

OPTIMAL FEEDING OF LOW BIRTH WEIGHT INFANTS

Quick Reference Guide



**Neonatal Guideline Development Group
(Secretariat: Department of Pediatrics, AIIMS)**

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What to feed: Choice of milk



For all LBW infants:
Mother's own milk



If no access to mother's milk:
Donor human milk



If no access to both:
Infant formula



What to feed: Supplements

For very low birth weight (<1500 g) infants

Nutrients	How much?	When to start?	Till when?
Calcium	120-140 mg/kg/day	Once infant reaches 100 mL/kg/day of feeds	Term gestation (40 weeks' postmenstrual age)
Phosphorus	60-90 mg/kg/day	Once infant reaches 100 mL/kg/day of feeds	Term gestation (40 weeks' postmenstrual age)
Vitamin D	800 IU/day	Once the infant is on 100 mL/kg/day of feeds	6 months of age*
Iron	2-4 mg/kg/day	2 weeks of age	6 months of age*

**Supplementation beyond 6 months based on the current national/IAP guidelines*

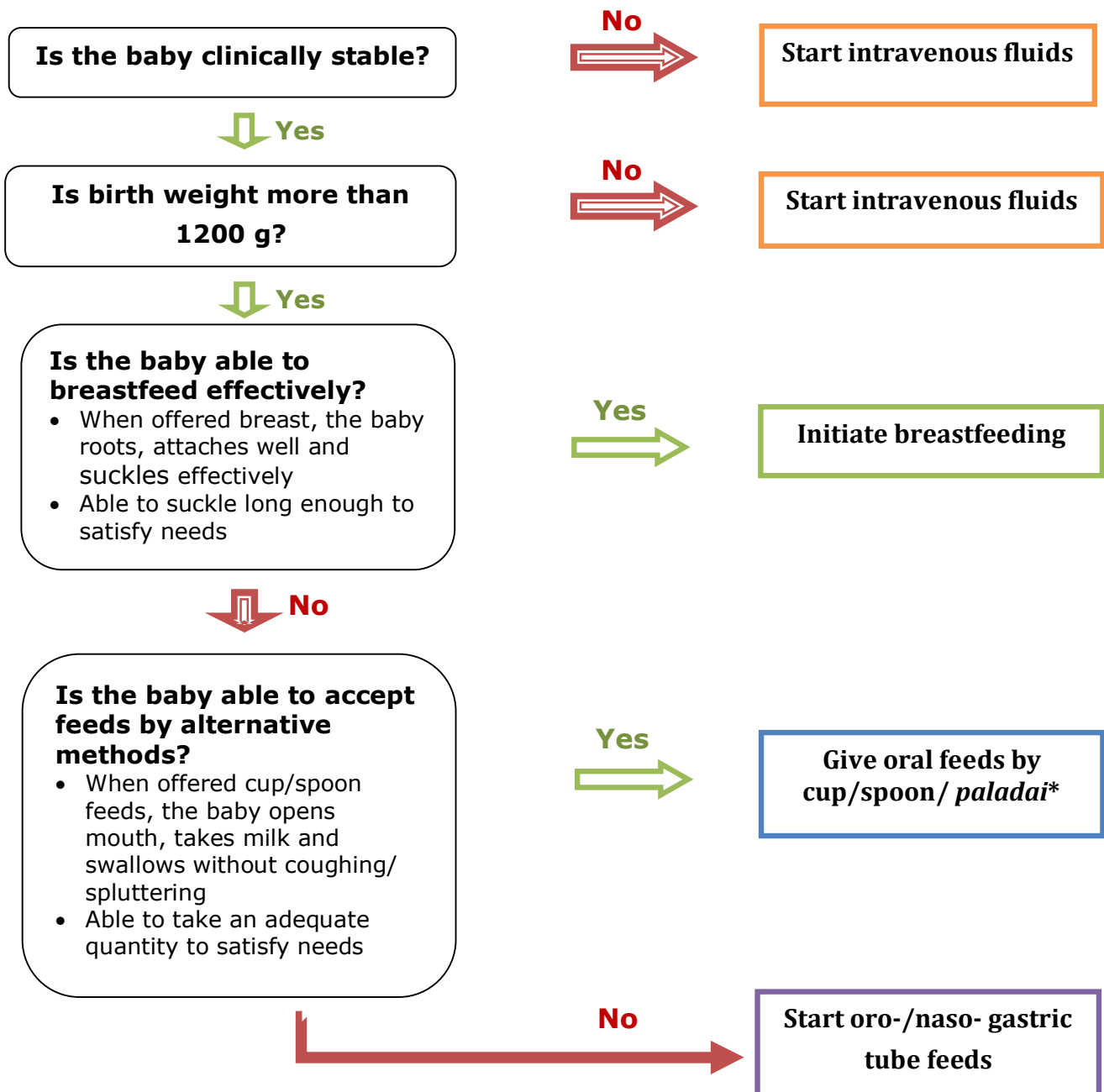
For other low birth weight (1500-2499 g) infants

