

# KIDS, VAAYU & CORONA 6

COVID VARANTS Vs VACCINE WARRIORS

(A Comic to Aware Children & Parents about COVID-19 Vaccine & Immunization)



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# KIDS, VAAYU & CORONA 6

## COVID VARANTS VS. VACCINE WARRIORS

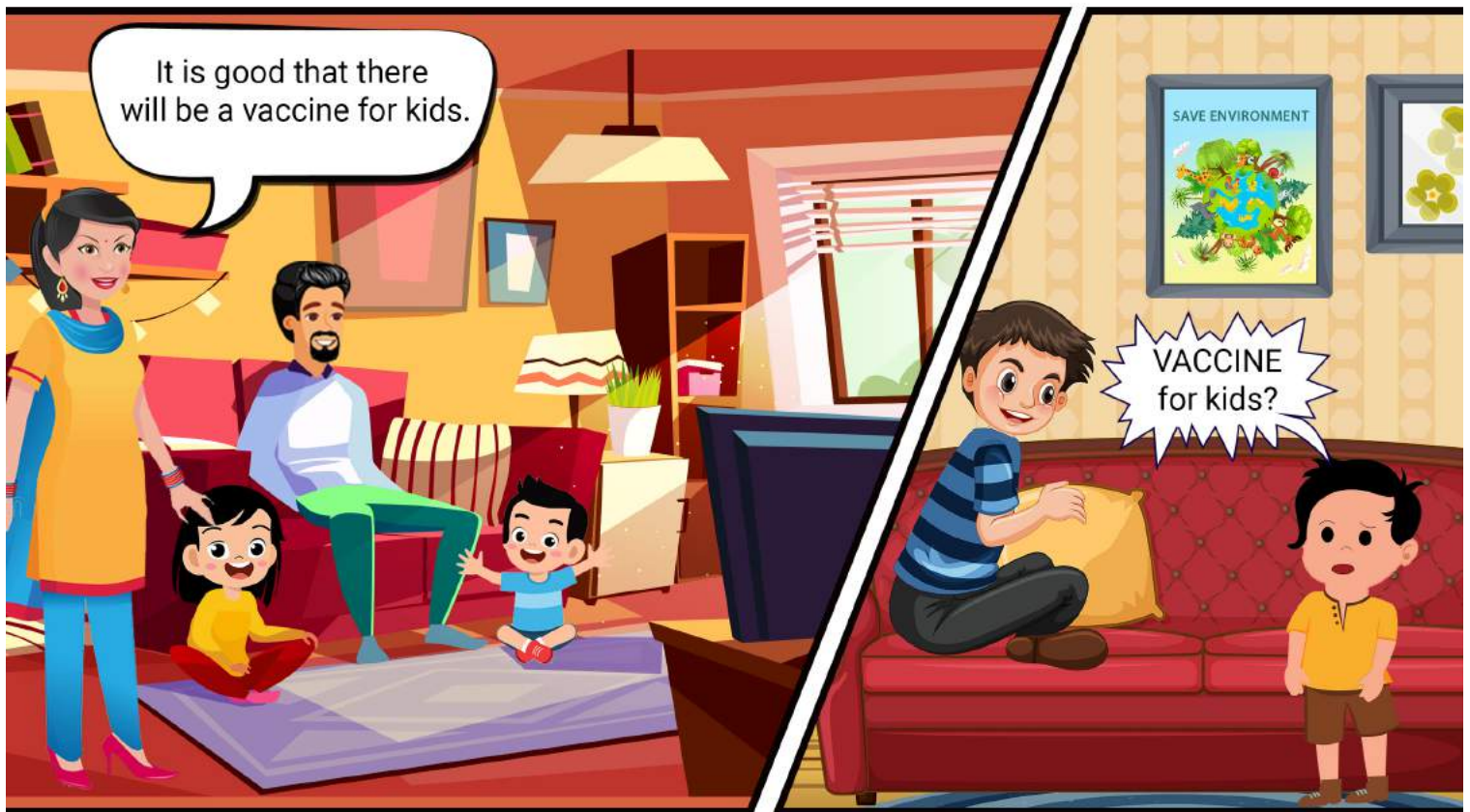
(A Comic To Aware Children & Parents About COVID-19 Vaccine & Immunization)

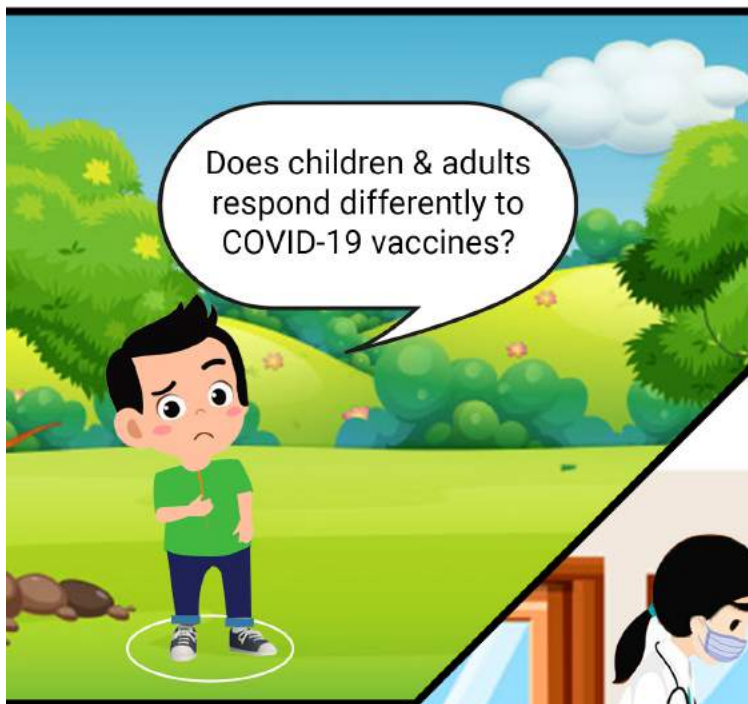
There is growing concern & perceived threat about the coronavirus, its variants & vaccines among the general public. The population of all ages uses available media such as newspapers, social media, & television to make themselves aware. Now, there is a discussion about the COVID variants & possible impact on children including the vaccine for children. This could make children a bit worried as they don't have authentic information. Children are also making use of the internet, but information overload may misguide them. The parents should talk to them & resolve their queries, so they do not feel panic, & we have written 'KIDS, VAAYU & CORONA' comics having six parts for their help.

