

Knee flexion contracture after TKA

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Knee flexion contracture after TKA

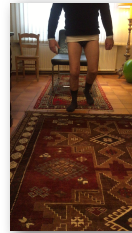
Definition/Description

A flexion deformity of the knee is the inability to fully straighten the knee, also known as flexion contracture. Normal active range of motion (AROM) of the knee is 0° extension and 140° flexion. In people with a flexion deformity, AROM of one or both knees is reduced. It develops as a result of failure of knee flexors to lengthen in tandem with the bone, especially when there is inadequate physical therapy to provide active and passive mobilization of the affected joint.^[1] They often require extensive rehabilitation.^[2] In most cases, flexion deformities occur bilaterally.

Knee flexion contracture incidence after TKA

Depending on
Preop ROM
Trauma sequellae
Inflammatory disease
Incipient Arthrofibrosis

Knee flexion contracture after TKA



Characteristics/Clinical Presentation

Ant knee pain
Walking distance down
Q cepts force down
Shortening of stride gait
Flexed position of the knee throughout gait cycle

Knee flexion contracture after TKA

Surgical procedure for flexion contracture and recurvatum in total knee arthroplasty

Abstract

A specific protocol for dealing with flexion contracture and recurvatum in total knee arthroplasty surgery was evaluated. In cases of flexion contracture, this protocol included choosing the larger femoral size when the femur was between sizes to make the flexion space smaller and to allow overresection of the tibial surface to correct the flexion contracture. In all cases, bone resection was done first, osteophytes were.

Flexion Contracture in Total Knee Arthroplasty.

Bellemans, Johan MD, PhD¹; Vandenneucker, Hilde MD²; Victor, Jan MD³; Vanlauwe, Johan MD⁴

Section Editor(s): Laskin, Richard S MD, Guest Editor

Clinical Orthopaedics & Related Research: November 2006

Volume 452 - Issue - pp. 78-82

J Arthroplasty. 2007 Jun;22(4 Suppl 1):20-4.

Management of flexion contracture in total knee arthroplasty.

Scuderi GR1, Kochhar T.

Fixed flexion deformity following total knee arthroplasty. A prospective study of the natural history

Conal Quah, Girish Swamy, James Lewis, John Kendrew, Nitin

Badhe

Plum X 2011

FC increased in conventional TKA vs Navigated TKA

Knee flexion contracture incidence after TKA

Incidence 1 to 13 %
 Male / female ration 2.5
 preop FC = ↑ 2.3
 Older age
 Navigated TA > convent TKA
 Oxford score ↓
 patient satisfaction ↓

Flexion contracture following primary total knee arthroplasty: risk factors and outcomes.
 Goudie SJ*, Deakin AJ, Ahmad LA, Maheshwari H, Picard E. 2011

Fixed flexion deformity following total knee arthroplasty. A prospective study of the natural history

Conal Quah j.knee.2011.09.003

2001 2006 1600 TKA
 4Y FU
 FC 5/15° vs > 15°
 MUN
 Incidence 10.5% overall
 Gr 1 / 90% healed
 Gr 2 / 10% healed
 FC resolving in 1y (95%)
 Time : 2y

Does Flexion Contracture Continue to Improve up to Five Years after Total Knee Arthroplasty?

