

NUTRITIONAL REHABILITATION CENTRE

1. Child under nutrition encompasses stunting (chronic malnutrition), wasting (acute malnutrition) and deficiencies of micronutrients (essential vitamins and minerals).
2. It significantly contributes to under five mortality as undernourished children have increased susceptibility to infections and hence frequent episodes of diarrhoea, acute respiratory infections, malaria and measles.
3. It also leads to growth retardation and impaired psychosocial and cognitive development. This has impact on education attainment. The degree of cognitive impairment is directly related to the severity of stunting and iron deficiency anaemia.
4. Without treatment children who are affected by moderate/ severe acute malnutrition during the critical stage of life between conception and age two, if not provided with timely and quality care, will find it difficult to achieve their full potential. Scientific evidence has shown that beyond the age to two to three years, many effects of chronic under nutrition are irreversible. This means that to break the intergenerational transmission of poverty and under nutrition, children at risk must be reached during their first two years of life.
5. Screening for Malnutrition is done in the community as well as by Health Staff by measuring weight and height in a given population.
6. Management of these severely malnourished children does not require sophisticated facilities & equipments or highly qualified personnel. It does require that each child be treated with proper care & affection, and that each phase of treatment be carried out properly by approximately trained and dedicated health personnel. When this is done, the risk of death can be substantially reduced and the opportunity for full recovery greatly improved.
7. After treating the life-threatening problems in a hospital, the child with acute malnutrition will be transferred to NRC for intensive feeding to recover lost weight, development of emotional & physical stimulation, capacity building of the primary caregivers of the child with acute malnutrition through sustained counseling and continuous behavioral change activities. Thus NRC will be intended to function as a bridge between hospital & home care. Hence, NRC will be a short stay home for children with acute malnutrition along with the primary care givers.
8. Objectives:
 - a. To provide institutional care for children with acute malnutrition.
 - b. To promote physical, mental & social growth of children with acute malnutrition.
 - c. To build capacity of primary care givers in the home based management of malnourished children.
 - d. Sick children with malnutrition are managed in hospitals where as children without any disease are given feeding advise and regularly measured and monitored in community by FHWs and AWWs.
9. For appropriate management of children with severe acute malnutrition the government has established two Nutritional Rehabilitation Centres at IGMC, Shimla and at Dr. RPGMC, Tanda.

10. Services to be provided at NRC

- a. Treatment & Patient management.
- b. Nutritional support to inmates.
- c. Nutrition education to his/her family members.
- d. Other counseling services viz. Family planning, Better hygiene practices, Psycho-social care & development.
- e. Capacity building of the primary caregivers on Preparation of low cost nutritious diet from locally available food ingredients, Developing Feeding habits & time management in mothers, imparting knowledge of developing kitchen garden etc.
- f. Follow up Services

Guidelines on “Operational Guidelines on Facility Based Management of Children with Severe Acute Malnutrition-2011” on www.nrhm.gov.in

Reporting format : [NRCs reporting format](#) to be sent monthly

INFANT AND YOUNG CHILD FEEDING

Infant and Young Child Feeding is the single most preventive intervention for child survival. It advocates the following:-

- Early initiation (within one hour of birth) and exclusive breast feeding till 6 months.
- Timely complementary feeding after 6 months with continued breast feeding till the age of 2 yrs.

1. Breastfeeding

- a) Breastfeeding should be promoted to mothers and other caregivers as the gold standard feeding option for babies.
- b) Pre-birth counselling individually or in groups organized by maternity facility regarding advantages of breastfeeding and dangers of artificial feeding should prepare expectant mothers for successful breastfeeding.
- c) Breastfeeding must be initiated as early as possible after birth for all normal newborns (*including those born by caesarean section*) avoiding delay beyond an hour. In case of operative birth, the mother may need motivation and support to initiate breastfeeding within the first hour.
- d) Colostrum must not be discarded but should be fed to newborn as it contains high concentration of protective immunoglobulins and cells. No pre-lacteal fluid should be given to the newborn.
- e) Baby should be fed "on cues"- sucking movements and sucking sounds, hand to mouth movements, rapid eye movements, soft cooing or sighing sounds, lip smacking, restlessness etc. Crying is a late cue and may interfere with successful feeding. Periodic feeding is practiced in case of a very small infant who is likely to become hypoglycemic unless fed regularly, on medical advice.
- f) Exclusive breastfeeding should be practiced from birth till six months requirements. This means that no other food or fluids should be given to the infant below six months of age unless medically indicated. After completion of six months of age, with introduction of optimal complementary feeding, breastfeeding should be continued for a minimum for 2 years and beyond depending on the choice of mother and the baby.
- g) Mothers who work outside should be encouraged to continue exclusive breastfeeding for 6 months by expressing milk for feeding the baby while they are out at work, and initiating the infant on timely complementary foods.
- h) Mothers who are unwell or on medication should be encouraged to continue breastfeeding unless it is medically indicated to discontinue breastfeeding.
- i) At every health visit, the harms of artificial feeding and bottle feeding should be explained to the mother. Inadvertent advertising of infant milk substitute in

health facility should be avoided. Artificial feeding is to be practiced only when medically indicated.

