





Guided Growth for LLD

EXAMPLE

- 12 y.o.
- Actual height: 1,5 m
- Mature height: $L_m = L \times M = 1,77$ m

	Right	Left	Difference
Femur	40,1	42,5	2,4
Tibia	32,4	32,5	0,1
Total	72,5	75	2,5

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EXAMPLE

- 12 y.o.
- Actual difference: 2,5 cm

$$\Delta m = \Delta \times M$$

$$\Delta m = 2,5 \text{ cm} \times 1,18$$

$$\Delta m = 2,95 \text{ cm}$$

Δm = Final difference
 Δ = Actual difference
 M = Actual multiplier

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EXAMPLE

$$M_e = LM / (LM - \epsilon / \kappa)$$

$$42,5 \times 1,18 / (42,5 \times 1,18 - 2,95 / 0,71) = 1,090$$

Multiplier = 13 years 10 months

L = Actual length 42,5 cm
 M = Actual multiplier 1,18 (12 y.o.)
 ϵ = Final difference 2,95 cm
 κ = Constant for femur 0,71

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EXAMPLE

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EXAMPLE

Lower Extremity

Select: Distal Femur

Sex: Male

DOB: 12/12/00

Age: 12 Years 0 Months

Current Length of Longer Bone: 42,5 cm

Desired Amount of Shortening: 2,95 cm

Calculate

Results

Timing of Epiphysiodesis

Age for Epiphysiodesis of Distal Femur: 13 year(s) 10 month(s)

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FINAL REMARKS

PLAN AHEAD

CONSIDER LATENCY

FOLLOW UP