Short Stems are better for young Patients?

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I DECLARE

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What do young patients need for their hips?

THEY NEED

secure Hip

No Dislocation

No Pain

Good ROM

« Forgotten Hip »

Wear Resistance

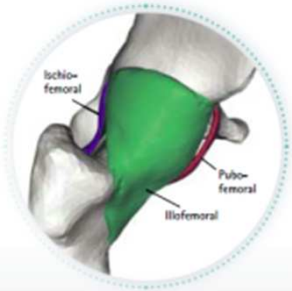
HOW To Get it ?

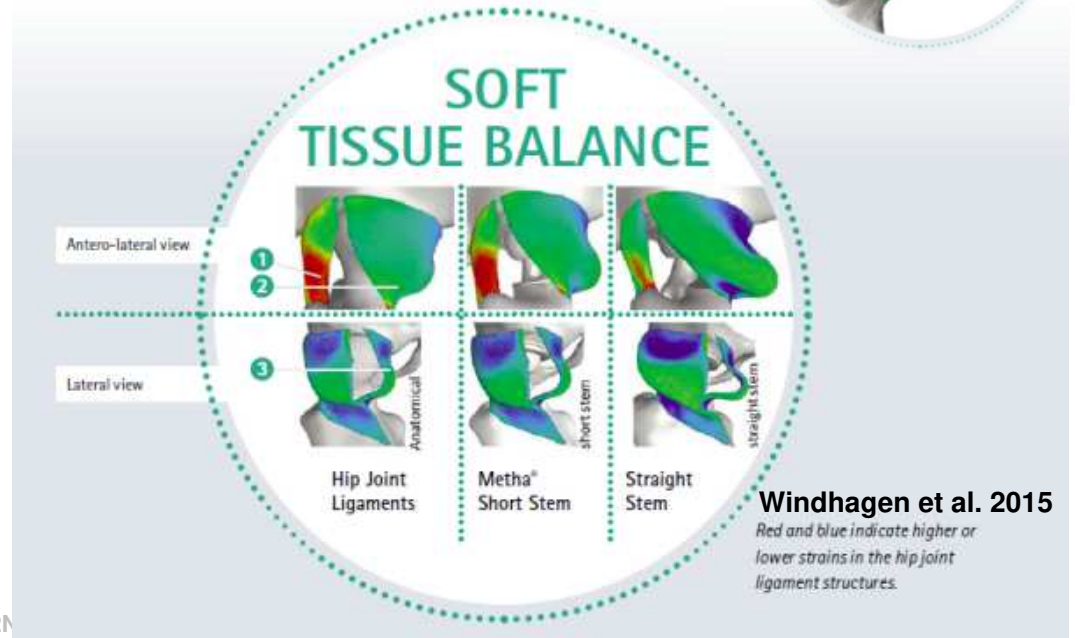
- Muscles preserving approach DAA, Röttinger (universal) even posterior
- Good soft tissue balancing
- Optimal Anatomy Restoration
- Bone Preserving (high risk of revision)
- Uncemented + good primary stability (Dynamic fixation)
- Metaphyseal Fixation (close to physiology (OTSR 2017)
- Optimal implant positioning (navigation ? ACA?)
- What about Bearing surface ?

Balanced Hip: Reducing Dislocation

No experiences by now with dislocation with Metha!

- 80,000 Metha implantations worldwide
- no single case known caused by Metha!
- **Balanced reconstruction seems to reduce the dislocation!**





Windhagen et al. 2015

Red and blue indicate higher or lower strains in the hip joint ligament structures.

Restore the ANATOMY

A Good Lateral OFFSET

Avoid cup Medialisation first !!!

Respect the ANTERIOR OFFSET !!!

Keep and follow the neck !!!

COMBINED OFFSET ???

