Unit 4 Key Area 4

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| **Immunisation** | When a person develops immunity to a disease causing organism |
| **Active Immunity** | Immunity gained as a results of the person’s own body producing the antibodies |
| **Naturally Acquired Active Immunity** | When the person became immune by natural means eg. surviving the infection |
| **Artificially Acquired Active Immunity** | When the person has received a vaccination to trigger an immune response |
| **An adjuvant** | is a chemical substance that promotes the activity of the antigen and enhances the immune response |
| **Vaccines are made from** | antigens from weakened or dead forms of infectious pathogens and an adjuvant |
| **Clinical trials are used to**  | establish the safety and efficacy of a vaccine before they are licenced for use |
| **Placebo effect involves**  | a control group receiving a “sham” treatment to see if it improves their condition due to a psychological effect of thinking it will work |
| **Double Blind Trial** | Neither the subjects nor the researchers know who is receiving which treatment to eliminate bias |
| **Radomised Trial** | Information on each individual in the trial group is hidden so the groups are not based on current health status to eliminate bias |
| **Herd Immunity** | Reduces the probability that a non-immune individual comes into contact with an infected individual |
| **Herd Immunity Threshold** | % of immune individuals in a population above which a disease no longer manages to persist |
| **Antigenic Variation** | When pathogens can change their antigens and therefore avoid the immunological memory eg. Influenza and Malaria |
| **Direct attack on the immune system occurs when** | a pathogen interferes with the host cells phagocytic response or manages to block an essential step in the immune system |
| **AIDS and HIV is an example of an** | Immunodeficiency disease as HIV attacks lymphocytes |
| **Tuberculosis is caused by a bacterium which can** | Survive inside phagocytes preventing lysosomes from releasing enzymes and is therefore an immunodeficiency disease |