

# Ready-to-use Therapeutic Food (RUTF)

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## What are Therapeutic Foods?

Therapeutic foods are foods designed for specific, usually nutritional, therapeutic purposes as a form of dietary supplement. Important examples of therapeutic foods are used for emergency feeding of malnourished children or to supplement the diets of persons with special nutrition requirements, such as the elderly

Therapeutic foods are usually made of a mixture of protein, carbohydrate, lipid and vitamins and minerals. Therapeutic foods are usually produced by grinding all ingredients together and mixing them.

## What are ready-to-use therapeutic foods (RUTFs)?

A subset of therapeutic foods, ready-to-use therapeutic foods (RUTFs), are energy-dense, micronutrient-enriched pastes that have a nutritional profile similar to the traditional F-100 milk-based diet used in inpatient therapeutic feeding programs and are often made of peanuts, oil, sugar and milk powder.

RUTF are energy dense, micronutrient enhanced pastes used in therapeutic feeding. These soft foods are a homogenous mix of lipid rich foods, with a nutritional profile similar to the World Health Organization-recommended therapeutic milk formula used for inpatient therapeutic feeding programmes. Typical primary ingredients for RUTF include peanuts, oil, sugar, milk powder and vitamin and mineral supplements.

## Why are RUTFs required?

For several reasons, RUTF is essential for the community-based management of children who are suffering from uncomplicated

severe acute malnutrition and who retain an appetite.

- First, it provides all the nutrients required for recovery.
- Second, it has a good shelf life, and does not spoil easily even after opening.
- Third, since RUTF is not water based, the risk of bacterial growth is very limited, and consequently it is safe to use without refrigeration at household level.
- Fourth, it is liked by children, safe and easy to use without close medical supervision.
- Finally, it can be used in combination with breastfeeding and other best practices for infant and young child feeding.

### **Role of RUTF in treating malnutrition**

Ready-to-use Therapeutic Food (RUTF) has revolutionized the treatment of severe malnutrition – providing foods that are safe to use at home and ensure rapid weight gain in severely malnourished children.

#### Ingredients of RUTF

The formulation of RUTF was derived from F-100 and uses the same ingredients with the addition of peanut butter (8). Peanut butter changes the physical properties of the food to a viscous liquid product instead of a powder. A typical recipe for RUTF is given in the following Table

A typical recipe for Ready to Use Therapeutic Food

	% weight
Full fat milk	30
Sugar	28
Vegetable oil	15
Peanut butter	25
Mineral Vitamin Mix	1.6

### **Advantages of RUTF**

- The advantage of RUTF is that it is a ready-to-use paste

which does not need to be mixed with water, thereby avoiding the risk of bacterial proliferation in case of accidental contamination.

- The product, which is based on peanut butter mixed with dried skimmed milk and vitamins and minerals, can be consumed directly by the child and provides sufficient nutrient intake for complete recovery.
- It can be stored for three to four months without refrigeration, even at tropical temperatures.