

Vaccine	Content/dose	Nature and diluent	Storage	Dose, Route, Site	Schedule	Protective efficacy	Major adverse effects	Contraindications
BCG (LAV)	0.1 to 0.4 million viable bovine mycobacteria	Lyophilized, normal saline	Freezer/ 2 to 8°C, Protect from light	0.1 ml ID, left deltoid	Single dose at birth or first contact below 5 years	0-80%	Axillary lymphadenitis	Cellular immunodeficiency Should not be given with measles/ MMR
OPV (LAV)	Sabin strain Type 10 ⁵ CCID ₅₀ Type 2-10 ⁵ CCID ₅₀ Type 3-10 ⁵ CCID ₅₀	Liquid vaccine	Freezer/ 2 to 8°C	2 drops oral	Birth, 6, 10, 14 weeks, 15-18 mths, 5 yrs, NID's,	10-15% per dose (India), 30% per dose (world)	Rarely VAPP	Immunodeficient patients and household contacts
IPV (Inactivated)	Salk strain Type 1- 40 units Type 2- 8 units Type 3- 32 units	Liquid vaccine	2 to 8°C	0.5 ml IM or SC, thigh*/ deltoid	6,10,14 weeks, booster at 15-18 months	95-100%	None	Serious hypersensitivity
DTwP/ DTaP	Diphtheria toxoid 20-30 Lf, tetanus toxoid 5-25 Lf, wP 4 IU/ aP 3 µg to 25 µg of 2 to 5 purified pertussis antigens	Liquid vaccine	2 to 8°C Protect DTaP from light	0.5 ml IM thigh/ deltoid	6,10,14 weeks, booster at 15-18 months, 5 years Not recommended above 7 years	95-100% for diphtheria/ tetanus and 70-90% for pertussis	Rare. More with DTwP High fever, excessive crying, seizures, HHE, encephalopathy	Serious hypersensitivity, encephalopathy following previous dose
DT	Same as above with no pertussis	Liquid vaccine	2 to 8°C	0.5 ml IM thigh/deltoid	Replacement for DTwP/ DTaP in those with contraindications for pertussis vaccination, not recommended above 7 years			
TT	Tetanus toxoid 5 Lf	Liquid vaccine	2 to 8°C	0.5 ml IM thigh/deltoid	As routine at 10 years and every 10 years thereafter, pregnancy, wound management (Td/ Tdap preferred to TT)			
Td	Tetanus toxoid 5 Lf, Diphtheria 2 Lf	Liquid vaccine	2 to 8°C	0.5 ml IM thigh/deltoid	As replacement for DTwP/ DTaP/DT for catch up vaccination in those aged above 7 years (along with Tdap), and as replacement for TT at all ages.			

*Thigh refers to anterolateral thigh throughout the table.

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Ready Reckoner for Vaccines Currently Available in India

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Vaccine	Content/dose	Nature and diluent	Storage	Dose, Route, Site	Schedule	Protective efficacy	Major adverse effects	Contraindications
Tdap	Tetanus toxoid 5 Lf, Diphtheria toxoid 2 Lf, 2.5 to 8 µg of three pertussis antigens	Liquid vaccine	2 to 8°C	0.5 ml IM thigh/deltoid	Single dose at 10-12 years	90%	None	As for DTwP/DTaP
Measles (LAV)	1000 CCID ₅₀ of Edmonston Zagreb strain of measles virus	Lyophilized, diluent sterile water	Freezer/ 2 to 8°C Protect from light	0.5 ml SC thigh/deltoid	Single dose at 9 months	80%	Mild measles like illness in < 5%, Rarely thrombocytopenic purpura	Severely immunocompromised, pregnancy
Rubella (LAV)	5000 CCID ₅₀ of RA 27/3 strain of rubella virus	Lyophilized, diluent sterile water	Freezer/ 2 to 8°C	0.5 ml SC thigh/deltoid	As for MMR, MMR preferred	95%	Mild rubella like illness in < 5%, rarely arthritis, ITP	Severely immunocompromised, pregnancy
MMR (LAV)	Measles and rubella as above Mumps 5000 CCID ₅₀ of Jeryl Lynn/ Urabe strain	Lyophilized, diluent sterile water	Freezer/ 2 to 8°C Protect from light	0.5 ml SC thigh/deltoid	Two doses at 15-18 mths and 5 years	95%	Same as measles and rubella, high fever Rarely parotid swelling, aseptic meningitis	Severely immunocompromised, pregnancy
Hep B	20 µg/ml of HBsAg antigen	Liquid vaccine	2 to 8°C	< 18 yrs 0.5ml, >18 yrs 1 ml IM deltoid/thigh	Birth, 6, 14 weeks OR 6,10,14 weeks OR 0,1, 6 months	>90%	None	Serious hypersensitivity
Hib	10 µg of PRP-T or HbOC	Liquid or lyophilized (diluent sterile water)	2 to 8°C	0.5 ml IM deltoid/thigh	6,10,14 weeks, booster at 15-18 months	>90%	None	Serious hypersensitivity
DTwP+ Hib	As for DTwP and Hib	Liquid vaccine OR lyophilized Hib reconstituted with liquid DTWP	2 to 8°C	0.5 ml IM deltoid/thigh	6,10,14 weeks, booster at 15-18 months	As for DTWP and Hib		