Nutrients	How much?	When to start?	Till when?
Vitamin D	400 IU/day	Once the infant is on full enteral feeds	6 months of age*
Iron	2-3 mg/kg/day	6-8 weeks of age	6 months of age*

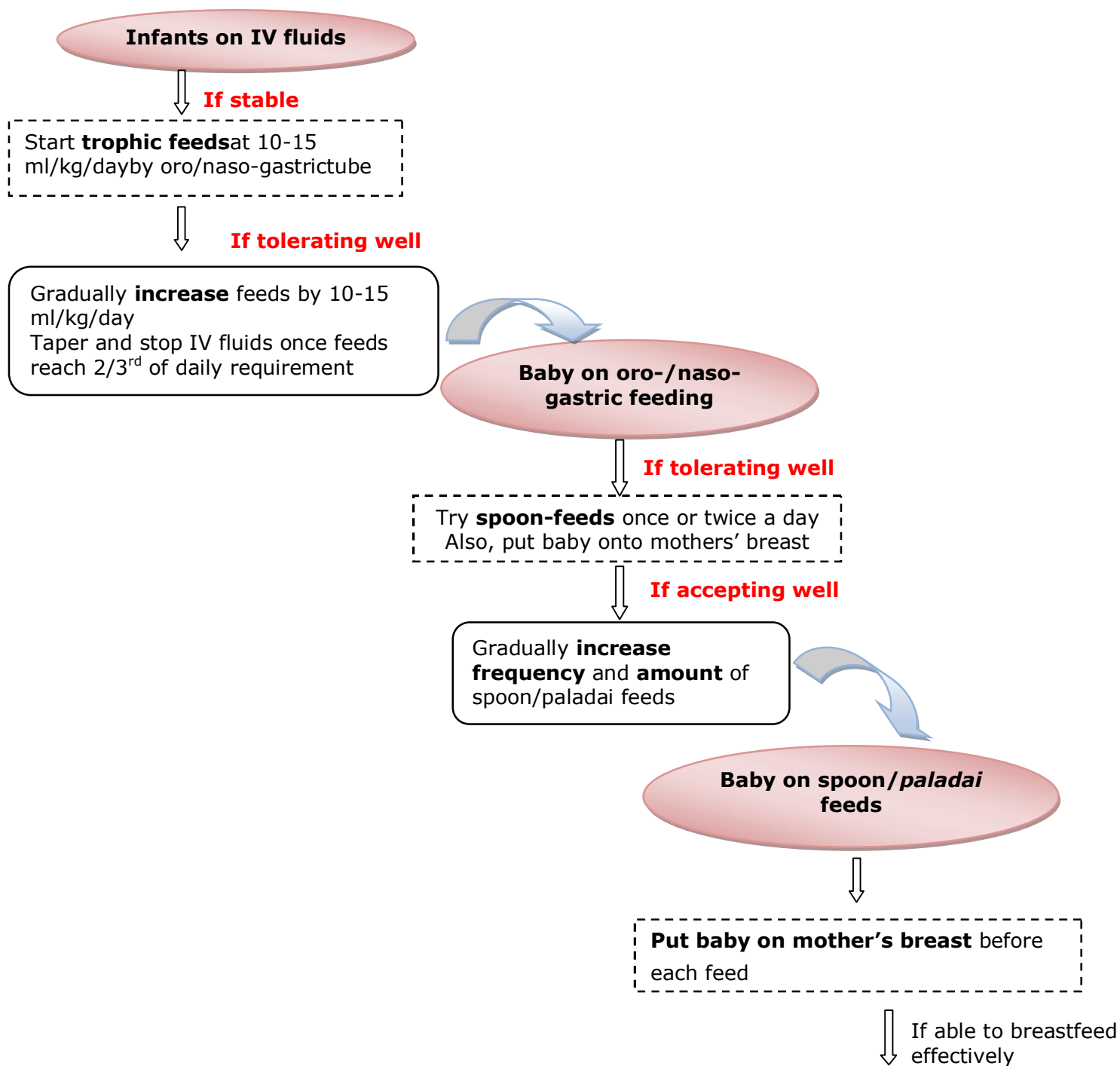
**Supplementation beyond 6 months based on the current national/IAP guidelines*

