



## **IMMUNIZATION**

**It is the process of artificially inducing immunity or providing protection from disease.**



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## ACTIVE IMMUNIZATION

It is the process of stimulating the body to produce antibody and other immune responses through administration of vaccine.

## PASSIVE IMMUNIZATION

It is the provision of temporary immunity by administration of performed antibodies derived from human or animal

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## VACCINE

It is a immunological substances designed to produce specific protection against a given disease.

### Types of vaccine

- live vaccine
- Killed vaccine



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Age	Vaccine	Dose	Route	Amount
At Birth (for Institutional deliveries)	BCG	Single	ID (left upper arm)	0.05ml
	OPV Hep B	Zero Dose	Oral IM	2 Drops 0.5 ml
	BCG if not given at birth	Single	ID	0.1ml
At 6 weeks ( 1 ½ month)	OPV 1 Pentavalent 1 (DPT1+Hep B 1+Hib1 ) Rotavirus 1	1 <sup>st</sup> 1 <sup>st</sup> 1 <sup>st</sup>	Oral IM Oral	2 Drops 0.5ml 2.5 ml
At 10 weeks (2 ½ month)	Pentavalent 2 (DPT2+Hep B 2+Hib2 ) OPV 2 Rotavirus 2	2 <sup>nd</sup> 2 <sup>nd</sup> 2 <sup>nd</sup>	IM (Anterolateral part of mid thigh) Oral Oral	0.5ml 2 Drops 2.5 ml
At 14 weeks (3 ½ month)	Pentavalent 3 DPT3+Hep B 3+Hib3 ) OPV 3 Rotavirus 3 IPV	3 <sup>rd</sup> 3 <sup>rd</sup> 3 <sup>rd</sup> ONE DOSE	IM Oral Oral IM	0.5ml 2 Drops 2.5 ml 0.5ml
At 9 months	Measles Vitamin A	Single First	S/C (right upper arm) Oral	0.5ml 1lakh Units (1ml)
At 16-24 months	MMR DPT OPV Vitamin A Typhoid	Single Booster 1 <sup>st</sup> Booster 1 <sup>st</sup> Second First	S/C IM Oral Oral IM	0.5ml 0.5ml 2 Drops 2lakh Unit ((2ml) 0.5ml
At 5-6 years	DPT OPV	Booster 2 <sup>nd</sup> Booster 2 <sup>nd</sup>	IM Oral	0.5ml 2 Drops
At 10 years	TT	First	IM	0.5ml
At 16yrs	TT	Second	IM	0.5ml

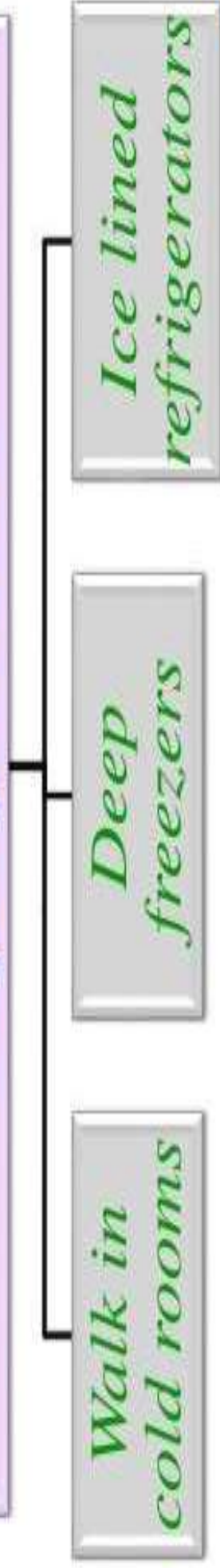
## COLD CHAIN

It is system of transporting and storing vaccine at recommended temperature from the point of manufacture to the point of use.



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# Cold chain storage equipment



## Cold Box



## Vaccine carriers

- Size 1.7 ltr
- Insulated box – can carry 16- 20 vials
- Inside temperature 2°C to 8°C for 12 hours
- 4 ice packs are used.





the same time without any hazard.

