Killed (Inactivated) Whole Vaccines

Killed (inactivated) whole vaccines are vaccines that have had their virulent capacity permanently removed, typically by heat or a chemical (e.g. formalin). They contain the whole organism against which immunity is desired (virus, bacteria). They mostly activate humoral immunity and do not have a risk of reverting to a virulent form. Since antibody levels decline over time with killed vaccines, patients require booster shots. Examples of killed whole vaccines include polio (Salk), hepatitis A, rabies, and cholera.



PLAY PICMONIC

Characteristics

Require Booster Shots
Rocket-Boosters
Inactivated vaccines always require multiple doses. In general, the first dose does not produce protective immunity, but “primes” the immune system. A protective immune response develops after the second or third dose. Antibody titers against inactivated antigens diminish with time. As a result, some inactivated vaccines may require periodic supplemental doses to increase, or “boost,” antibody titers.

Vaccines

Mostly Humoral Immune Response
Hummer and Moon
In contrast to live vaccines, in which the immune response closely resembles natural infection, the immune response to an inactivated vaccine is mostly humoral. Little or no cellular immunity results.

Polio (Salk)
Polo-player Socks
There are two types of vaccines against poliomyelitis - Salk and Sabin. The Salk polio vaccine is a killed whole cell vaccine.

Rabies
Rabid-Rabbit-Virus
In the 1880s, the rabies vaccine was developed and proved to be a spectacular success upon its first trial in a boy bitten by a rabid dog. The rabies vaccine is a killed vaccine

Cholera
Collie-dog
The cholera vaccine against Vibrio cholerae is a killed whole vaccine.

Hepatitis A
Happy-Tie-Liver Apple
The hepatitis A vaccine is a killed whole vaccine.

Sign up for FREE at picmonic.com