIV RNA, p24 antigen or HIV antibodies) and the specific test used. During the window period, a person can have a negative result on an HIV test despite having HIV.

Related terms **false negative**

withdrawal

In the context of drugs or alcohol, withdrawal is when a person cuts out, or cuts back, on using the substance, also known as detoxification or detox. In a context of sexual risk reduction, it refers to the insertive partner in penetrative sex withdrawing before ejaculation. It is not a particularly effective way to lower the risk of HIV transmission or pregnancy.

x-ray

A non-invasive and painless technique that provides images of the inside of the body. It's mostly used to look at bones and joint. It can also be used to detect some types of cancer and pneumonia.