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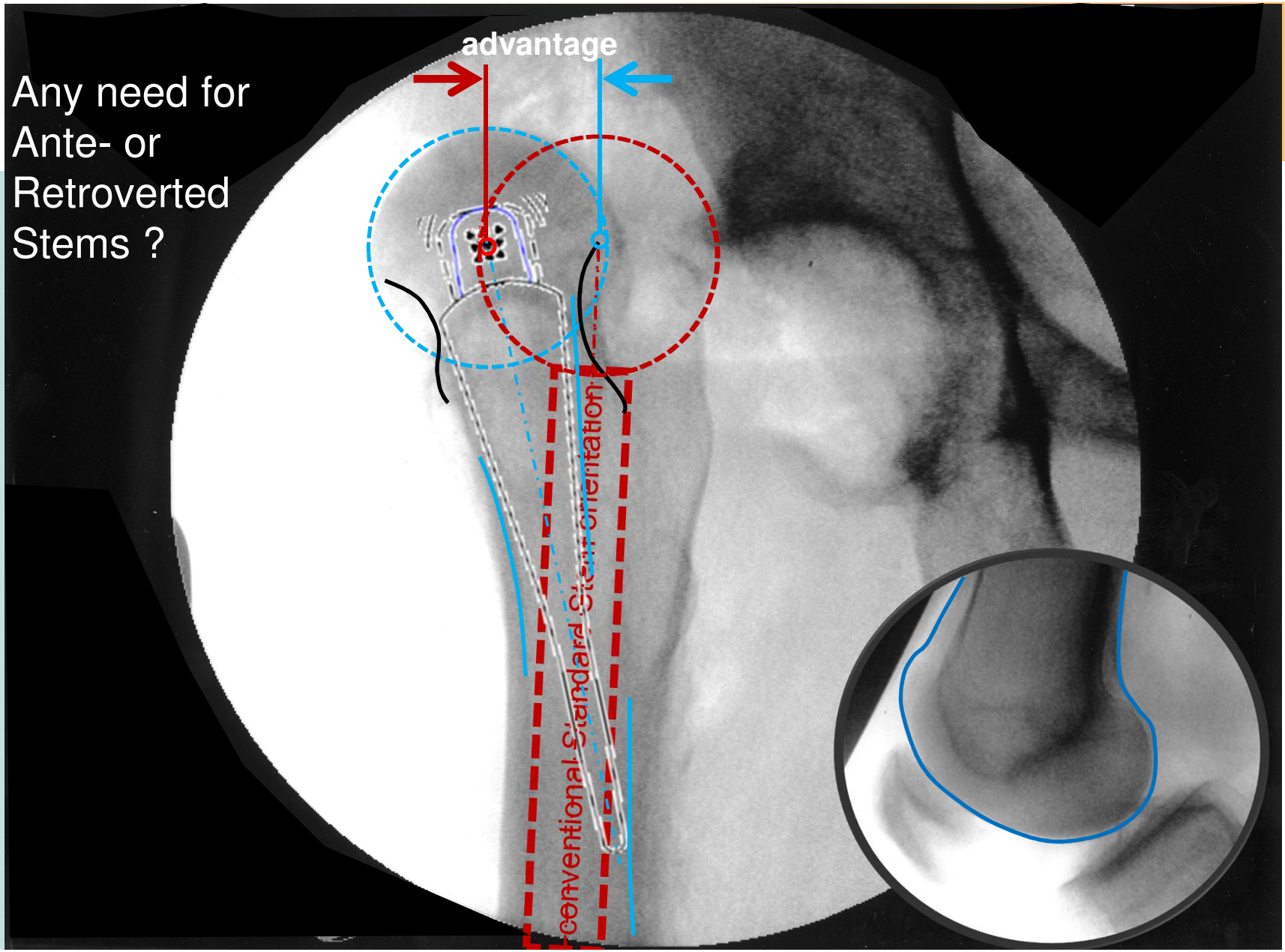
Any need for Ante- or Retroverted Stems ?

