

# TYPES OF VACCINES



1

## LIVE ATTENUATED VACCINES<sup>1-3</sup>

- Contain whole bacteria or virus particles (antigen) that have been weakened.
- When administered, they provoke a strong and lasting immune response that produces antibodies.
- Contraindicated in people with immunodeficiencies



Includes the rotavirus, MMR, Mpox, nasal flu, shingles, chickenpox (special group only), yellow fever and oral typhoid vaccines.

2

## INACTIVATED VACCINES<sup>1-3</sup>

- Inactivated vaccines contain whole bacteria and viruses that have been killed or altered to keep them from causing disease.
- When administered they provoke a weaker immune response
- Inactivated vaccines usually require booster doses



Includes Hepatitis A, Japanese encephalitis and rabies vaccines.

3

## TOXOID VACCINES<sup>1-3</sup>

- Uses bacterial exotoxins that have been inactivated by heat or formaldehyde.
- The body mounts an immune response to part of bacteria (i.e., toxins).
- Generally, requires a booster dose



Includes diphtheria, pertussis and tetanus vaccines.

4

## NUCLEIC ACID VACCINES<sup>1-3</sup>

- RNA Vaccines: Use a piece of mRNA that produces the desired antigen.

Includes the COVID-19 vaccines.



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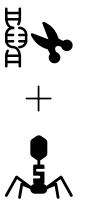
## VIRAL VECTOR VACCINES<sup>1-3</sup>

- An unrelated virus is modified to be used as a non-pathogenic vector.
- The vector then delivers the code needed to produce the desired antigen.

Two types

Nonreplicating vector

Replicating vector

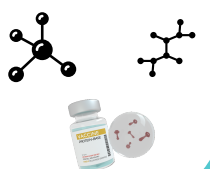


6

## SUBUNIT, RECOMBINANT, CONJUGATE AND POLYSACCHARIDE VACCINES<sup>1-3</sup>

- The vaccines use particular parts (antigens) of pathogens.
- Trigger a strong immune response due to their specificity.

Includes hepatitis B, HPV, meningococcal B, and Hib vaccines



1. Office of Infectious Disease and HIV/AIDS Policy (OIDP). (2022, November 23). Vaccine types. HHS.gov. Retrieved December 10, 2022, from <https://www.hhs.gov/immunization/basics/types/index.html>

2. Canada, H. (2022, August 5). Government of Canada. COVID-19 Vaccines: Authorized vaccines - Canada.ca. Retrieved December 10, 2022, from <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines.html>

3. Types of vaccines. Types of vaccine | Vaccine Knowledge. (2021, April 30). Retrieved December 10, 2022, from <https://vk.ovg.ox.ac.uk/vk/types-of-vaccine>