- **Nutritional needs reflect:**
  - Rate of growth.
  - Demand of building substances.
  - Energy expended in activities.
  - BMR (Basal Metabolic Rate).
- **Notice that the infant stage is considered to be from 1 month to 1year of age.**
- **Changes with growth:**
  - **Birth weight**: doubles between 4-6 months of age, and triples by 1 year of age.
  - **Length**: doubles within 4 years of age.
  - **Body fat:** increases by 9 months of age.
  - **Stomach**: volume increases from 20 ml to 200 ml by 1year of age.
- **Nutrients:**
  - **Proteins**: they are important for growth especially in the first 6 months.
  - **Lipids**: they are considered as a source of energy (don't give the baby low-fat milk).
  - **Carbohydrates**: they are considered as the main source of energy.
  - **Vitamins**: they are all provided in breast milk except for vitamin D (supplements must be given to the infant with exposure to sunlight).
- **Baby friendly hospital initiatives**: they encourage breastfeeding which is exclusive for the first 6 months, even water should not be given to the baby during this period, breast-feeding can be continued for 2 years.
- **Complementary feeding should be started after 6 months (in addition to breastfeeding).**
- **Global strategy for infant & young child feeding:**
  - Supporting optimal feeding.
  - Empowering mothers to make fully informed decisions.
- **Complementary food:**
  - Start with liquid then mash then chopped food.
  - Must be introduced gradually.
  - Cow's milk is given after 1 year of age as it might lead to iron deficiency anemia.

6 months	Cereals, vegetables and fruits
7-8 months	Milk products, meats
9-11 months	Family food gradually (egg yolk)
2 years	Shellfish

- **Energy needs:**
  - **1 year – 3 years**: 102 Kcal.
  - **4 years – 6 years**: 90 Kcal.
- **Three main meals should be given + 2 snacks (per day).**
- **Problems associated with nutrition:**

Obesity	Increase in the number of fat cells
Under nutrition	Child is not feeding well.
Iron deficiency anemia	Decrease in Fe.