

## Lesson 7 - Main Terms

UNIT	TERM	EXPLANATION
7.2	<b>cowpox</b>	An infectious disease caused by the cowpox virus and is related to smallpox.
7.2	<b>"killed" virus</b>	Chemically inactivated virus.
7.2	<b>"live" virus</b>	Infectious virus.
7.2	<b>attenuated virus</b>	Weakened virus – a virus that has been mutated to infect you but not cause disease or very mild disease.
7.2	<b>IPV (Inactivated Polio Vaccine)</b>	A polio vaccine developed by Jonas Salk. The virus is inactivated with formaldehyde and administered via injection.
7.2	<b>OPV (Oral Polio Vaccine)</b>	A polio vaccine developed by Albert Sabin containing “live” attenuated virus and is administered via oral drops.
7.3	<b>subunit vaccine</b>	A vaccine containing only select antigens of the pathogen. Typically the spike protein of a virus as is the case for Hepatitis B virus.
7.3	<b>Toxoid</b>	An inactivated toxin. The toxins produced by bacteria can be inactivated with formaldehyde to produce an inactivated protein that can still simulate the B-cells to produce neutralizing antibodies.

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7.3	<b>conjugate vaccine</b>	A vaccine containing a poor antigen linked to a strong antigen to boost the immunological response. Although sugar molecules can stimulate a B-cell response, this is often weak. In order to enhance the response, sugars of the bacterial coat can be chemically linked to proteins. In this manner a stronger immune response can be launched in response to vaccination.
7.6	<b>adjuvant</b>	A molecule often used in vaccines to enhance the immunological response. The most common adjuvants for human use are aluminum salts. Typically the amount of aluminum is around 250 micrograms per vaccine.
7.8	<b>vaccine boost / boost dose</b>	An extra administration of a vaccine in order to enhance the immunological response. The first vaccination stimulates a primary response. However subsequent exposure to the vaccine greatly improves the response and fortifies the memory as well. Thus most vaccination schedules start with the primary initial vaccination followed by a series (one or two booster shots). In some cases booster shots are recommended after many years to re-stimulate the immune system.