COVID-19 vaccines are safely being administered to the adult population after rigorous human trials & regulatory procedures. Some countries have also approved covid vaccine for children & in India, vaccine trials are under process. This comic is an effort to guide them scientifically about the vaccines, clear their doubts & concern.

PGIMER-Chandigarh, India, & Panjab University-Chandigarh, India has created the 6th part of the comic to educate about the COVID-19 vaccine for children, including routine immunization, which saves millions of lives every year. Children are our heroes as they follow covid-appropriate behavior. They can better guide & convince their family & parents about the vaccines to enhance their acceptance for the prevention & control of COVID-19 disease.



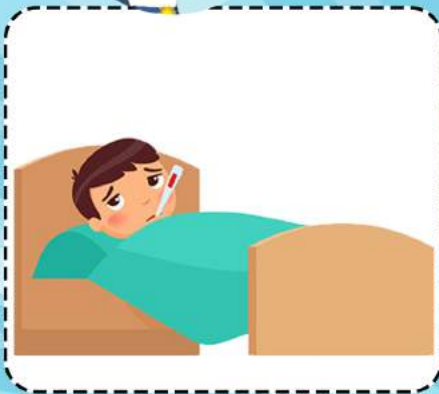
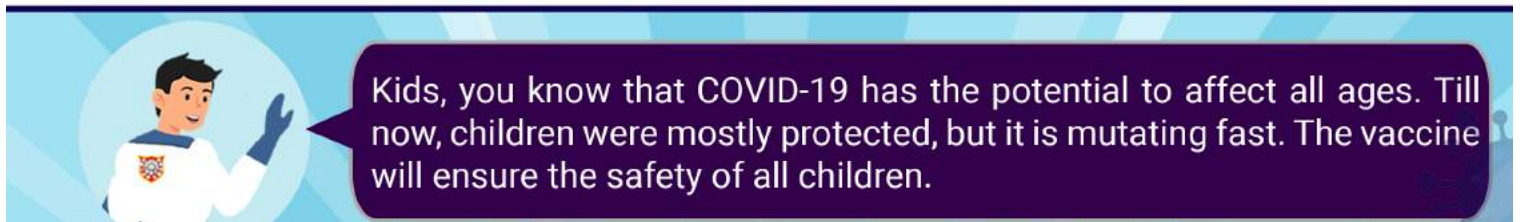






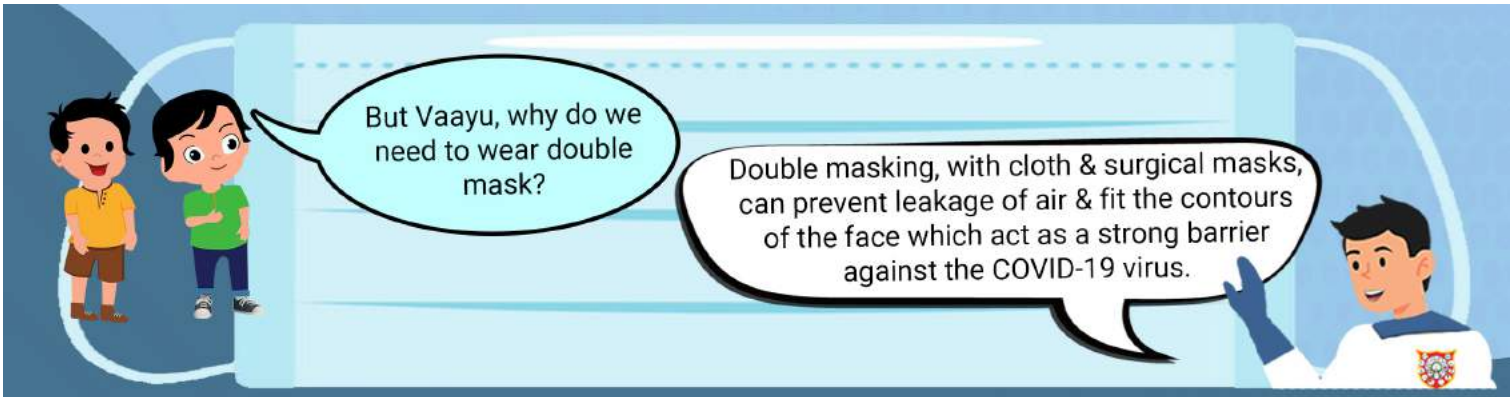
Vaayu practicing yoga & meditation in Himalayas





