

National Immunization Schedule for Infants, Children and Pregnant Women				
Vaccine	When to give	Dose	Route	Site
For Pregnant Women				
TT-1	Early in pregnancy	0.5 ml	Intra-muscular	Upper Arm
TT-2	4 weeks after TT-1*	0.5 ml	Intra-muscular	Upper Arm
TT- Booster	If received 2 TT doses in a pregnancy within last 3 yrs*	0.5 ml	Intra-muscular	Upper Arm
For Infants				
BCG	At birth or as early as possible till one year of age	0.1ml (0.05ml till 1mth age)	Intra-dermal	Left Upper Arm
Hepatitis B	At birth or as early as possible within 24 hours	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
OPV-0	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1,2 & 3	At 6 weeks, 10 weeks & 14 weeks	2 drops	Oral	Oral
DPT 1,2 & 3	At 6 weeks 10 weeks & 14 weeks	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Hep B 1, 2 & 3	At 6 weeks 10 weeks & 14 weeks	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Measles	9 completed months-12 months.	0.5 ml	Sub-cutaneous	Right upper Arm
Vitamin-A (1stdose)	At 9 months with measles	1 ml (1 lakh IU)	Oral	Oral
For Children				
DPT booster	16-24 months	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Measles 2nd dose	16-24 months	0.5 ml	Sub-cutaneous	Right upper Arm
OPV Booster	16-24 months	2 drops	Oral	Oral
Japanese Encephalitis**	16-24 months	0.5 ml	Sub-cutaneous	Left Upper Arm
Vitamin-A***				
(2nd to 9th dose)	16 months. Then, one dose every 6 months up to the age of 5 years.	2ml (2 lakh IU)	Oral	Oral
DPT Booster	5-6 years	0.5 ml.	Intra-muscular	Upper Arm
TT	10 years & 16 years	0.5 ml	Intra-muscular	Upper Arm

*Give TT-2 or Booster doses before 36 weeks of pregnancy. However, give these even if more than 36 weeks have passed. Give TT to a woman in labour, if she has not previously received TT.

** JE Vaccine, in select endemic districts after the campaign.

*** The 2nd to 9th doses of Vitamin A can be administered to children 1-5 years old during biannual rounds, in collaboration with ICDS.

Measles vaccine

- Contents : live attenuated, Measles virus.
- Type of vaccine : freeze dried provided with diluents.

Monovalent- measles only

Bivalent- measles rubella

Trivalent- measles-mumps-rubella

- Dose : Vaccine is reconstituted with diluent.
0.5ml subcutaneously.

At right arm at the insertion of deltoid²



MEASLES RASH

Age : 9 completed months of age (85-95% seroconversion).

2nd dose at age between 16-24 months.

Adverse reaction : minor- urticaria, slight fever, cough,

conjunctivitis, Transient rash

Major reaction- encephalitis, subacute sclerosing Pan

encephalitis extremely rare.



Measles vaccination

Contraindications : immunodeficiency, immunosuppressive
drug therapy, pregnancy, active untreated
tuberculosis, hypersensitivity to antimicrobials in vaccine,
hypersensitivity to egg proteins

Efficacy : single dose produces adequate antibody response in 95%.

Universal vaccination reduces incidence to 90-95%

Vitamin A

Exists as : preformed vit.A-retinol.

Provitamin A- carotene-alpha, beta, gamma

1 μ g of betacarotene yields 0.5 μ g retinol

Stored in liver as retinol palmitate

Essential for : integrity of internal epithelial linings of intestinal,
respiratory and urinary tracts, lining of glandular passages

Integrity of skin and external epithelial lining of eye balls

Normal vision and dark adaptation

Resists infections and promotes skeletal growth

Sources: animal food for retinol

Vegetable food- beta carotene

Liver, eggs, butter, milk, cheese and fish

Cod, halibut, shark liver oil are richest sources.

Dark green leaves, fenugreek, drum stick, spinach, amaranth, mint

Fruits- mango, orange, apricot, papaya

Deficiency: night blindness

Xerophthalmia

Keratomalacia

Non ocular manifestations- roughness and dryness of skin, diminished resistance
to infections and retarded body growth



Vitamin A supplementation

Prevention and control of deficiency:

Supplementation- 2,00,000 IU of oil miscible vitamin A solution every 6 months till age of 5 years

Safe, effective can bring down incidence of xerophthalmia by 80%

Linked with UIP and ICDS activities

Fortification- foods like margarine, vanaspati and bread are suitable for the purpose Fortified sugar in Central America with excellent results