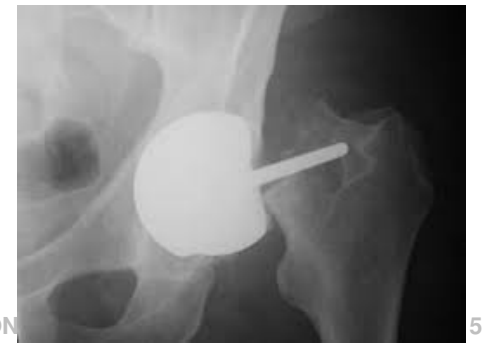


Hip Resurfacing or Short Stem ?

Is it important to preserve the Neck Direction?

Why Patients with HR have better functional results ?

Is there a stem design who's able to give the same conditions without those specific risks of HR ???

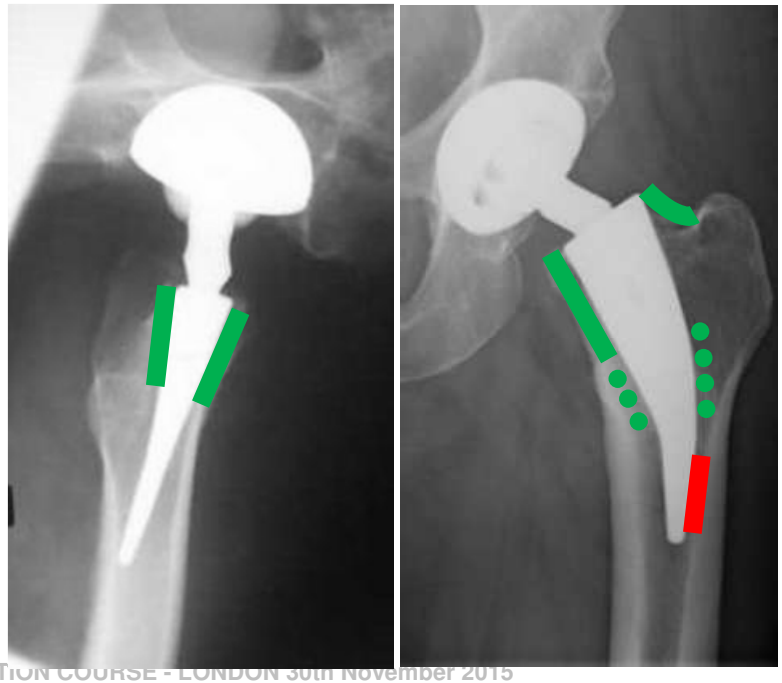


Anatomical Reconstruction (Like Hip Resurfacing ?)

Mihalko WM et al. 2015, ***Reproducing the Hip Center With a Femoral Neck-Retaining Implant***

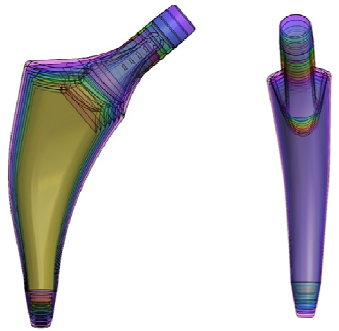
Conclusion:

“When the femoral neck is retained and used for alignment of a short metaphyseal anchoring type of stem, the position of the new femoral head center is recreated in the sagittal plane.”



