

COLD CHAIN

What is a cold chain?

A cold chain is a temperature-controlled supply chain comprising refrigerated production, storage and distribution facilities supported by equipment that can constantly maintain the required low-temperature range.

Many pharmaceutical drugs, medicines and speciality treatments are temperature-sensitive and require swift supply chains. Cold chain storage and distribution provides a reliable mechanism to maintain the integrity of the drug substances and products.

Essential Elements of Cold Chain

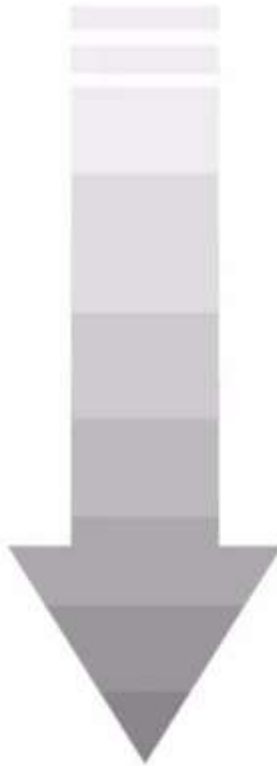
- PERSONNEL to organize and manage vaccine distribution
- EQUIPMENT for storage and transport of vaccines.
- Transport facilities
- Maintenance of equipment
- Monitoring

In general

- **All Vaccines tend to lose potency on exposure to heat above +8⁰ C**
- **Some Vaccines lose potency when exposed to freezing temperatures**
- **The damage is irreversible**

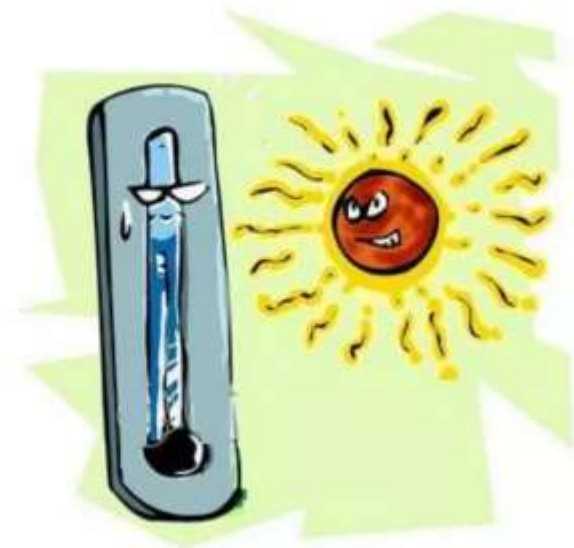
Vaccines sensitive to heat

most sensitive



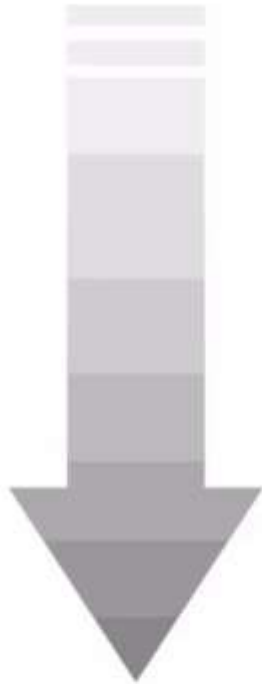
least sensitive

OPV
Measles
BCG



Vaccines sensitive to freezing

most sensitive



least sensitive

Hep- B

DPT

DT

TT



