

• 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 and standing height:** an infant should be measured supinely (on his back) by two people with equipment featuring both a head and footboard. Whilst one person holds his head against the headboard, with his head facing upwards and positioned in the Frankfurt plane\*, a second person measures his length by positioning his heels against the footboard. The downward pressure on his knees required to ensure that his legs are flat will not endanger hip dislocation. Standing height should be measured against an appropriate vertical height measure. His feet should be together with his heels, buttocks and shoulder blades touching the vertical with his head positioned in the Frankfurt plane\*. To ensure the maximum height, upward pressure to his mastoid processes should be considered.

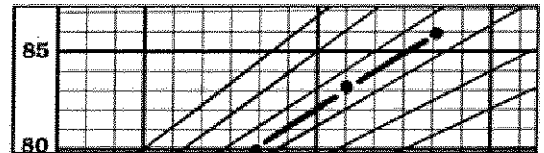
\*The Frankfurt plane is an imaginary line from the centre of the ear hole to the lower border of the eye socket.

### 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 (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 immediately any boy whose height falls above the 99.6th or below the 0.4th centile. If his growth curve crosses one centile line between two measurements he should be reviewed with particular care at his next measurement and referred if the trend continues. If he crosses two centile lines between one pair of measurements he should also be referred. If he crosses one centile between three measurements (i.e. between 2 - 5 yrs) he should have one further measurement one year later by the school nurse. At that point a judgement 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

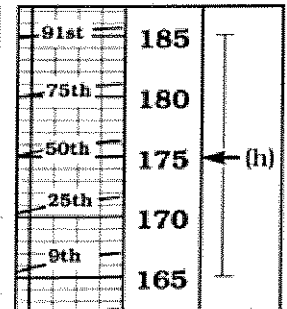
The data in the illustration shows how the potential adult height of a boy - **mid-parental height (MPH)** - is calculated. It indicates that his growth curve should follow the 50th centile - **mid-parental centile (MPC)** - to reach 175cm as an adult. It may follow a centile somewhere between the 91st - 9th (MPH ± 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:-

- (a) = father's height
- (b) = mother's height
- (c) = sum of (a) and (b)
- (d) = (c) ÷ 2
- (e) = (d) + 7cm (MPH)
- (f) = MPC - nearest centile to (e)
- (g) = TCR (mid-parental height ± 10cm)

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

(a)	... 176 ... cm	
(b)	... 160 ... cm	
(c)	... 336 ... cm	
(d)	... 168 ... cm	
(e)	... 175 ... cm	(f) ... 50th ... centile
(g)	... 91st ... centile	... 9th ... centile



### references and acknowledgements

1. A peer review paper (Freeman JV et al) describing the compilation of this Reference Chart has been submitted.
2. 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 PFM, 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).

