A technique for calculating limb length inequality and epiphyseodesis timing using the multiplier method and a spreadsheet

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In our spreadsheet for calculating proper timing of epiphyseodesis, an error has been identified in the interpolation equation for the multiplier. This error results in only minimal differences in the timing calculations and a corrected version is given below.

	Years	Months	Age (decimal)	Multiplier*					
Age:	10	4	10.33	1.29					
Sex (M or F):	m								
Scanogram:	Right Current	Left Current	Right Prior	Left Prior					
Hip	70.6	66.9	5	8					
Knee	34	31.5	35.2	37.5					
Ankle	5	4.8	58	58					
Lengths:	Right	Left	Right	Left					
Femur	36.6	35.4	30.2	29.5					
Tibia	29	26.7	22.8	20.5					
Femur + Tibia	65.6	62.1	53	50					
LLD (cm)	3.5		3						
Additional difference	0								
Projected Length of Long Leg (cm)	84.6	Projected Long Leg with Additional Difference (cm)	84.6	Projected Length of Short Leg (cm)	80.4	%growth rate of short	96.0%	Growth inhibition	4.0%
Projected discrepancy	4.3								
Predicted age for LLD=0:	years	months							
Distal Femoral Epiphyseodesis	12	9							
Proximal Tibial Epiphyseodesis	10	8							
Distal Femoral and Proximal Tibial Eniphvsodesis	13	10							

* All values come from Paley D, Bhav A, Herzenberg JE, et al. Multiplier method for predicting limb-length discrepancy. J Bone Joint Surg Am. 2000;82-A:1432-1446.

Enter age in years and months in B2 and C2. Enter Sex as M or F in B3.
Enter measurements in B5-E7 (leave D5-E7 zero for congenital differences).
Enter any otherwise unaccounted discrepancy in B13.

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