X Cheng, H Dashti, G McLeod
 First Published December 1, 2007 Research Article

323 TKA
 200 female 123 male
 Mean age 72 y
 OA + FC
 1 surgeon 1 implant
 overall ROM improved 5y

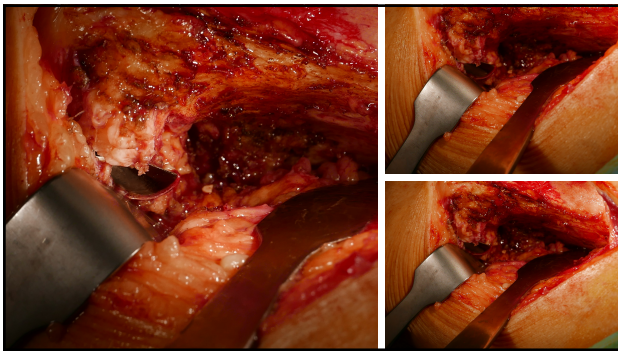
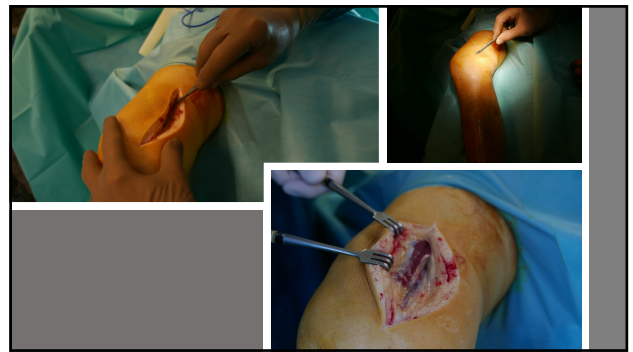
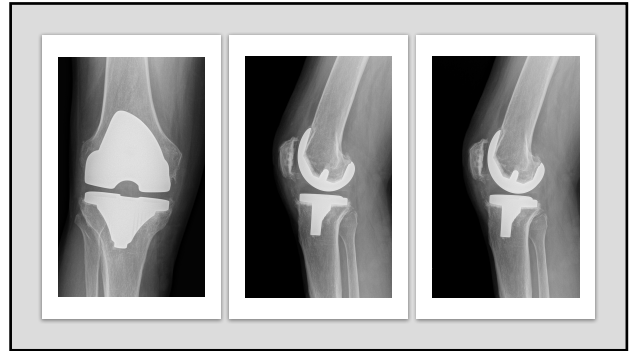
SEVERE FLEXION CONTRACTURE AFTER TOTAL KNEE ARTHROPLASTY

H. Kawashima, S. Nakano, S. Yoshioka, et al
 Published 6 May 2016

- 2008 2015
- 3 pts > 30°
- MUN with good results in 2
- 1 pt developped FC > 60°
- Revision TKA

Knee flexion contracture after TKA

Pt. D H A
 *1961
 R Knee
 1979 : open tibial ## Varus
 1999 : a scopy 1 Ri knee ... degen ed comp
 1999 : a scopy 2 and 3
 2008 : med com uni Ri knee
 2010 : TKA
 2011 : a scopy 4
 2012 : MUN and spongioplasty patella F/E : 115 /0/0
 Progressive increase flexion contracture
 2018 : F/E 45/35/0
 07 03 2018 : Hertel release F/E 110 0/0





Knee flexion contracture after TKA

Pt WAM
 *1967
 R Knee
 2016 : TKA
 : usual rehab
 2017 : progressive FC.....
 2017 : intense rehab
 2018 : unhappy with ROM limitation / gait issue
 2018 : revision TKA suggested
 2018 : Hertel release





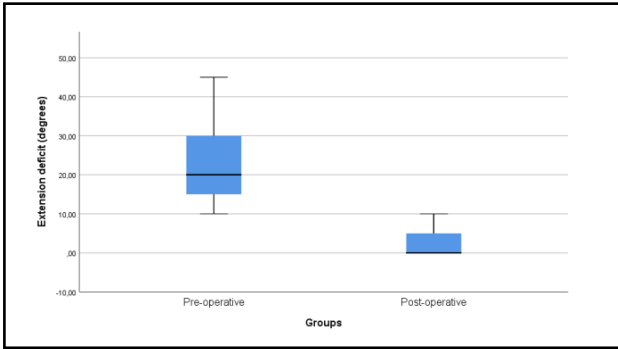
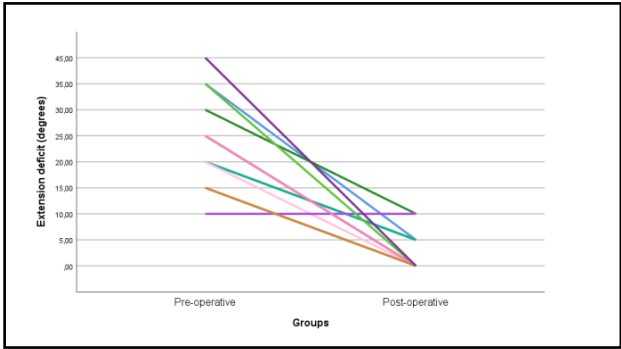
Patiëntenpopulatie

14 "Hertel" releases
 June 2011 / november 2018
 Mean FU : 48 m
 M/F: 5/9
 Mean age at surgery: 61.7 Y

Extension deficit

	N	Mean	Std Deviation
Pre-operative	14	23,57	9,693
Post-operative	14	2,86	3,780

Mean extension deficit reduction to 2.9°.
 Mean Improvement : 21°.



- conclusion**
- Flexion contracture is painfull because patella overload
 - Avoiding TKA removal and A desis hassle
 - Revision surgery is not required in case correct implant positioning
 - Try to exclude infection....
 - Posterior capsular release via median approach
 - Rehabilitation requires dynamic bracing (Aelbrecht / Jakob post. bracing)
 - Patient may loose flexion but gains painless gait