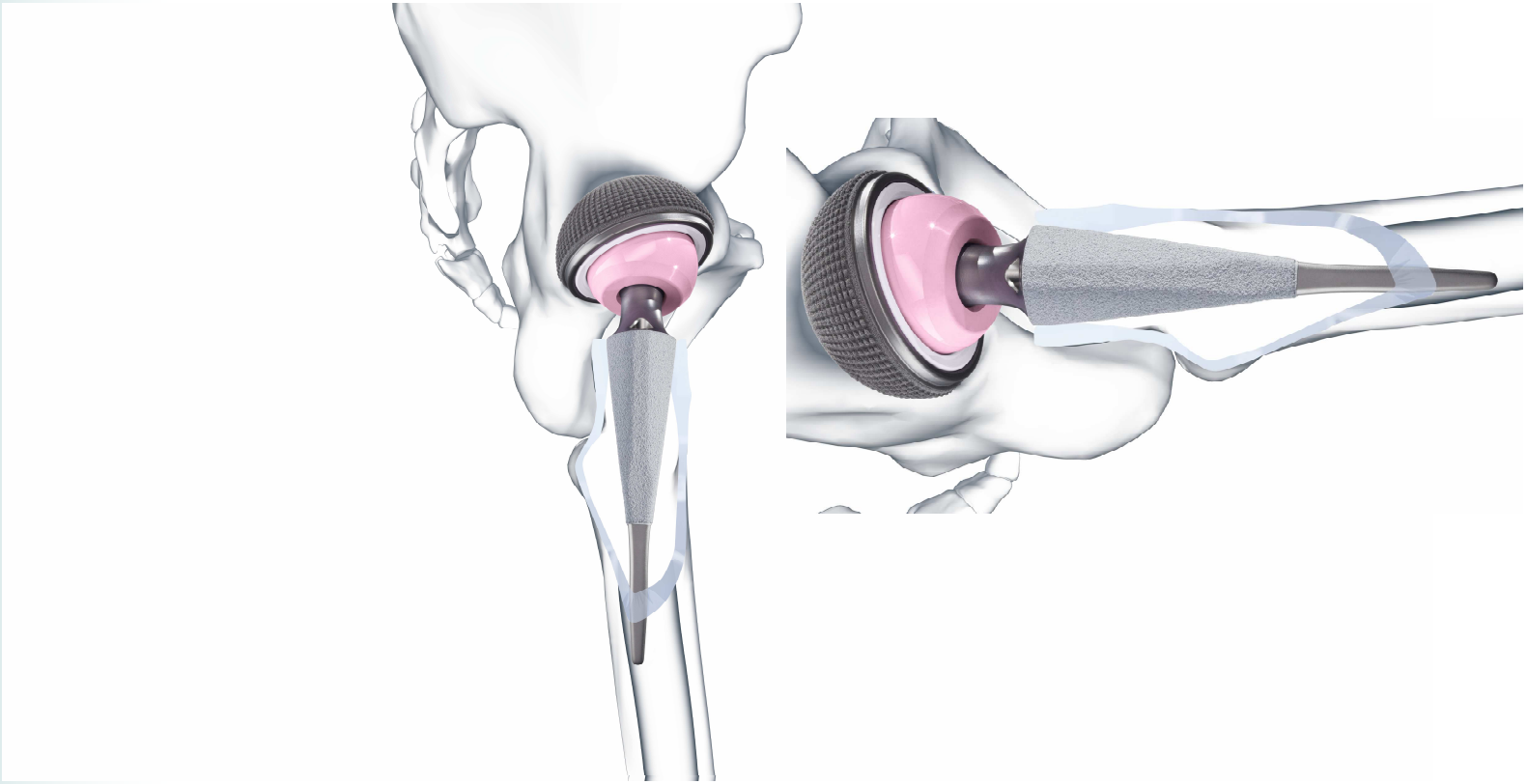
IMPLANTS PROFILING

- Uncemented Cup with EQUATORIAL fixation + economical Reaming
- Metaphyseal stem fixation + Calcar Road ?
- Trochanteric bone sparing
- Avoid diaphyseal fixation!!! Road to escalation??
- Allways have in mind the revision

