

# Universal Immunisation Program in ODISHA

Vaccines provide active immunity to the body by stimulating the immune system producing antibodies against disease-producing organisms. Vaccine helps in control, prevention and eradicating diseases in the community.

Routine Immunization is one of the most cost effective public health interventions and was first introduced in India in 1978 in the form of the Extended Programme of Immunisation. It is also one of the safest and most effective methods of preventing childhood diseases and a key strategy to child survival. By protecting infants from Vaccine Preventable Diseases, immunization significantly lowers morbidity and mortality rates in children. The program was known as UIP – Universal Immunisation Program from 1985 onwards. Immunisation is one of the key strategy in reducing Maternal & Infant Mortality and morbidity.

## Common Diseases Prevented by Vaccination

Under the Universal Immunization Program, the vaccines used in Odisha are as follow-

Immunization Schedule for infants, children and pregnant women - Odisha						
Vaccine	Due age	Maximum age	Dose	Diluent	Route	Site
<b>For Pregnant Women</b>						
TT-1	Early in Pregnancy	Give as early as possible in pregnancy	0.5 ml	NO	Intra-muscular	Upper Arm
TT-2	4 weeks after TT-1	-	0.5 ml	NO	Intra-muscular	Upper Arm
TT- Booster	If received 2 TT doses in a pregnancy within the last 3 years	-	0.5 ml	NO	Intra-muscular	Upper Arm
<b>For Infants</b>						
BCG	At Birth	Till one year of age	(0.05 ml until 1 month) 0.1 ml Beyond age 1 month	YES Manufacturer supplied diluent (Sodium chloride)	Intra-dermal	Left Upper Arm
Hepatitis B- Birth dose	At Birth	Within 24 hours of birth	0.5 ml	NO	Intra-muscular	Antero-lateral side of mid-thigh - Left Leg
OPV-0	At Birth	Within the first 15 days of life	2 drops	NO	Oral	Oral
OPV 1,2 & 3	At 6 weeks, 10 weeks & 14 weeks	Till 5 years of age	2 drops	NO	Oral	Oral
Pentavalent 1,2 & 3 (Diphtheria+pertussis+ Tetanus + Hepatitis B + Hib)	At 6 weeks, 10 weeks & 14 weeks	1 year of age	0.5 ml	NO	Intra-muscular	Antero-lateral side of mid-thigh - Left Leg
IPV (Inactivated polio Vaccine)	At 6 & 14 completed weeks	1 year of age	0.1 ml	NO	Intra-dermal	Right Upper Arm
Rotavirus Vaccine	At 6 weeks, 10 weeks & 14 weeks	1 year of age	5 drops	NO	Oral	Oral
Measles / MR 1st dose	At 9 completed months-12 months.	5 years of age	0.5 ml	YES Manufacturer supplied diluent (Sterile water)	Sub-cutaneous	Right Upper Arm
Vitamin A (1st dose)	At 9 months	5 years of age (1 lakh IU)	1ml	-	Oral	Oral
<b>For Children</b>						
DTP Booster- 1	16-24 months	7 years of age	0.5ml	NO	Intra- muscular	Antero-lateral side of mid-thigh - Left Leg
Measles / MR 2nd dose	16-24 months	5 years of age	0.5ml	YES Manufacturer supplied diluent (Sterile water)	Sub-cutaneous	Right Upper Arm
OPV Booster	16-24 months	5 years	2 drops	NO	Oral	Oral
Vitamin A (2nd to 9th dose)	At 16 months. Then, one dose every 6 months (in biannual rounds)	Up to the age of 5 years	2 ml (2 lakh IU)	-	Oral	Oral
DTP Booster- 2	5-6 years	7 years of age	0.5ml	NO	Intra- muscular	Upper Arm
TT	10 years & 16 Years	16 Years	0.5ml	NO	Intra- muscular	Upper Arm

The goal of Universal Immunization Programme is to fully immunize each child i.e. give BCG, 3 doses of Pentavalent vaccine, 3 doses of OPV, 3 doses of RVV, 2 doses of IPV and Measles Rubella 1st dose before 1 year of age and Measles-Rubella 2nd dose, DPT Booster 1 and OPV Booster before 2 years of age.

**The goals that the state has set for the UIP are:**

- **Goal 1** - State will provide efficient and safe immunization services to all infant and pregnant women.
- **Goal 2** - Contribute to polio eradication, measles mortality reduction and neonatal tetanus elimination.
- **Goal 3** - Sufficient and sustainable funding with established, adequate and accountable fund flow.
- **Goal 4** - Sustained demand for immunization and reduced social barriers to access of immunization services.
- **Goal 5** - Accelerated introduction of new and underutilized vaccines against diseases with significant mortality and morbidity in the state. Improve cold chain inventory management and vaccine logistics management.
- **Goal 6** - Monitor and use accurate, complete and timely data on vaccine preventable diseases, AEFIs, Antigen Coverage and dropout rates by districts.
- **Goal 7** - Intensive drive to cover left out and drop out children in high focus areas through Immunization weeks.

**Quality Improvement Measures-**

The most important measures for a successful immunisation programme is maintaining cold chain of vaccines from manufacturer till the recipient. Most of the vaccine –vials come with VVM – Vaccine Vial Monitor to ensure efficacy of vaccine till the vaccine is received by the infant.

All vaccines are heat sensitive and are damaged by temperatures more than +8 degree centigrade; whether exposed to a lot of heat in a short time (keeping vaccine in a closed vehicle in the sun) or long period of exposure to lesser amount of heat (frequent opening of lid of ILR).

Vaccine	Exposure to heat/ light	Exposure to cold	Temperature at PHC / CHC
<b>Heat and light sensitive vaccines</b>			
BCG	Relatively heat stable, but sensitive to light	Not damaged by freezing.	+2°C to +8°C
OPV	Sensitive to heat	Not damaged by freezing.	+2°C to +8°C

Rota VV	Sensitive to heat	Not damaged by freezing.	+2°C to +8°C
Measles	Sensitive to heat and light	Not damaged by freezing.	+2°C to +8°C

Vaccine	Exposure to heat/ light	Exposure to cold	Temperature at PHC / CHC
<b>Freeze Sensitive Vaccines</b>			
DPT	Relatively heat stable	Freezes at -3°C (Should not be frozen)	+2°C to +8°C
Hepatitis B	Relatively heat stable	Freezes at -0.5°C (Should not be frozen)	+2°C to +8°C
Pentavalent	Relatively heat stable	Freezes at -3°C (Should not be frozen)	+2°C to +8°C
TT	Relatively heat stable	Freezes at -3°C (Should not be frozen)	+2°C to +8°C

### **Operationalisation of Immunisation program in Odisha**

The vaccination programme is being implemented at the grass root by ANMs with help of ASHAs and AWWs. There are about 1183 cold chain points spread across 314 blocks of the state. This huge and biggest program of the state is supported by around 8840 ANMs and they organize more than 35000 immunization session in one month.

The entire program is supported by 46000 ASHAs in the villages to mobilize mother and children for successful vaccination.