

## VACCINOLOGY I

### DIPHTHERIA, PERTUSSIS, TETANUS VACCINES

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**Abstract:** *DPT vaccine is one of the oldest vaccines mankind was gifted with. Over time newer vaccines like DTaP were introduced with lesser side effects but shorter lasting immunity. Both IAP and Govt of India endorse DTwP vaccine because of its greater efficacy. In 2018, TT vaccine was replaced with Td for vaccination at 10, 16 years in UIP schedule in India. Adolescent and adult vaccination now include one single dose of Tdap. Pregnant women are also now recommended to have a single dose of Tdap followed by Td as a routine immunization. Pertagen is a newly developed monovalent acellular pertussis vaccine containing genetically inactivated Pertussis Toxin. Boostagen (TdapBioNet) is produced with genetically inactivated recombinant B. pertussis component. Both these vaccines are licensed in Thailand and further studies on these vaccines are going on in many developed countries. There are few newer combination hexavalent vaccines containing DPT, Hib, Hep-B and IPV which are also equally efficacious and have the potential to replace the routine vaccines in near future.*

**Keywords:** *DPT vaccine, Immunization, Newer pertussis vaccines.*

### Points to Remember

- *DPT is an essential part of the immunization program in most countries and can be given alone or as a combination vaccine.*
- *Paracetamol given as treatment or prophylaxis for fever does not impair the immunological response to DPT containing vaccines.*
- *For unimmunized children aged of 1-7 years, the recommended catch up primary schedule is 3 doses with a minimum interval of 4 weeks between the first and the second dose and 6 months between the second and third doses.*
- *A single dose of Tdap should be used as booster in adolescents and adults if they have not received Tdap earlier; during pregnancy one dose of Tdap should be administered at the first contact and second Td should be given at least 2 weeks before the delivery.*
- *Absolute contraindications to all DPT containing vaccines are history of anaphylaxis or encephalopathy not attributable to any underlying cause and onset within 7 days of vaccination; progressive neurological disease is a relative contraindication for first dose of DTwP.*

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