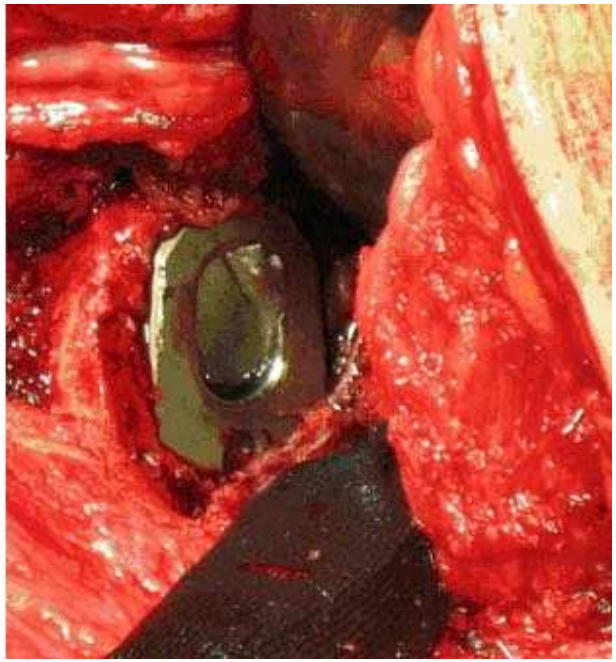


HIP TOULOUSE 2005 « DESESCALADE »

METHA 2004 > 75000 poses



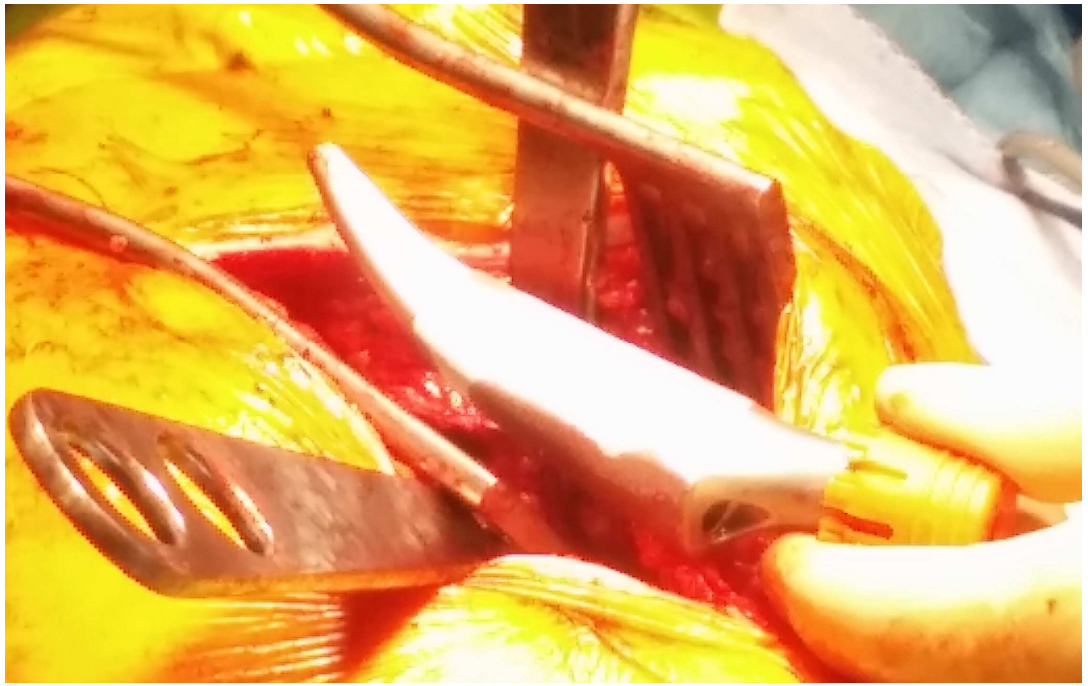
METHA 2004/2006



METHA > 2006 -> 2011

METHA > 2011 (135° /130° /120°)

Modularité mais tige MONOBLOC



Qu'est ce que j'ai pu APPRENDRE en 11ans >750 cas "Metha" ?

Femoral Loading Metaphyseal

Jahnke A et al. 2014, **Changes of periprosthetic bone density after a cementless short hip stem: a clinical and radiological analysis**.

> Radiolucent lines were only noticeable at ROI 3–5 at the distal portion of the prosthetic stem after 12 months. Reactive lines were manifested at ROI 3–5 after six and 12 months. Cortical hypertrophy could be shown at ROI 2 and 3, which is the lateral diaphyseal area, after six and 12 months. No pedestal formations of the cohort were visible. During each follow-up control, trabecular structures were evident at ROI 2 and 3, the lateral diaphyseal area, and at ROI 6 which is the medial diaphyseal area (Table 2).

