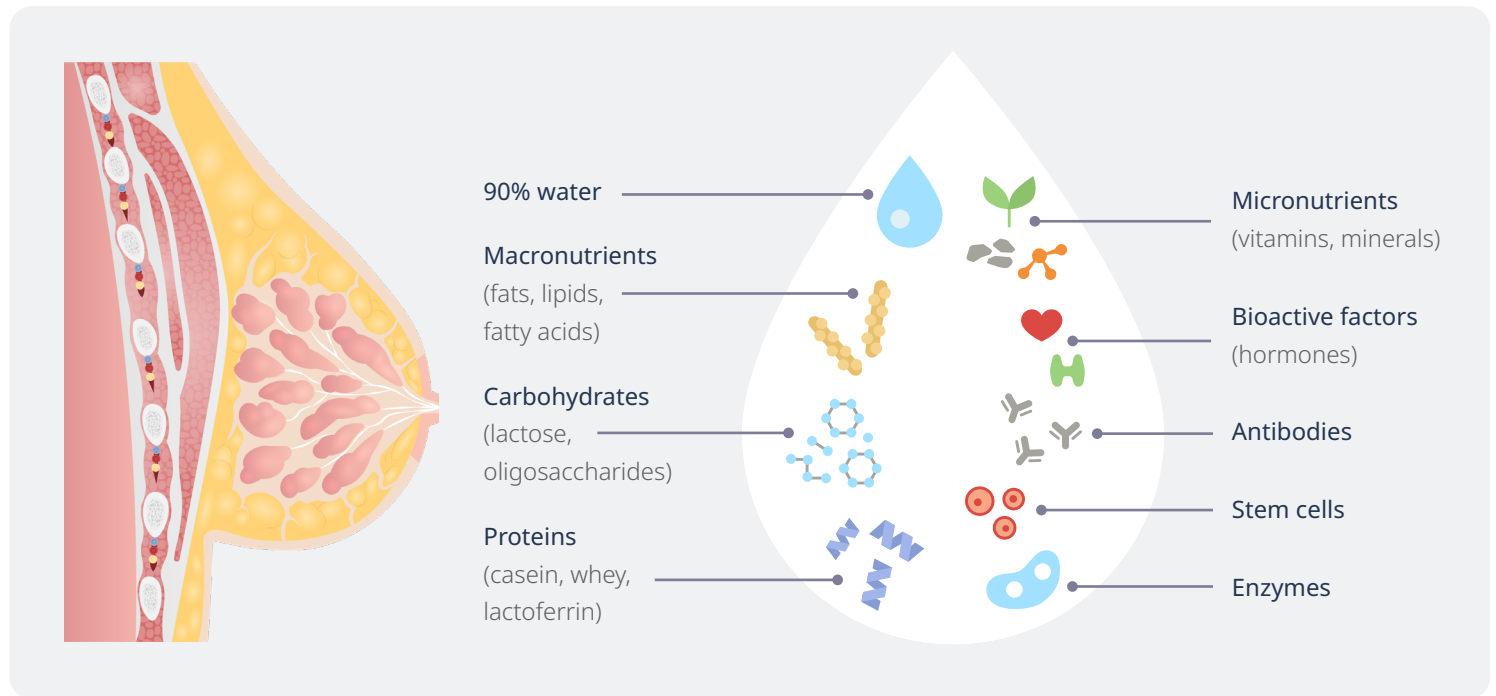




HUMAN MILK COMPOSITION



Human milk is a dynamic, bioactive fluid. Its components vary over the course of a single feeding, diurnally, and over the course of lactation. Human milk is uniquely calibrated to meet infants' evolving needs through its nutritional components as well as non-nutritive factors promoting immune function, growth, and development.



Colostrum

(day 1–4)

- Small volume tailored to infant stomach size
- High in protein
- Lower fat and sugar content make it easier to digest.
- High in zinc
- Immunoglobulins protect against infection.



Transitional milk

(day 5–20)

- Volume increases as infant stomach size increases and demand grows.
- Higher levels of fat, lactose, and natural sugars for energy
- Protein composition shifts to support brain, eye, and organ development.



Mature milk

(day 20+)

- Foremilk is thinner; provides hydration.
- Hindmilk contains higher levels of fat.
- Complex balance of proteins, sugars, and micronutrients
- Immune factors constantly adjust to environment and health status.

Safe storage of expressed breastmilk

	Fresh milk	Thawed milk
Room temp 77°F/25°C or colder	Up to 4 hours	1–2 hours
Fridge 40°F/4°C	Up to 4 days	Up to 24 hours
Freezer 0°F/-18°C or colder	Up to 6 months	Never refreeze breast milk after thawing!