**KIDS SAFELY REMOVED THE MASKS AS VAAJU SANITIZE THE ENVIRONMENT**





## HOW TO WEAR DOUBLE MASK



**KNOT, TUCK & FLATTEN THE EXTRA CLOTH**

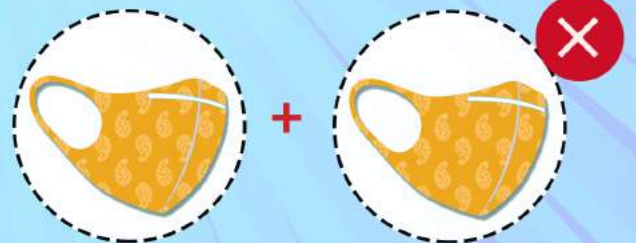
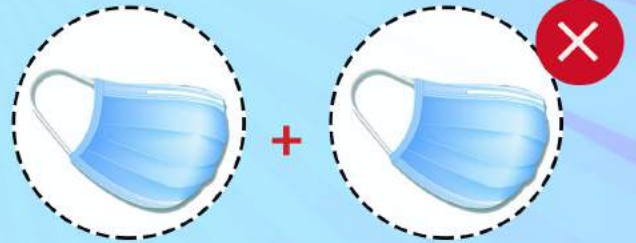


**USE CLOTH MASK ON SURGRICAL MASK**



**NO DOUBLING IS NEEDED WITH N95 MASK**

## PAIRING OF DOUBLE MASKS



## DON'T USE N95 MASK WITH ANY OTHER MASK

**N95 Mask**



+



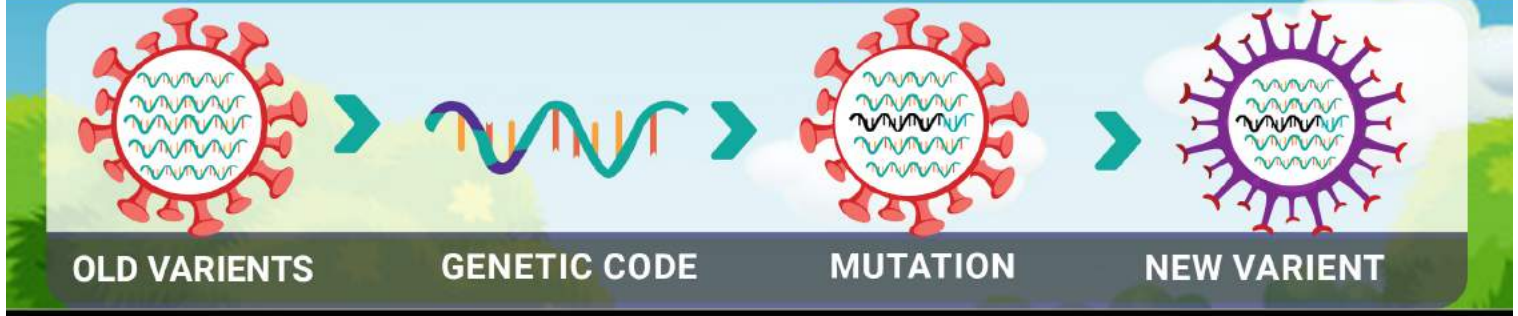
**Any Other Mask**





Vaayu, you told us that virus is mutating fast? What is this?

Kids, you know that the SARS-CoV-2 virus causes COVID-19 disease. The virus changes its genetic material through mutation with time during copying or due to environmental factors.



OLD VARIANTS

GENETIC CODE

MUTATION

NEW VARIANT

## COVID-19

### OLD SYMPTOMS

-  FEVER
-  SORE THROAT
-  COUGH
-  HEADACHE
-  RUNNING NOSE

### NEW SYMPTOMS

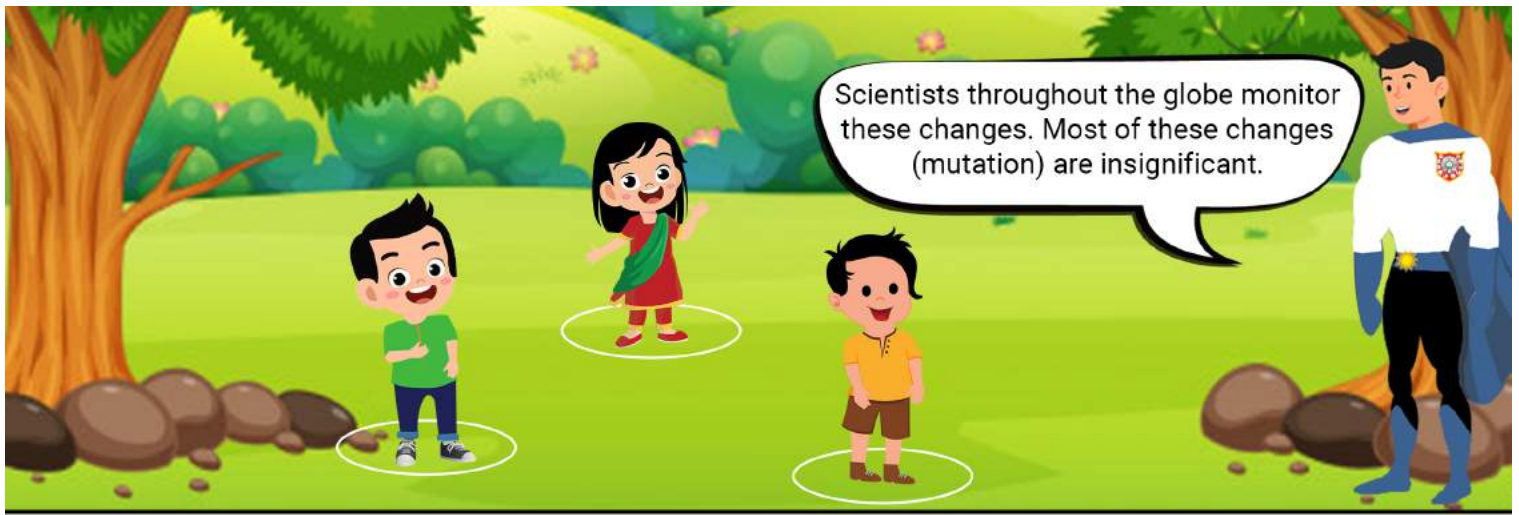
-  SKIN RASHES
-  ACHE & PAIN
-  DISCOLORATION OF SKIN
-  CONJUNCTIVITIS
-  DIARRHEA