How to feed: Initiation of feeds

ASSESSMENT ACTION



How to feed: Progression of feeds

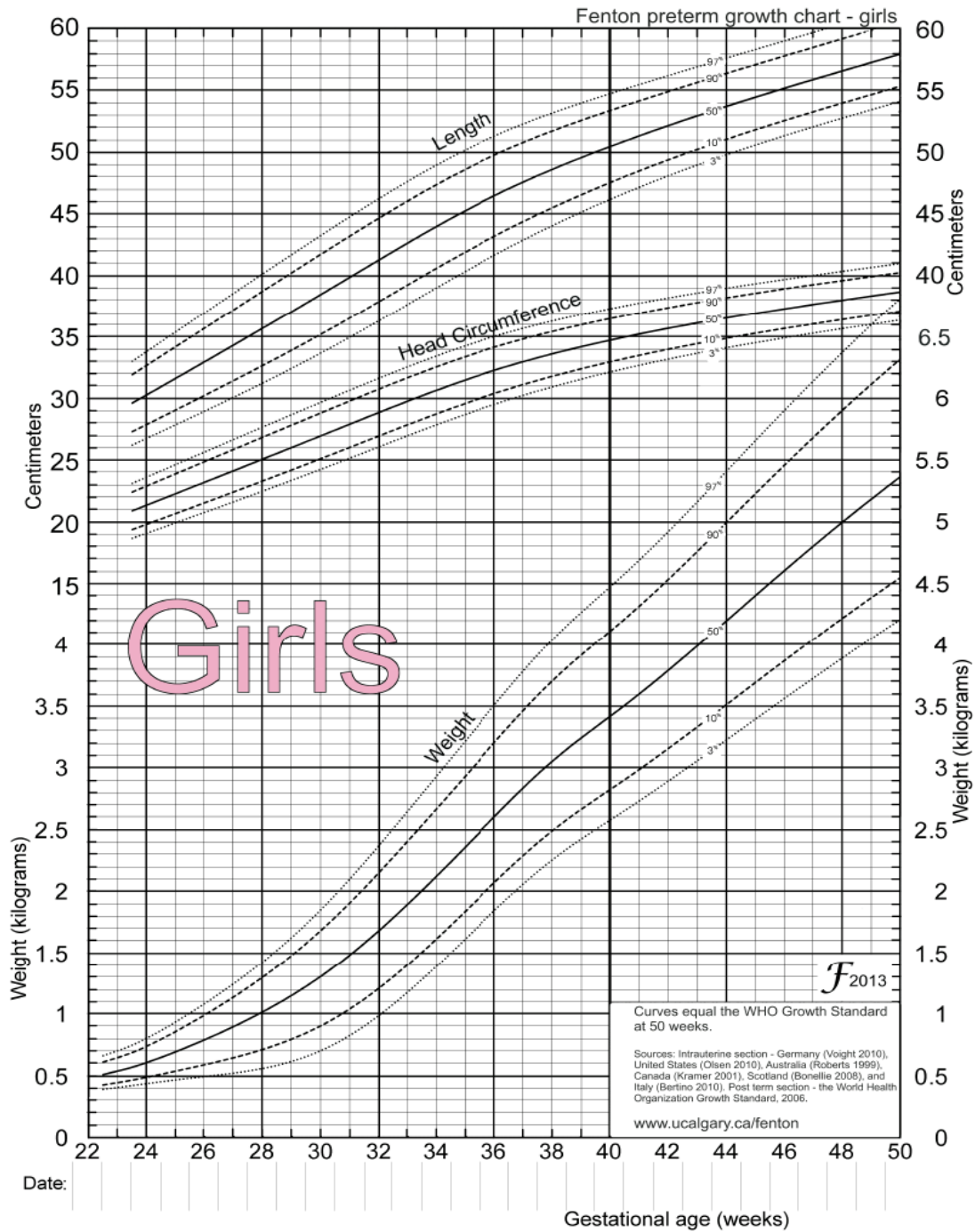


How much to feed?

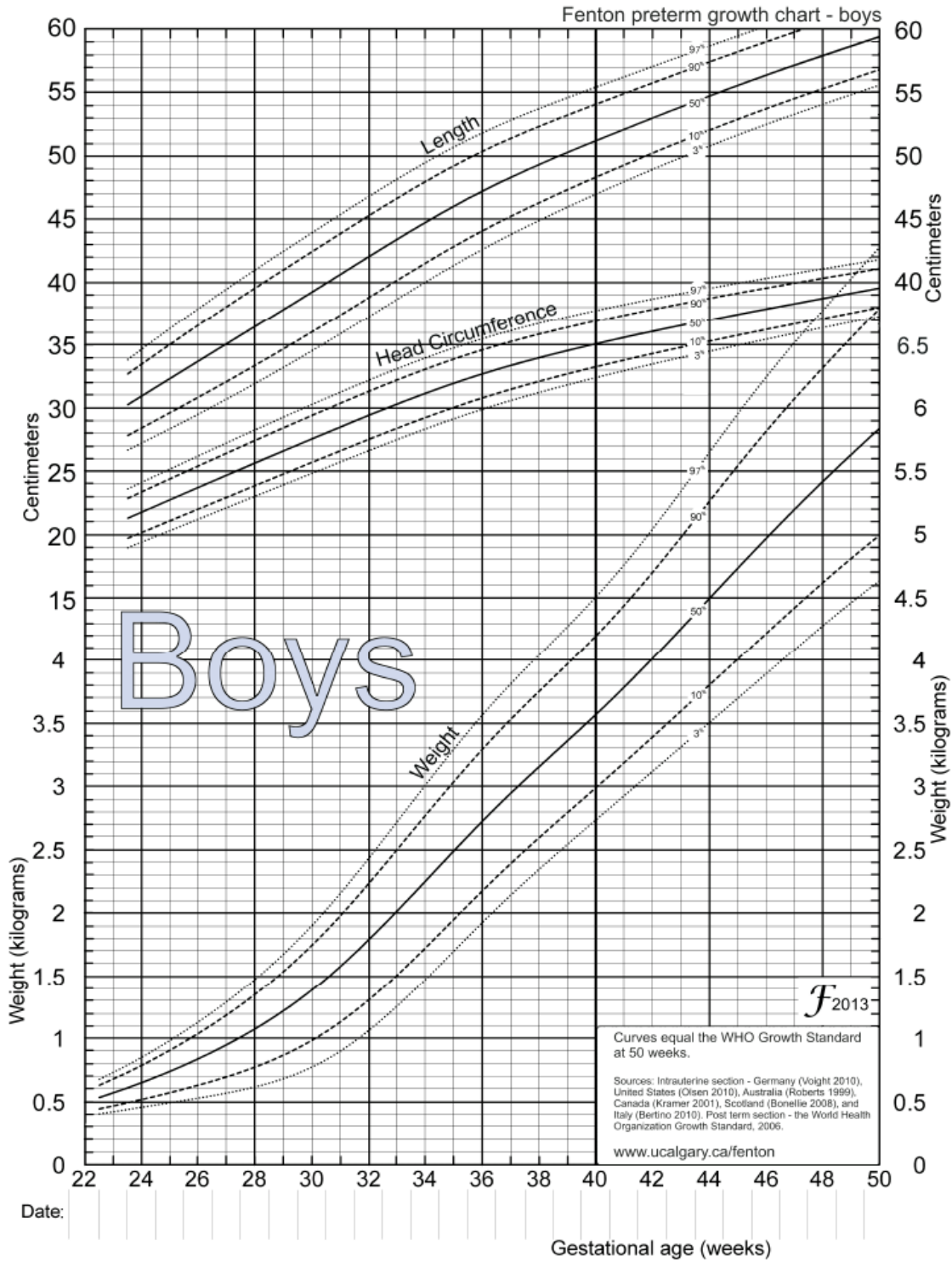
Recommended fluid requirements and feed volumes						
Day of life	2000-2500 g		1500-2000g		1000-1500g	
	Fluid requirements <i>mL/kg/day</i>	Feed volumes [EVERY 3 HOURS] <i>mL</i>	Fluid requirements <i>mL/kg/day</i>	Feed volumes [EVERY 3 HOURS] <i>mL</i>	Fluid requirements <i>mL/kg/day</i>	Feed volumes [EVERY 2 HOURS] <i>mL</i>
Day 1	60	17	60	12	60	6*
Day 2	80	22	75	16	70	7
Day 3	100	27	90	20	80	8
Day 4	120	32	115	24	90	9
Day 5	140	37	130	28	110	11
Day 6	150	40	145	32	130	13
Day 7 onwards	160+	42	160	35	150	16