Lerch M et al. 2011, **Bone remodelling around the Metha short stem in total hip arthroplasty: a prospective dual-energy X-ray absorptiometry study**.

Synder M et al. 2014, **Periprosthetic Bone Remodeling Around Short Stem**

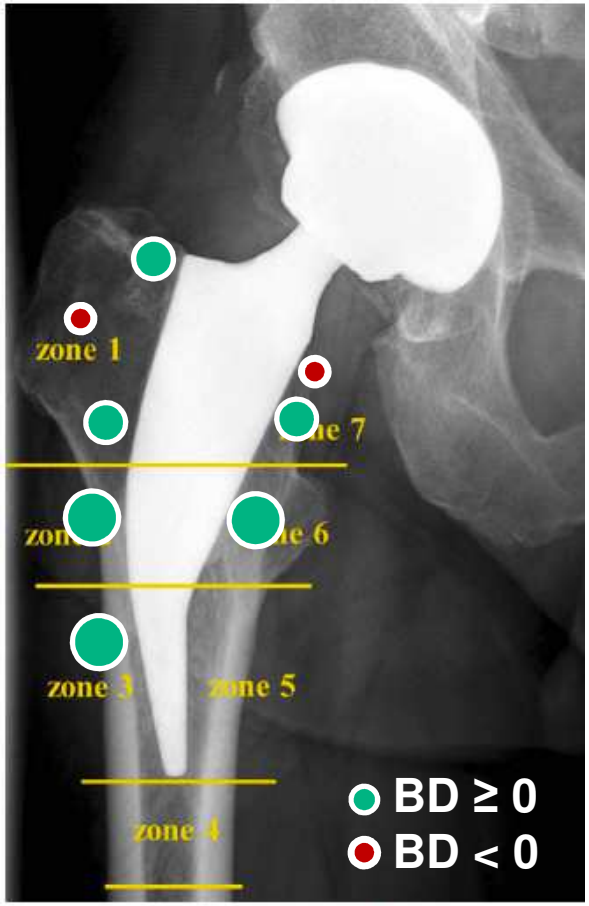


Fig. 1 ROIs according to Gruen zones 1–7

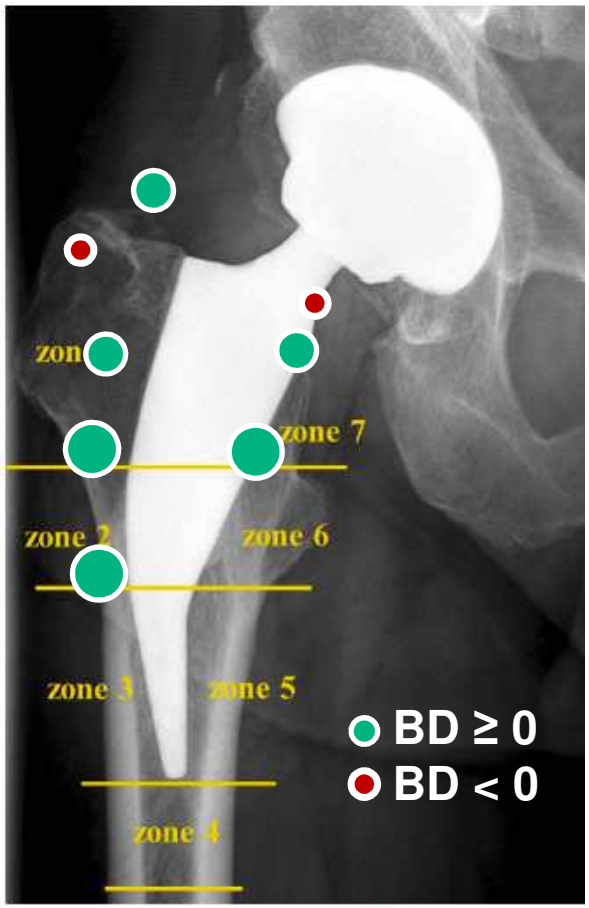