Yes, Vaayu, we remember you told us that COVID-19 is an RNA-based coronavirus.

It has crown-like spikes on its surfaces.

Very Good kids! The mutation in the coronavirus can bring minor changes in genetic material or some modifications to the spikes on the virus surface. This may be the reason for new symptoms.



Scientists throughout the globe monitor these changes. Most of these changes (mutation) are insignificant.

**MUTATED VIRUS CATEGORY**

**VARIANT OF INTEREST :** A variant with specific genetic markers that have been associated with changes to receptor binding, reduced neutralization by antibodies generated against previous infection or vaccination, reduced efficacy of treatments, potential diagnostic impact, or predicted increase in transmissibility or disease severity. E.g.-B.1.525, B.1.526, B.1.617, P.2

**VARIANT OF CONCERN :** A variant for which there is evidence of an increase in transmissibility, more severe disease (e.g., increased hospitalizations or deaths), significant reduction in neutralization by antibodies generated during previous infection or vaccination, reduced effectiveness of treatments or vaccines, or diagnostic detection failures. E.g.-B.1.1.7, B.1.351, B.1.427, P.1

**VARIANT OF HIGH CONSEQUENCE :** A variant of high consequence has clear evidence that prevention measures or medical countermeasures (MCMs) have significantly reduced effectiveness relative to previously circulating variants. Currently there are no SARS-CoV-2 variants that rise to the level of high consequence.

OK

COVID-19 vaccine will ensure the safety of all from coronavirus & hence, clinical trials are underway.

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OK



Do you know that vaccines save millions of lives each year?

Yes, Vaayu. We read this in KIDS, VAAYU & CORONA 5: Rise of Vaccine - Fall of Corona.





We remember how clinical trials are conducted in comic 5.



Yes kids, trials on children will also be done in similar way. However they will take permission from your parents & yourself.



## SAFETY & EFFICACY ASSESSMENT

In Phase 1 the vaccine is given to a small number of healthy volunteers to assure its safety & to confirm its general & immune response.

This also helps to determine the right dosage.

Phase 2 trial is conducted in multiple phases to evaluate various age groups & different vaccines formulations. Volunteers who did not get the vaccine are also included in this phase.

This helps to ensure that antibody production is not by chance.

The vaccine is given to thousands of volunteers across multiple countries & multiple sites within a country. The results are compared to a similar group of people who did not get the vaccine.

