Neonatal and Infant Close Monitoring Growth Chart (NICM)

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This chart has been designed for plotting growth measurements of preterm and low birth weight infants from 23 weeks gestation to the corrected age of two years, but is also suitable for term neonates or young infants requiring close monitoring. It has a large scale to allow detailed monitoring and low reading (SD) lines to allow assessment of very small infants. A new feature of this chart is the date box system for calculation of gestational age. Gestational age correction is not required (as when using the infancy page of the UK-WHO chart for preterm infants from 32 weeks gestation) as the time axis is continuous from birth to 2 years corrected age.

Definitions and Terminology

Gestational age: time elapsed between the first day of the last menstrual period and the day of delivery
Preterm: birth date before 37 weeks completed weeks of gestation
Number of weeks preterm: 40 weeks minus gestational age

Chronological age: time elapsed since birth
Postmenstrual age: gestational age plus chronological age
Corrected age: chronological age minus number of weeks preterm

Key messages of this fact sheet

- Fill in the date boxes before starting plotting for speedy and accurate calculation of age
- Use the calendar to help you complete the date boxes
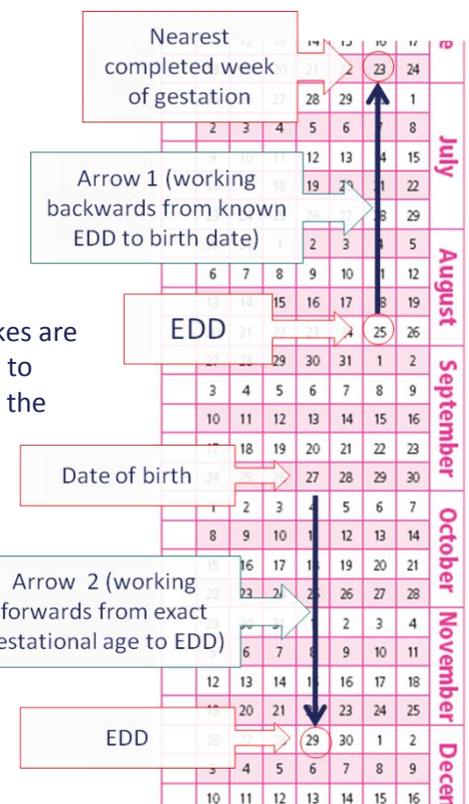- From age 6 months use calendar months not weeks

Using the date boxes

Calculating gestational and chronological age from dates is difficult and mistakes are common. This chart provides data boxes which allow you to move from dates to age. To use these effectively the charts needs to be prepared before use with the help of the calendar on the flap.

Using the calendar to fill in the date boxes

Starting from either the estimated date of delivery (EDD) or the date of birth and known gestational age, move up or down the date columns to find the dates for each preceding (arrow 1) or succeeding (arrow 2) week on the 23 to 42 week chart.
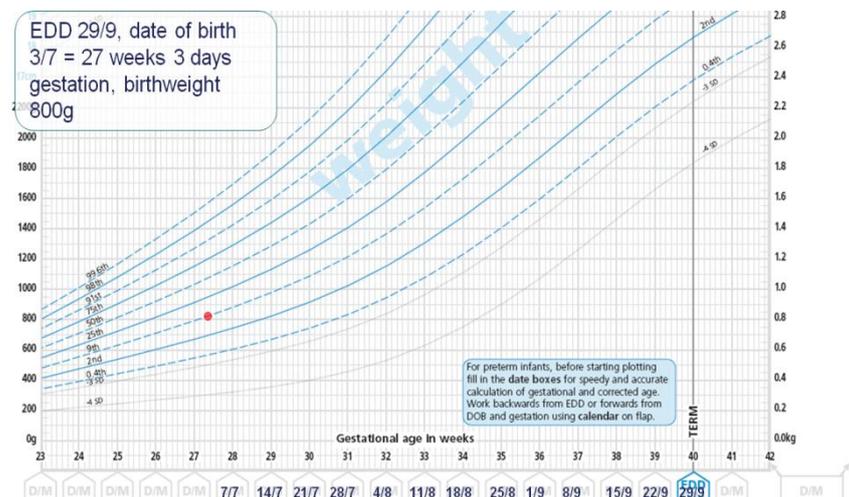
On reaching either the top or bottom of the date column, start again in the same column at the bottom or top.
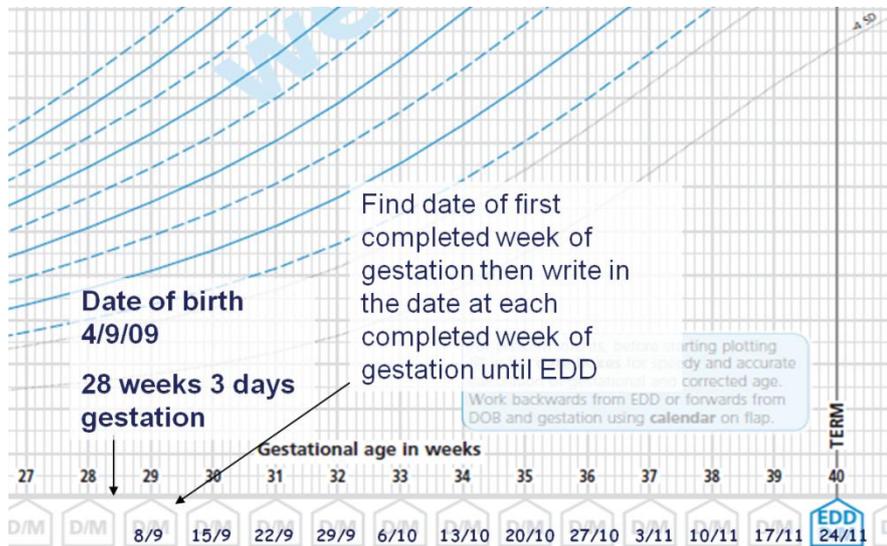
Ignore December 31st and leap years.