- j) Anganwari workers would be trained in various skills of counselling and especially in handling sensitive subjects like breastfeeding and complementary feeding.

2. Complementary Feeding

- a) Appropriately thick homogenous complementary foods made from locally available foods should be introduced at six completed months to all babies while continuing breastfeeding *ad libitum*.
- b) Each meal must be made energy dense by adding sugar/jaggery and ghee/butter/oil.
- c) Foods can be enriched by making a fermented porridge, use of germinated or sprouted flour and toasting of grains before grinding.
- d) Parents must identify the staple homemade food comprising of cereal-pulse mixture (as these are fresh, clean and cheap) and make them caloric and nutrient rich with locally available products.
- e) Bottle feeding shall be discouraged at all levels.
- f) Iron-fortified foods, iodized salt, vitamin A enriched food etc. are to be encouraged.
- g) The food should be a "balanced food". Easily available, cost-effective seasonal uncooked fruits, green and other dark coloured vegetables, milk and milk products, pulses/legumes, animal foods, oil/butter, sugar/jaggery may be added gradually.
- h) Avoid Junk food e.g. tinned foods/juices, cold-drinks, chocolates, crisps, health drinks, bakery products etc
- i) Avoid giving drinks with low nutrient value, such as tea, coffee and sugary drinks.
- j) Hygienic practices are essential during preparation, storage and feeding of food. Hand washing with soap and water at times should be encouraged before eating or preparing food and after using the toilet.
- k) Young children should be encouraged to take feed by praising them and their foods. Self-feeding should be encouraged despite spillage.
- l) Along with feeding mother and care givers should provide psycho-social stimulation to the child through age-appropriate play and communication activities to ensure early childhood development.

The details of food including; texture, frequency and average amount are enumerated in **Table**.

Table: Amount of Food to Offer at Different Ages

Age	Texture	Frequency	Average amount of each meal
6-8 mo	Start with thick porridge, well mashed foods	2-3 meals per day plus frequent Breastfeeding	Start with 2-3 tablespoonfuls
9-11 mo	Finely chopped or mashed foods, and foods that baby can pick up	3-4 meals plus breastfeed. Depending on appetite offer 1-2 snacks	½ of a 250 ml cup/bowl
12-23 mo	Family foods, chopped or mashed if necessary	3-4 meals plus breastfeed. Depending on appetite offer 1-2 snacks	¾ to one 250 ml cup/bowl

If baby is not breastfed, give in addition: 1-2 cups of milk per day, and 1-2 extra meals per day. The amounts of food included in the table are recommended when the energy density of the meals is about 0.8 to 1.0 Kcal/g. If the energy density of the meals is about 0.6 Kcal/g, recommend to increase the energy density of the meal (adding special foods) or increase the amount of food per meal. Find out what the energy content of complementary foods is in your setting and adapt the table accordingly.

3. Feeding in Other Specific Situations

(a) **Feeding during sickness** is important for recovery and for prevention of under nutrition. Even sick babies mostly continue to breastfeed and the infant can be encouraged to eat small quantities of nutrient rich food but more frequently and by offering foods that the child likes to eat. After the illness the nutrient intake of child can be easily increased by increasing one or two meals in the daily diet for a period of about a month; by offering nutritious snacks between meals; by giving extra amount at each meal; and by continuing breastfeeding.

(b) Infant feeding in maternal illnesses

- i. May need a temporary cessation of breastfeeding. Treatment of primary condition should be done and breastfeeding started as soon as possible.
- ii. Chronic infections like tuberculosis, leprosy, or medical conditions like hypothyroidism need treatment of the primary condition and don't warrant discontinuation of breastfeeding.
- iii. Breastfeeding is contraindicated when the mother is receiving certain drugs like anti-neoplastic agents, immunosuppressants, anti-thyroid drugs like thiouracil, amphetamines, gold salts, etc.