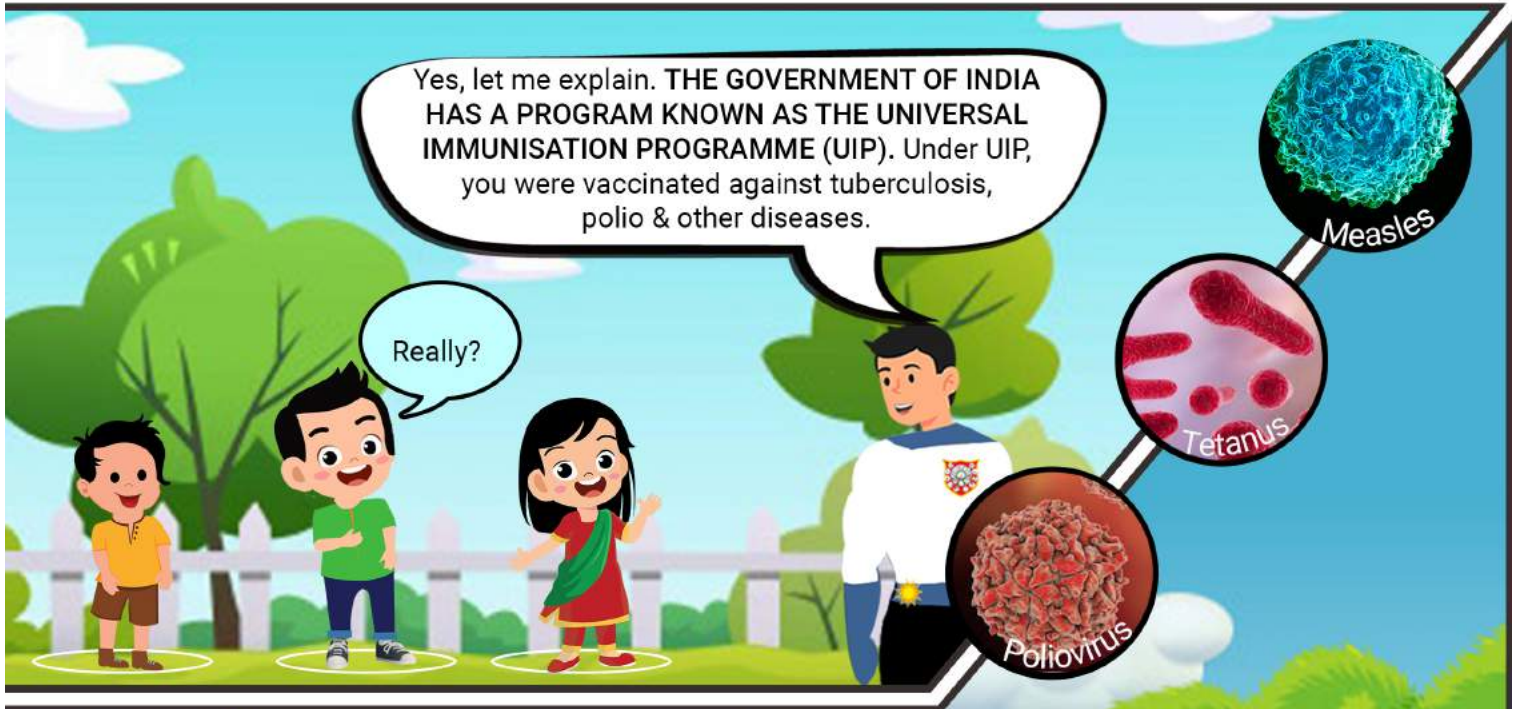
Phase 3 helps to determine if the vaccine is effective against the disease it is designed & safe in much larger group.

Rigorous check by regulatory & public health experts



Very good, kids! After clinical trial, the efficacy & safety is examined for regulatory & public health policy approval under guidance of THE NATIONAL EXPERT GROUP ON VACCINE ADMINISTRATION FOR COVID-19 (NEGVAC).

Yes, Vaayu! You also mentioned that regulatory & scientific bodies continuously monitor the outcome to ensure that vaccine is safe to continue.



# Intensified Mission Indradhanush 2.0



**TETANUS-1**  
Early in pregnancy

**TETANUS-2**  
4 weeks after TT-1

**TETANUS-BOOSTER**  
If received 2TT doses in a pregnancy within the last 3 yrs



**BACILLE CALMETTE-GUERIN**  
At birth or as early as possible till one year of age

**HEPATITIS B**  
At birth or as early as possible within 24 hours



**PENTAVALENT 1,2,3**  
At 6 weeks, 10 weeks & 14 weeks  
(Max. age is 1 yr)

**ORAL POLIO VACCINE-1,2,3**  
At 6 weeks, 10 weeks & 14 weeks  
(till 5 yrs of age)

**ORAL POLIO VACCINE-0**  
At birth or as early as possible within the first 15 days

**ROTAVIRUS**  
At 6 weeks, 10 weeks & 14 weeks  
(till 1 yr of age)



**INACTIVATED POLIO VACCINE**  
2 fractional dose at 6 & 14 weeks of age  
(till 1 yr of age)

**PNEUMOCOCCAL CONJUGATE VACCINE (PCV)**  
At 6 weeks & 14 weeks  
At 9 completed months-boosters

**MEASLES/RUBELLA MR 1<sup>ST</sup> DOSE**  
9 completed months-12 months



**JAPANESE ENCEPHALITIS-1\***  
9 completed months-12 months  
(Max. age is 15 yrs)

\*only in endemic areas

**VITAMIN A (1<sup>ST</sup> DOSE)**  
9 completed months with measles & rubella  
(till 5 years of age)

Intensified Mission Indradhanush was launched by Prime Minister Shri Narendra Modi in 2017 to reach each & every child upto two years of age & pregnant women.





DIPHTHERIA, PERTUSSIS ,  
& TETANUS BOOSTER-1  
16-24 months

MEASLES/RUBELLAS  
2<sup>ND</sup> DOSE  
16-24 months

ORAL  
POLIOVIRUS  
VACCINES  
BOOSTER  
16-24 months



JAPANESE  
ENCEPHALITIS  
VACCINE-2\*  
16-24 months

\*only in endemic areas

VITAMIN A  
16-18 months.  
Then one dose  
every 6 months  
up to the age  
of 5 years