Nearest completed week of gestation

Arrow 1 (working backwards from known EDD to birth date)

EDD

Date of birth

Arrow 2 (working forwards from exact gestational age to EDD)

EDD

Preparing the 23-42 week chart from EDD

Write the expected date of delivery into the EDD BOX. Then work **up** the calendar column to identify preceding dates for each completed week of gestation until the first completed week after birth is reached. Write these dates into the date boxes (day and month only). Then plot the birth measurements at the exact gestational age (weeks and days).

EDD 29/9, date of birth 3/7 = 27 weeks 3 days gestation, birthweight 800g

For preterm infants, before starting plotting fill in the date boxes for speedy and accurate calculation of gestational and corrected age. Work backwards from EDD or forwards from DOB and gestation using caelndar on flap.

Preparing the 23-42 week chart from gestational age

Write date of birth in box under exact gestational age (weeks and days). Calculate the date of the next completed week of gestation. The work **down** the calendar column to identify the date for each subsequent completed week of gestation until the EDD box is reached.

Date of birth
4/9/09

28 weeks 3 days
gestation

Find date of first completed week of gestation then write in the date at each completed week of gestation until EDD

Preparing the 2 weeks to 6 months chart

Starting from the date in the 42 weeks/2 weeks box, mark up date boxes every **fortnight** by going down the calendar column.
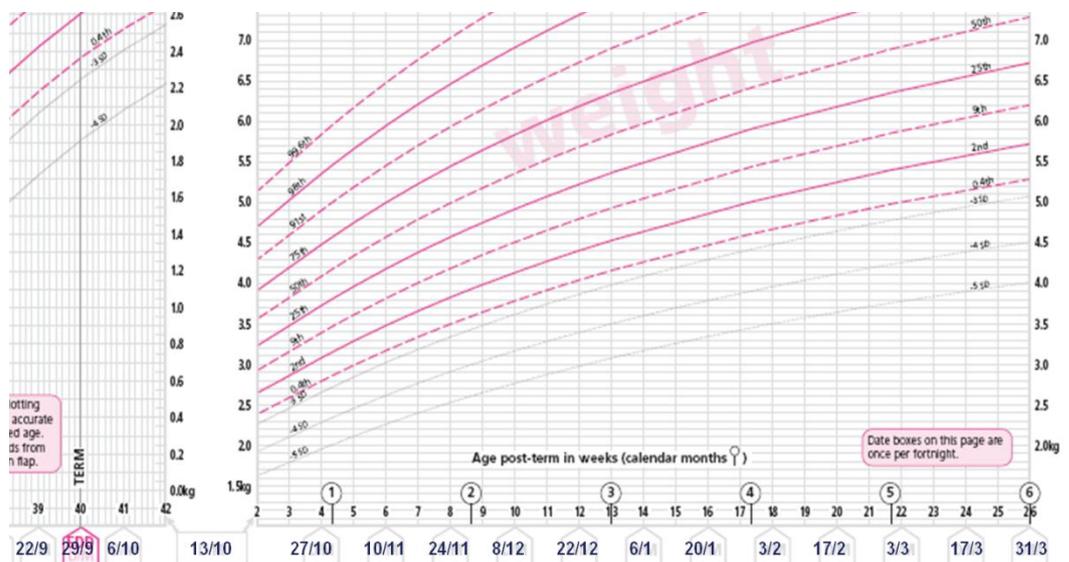
Preparing the 6 months to 2 years chart

On this chart the date boxes are per calendar month. First enter the date for the corrected age of 6 months, i.e. the date in the EDD/ term date of birth box plus 6 months. For example, if an infant's EDD is 24/11/09, then mark 24/5/10 in the 6 month box. Then continue with 24/6 in the 7 month box etc.

Growth in preterm infants

- The 23-42 weeks gestation chart is based on reanalysed UK90 data and illustrates the size at birth of UK infants born 23-42 weeks gestation around 1990
- The chart does not describe how preterm infants should grow after birth
- Because of their early health problems, the weights of most babies born before 32 weeks will fall by more than two centile spaces in the early days

If EDD = 24/11/09
Date at age 6 calendar months is 24/5/10

Calendar Date/Month boxes