



...miracles happen..



MiraCradle™ - Neonate Cooler is an affordable passive cooling device which uses the advanced savE® Phase Change Material (PCM) technology to induce therapeutic hypothermia among newborns suffering from birth asphyxia. It has been developed by Pluss® in collaboration with CMC, Vellore. It is easy to use, safe, light weight, portable and gives the precise temperature control of 33-34°C for a period of 72 hours with minimal manual supervision and no requirement of constant electricity supply.

The MiraCradle™ Advantage



SAFE

Passive cooling system; does not have any electrical supply near the baby



EFFICIENT

Gives precise temperature control



EASY TO USE

Minimal manual supervision required. PCMs can be charged in a normal refrigerator



ECONOMICAL

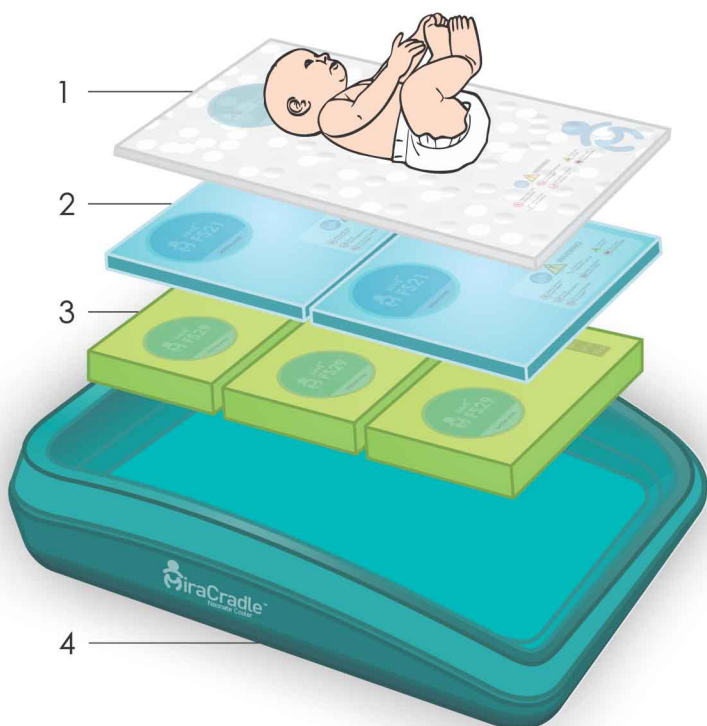
Less than 1/5th of the cost of the available electronic devices



LONG LASTING

The PCMs have been manufactured to last for two years

The MiraCradle™ - Neonate Cooler



1. Conduction Mattress
2. savE® FS-21
3. savE® FS-29
4. Cradle

“every infant
has a right to live”

Components of MiraCradle™ - Neonate Cooler

Insulated Cradle

It is a rotomoulded plastics structure which serves as a framework for placing all the other components of MiraCradle™ - Neonate Cooler and also provides insulation to the PCM helping it last for longer hours.



savE® FS-29

This forms the bottom layer of the MiraCradle™ - Neonate Cooler. Three units of savE® FS-29 PCM are placed at the bottom of Cradle. savE® FS-29 in solid state passively extracts heat from the neonate's body which is at 37°C thereby inducing and sustaining hypothermia.



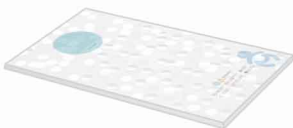
savE® FS-21

This is the middle layer of the device. savE® FS-21 is used in conjunction with savE® FS-29 to quickly bring the temperature of the neonate down to 33°C. It is subsequently removed and savE® FS-29 takes over to sustain the temperature for longer hours.



Conduction Mattress

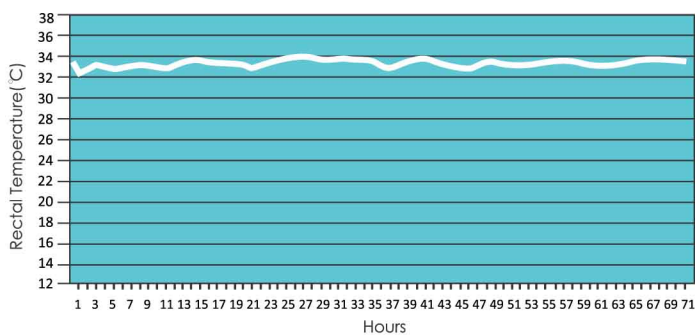
The conduction mattress is a gel bed which provides a smooth surface for the baby to lie on and improves heat transfer between the baby and the PCM.



Saving lives with MiraCradle™ - Neonate Cooler



Precise Temperature Control with Miracradle™ - Neonate Cooler



Early adopters of the technology



Over 90 babies* have been treated using MiraCradle™ - Neonate Cooler

City	Hospital
Vellore	CMC
Ahmedabad	Arpan Newborn Care
Kolkata	AMRI Hospital
Gurgaon	The Cradle (An Apollo Initiative)
Ludhiana	CMC
Chennai	Cloudnine Hospital
Hyderabad	Fernandez Hospital
Puducherry	JIPMER
Thrissur	Jubilee Mission Medical College
Manipal	Kasturba Hospital
Patna	Mahavir Vatsalya Hospital
Anand	Pramukhswami Medical College
Hyderabad	Paramitha Hospital
Ranchi	Rani Hospital
Jaipur	SMS Hospital
Chennai	SRMC
Bengaluru	St. John's Medical College

*Data up till Jan 31, 2015 across India

Doctors' Quotes

“**MiraCradle™ - Neonate Cooler** will be a good investment for the Neonatologists and Pediatricians dealing with cases of perinatal asphyxia. It is easy to use and affordable in a resource limited setting. It goes without saying that the cooling procedure should be undertaken with close monitoring of the baby. **MiraCradle™ - Neonate Cooler** is easy to use and the maintenance cost is almost nil”

Dr. B.Vishnu Bhat (Professor and Head,
Department of Pediatrics, Division of
Neonatology, JIPMER)

“In India, asphyxia results in approximately quarter of the neonatal deaths and is a huge burden on neonatal morbidity and neurodevelopmental sequelae. Hypothermia is the only proven intervention to improve the neurodevelopmental outcomes; but because of the high cost of the currently available machines it is not available to most babies in the developing world. **MiraCradle™ - Neonate Cooler** is a significant low cost innovation to help such babies in this part of the world.”

Dr. Sanjay Wazir MD, DM (Neonatology)
Chief - Neonatal Medicine,
The Cradle (An Apollo initiative), Gurgaon

Recognition



Developed in collaboration with
Christian Medical College, Vellore



राष्ट्रीय डिजाइन संस्थान
NATIONAL INSTITUTE OF DESIGN
NID

Designed under NID's
Design Clinic Scheme for MSME's



Confederation of Indian Industry

Winner of CII Industrial
Innovation Award – 2014



International Patent
applied for