

Vaccine and Its Protocol

Tenzin Chomphel

Research Toxicologist

Department Of Health, CTA

What is a Vaccine?

ཕྱི་ལོ་ལྷོ་སྤྱོད་སྤྱོད་

- A **vaccine** is a biological preparation that provides active acquired immunity to a particular infectious disease
- It is regulated by FDA, So it is **SAFE**
- It is nothing but a pathogen that is either live, attenuated, killed or a part of the Pathogen.
- It builds Immune cells (ལྷོ་སྤྱོད་སྤྱོད་ལྷོ་སྤྱོད་)
- **“VACCINE DO NOT CAUSE THE DISEASE”**
- **Registration Route:**
 1. Aarogya Setu app
 2. Cowin.org.in
 3. Umang app

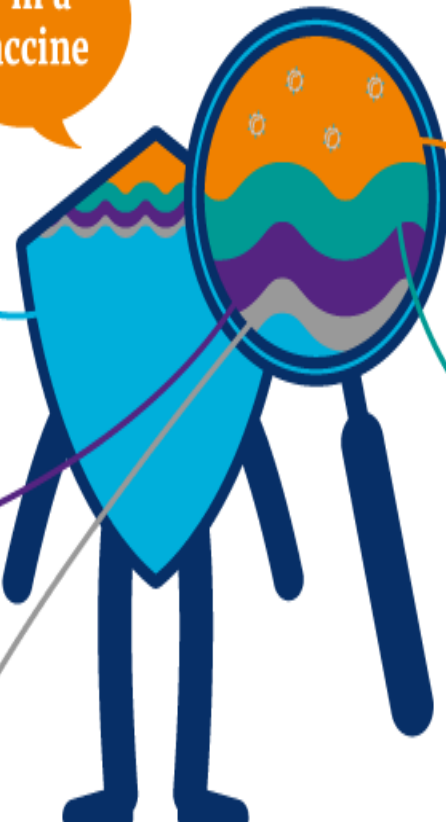
What's in a vaccine?

Water

The main ingredient.



I'm a vaccine



Active ingredient

A very small amount of a harmless form of the bacteria or virus you are immunising against.

Preservatives and stabilisers

Maintain vaccine quality, safe storage and prevent contamination.
Example: Sorbitol; naturally found in fruit in larger amounts.



Adjuvants

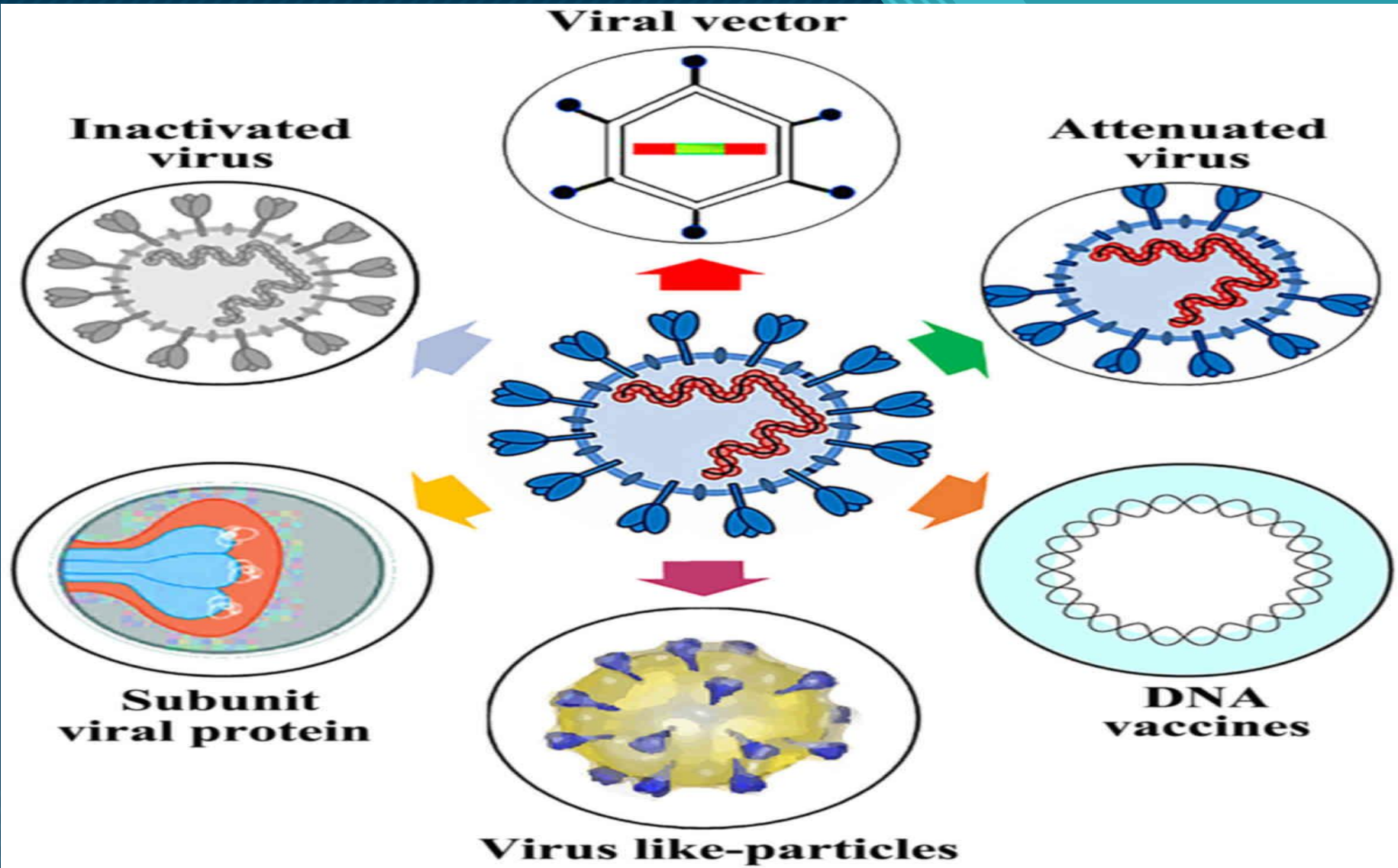
Create a stronger immune response to the vaccine. Pose no significant risk to health in the very small quantities used.
Example: Aluminium; naturally found in drinking water at higher levels.



