

Classification des complications des PTG

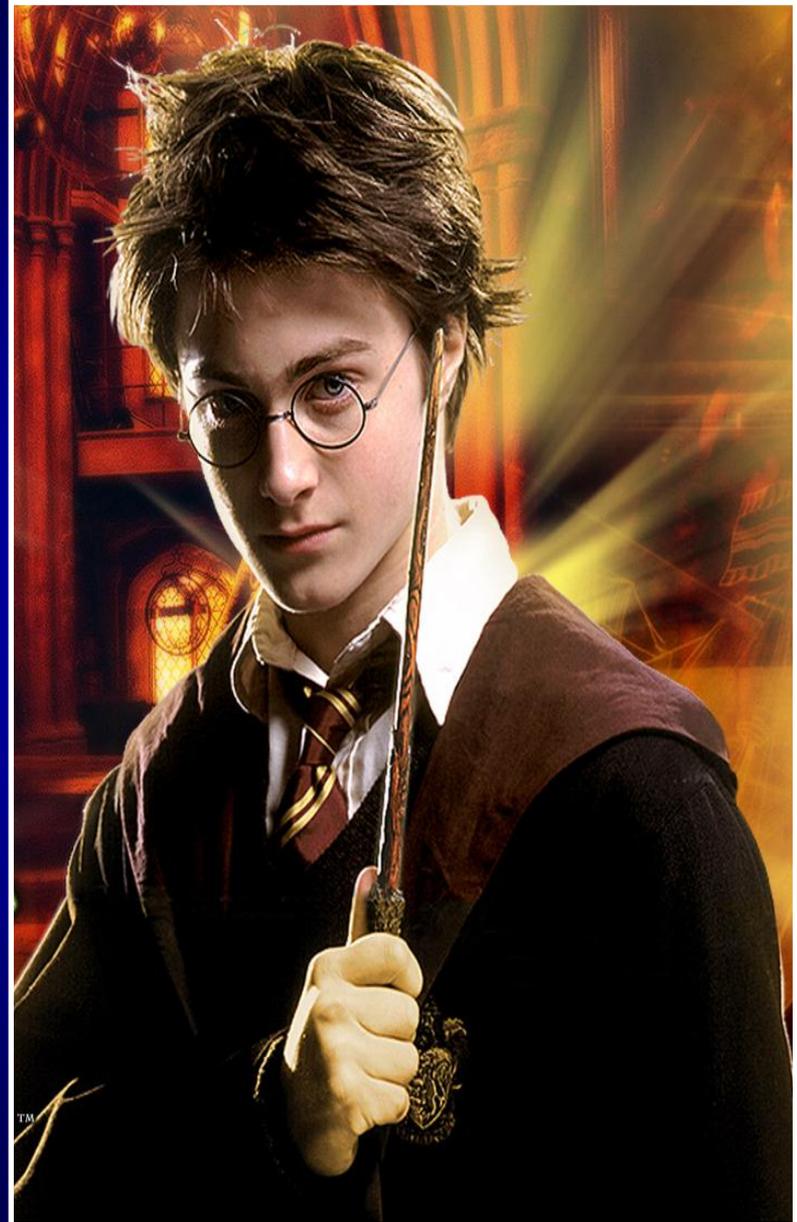
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Xavier Flecher, Jean-Noël Argenson*

*3 Février 2017
Lyon*

Institut du Mouvement et de l'Appareil Locomoteur
Aix-Marseille Université
Hôpital Sainte Marguerite



Il y a des risques que j'aie
des complications Docteur si
vous m'opérez ?





Disney's
The SANTA CLAUSE

"Destined To Become A TKA Classic."

- New York Post

PREVIOUS IDENTITY, REAL OR IMPLIED, AND FULLY ACCEPTS THE DUTIES AND RESPONSIBILITIES OF SANTA CLAUS UNTIL SUCH TIME THAT WEAKER BECOMES

C'est comme en voiture

- Accidents
- Pannes



Les accidents

1. La mort
2. Complications médicales
3. Complications cutanées
4. Complications vasculaires
5. Infection
6. Fractures
7. Rupture appareil extenseur
8. Luxations

Quand le genou vous regarde !



Complications cutanées



Clinical case: Me Mir...

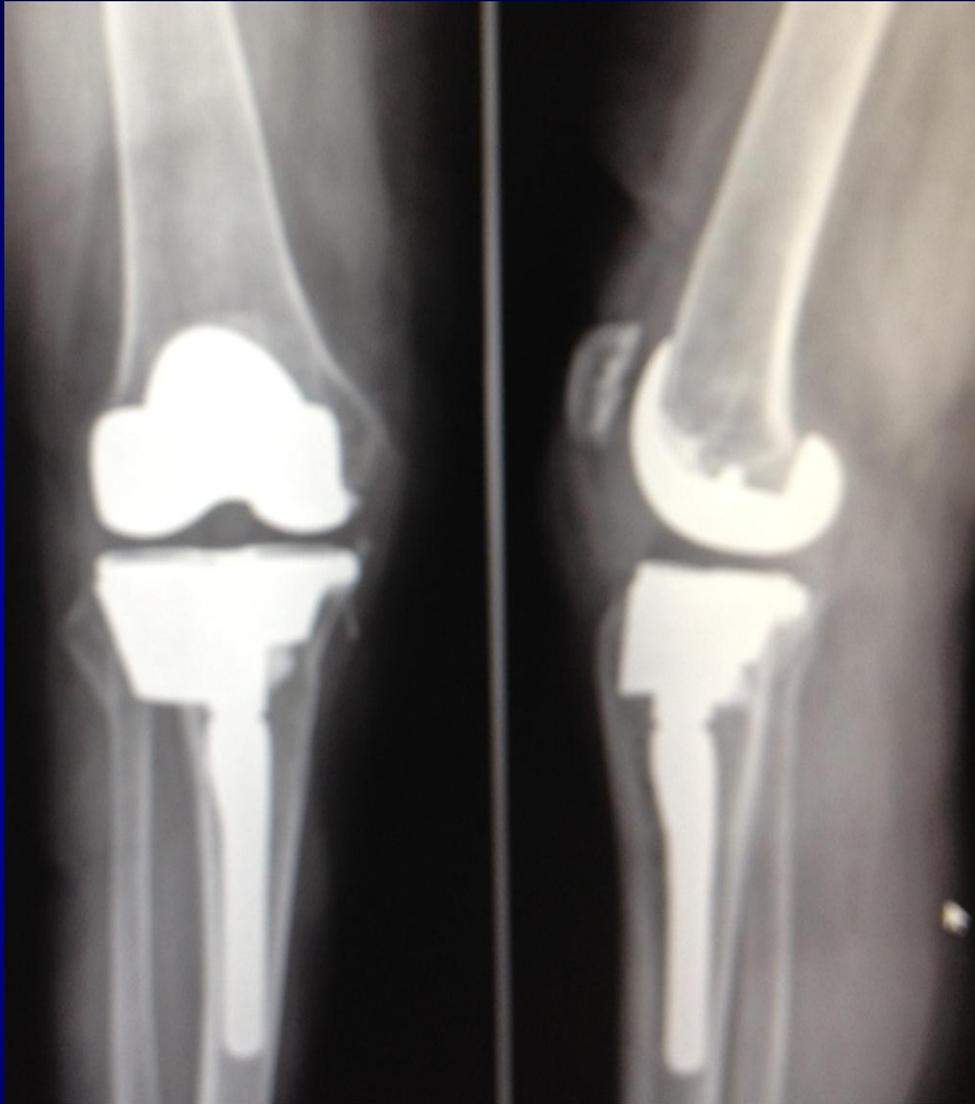
63 years-old
2 cardiac valves





COUCHE







Complications vasculaires



Constataion per-opératoire
Constataion post-opératoire

Infection

Infection aigüe, < 6 semaines

CRP > 100 mg/L (knee)

