



Growth

General Growth

- Use growth charts made specifically for premature infants.
- After infant reaches term corrected gestational age, a standard growth chart may be used.
- Use corrected postmenstrual age until 2 years of age.
- Interpretations of catch-up growth vary. Catch-up growth usually occurs when an infant reaches between 5th to 10th percentile on growth chart. This may not be the goal for all infants, especially those born IUGR or SGA (goal may be to simply follow their own curve below the standardized curves).
 - Catch-up growth minimizes the differences between term and preterm infant, usually by 12-18 months of age, but may continue for up to 5-7 years.
 - Most significant growth occurs between 36-40 weeks postmenstrual age.
 - Attainment of catch-up growth affected by birth weight, gestational age at birth, genetic potential, and continuing morbidity.
- Premature infants who are IUGR or infants who are SGA demonstrate less catch-up growth and higher rates of poor growth.
- Extremely low-birthweight infants commonly demonstrate growth that is close to or below the 5th percentile; if their growth runs parallel to the normal curve, however, this is usually a healthy growth pattern.
- Otherwise healthy preterm infants first catch up in head circumference, then weight and length.

Weight

- Weight gain of 20-30 g/day is desirable in preterm infants (>2 kg).

Length

- Increases by approximately 1.1 cm/wk until term.
- From term-3 months, 0.75 cm/wk.
- From 3-6 months, 0.5 cm/wk.

Head Circumference

- Head growth is approximately 0.5 cm/wk until 3 months of age.
- From 3-6 months, slows to 0.25 cm/wk.
- Infants with head growth >1.25 cm/wk should be evaluated for hydrocephalus.

Abnormal Growth

- Infants whose growth curve plateaus or growth trajectory falls off, and those who lose weight after discharge or fall below the 5th percentile warrant further evaluation to assess energy intake.
- Consider consultation with neonatal dietitian, gastroenterologist.

Growth rates of preterm infants through 18 months of age

Age (months)	Weight (g/day)	Length (cm/month)	Head Circumference (cm/month)
1	26-40	3-4.5	1.6-2.5
4	15-25	2.3-3.6	0.8-1.4
8	12-17	1-2	0.3-0.8
12	9-12	0.8-1.5	0.2-0.4
18	4-10	0.7-1.3	0.1-0.4

In Kelly (2006), adapted from Verma, Sridhar, and Spitzer (2003)