Residual traces

of substances that have been used during vaccine manufacture, measured as parts per million or billion in the final vaccine.
Example: Formaldehyde; naturally found in human body.

Types of Vaccine ལྷོན་ཁབ་མི་འདྲ་བའི་རིགས།



4 Vaccines Approved for Use in India

Non Replicating Viral Vector ⓘ

Oxford/AstraZeneca
AZD1222



Approved in 102 countries

25 trials in 15 countries

Non Replicating Viral Vector ⓘ

Gamaleya
Sputnik V



Approved in 66 countries

19 trials in 6 countries

Non Replicating Viral Vector ⓘ

Serum Institute of India
Covishield



Approved in 40 countries

2 trials in 1 country

Inactivated ⓘ

Bharat Biotech
Covaxin

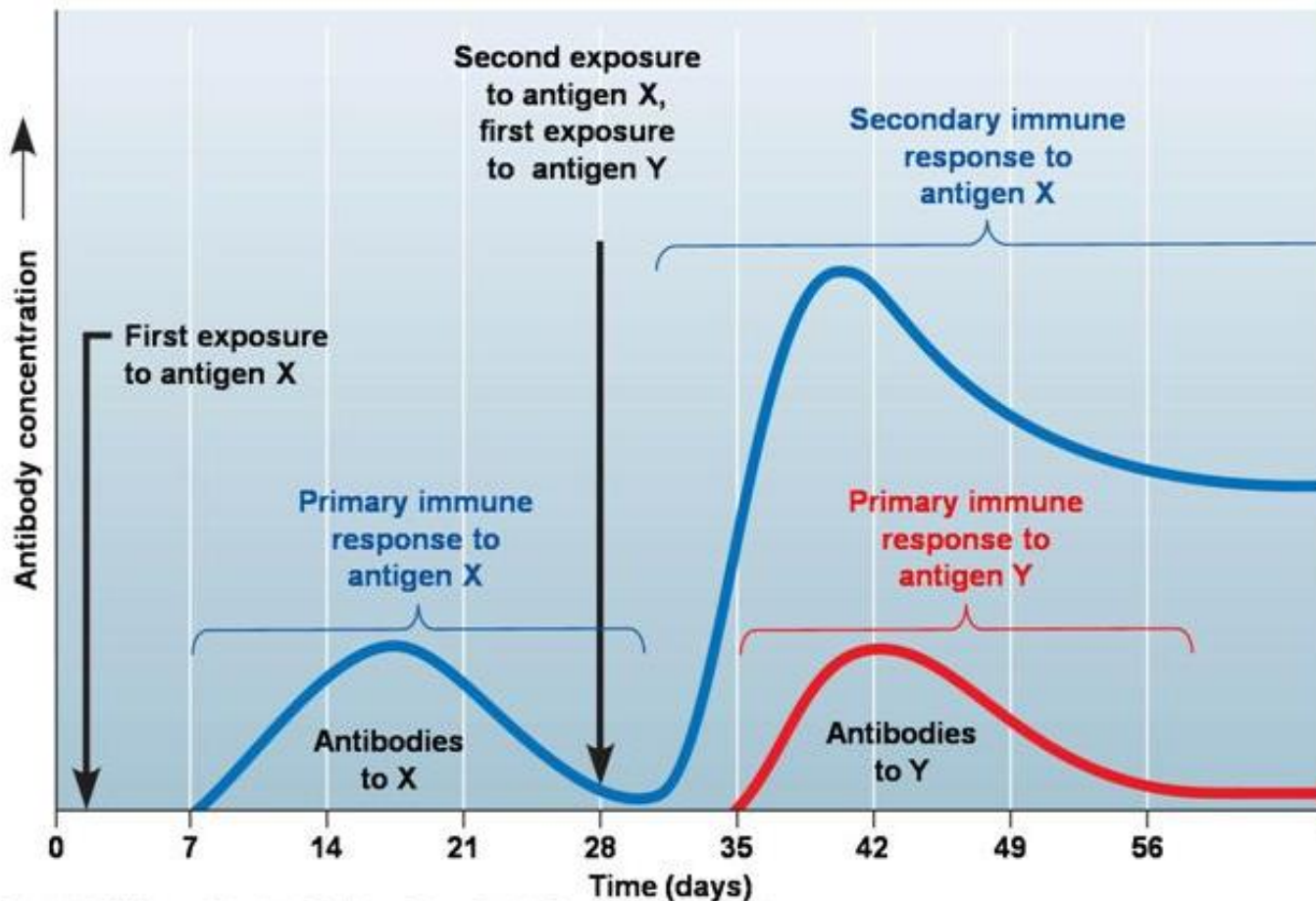


Approved in 9 countries

5 trials in 1 country

Adaptive Immunity is learned, and has memory

LE 24-7b



Importance of Vaccination ལྷན་ཁབ་གཤམ་ཆེ་ཡིན་པའི་སྐྱུ་མཚན།

- Vaccines provide **protective immunity** and **immunological memory** against any infectious disease
- Vaccines are usually **cheap** and **cost effective**, easily administered and adaptive
- Vaccines are **safe**, thoroughly tested and monitored
- Vaccines stimulate both cell mediated and humoral immunities
- **Viral diseases** can be managed through vaccination.

HERD IMMUNITY

When enough people in a population have immunity that disease can't spread



Who Should Get the Vaccine?

ཕྱི་ལོ་སྤྱི་ལོ་ལྷན་དུ་བྱེད་དེ་ལྷན་དུ་

- Priority Based
- Everyone should get the vaccine
- To attain Herd Immunity
- **Exception:** Weak Immunity, High BP, Very old age, diabetic, Bleeding disorder, Allergy
- **Current Status:**
 - In India, only above 18+ yrs
 - In USA, above 12+ yrs
- Vaccine do not give you COVID
- Gaps between 2 Doses 1 month atleast