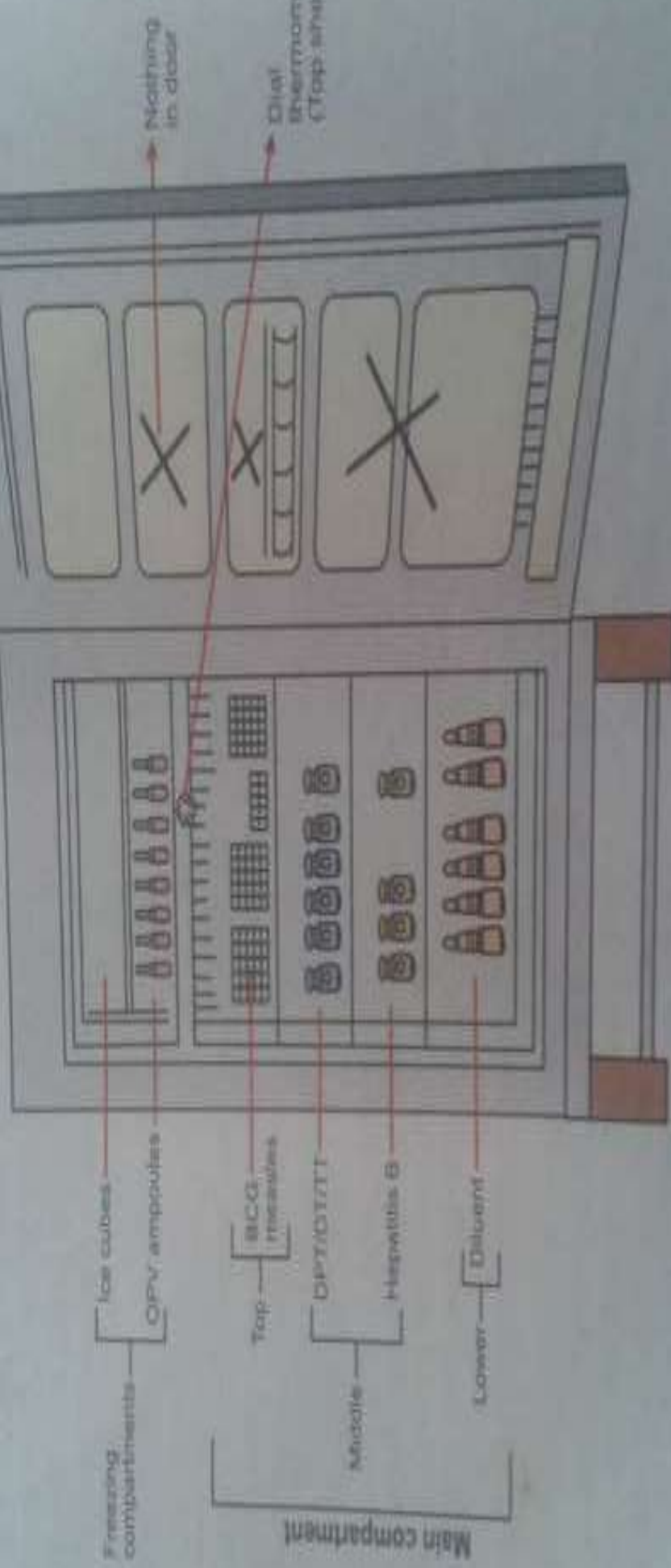


Fig. 7.1: Correct storage of vaccines in a refrigerator

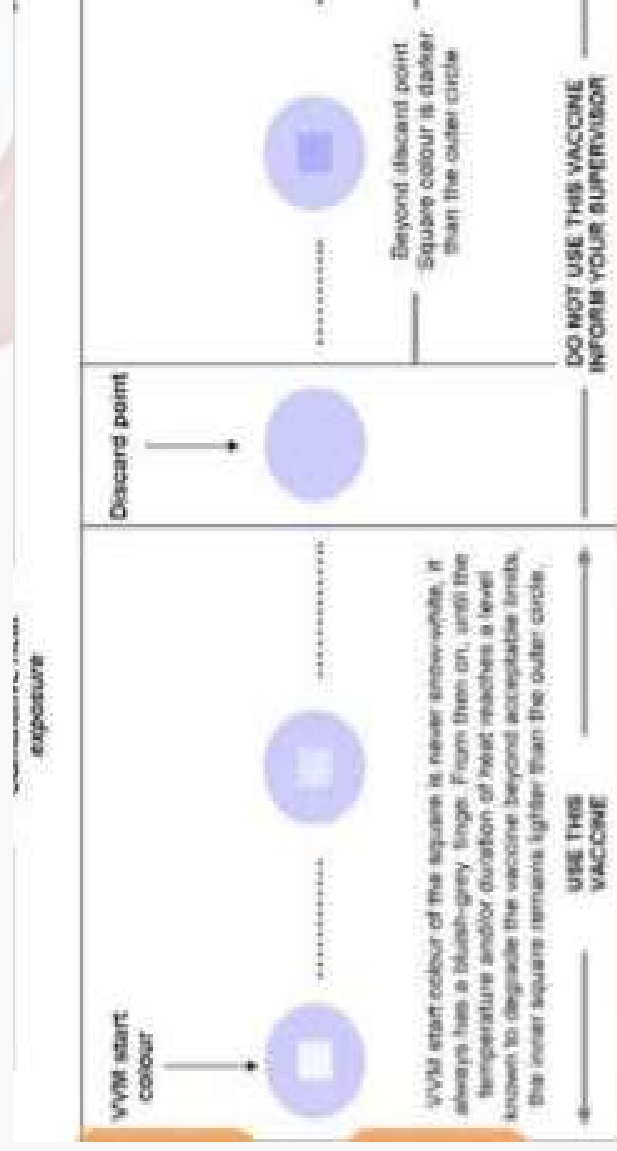


## Vaccine vial monitor

It is a label containing heat sensitive Material .

## Vaccine Vial Monitor(VVM)

VVM is a label containing heat sensitive material that is placed on a vial to register heat exposure over



## REFERENCES

1. Parul dutta , Text book of paediatric Nursing, Jaypee Publisher , P  
No : 45-48
2. <https://en.wikipedia.org/wiki/Immunization>
3. <https://pubmed.ncbi.nlm.nih.gov/30745480/>

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