TETANUS  
10 years & 16  
years

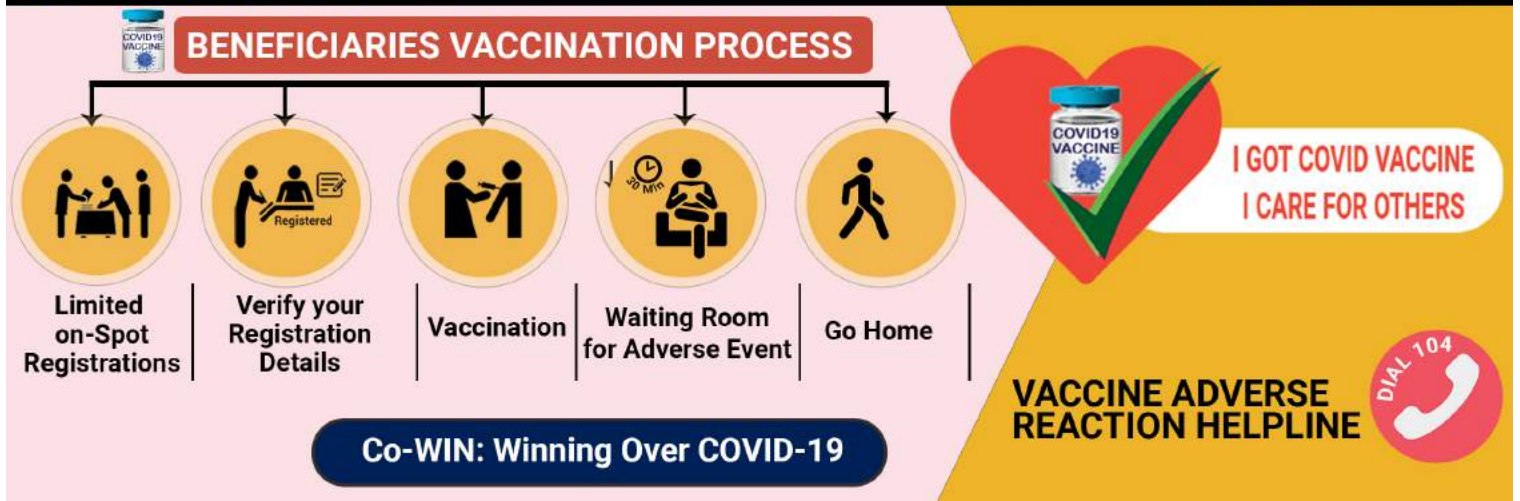
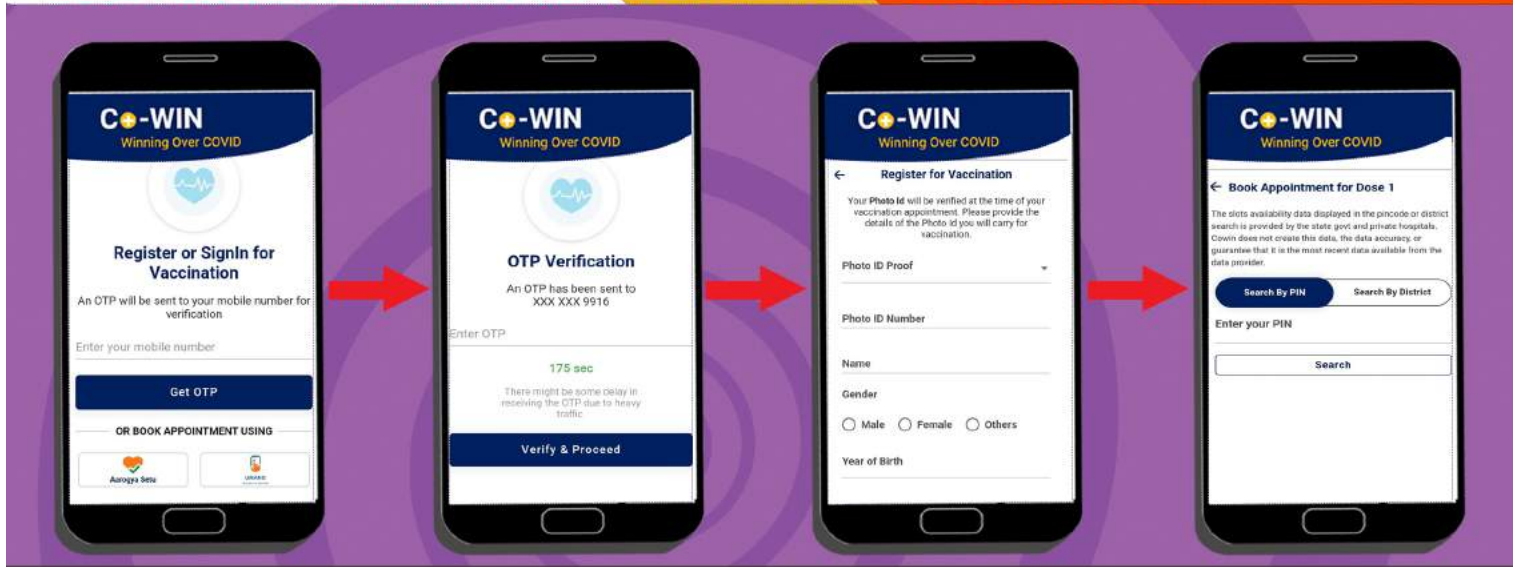
DIPHTHERIA, PERTUSSIS ,  
& TETANUS BOOSTER-2  
5-6 years



**Be Wise!**  
**Get your child  
fully immunized**



## SELF REGISTRATION FOR COVID-19 VACCINATION





### ADMINISTRATION OF COVID-19 VACCINE FOR KIDS





Are there any side effects of the COVID19 vaccine ?

Vaccines are very safe as they are developed & approved through a strict protocol.

However, side-effects can occur but usually they are very minor & have short duration such as sore arm or a mild fever.



## SIDE EFFECTS OF COVID-19 VACCINE



MAJOR ADVERSE REACTION ARE RARE

We are waiting for our vaccine.