Can Pregnant and Breast feeding Mother get vaccinated?

- Vaccinated mother will build Antibodies (Ig) that will travel through Placenta and Mother's milk, thus providing more immunity and protection to the baby.
- **Side effects are more on these mothers**
- According to USA Vaccines (Pfizer and Moderna):
 - Vaccine do not cross placenta and mother's milk
 - 35,000 pregnant women vaccinated in USA
- Current Status In India:
 - No clinical trial done in India
 - Restricted from vaccination
 - Can be vaccinated through Doctor's recommendation on the basis of emergency and risks

Post Vaccination Breakthrough Infection

(20th April, 2021)

INDIA

Total Vaccinated	Received first dose	Positive after first dose	Received second dose	Positive after second dose
COVAXIN 1.1 crore	93,56,436	4208 (0.04%)	17,37,178	695 (0.04%)
COVISHIELD 11.6 crore	10,03,02,745	17145 (0.02%)	15732754	5014 (0.03%)

If a person is Covid Positive, when should he/she get vaccinated?

- Vaccine boost your immune systems to produce more specific immune cells to fight against the actual virus if it was to get inside your body
- You should get vaccinated even you were found Covid Positive.
- The person will get 3 vaccine, so it means better protection.
- When should You get the vaccinated if you were found positive?
- Wait atleast 4-6weeks post recovery, to let your body fully recover and then get the vaccine.

COVID Vaccine and Other Vaccine

- Interaction of COVID vaccines is not studied thoroughly yet
- Best to wait for 14 days between the vaccines
- EXCEPTIONS:
 - In cases of emergency such as TETANUS SHOT (for people who get their skin/body punctured by rusty nails), no need to wait.
 - Other vaccine includes Insulin shot (for DIABETIC patients).

ཐུགས་རྗེ་ཆེ།

Thank You