Nbre GB Synoviaux > 10,000 cells/ μ L

% Poly Neutro > 90%

Infection tardive, >6 semaines

VS > 30 mm/hr,

CRP > 10 mg/L,

Nbre GB Liquide Syno > 3000 cells/ μ L

% Poly Neutro > 80%

Fractures

Per-opératoire

Savoir les reconnaître et
les traiter

Pas de ça va bien aller

Attention Valgus, PR,
obèses, mauvaise rachi

Fractures

Post-opératoires

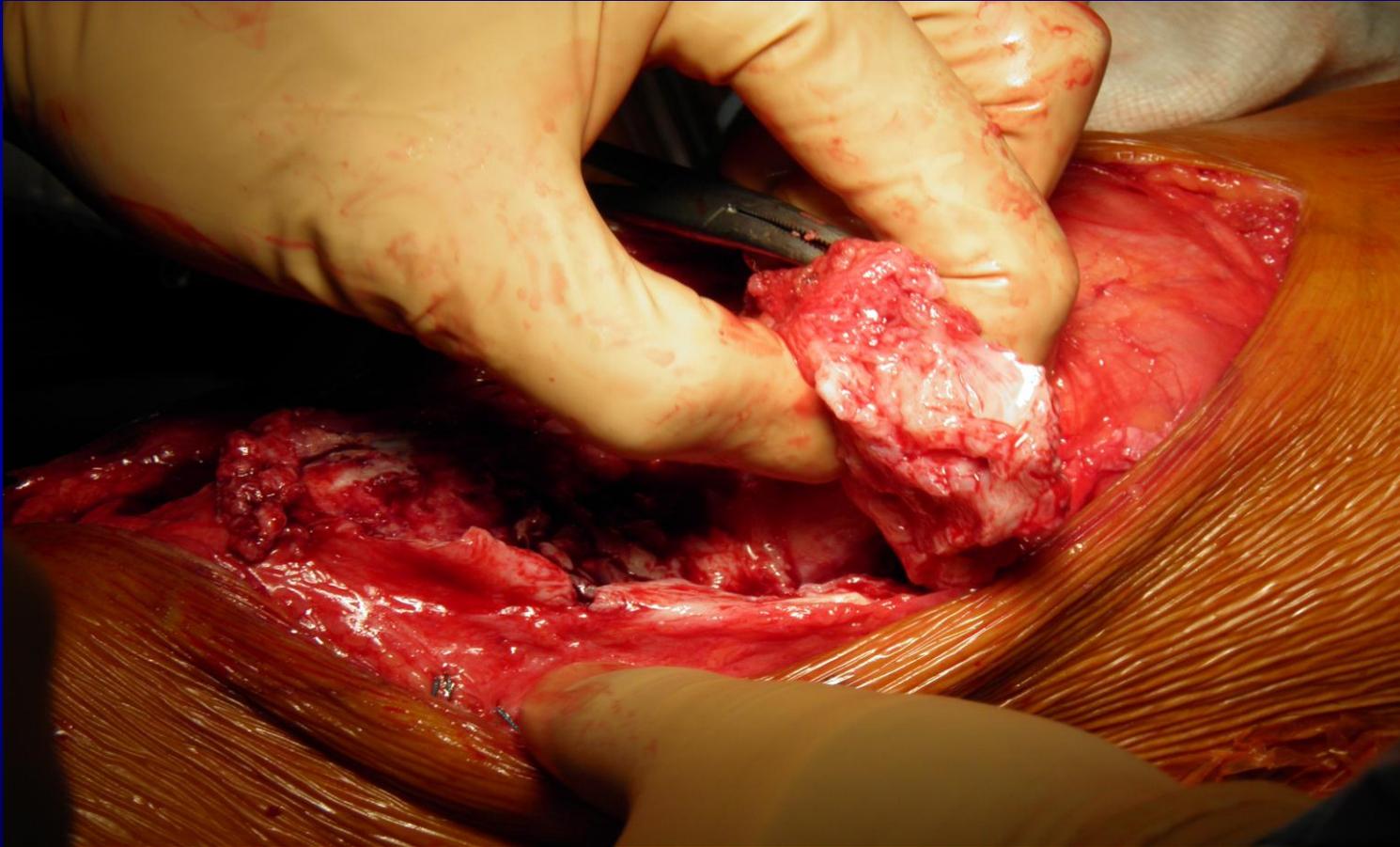
