



Limb Length Discrepancy after THR

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Limb length inequality can sometimes be a factor in patient satisfaction in an otherwise excellent function of the new hip. Majority of the time it is the feeling of lengthening due to preoperative shortening which gets corrected.

Excessive lengthening may result in fatigue, pain and lumbar spine problems.

All most every single time the hip is replaced, the length will change to some extent. Acceptable limit as per many papers is 22.7 mm difference.

Severe lengthening with neurological involvement requires revision surgery.

Up to 12 mm is not significant and most patients will be able to adjust without requiring any further management. Most times the lengthening is a result of ensuring stability of the hip. While subsidence in elderly people with poor bone quality, will adjust the length over a period of time, it may not be so in young patients with good quality bone and correct size of prosthesis.

Restoration of tissue tension and slight increase in offset ensures better lever arm and function of hip and avoids dislocations. With correct tissue tension, version, prosthetic size, the surgical approach is inconsequential.

While slack tissues with normal length may give a trendelenberg's lurch which is not correctible, a little increase in length with excellent tissue tension is correctible by shoe inserts and add On's and makes a pleasing walk.

The harris hip score surprisingly does not consider the change.

Soft tissue adjustments and subsidence may continue over 6 months to a year after surgery and shoe adjustments to those who need may change till such time. Cemented or cementless implants do not change the amount of subsidence to a great extent.

With the advent of robotics, it may be easier to do preoperative planning as regards cup placement. The type of prosthetic usage to match the patient anatomy may play a role in matching offset and length to some extent. Excessive lengthening usually is accompanied by increase in horizontal offset and may result in trochanteric bursitis and pain.

Harris Hip Score (HHS)

Patient Name: _____
Date: _____

Affected Hip: R L (Circle One)

Pain	
<input type="checkbox"/> None or ignores it	+44
<input type="checkbox"/> Slight, occasional, no compromise in activities	+40
<input type="checkbox"/> Mild pain, no effect on average activities, rarely moderate pain with unusual activity; may take aspirin	+30
<input type="checkbox"/> Moderate pain, tolerable but makes concession to pain. Some limitation of ordinary activity or work. May require occasional pain medication stronger than aspirin	+20
<input type="checkbox"/> Marked pain, serious limitation of activities	+10
<input type="checkbox"/> Totally disabled, crippled, pain in bed, bedridden	+0

Limp	
<input type="checkbox"/> None	+11
<input type="checkbox"/> Slight	+8
<input type="checkbox"/> Moderate	+5
<input type="checkbox"/> Severe	+0

Support	
<input type="checkbox"/> None	+11
<input type="checkbox"/> Cane for long walks	+7
<input type="checkbox"/> Cane most of the time	+5
<input type="checkbox"/> One crutch	+3
<input type="checkbox"/> Two canes	+2
<input type="checkbox"/> Two crutches or not able to walk	+0

Distance Walked	
<input type="checkbox"/> Unlimited	+11
<input type="checkbox"/> Six blocks	+8
<input type="checkbox"/> Two or three blocks	+5
<input type="checkbox"/> Indoors only	+2
<input type="checkbox"/> Bed and chair only	+0

Sitting	
<input type="checkbox"/> Comfortably in ordinary chair for one hour	+5
<input type="checkbox"/> On a high chair for 30 minutes	+3
<input type="checkbox"/> Unable to sit comfortably in any chair	+0

Enter public transportation	
<input type="checkbox"/> Yes	+1
<input type="checkbox"/> No	+0

Stairs	
<input type="checkbox"/> Normally without using a railing	+4
<input type="checkbox"/> Normally using a railing	+2
<input type="checkbox"/> In any manner	+1
<input type="checkbox"/> Unable to do stairs	+0

Put on Socks and Shoes	
<input type="checkbox"/> With ease	+4
<input type="checkbox"/> With difficulty	+2
<input type="checkbox"/> Unable	+0

Absence of Deformity (All yes = 4, Less than 4 = 0)	
<input type="checkbox"/> Less than 30° fixed flexion contracture	-
<input type="checkbox"/> Less than 10° fixed abduction	-
<input type="checkbox"/> Less than 10° fixed internal rotation in extension	-
<input type="checkbox"/> Limb length discrepancy less than 3.2cm	-

Range of motion (* indicates normal)	
Flexion (*140°): _____	
Abduction (*40°): _____	
Adduction (*40°): _____	
External Rotation (*40°): _____	
Internal Rotation (*40°): _____	

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Scoring Guide:

Range of Motion:

Total range of motion:

211° - 300° = 5 points

161° - 210° = 4 points

101° - 160° = 3 points

61° - 100° = 2 points

31° - 60° = 1 point

0° - 30° = 0 points

Range of motion score: ____

Total Harris Hip Score:

Harris Hip Score: Summation of points

Harris Hip Score: ____ Points

Figure a