Appendix

Growth monitoring: Fenton's growth chart for GIRLS



Growth monitoring: Fenton's growth chart for BOYS



Steps of spoon/paladai feeding

Spoon/paladai feeding

1. Baby should be awake and held sitting semi-upright on caregiver's lap; put a small cloth on front of chest to catch drips of milk
2. Put a measured amount of milk in the spoon/*paladai*
3. Hold the spoon/*paladai* so that the pointed tip rests lightly on the baby's lower lip
4. Tip the spoon/*paladai* to pour a small amount of milk into the baby's mouth at a time
5. Feed the baby slowly
6. Make sure that the baby has swallowed the milk already taken before giving any more
7. When the baby has had enough, he or she will close his or her mouth and will not take any more. Do not force-feed the baby.
8. Wash the spoon/*paladai* with soap and water and then put in boiling water for 20 minutes to sterilize before next feed

Steps of oro-/naso-gastric tube feeding

Intragastric tube feeding

1. Before starting a feed, check the position of the tube
2. For each feed, take fresh syringe (ideally disposable) and remove the plunger
3. Connect the barrel of the syringe to the end of the gastric tube
4. Pinch the tube and fill the barrel of the syringe with the required volume of milk
5. Hold the tube with one hand, release the pinch and elevate the syringe barrel to 5-10 cm above the level of the baby
6. Let the milk run from the syringe through the gastric tube by gravity; *DO NOT force milk through the gastric tube by using the plunger of the syringe*
7. It should take about 10-15 minutes for the milk to flow into the baby's stomach: control the flow by altering the height of the syringe; lowering the syringe slows the milk flow, raising the syringe makes the milk flow faster
8. Observe the infant during the entire gastric tube feed. Do not leave the baby unattended. STOP the feed if the baby shows any of the following signs: breathing difficulty, change in colour/ looks blue, becomes floppy, and vomits
9. Keep the end of the gastric tube between feeds capped; if the baby is on CPAP, the tube is preferably left open for about half an hour after the feeding
10. Avoid flushing the tube with water or saline after giving feeds
11. Progress to feeding by cup/spoon/*paladai* when the baby can swallow without coughing or spitting milk. This could be possible in as little as one or two days, or it may take longer than one week
12. Replace the gastric tube with another clean gastric tube after three days, or earlier in case it is pulled out or becomes blocked.