Fractures péri-
prothétiques



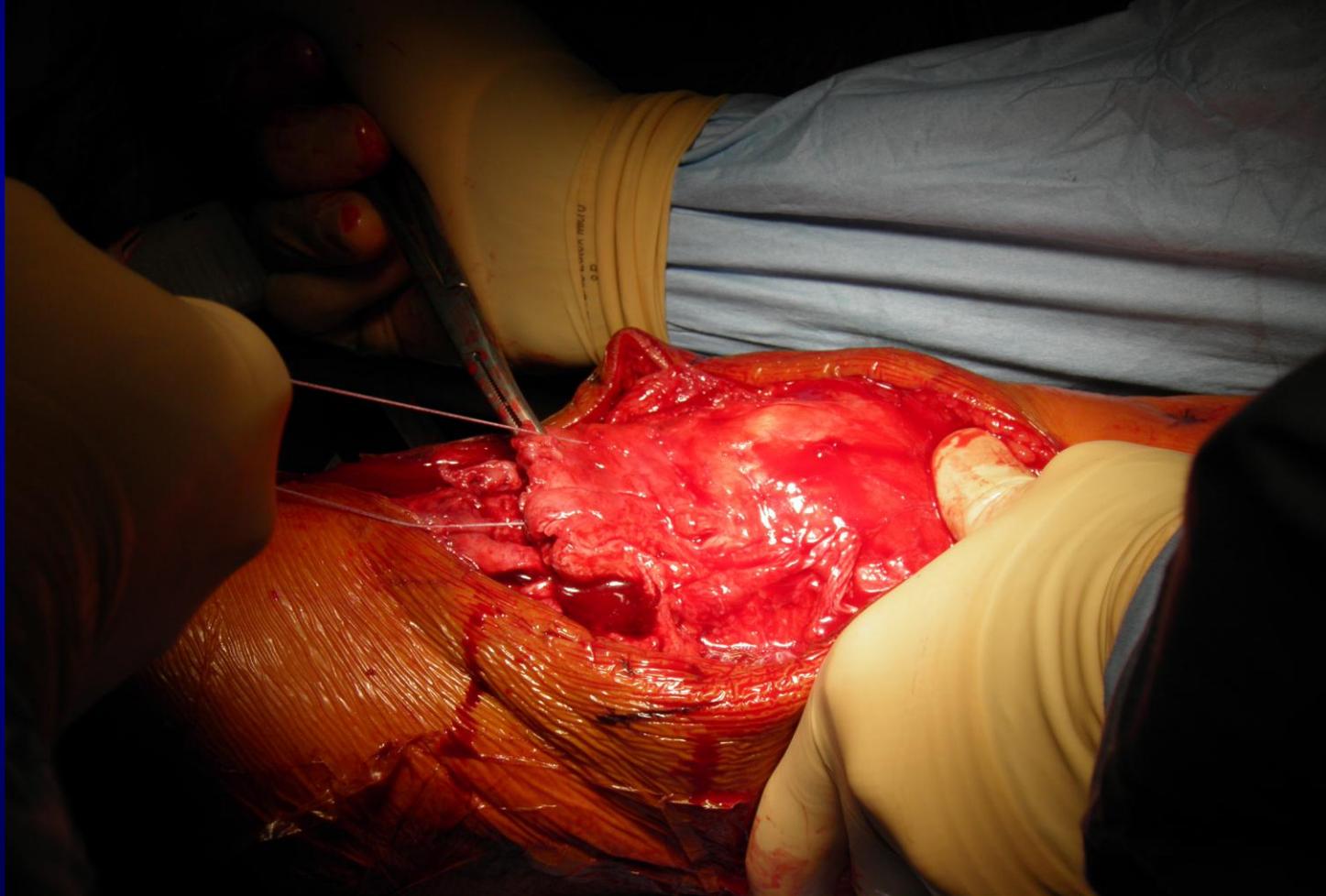


Ruptures de l'appareil extenseur

Intra-opératoires : rares : Meeer.....

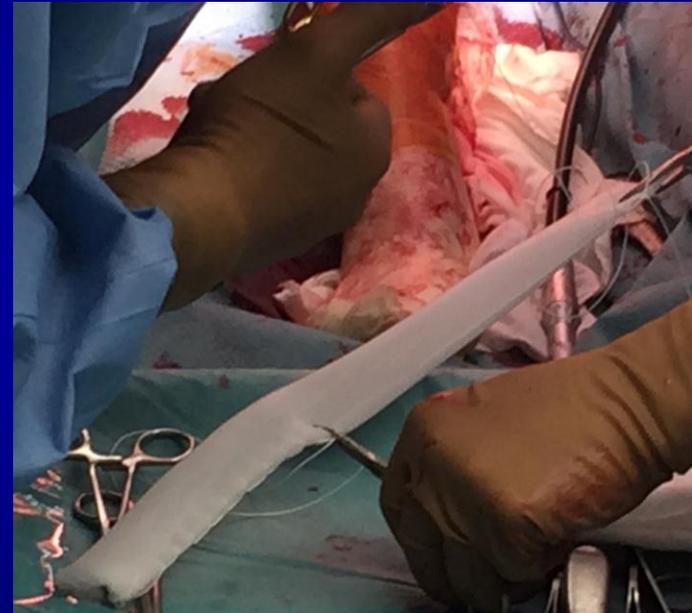
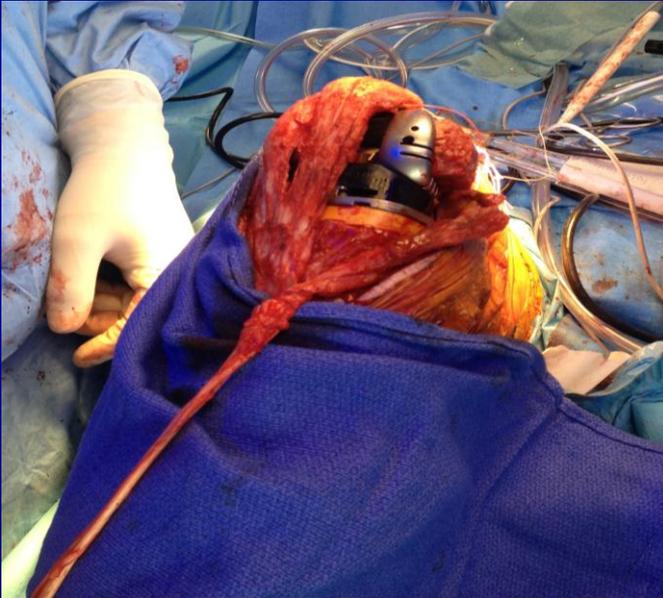


Réparation directe isolée ne marche pas



Augmentation

- Marlex

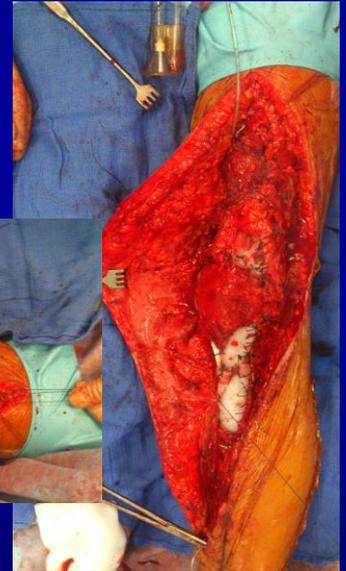
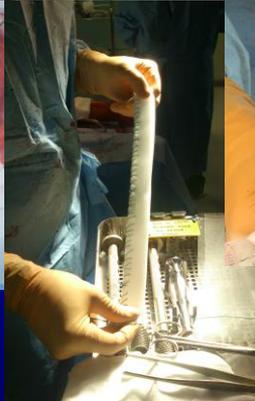


