

Lower Limb Multiplier (M)

Lower Limb Multiplier (M)			
Boys			
Age		Age	
(yr + mo)	M	(yr + mo)	M
Birth	5.080	7 + 6	1.520
0 + 3	4.550	8 + 0	1.470
0 + 6	4.050	8 + 6	1.420
0 + 9	3.600	9 + 0	1.380
1 + 0	3.240	9 + 6	1.340
1 + 3	2.975	10 + 0	1.310
1 + 6	2.825	10 + 6	1.280
1 + 9	2.700	11 + 0	1.240
2 + 0	2.590	11 + 6	1.220
2 + 3	2.480	12 + 0	1.180
2 + 6	2.385	12 + 6	1.160
2 + 9	2.300	13 + 0	1.130
3 + 0	2.230	13 + 6	1.100
3 + 6	2.110	14 + 0	1.080
4 + 0	2.000	14 + 6	1.060
4 + 6	1.890	15 + 0	1.040
5 + 0	1.820	15 + 6	1.020
5 + 6	1.740	16 + 0	1.010
6 + 0	1.670	16 + 6	1.010
6 + 6	1.620	17 + 0	1.000
7 + 0	1.570		

Lower Limb Multiplier (M)

Lower Limb Multiplier (M)			
Girls			
Age		Age	
(yr + mo)	M	(yr + mo)	M
Birth	4.630	6 + 0	1.510
0 + 3	4.155	6 + 6	1.460
0 + 6	3.725	7 + 0	1.430
0 + 9	3.300	7 + 6	1.370
1 + 0	2.970	8 + 0	1.330
1 + 3	2.750	8 + 6	1.290
1 + 6	2.600	9 + 0	1.260
1 + 9	2.490	9 + 6	1.220
2 + 0	2.390	10 + 0	1.190
2 + 3	2.295	10 + 6	1.160
2 + 6	2.200	11 + 0	1.130
2 + 9	2.125	11 + 6	1.100
3 + 0	2.050	12 + 0	1.070
3 + 6	1.925	12 + 6	1.050
4 + 0	1.830	13 + 0	1.030
4 + 6	1.740	13 + 6	1.010
5 + 0	1.660	14 + 0	1.000
5 + 6	1.580		

Limb Length Discrepancy

Prediction Formulae

Prenatal (congenital limb length discrepancy) formula

$$\Delta_m = \Delta \times M$$

(use for congenital short femur, fibular hemimelia, hemihypertrophy, hemiatrophy)

Postnatal (developmental limb length discrepancy) formula

$$\Delta_m = \Delta + I \times G$$

Growth remaining = $G = L (M - 1)$

Growth inhibition = $I = 1 - (S - S') / (L - L')$

(use for Ollier's disease, polio, growth arrest; also works for congenital discrepancies)

Length at skeletal maturity

$$L_m = L \times M$$

(use for femur, tibia, femur plus tibia, or lower limb length, including foot height; applies equally to short and long limb)

L = current length

M = current multiplier

Δ = current discrepancy

Δ = discrepancy at maturity