We will take the vaccine & ensure that all our friends & family members also take it to defeat COVID-19.

You are our heroes, kids. You will be the vaccine warriors.



Ok Kids, explain how we can restrict the spread of COVID-19 & defeat it?

### BUILDING BETTER IMMUNITY



Vaccine will protect us from COVID-19 by building our natural immunity.



Vaccine will help to stop the pandemic along with other measures such as hand-washing, hygiene & face mask.

30 SECS



VACCINATED

Vaccination reduces the spread of disease in communities & it helps to protect those who can not take the vaccine.



Very good. Remember, vaccines reduce the severity of the COVID-19 disease & hospitalization.



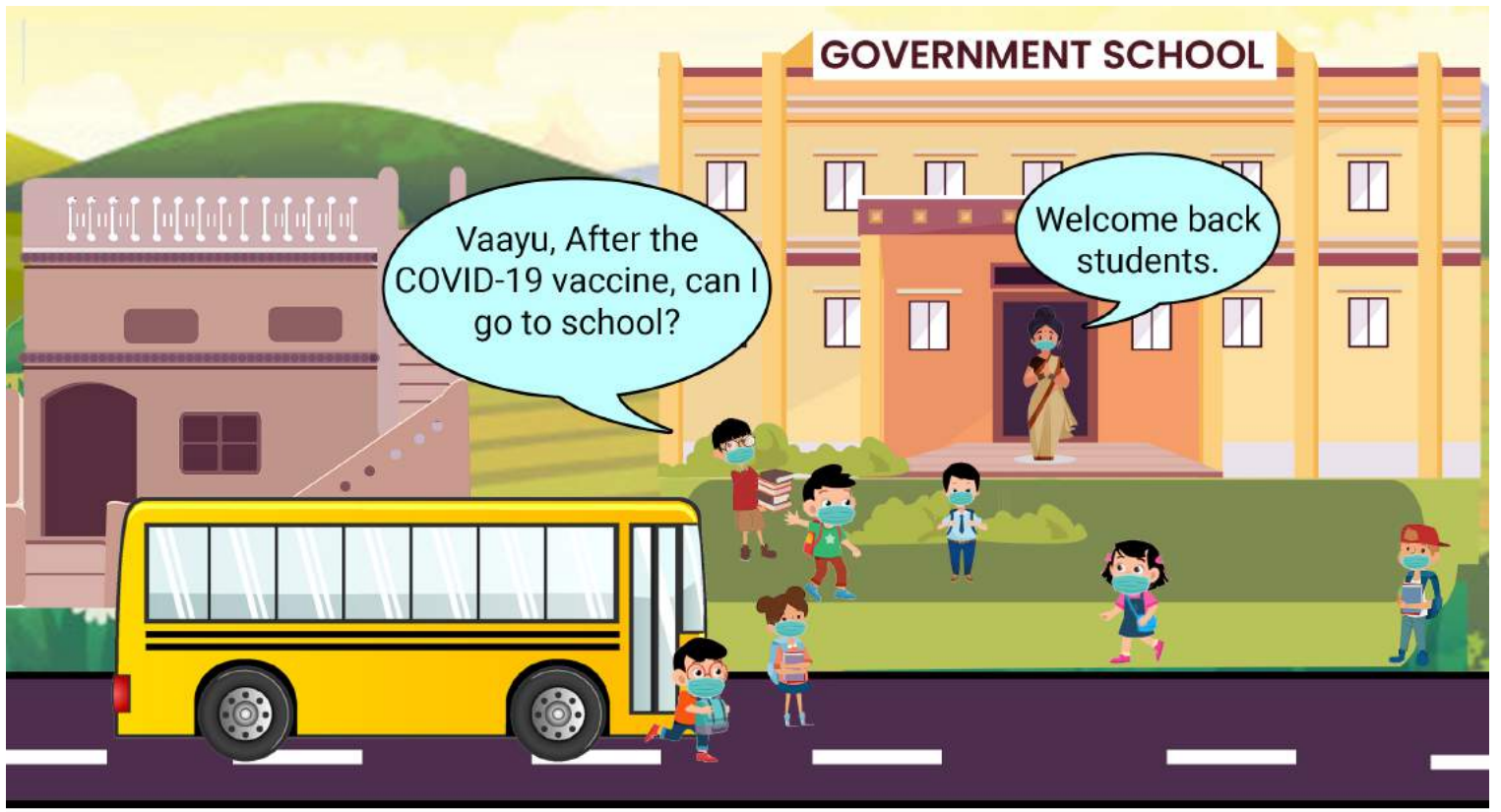
Vaccines can be trusted as they are approved after rigorous clinical trials & scientific procedures.

Yes, Kids, COVID-19 vaccines are safe & already been administered to over million people & no major adverse event is reported.

Remember two doses of vaccine.

That's true kids, lets save ourselves & others by taking two doses of the COVID-19 vaccine.

VACCINE	1 <sup>ST</sup> DOSE	2 <sup>ND</sup> DOSE
 COVAXIN	 > 4-6 WEEKS >	
 COVISHIELD	 > 12 WEEKS >	
 MODERNA	 > 4 WEEKS >	
 PFIZER	 > 3 WEEKS >	
 SPUTNIK V	 > 4 WEEKS >	



वेषु करुणा चापि मैत्री तेषु विधीयताम् ।  
BE COMPASSIONATE & FRIENDLY  
TO ALL LIVING BEINGS.