Ruptures tardives

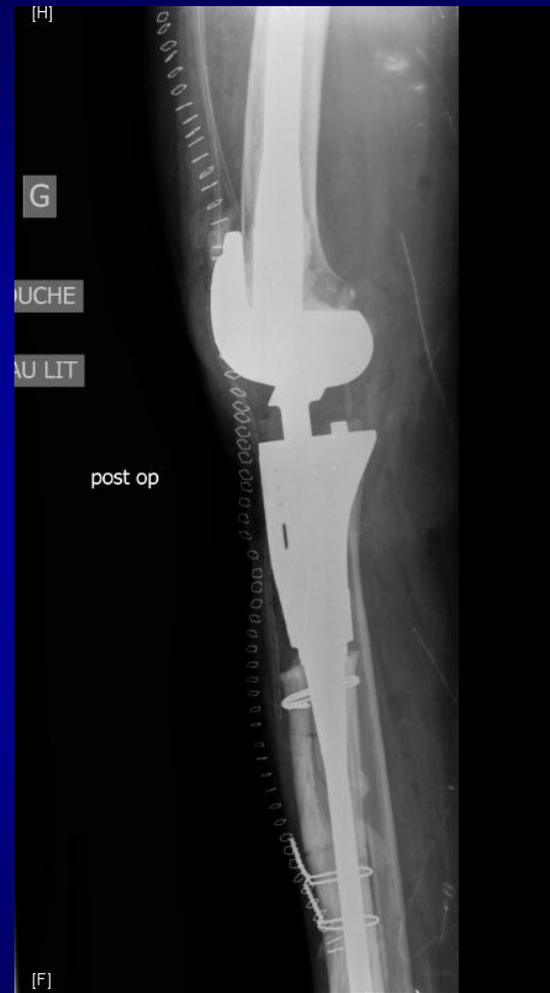
Traumatiques
Usure



Second stage
TKA reimplantation and Marlex technique

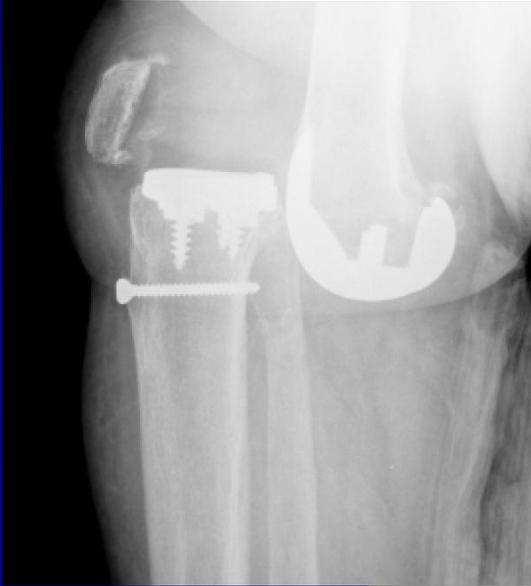


Post-op



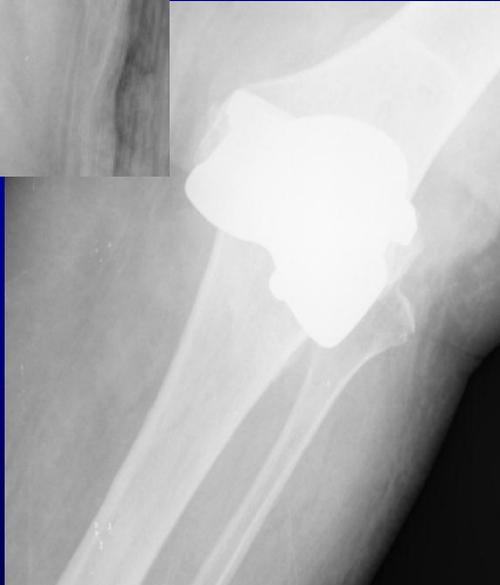


Luxations de PTG



Traumatique

Section LCM passée
inaperçue



Rupture tardive du LCP

Ruptures de l'appareil
extenseur

Les pannes

Des symptômes

Douleur

Raideur

Instabilité



CaptainDrive

Face à une panne, on est souvent désespéré !

Découvrez quelles sont les raisons principales.

Ma voiture démarre plus !

The image shows a close-up of a baby crying with a frustrated expression. A red speech bubble next to the baby contains the text 'Ma voiture démarre plus !'. To the left of the baby, there is text in French: 'Face à une panne, on est souvent désespéré !' and 'Découvrez quelles sont les raisons principales.' The logo 'CaptainDrive' is visible in the top left corner of the image area.

Douleur/raideur/instabilité
= symptôme



Faire le diagnostic
étiologique

Savoir si il y a eu Lune de Miel ou pas?