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Vaccine	Content/dose	Nature and diluent	Storage	Dose, Route, Site	Schedule	Protective efficacy	Major adverse effects	Contraindications
DTwP+ HepB	As for DTwP and 10 µg of Hep B	Liquid vaccine	2 to 8°C	0.5 ml IM deltoid/thigh	6, 10, 14 weeks	As for DTwP and Hep B		
DTwP+ Hib+ HepB	As for DTwP, Hib, 10 µg of Hep B	Liquid vaccine or lyophilized Hib reconstituted with liquid DTwP+HepB	2 to 8°C	0.5 ml IM deltoid/thigh	6 ±10, 14 weeks	As for DTwP, Hib and Hep B		
DTaP+ Hib	As for DTaP and Hib	Lyophilized Hib reconstituted with liquid DTaP	2 to 8°C	0.5 ml IM thigh/deltoid	6, 10, 14 weeks and booster at 15-18 months	As for DTaP and Hib		
DTaP+ Hib+IPV	DTaP (two component), IPV and Hib	Liquid D TaP + IPV + Lyophilized Hib	2 to 8°C	0.5 ml IM thigh/deltoid	6, 10, 14 weeks and booster at 15-18 months	As for DTaP, IPV and Hib		
Vi typhoid	25-30µg of Vi polysaccharide	Liquid vaccine	2 to 8°C	0.5 ml IM deltoid/thigh	Above 2 years, single dose, revaccination every 3 years	60%	None	Serious hypersensitivity
HPV quadri- valent HPV bivalent PCV7	L1 protein of serotypes 6, 11, 16, 18 L1 protein of serotypes 16, 18 Capsular polysaccharide of serotypes 4, 6B, 9V, 14, 18C, 19F, 23 linked to CRM 197	Liquid vaccine	2 to 8°C Protect from light	0.5 ml IM deltoid	10-12 years, 0, 2, 6 months 10-12 years 0, 1, 6 months	>95% against serotype specific cervical cancer	None	Serious hypersensitivity Pregnancy
PPV23	Capsular polysaccharides of 23 serotypes	Liquid vaccine	2 to 8°C	0.5 ml SC/IM thigh/deltoid	6, 10, 14 weeks, booster at 15-18 months Single dose at ≥2 years Revaccination only once after 3-5 years	95% against serotype specific invasive disease 70% against invasive disease in high risk children	None	Serious hypersensitivity

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Inactivated Hep A	HM 175 strain Composition varies with brands/age	Liquid vaccine	2 to 8°C	Below 15/18 yrs (as per brand) 0.5 ml IM	Two doses 6 months apart, onwards	>95%	None	Serious hypersensitivity
Hep A and Hep B	Composition varies with age	Liquid vaccine	2 to 8°C	Below 18 years 0.5 ml	0, 1 and 6 months, 18 months onwards	>95%	None	Serious hypersensitivity
Live attenuated Hep A	6.5 log particles of H2 strain	Lyophilized, sterile water	2 to 8°C	1 ml SC deltoid/thigh	Two doses 6 months apart 18 months onwards till 15 years	>95%	None	Immunodeficient patients
Varicella	≥ 1000 PFU of Oka strain	Lyophilized, sterile water diluent	2 to 8°C Protect from light	0.5 ml SC deltoid/thigh	< 13 yrs one dose, ≥ 13 yrs two doses 4-8 wks apart	70-90% with one dose, > 95% with 2 doses	Varicella like rash in 5%	Pregnancy, severely immunocompromised
Rotavirus (monovalent) LAV	Human rotavirus strain 89-12 (G1P8)	Lyophilized, sterile water based specific liquid diluent	2 to 8°C Protect from light	1 ml orally	2 doses, first dose at 6-12 weeks, second at least 4 weeks later Schedule to be completed by 24 weeks and not to be initiated after 12 weeks	85-98% against severe rotavirus diarrhea	None	Immunocompromised (no data), acute gastroenteritis, beyond 6 months
Inactivated influenza	Split virus vaccine having 7.5- 15 µg of three chosen strains	Liquid vaccine	2 to 8°C	0.25 ml for 6 mths to 3 years and 0.5ml for older children IM deltoid/ thigh	First time: < 9 years two doses 1 month apart, ≥ 9 years single dose Revaccination: annually	50-90% against lab confirmed disease	None	Severe egg allergy History of GBS

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Rabies	Inactivated rabies virus grown on human diploid/ chick embryo or vero cells	Lyophilized, diluent sterile water	2 to 8°C	1 ml (0.5 ml for vero cell vaccine) IM deltoid/thigh	Any age 0,3,7,14 and 28 days for post exposure and 0,7 and 28 days for pre exposure	90-100% (along with RIG if indicated)	None	None
Inactivated JE vaccine	Nakayama/ Beijing strain of JE virus	Lyophilized, diluent sterile water	2 to 8°C	0.5 ml for 1-3 yrs and 1 ml for \geq 3 yrs SC deltoid	Three doses at 0, 7 and 30 days, boosters every 2-3 years	80-90%	Rarely allergic reactions/ acute neurologic events	Serious hypersensitivity
Live JE vaccine	5.4 log PFU of SA 14-14-2 strain of JE virus	Liquid vaccine	2 to 8°C	0.5 ml SC thigh/deltoid	Single dose at \geq 9 months	>90%	None	Immunodeficient patients and their household contacts
MPSV	Bivalent (A + C) Quadrivalent (A + C + Y + W135)	Lyophilized, diluent sterile water	2 to 8°C	0.5 ml SC or IM thigh/ deltoid	If indicated Single dose above 2 yrs, revaccination once after 3-5 years	90%	None	Serious hypersensitivity
Yellow fever (LAV)	17 D strain of yellow fever virus	Lyophilized/ saline diluent	2 to 8°C	0.5 ml SC thigh/deltoid	Single dose, revaccination every 10 years if needed	>90%	Rarely neurologic/ viscerotropic disease	Below 6 months, serious egg allergy, severe immunodeficiency, thymus disease