Yes, I am also interested to visit some beautiful places in India.

Yes, kids! If you & also your family members all take a vaccine. It will help to bring life back to normal. However, we need to learn new normal as I explained you in KIDs, VAAYU & CORONA 4: Covid Appropriate Behavior.



Vaayu, we heard that 3<sup>rd</sup> wave of COVID-19 will affect children the most?

Please note, 3<sup>rd</sup> wave is just an assumption, & we can prevent it by following covid appropriate behavior & vaccinations. The government is prepared to minimize the risk & we should also play our role.





# COVID-19 VACCINE FOR KIDS & QUERIES



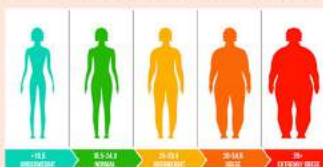
## Why is there a need for a vaccine for children?

The first wave of COVID-19 affected 4% of the children, which increased to around 10% during the second wave. The Indian Council for Medical Research, in serosurvey, found 25.3 % of children had antibodies of the virus, but they mainly had mild symptoms. Therefore, we should vaccinate the children as soon as possible.



## Will there be a different vaccine for children?

No, the vaccine will remain the same. However, the dose will differ based on body weight & age.



## Is there any country that has approved the vaccine for Kids? How long we need to wait for it?

The USA & UK has approved Pfizer's COVID-19 vaccine for children of 12 to 15 years of age. In India, Bharat Biotech has been permitted by the DCGI to begin trials. It will be available in few months after ensuring safety & efficacy.

## My child is already immunized. Does she/he need a COVID vaccine?

Through routine immunization, children remain protected against over 20 life-threatening diseases such as measles & diphtheria. The COVID vaccine will protect against SARS-CoV-2 & its variants.



## How will the vaccine be administered to children?

While administering the vaccine to kids, first the permission will be taken from the parents (consent) & then children will be asked for their assent. Both children & parents must motivate each other to get the vaccine as soon as possible.



## Do vaccines work differently on children?

Children have better immunity & have a high number of T-cells. The vaccine will enhance their natural immunity against COVID-19. Vaccine will work on the kids, as they work on adults.

## Does the third wave of COVID-19 is imminent & will it affect mainly children?

Third wave & its impact on kids is just an assumption. We can prevent it through COVID-appropriate behavior & vaccination.



## What is Multi-system inflammatory syndrome in children (MIS-C)?

MIS-C is a condition marked by severe inflammation of body parts including the heart, lungs liver & kidneys in children. MIS-C affects kids a few weeks after the COVID-19 infection. It is a serious but rare disease & most of the children diagnosed with MIS-C recovered fast with medical care.



## Why is it important to vaccinate children?

It is essential to vaccinate the pediatric age group because it is challenging to isolate them. This group is at higher risk as they come in contact with parents & other family members & may also become risk factors to them. Hence, it is important to vaccinate them as soon as possible.



## Will the vaccine help us to open up schools for kids?



The vaccine for children & adolescents could help children safely stay at schools.

## Why the vaccine for kids coming this late?

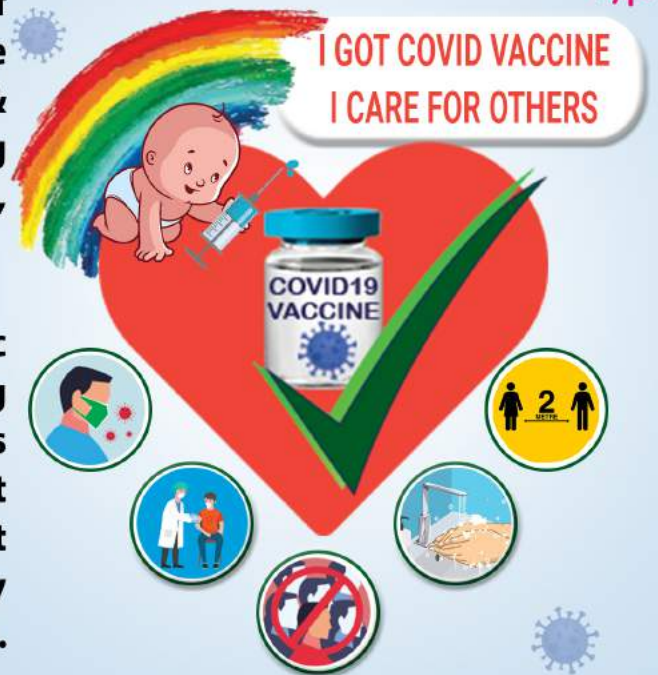
COVID-19 mainly affected the elderly & co-morbid adults. Hence the clinical trial focused on adults. We need to move towards safety of all (herd immunity). Therefore, children are now given priority for the vaccine.



# IMMUNIZATION & COVID-19 VACCINE FOR KIDS

Routine Immunization saves millions of lives every year through vaccines. Vaccine enhances the body's natural defense & protection against over 20 life-threatening diseases such as Measles, Diphtheria, Pertussis & Influenza.

This comic guides the kids & general public about the COVID-19 vaccine, including immunization, to clear their doubts. Kids can guide their family & friends about covid-appropriate behavior & vaccine. Let them be our heroes of prevention by restricting the spread of COVID-19 disease.



## Concept, Script & Idea ©



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