Des étiologies

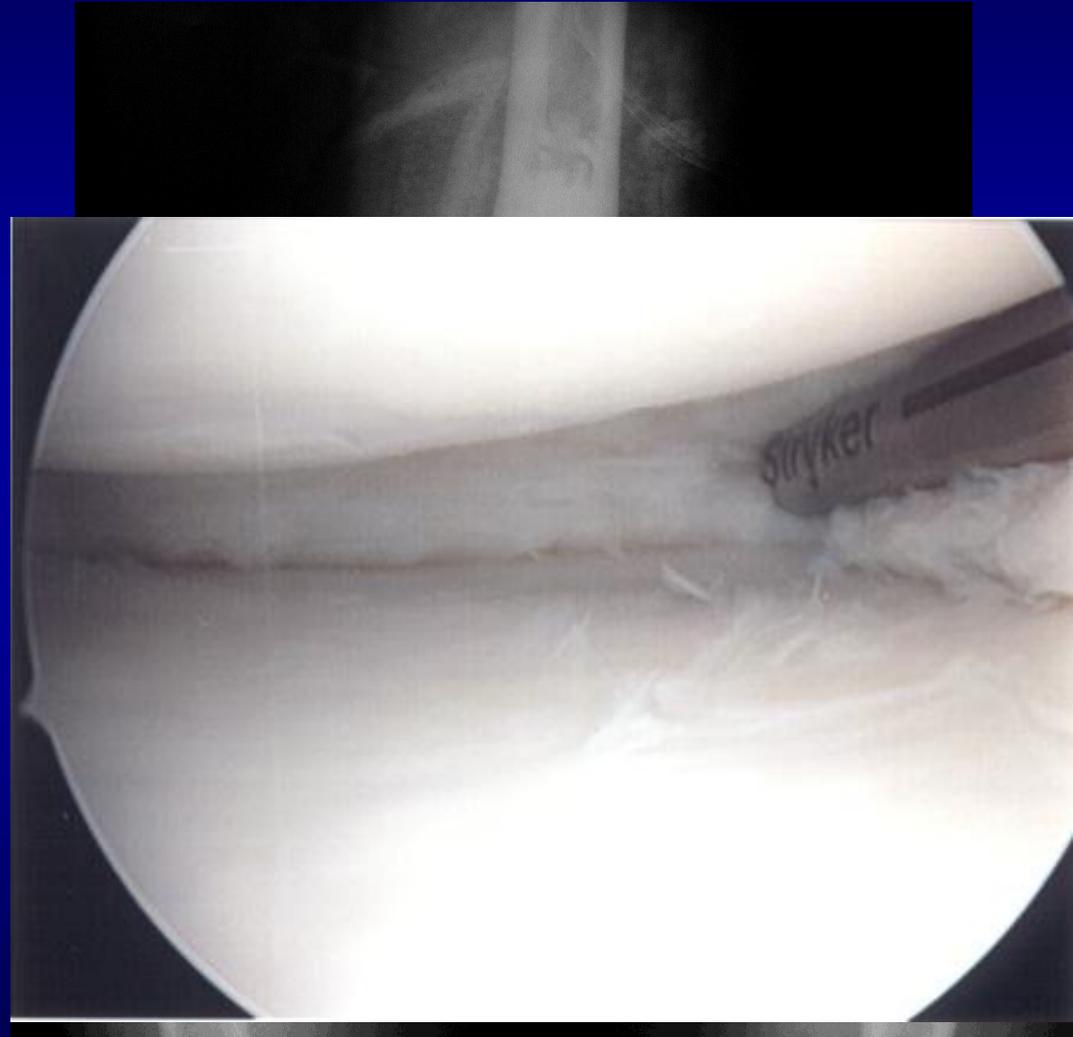
Extrinsèques

Intrinsèques

Causes liées au patient : on a éliminé une complication

Causes extrinsecques

- Hanche
- Dos
- Problème du Chirurgien
Education



Does Concomitant Low Back Pain Affect Revision Total Knee Arthroplasty Outcomes?

Wendy M. Novicoff PhD, David Rion BS,
William M. Mihalko MD, PhD, Khaled J. Saleh MD, MSc

Despite these limitations, our data suggest patients with low back pain have lower functional and outcome scores after rev-TKA than those without low back pain and generally recover more slowly in terms of function than patients without low back pain. Although all patients,



Causes intrinsèques: les 7 “ons”

1. Infection
2. Fixation
3. Rotation
4. Position
5. Irritation
6. Flexion
7. Combinaison ⇔ Implants



1. Infection? Toujours

Table

Reasons for 820 Consecutive RTKA Subdivided by Time and Comparison with Published Reasons [8,9].

Causes of Revision	Overall (%)	Early Revisions (<5 y) (%) ^a	Late Revisions (≥ 5 y) (%) ^b
Infection	18.4	30.0	8.0
Aseptic loosening	23.1	14.8	24.1
Instability	17.7	24.0	15.1
Polyethylene wear	18.1	0.2	34.1
Stiffness/pain	9.3	14.5	6.6
Osteolysis	4.5	1.3	8.0
Malposition/malalignment	2.9	3.0	1.3
Fractures	1.4	1.8	1.3
Advancing arthritis	1.7	2.6	0.2
Patellofemoral	N/A	N/A	N/A
Other (dislocation, implant fracture, poor range of motion)	2.9	3.1	1.0

Infection

Infection aigüe, < 6 semaines

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Infection tardive, >6 semaines

VS > 30 mm/hr,

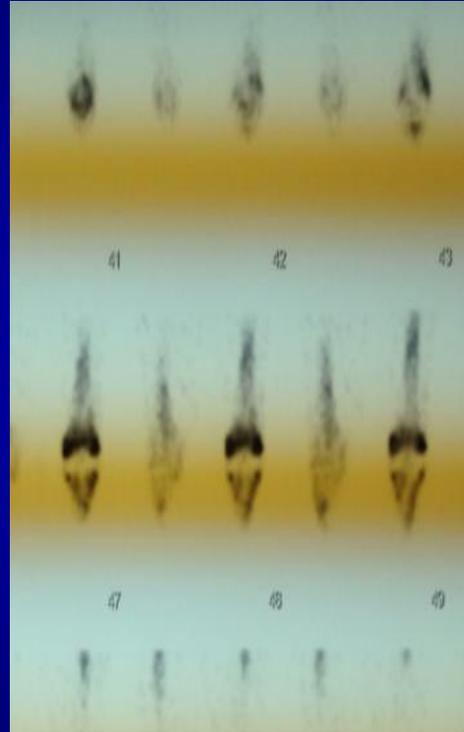
CRP > 10 mg/L,

Nbre GB Liquide Syno > 3000 cells/ μ L

% Poly Neutro > 80%

2. Fixation

Défaut de fixation primaire des implants sans ciment



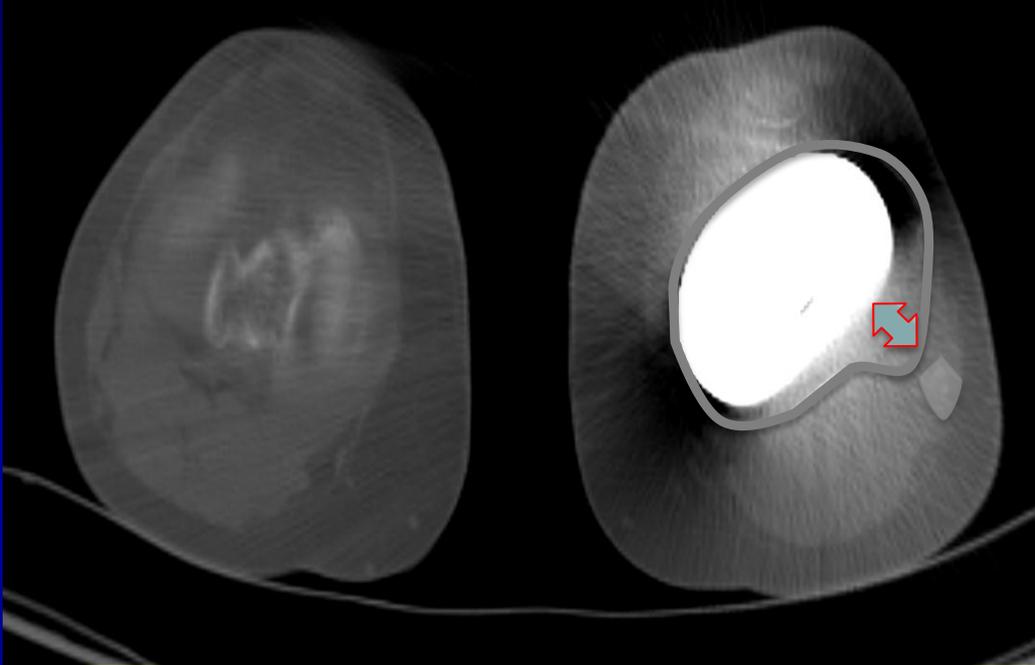
Ranawat CS et al Cementless fixation in total knee arthroplasty: down the boulevard of broken dreams - affirms. J Bone Joint Surg Br. 2012 ;94(11 Suppl A):82-4.