Designed and Published by  
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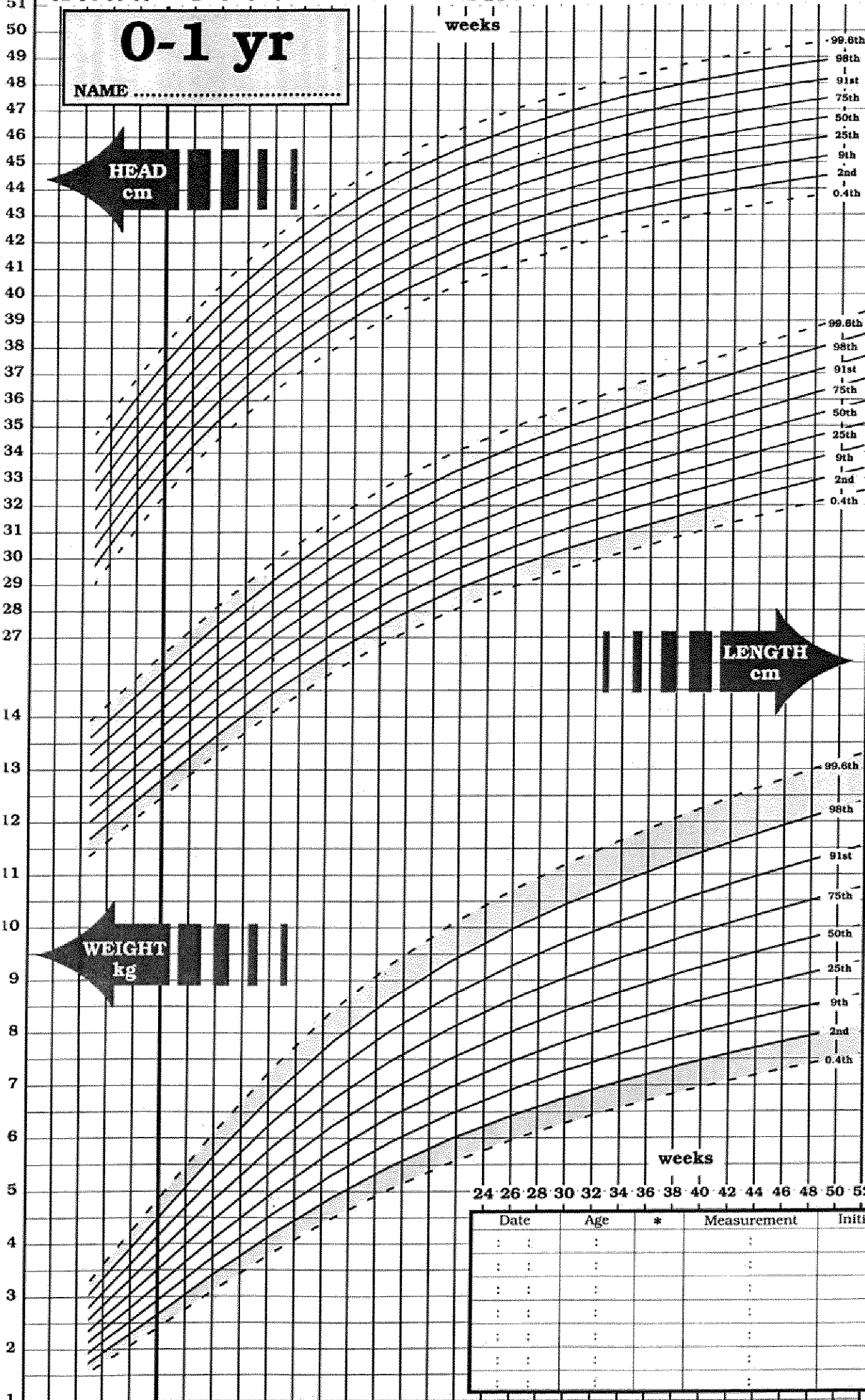
  
**Pharmacia**  
 Kabi Peptide Hormones



# 0-1 yr

NAME .....

weeks



**HE CONV**

2.54cm
30.5cm
38.1cm
45.7cm
53.3cm
61.0cm
68.6cm
76.2cm
83.8cm
91.4cm
99.0cm
106.7cm
114.3cm
121.9cm
129.5cm
137.2cm
144.8cm
152.4cm
160.0cm
167.6cm
175.3cm
182.9cm
190.5cm
198.1cm
200.0cm

**WE CONV:**

500gm = 1
1kg = 2
1.5kg = 3
2.0kg = 4
3.0kg = 6
3.5kg = 7
4.0kg = 8
4.5kg = 9
5.0kg = 1
5.5kg = 1
6.0kg = 1
6.5kg = 1
7.0kg = 1
7.5kg = 1
8.0kg = 1
8.5kg = 1
9.0kg = 1
9.5kg = 1
10 kg = 1
10.5kg = 1
11.0kg = 1
11.5kg = 1
12.0kg = 1
12.5kg = 1
13.0kg = 2
13.5kg = 2
14.0kg = 2
14.5kg = 2
15.0kg = 2
15.5kg = 2
16.0kg = 2
16.5kg = 2
17.0kg = 2
17.5kg = 2
18.0kg = 2
18.5kg = 2
19.0kg = 2
19.5kg = 3
20.0kg = 3

weeks

Date	Age	*	Measurement	Initials
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:

\*Measurement: H/C = Head Circumference, L = Length, W = Weight, H = Height

WHEN FULL USE BOXES OPPOSITE



