

• Please place a sticker (if available) otherwise write in space provided.

Surname

First names

NHS number Local no

G.P. Code

H.V. Code

BOYS

GROWTH CHART

(BIRTH - 18 YEARS)

United Kingdom cross-sectional reference data : 1994/1

D.O.B. : : : WEEKS GESTATION

HOSPITAL COMPUTER Nr.

pre-term

for a boy born before 37 completed weeks, draw a vertical "pre-term" line at the appropriate week and plot measurements from this line for at least twelve months. For all later deliveries plot from the EDD (Estimated Delivery Date) line.

measurements

weight: an infant or toddler should always be weighed naked on a self-calibrating or regularly calibrated scale. An older child should be weighed with the minimum of clothing.

head circumference: head circumference measurements should be taken from midway between the eyebrows and the hairline at the front of the head and the occipital prominence at the back. Appropriate thin plastic or metal tape should be used: sewing tape or paper tape is not recommended for this purpose.

supine length: an infant:- a child up to approximately 18 months - should be measured supinely (on his back) by two people with equipment featuring both a headboard and moveable footboard. Whilst one person holds the head against the headboard, with the head facing upwards in the Frankfurt plane*, a second person measures the length by bringing the footboard up to the heels. The downward pressure on the child's knees to ensure that the legs are flat will not endanger hip dislocation.

standing height: standing height should be measured against an appropriate vertical measure, door or wall free from radiators, pipes or large skirting board. The feet should be together with the heels, buttocks and shoulder blades touching the vertical and the head positioned in the Frankfurt plane*. To ensure that the maximum height is taken, upward pressure to the mastoid processes should be considered.

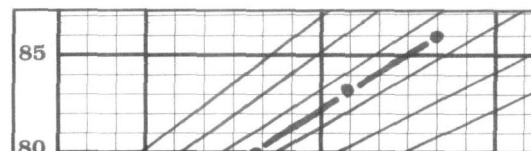
*The Frankfurt plane is an imaginary line from the centre of the ear hole to the lower border of the eye socket.

guidelines for recording, plotting and referral

Record the measurement using the boxes on this chart immediately you have taken it. Enter the date, specify the measurement in the box with the asterisk (i.e. **H/C** = head circumference, **H** = height, **L** = length, **W** = weight) and initial your entry. You might find it helpful to enter his current age in the appropriate column. Plot each measurement on the grid with a well defined dot. Trace the growth curve with a line but leave the dots clearly visible. A normal growth curve is one that always runs roughly on/parallel to one of the printed centile lines. If it doesn't, consider these guidelines:-

Refer any boy whose single height falls above the 99.6th or below the 0.4th centiles. In an otherwise healthy child refer him if his growth curve crosses between two centiles between two annual measurements at any age (e.g. moving from the 25th to the 9th centile). If his curve crosses one centile between three measurements (e.g. between 2-5 yrs) he should have one further measurement one year later by the health visitor or school nurse. At that point a judgment must be made about referral or discharge but refer if in doubt.

Date	Age	*	Measurement	Initials
14 : 03 : 93	: 9 / 12	L	72 : 5 cm	LMB
14 : 03 : 93	: 9 / 12	H/C	46 : cm	LMB
14 : 03 : 93	: 9 / 12	W	9 : 3 kg	LMB
:	:	:	:	:



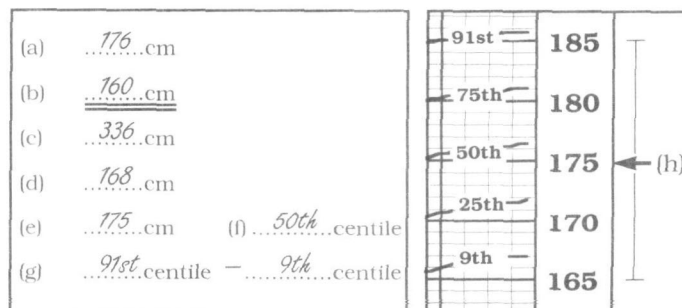
adult height potential

The data in the illustration shows how the potential adult height of a boy - **mid-parental height (MPH)** - is calculated. It indicates that his growth curve should follow the 50th centile - **mid-parental centile (MPC)** - to reach 175cm as an adult. It may follow a centile somewhere between the 91st - 9th (**MPH** \pm 10cm) yet still be within his **target centile range (TCR)**. N.B. This calculation is not appropriate if either natural parent is not of normal stature.

Calculate (and complete on back page) as follows:-

- father's height
- mother's height
- sum of (a) and (b)
- (c) \div 2
- (d) + 7cm (**MPH**)
- MPC** - nearest centile to (e)
- TCR** (mid-parental height \pm 10cm)

Arrow (h) the mid-parental height/centile and draw a vertical line above and below it to represent the target centile range.



references and acknowledgements

- A peer review paper (Freeman JV et al), ARCHIVES OF DISEASE IN CHILDHOOD, in press.
- Cole TJ "Do growth chart centiles need a facelift?" BMJ: 1994; 308: 641-2 describes the 9-centile charts.

Compilation: Institute of Child Health London (Freeman JV et al). Data sources: British Size Surveys, Loughborough Consultants Ltd 1993 (Jones PRM, Norgan NG, Hunt MJ, Hooper RH); National Study of Health and Growth (Chinn S, Rona RJ); OPCS National Heights and Weights Survey, 1980; Tayside Growth Study (White E et al); UCH 1000 births 1987/88 (Colley NV, Henson GL); MRC Dunn Nutrition Centre, Cambridge (Paul AA, Whitehead RG); Carpenter's First Year Charts 1992 (Carpenter RG, Carpenter JR, Chadwick JGM).



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