Fixation /USURE

Descellement d'une prothèse qui allait bien
Liseré > 2mm et/ou migration



3. Rotation : Tibia



Clin Orthop Relat Res (2011) 469:2346–2355

DOI 10.1007/s11999-011-1889-8

CLINICAL RESEARCH

Internal Rotation of the Tibial Component is Frequent in Stiff Total Knee Arthroplasty

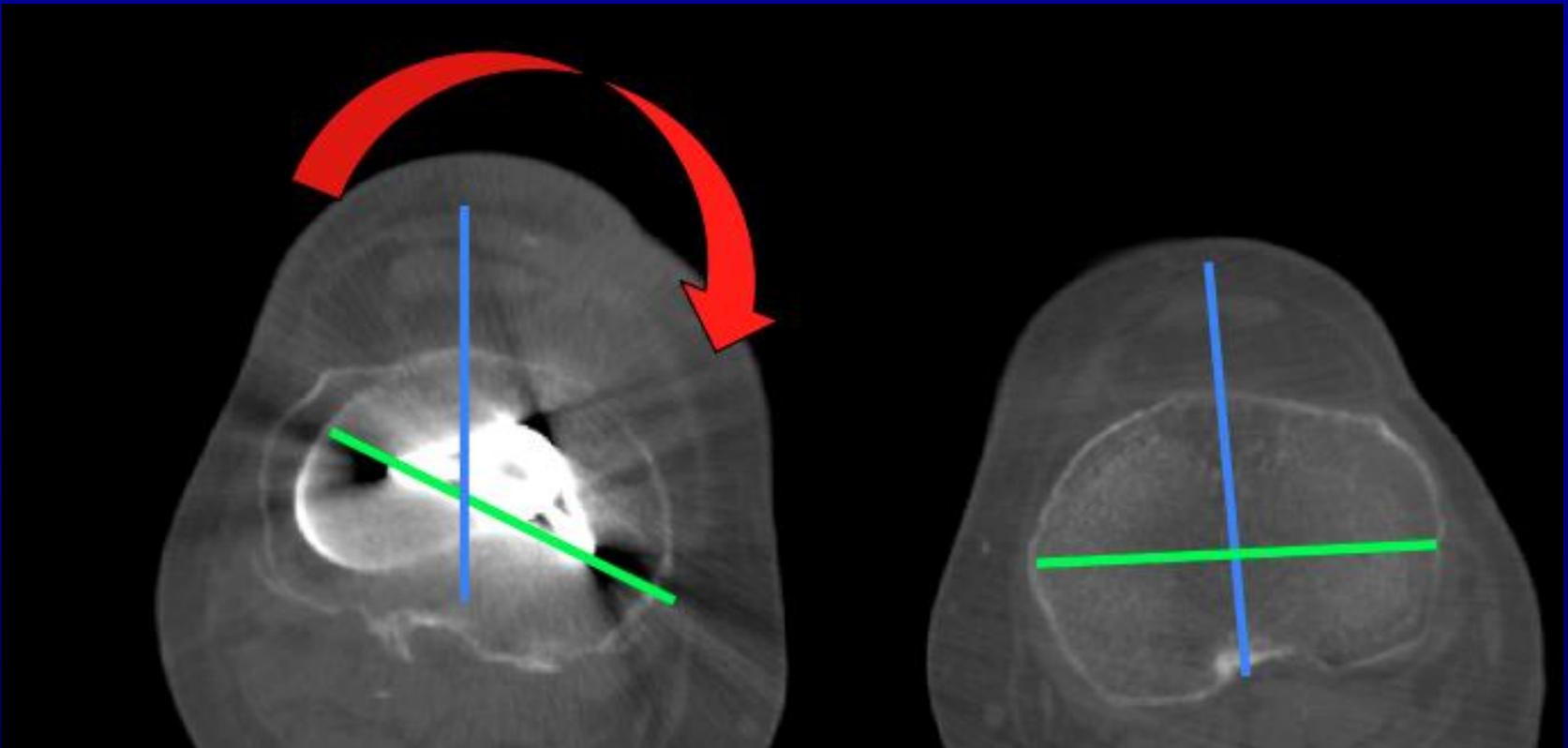
Martin Bédard MD, FRCS(C), Kelly G. Vince MD, FRCS(C),
John Redfern MD, Stacy R. Collen MS

Rotation Tibia

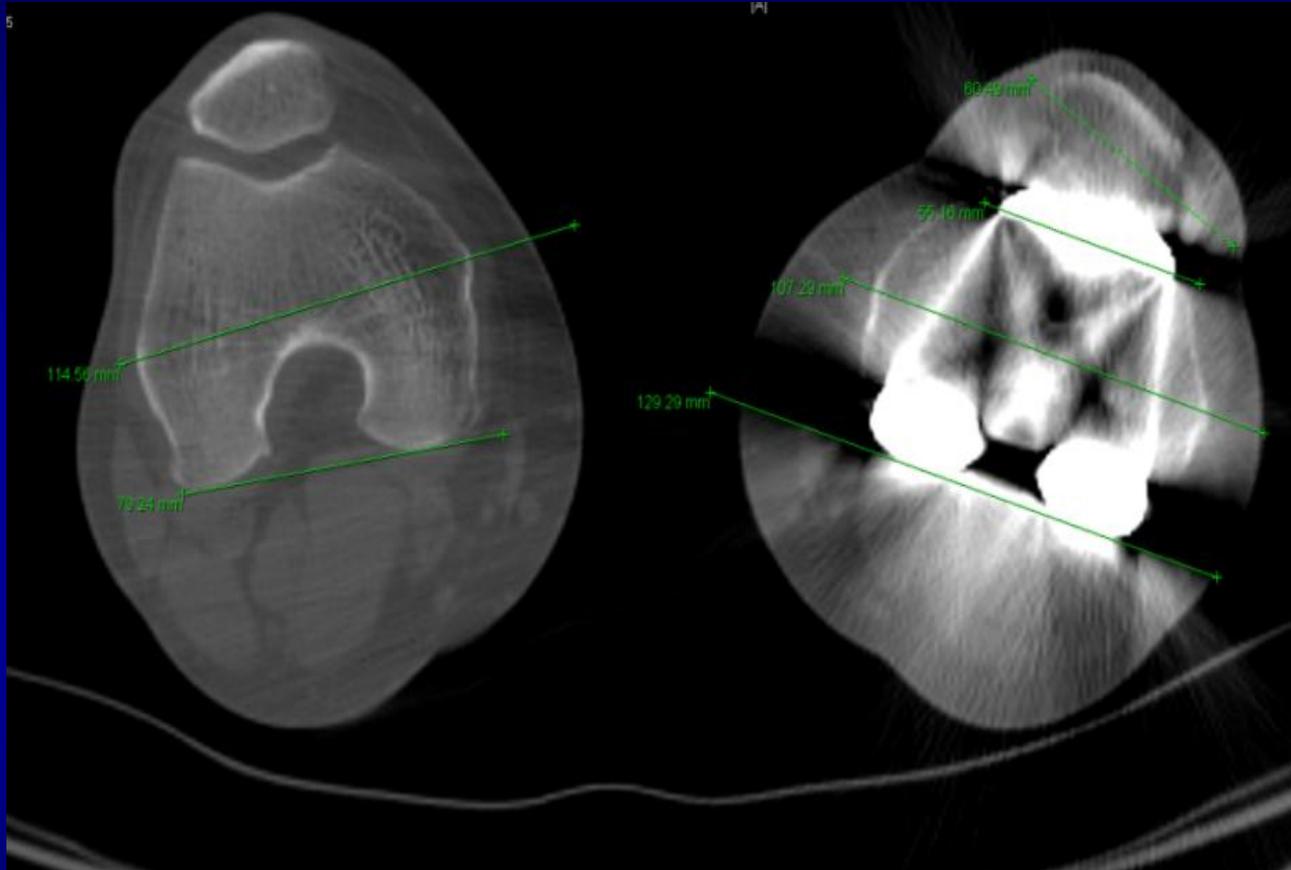
Radiologues, superposition coupes

Plateau/ tubérosité tibiale antérieure

Normalement : 8 degrés de rotation externe



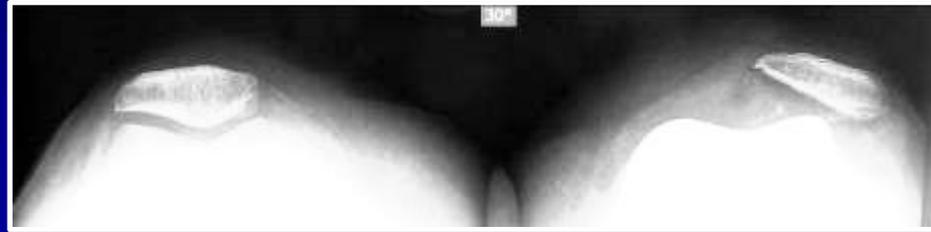
3. Rotation: Femur



Merican AM, Ghosh KM, Iranpour F, Deehan DJ, Amis AA The effect of femoral component rotation on the kinematics of the tibiofemoral and patellofemoral joints after total knee arthroplasty. Knee Surg Sports Traumatol Arthrosc. 2011 Sep;19(9):1479-87.

Douleurs rotuliennes et rotation ?

« La douleur peut venir de la rotule...???



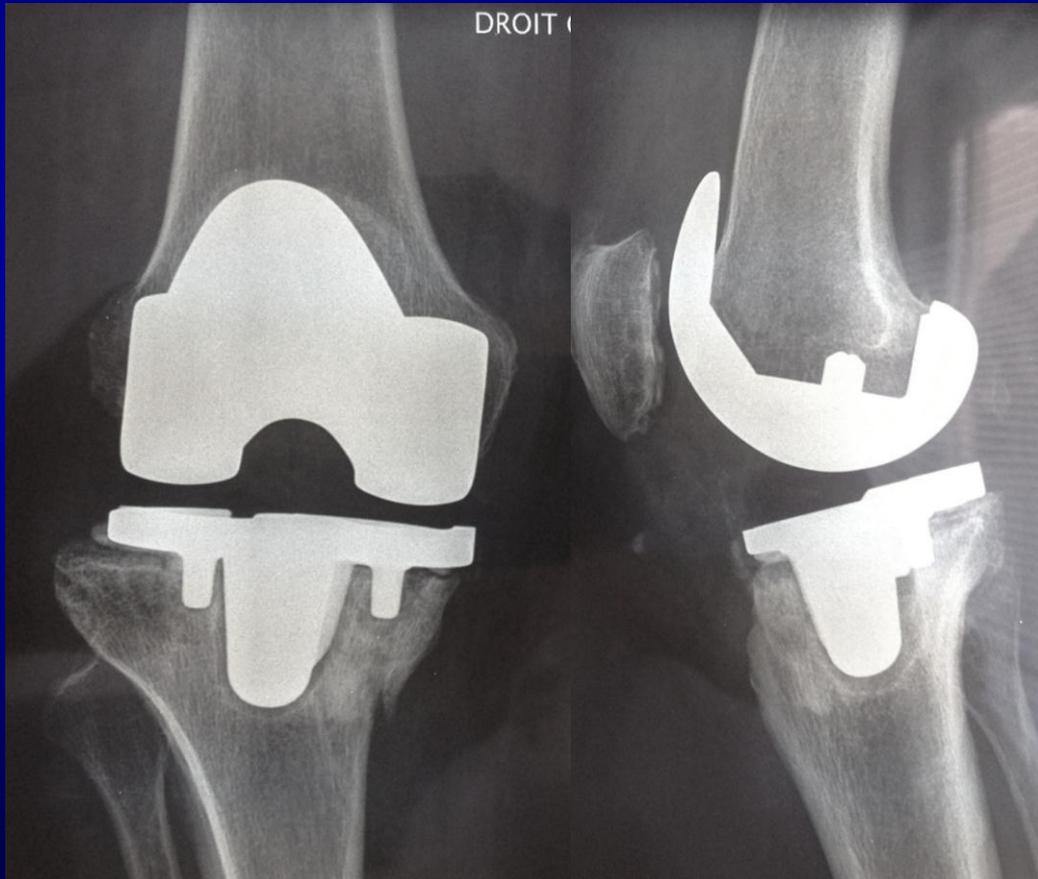
Rotule???

Douleur jusqu'à 20% des patients

4. Position

Douleur, instabilité

2 degrés de varus dans le tibia ?



5. Irritation: Sur-dimensionnement fémoral

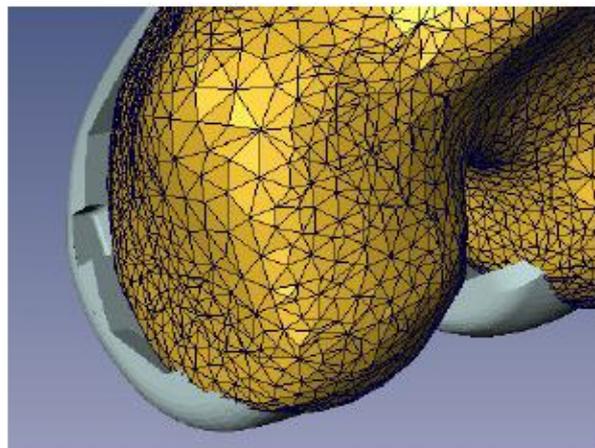
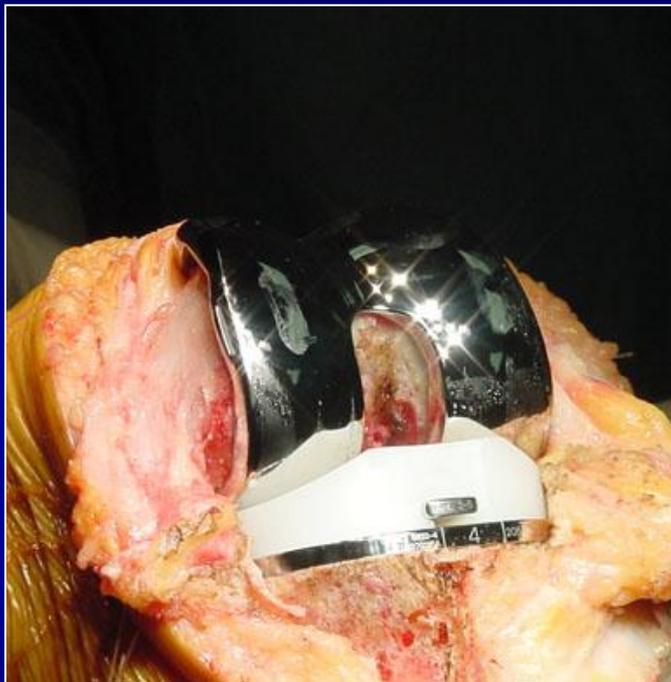


Figure 3. Example of Overhang Femur size compared with NexGen size 'F'



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Knee Surg Sports Traumatol Arthrosc
DOI 10.1007/s00167-013-2443-x

KNEE

Mediolateral oversizing influences pain, function, and flexion after TKA

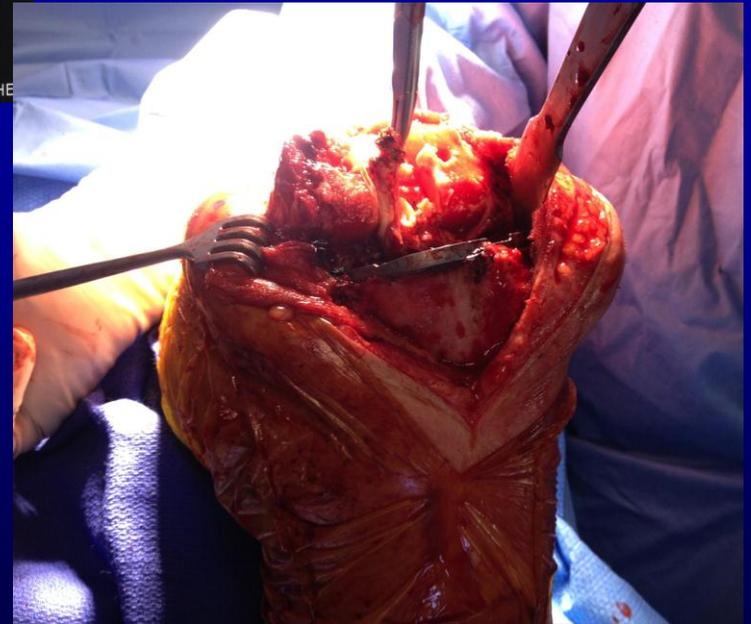
Michel P. Bonnin · Axel Schmidt · Luca Basiglini ·
Nadine Bossard · Emmanuelle Dantony

Overhang of the Femoral Component in Total Knee Arthroplasty: Risk Factors and Clinical Consequences

By Ormonde M. Mahoney, MD, and Tracy Kinsey, MSPH

Investigation performed at the Athens Orthopedic Clinic, Athens, Georgia

5. Irritation



5. Flexion

Pente

Offset Femoral



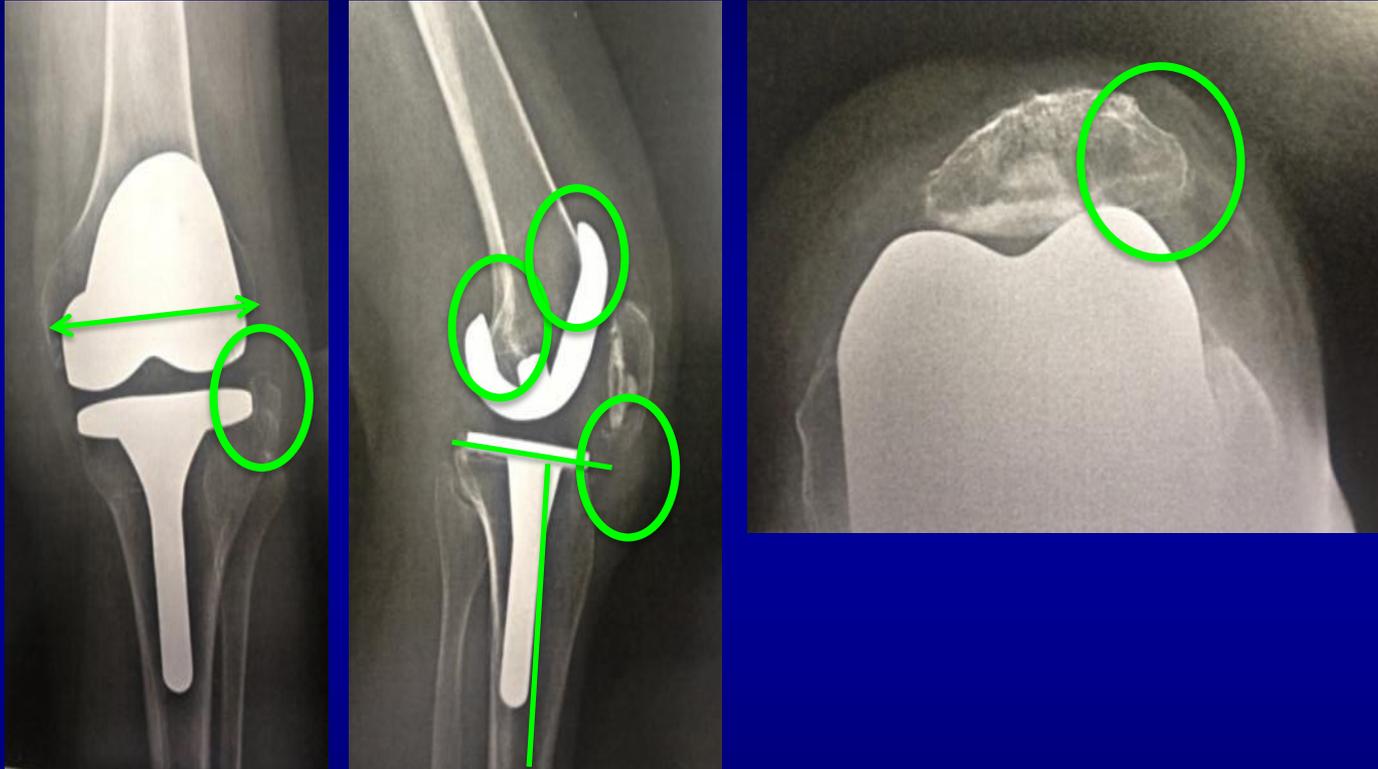
Fluoroscopic analysis of the kinematics of deep flexion in total knee arthroplasty

INFLUENCE OF POSTERIOR CONDYLAR OFFSET

J. Bellemans, S. Banks, J. Victor, H. Vandenuecker, A. Moemans

From the University Hospital, Pellenberg, Belgium

6. Combinaison



En France= beaucoup de prothèses, pas toujours optimales
Ni dans le dessin, ni dans les ancillaires

Complications

- Savoir les reconnaître
- Information