Avoiding Thigh Pain

Unilateral cortical contact

→ **metaphyseal anchoring**
→ **no potential** for thigh pain

Bilateral cortical contact

→ diaphyseal anchoring
→ high potential for thigh pain



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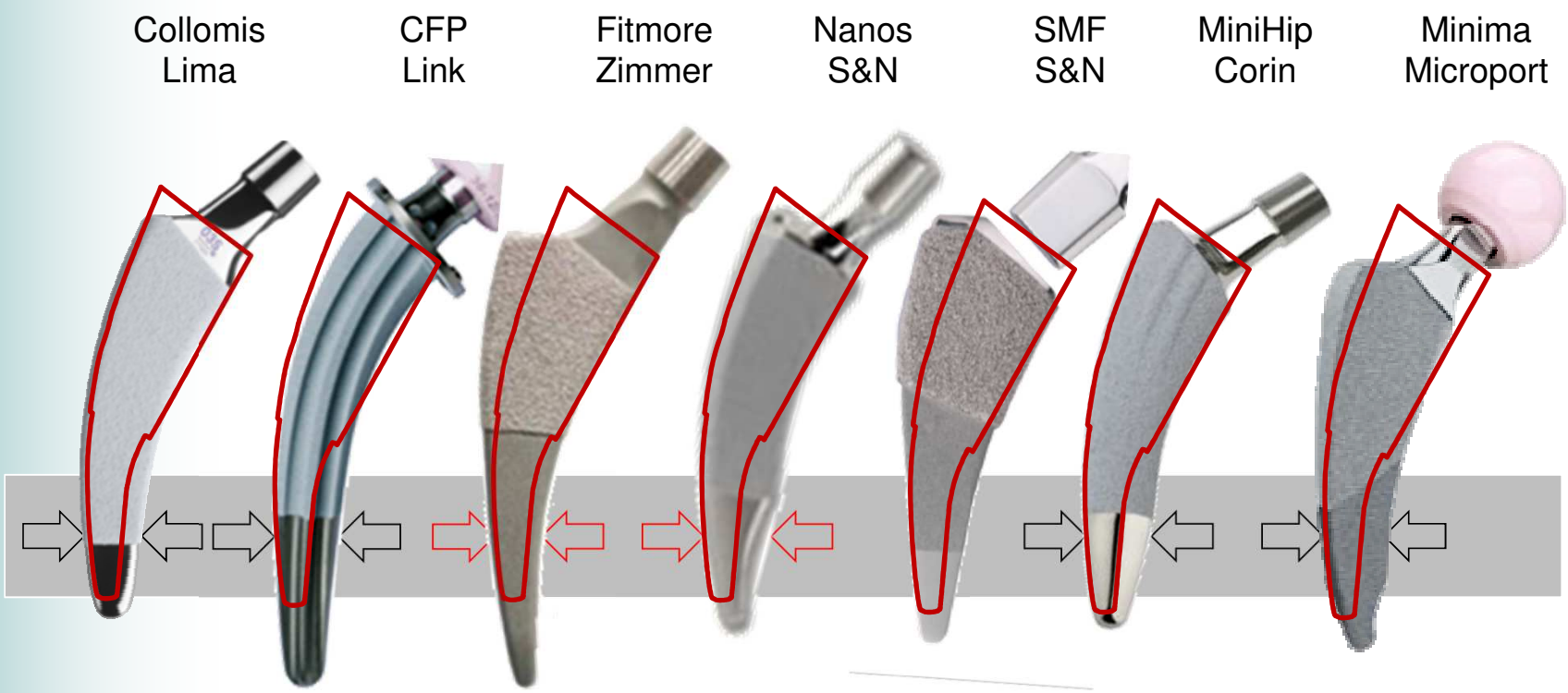
Intégration osseuse TRES RAPIDE

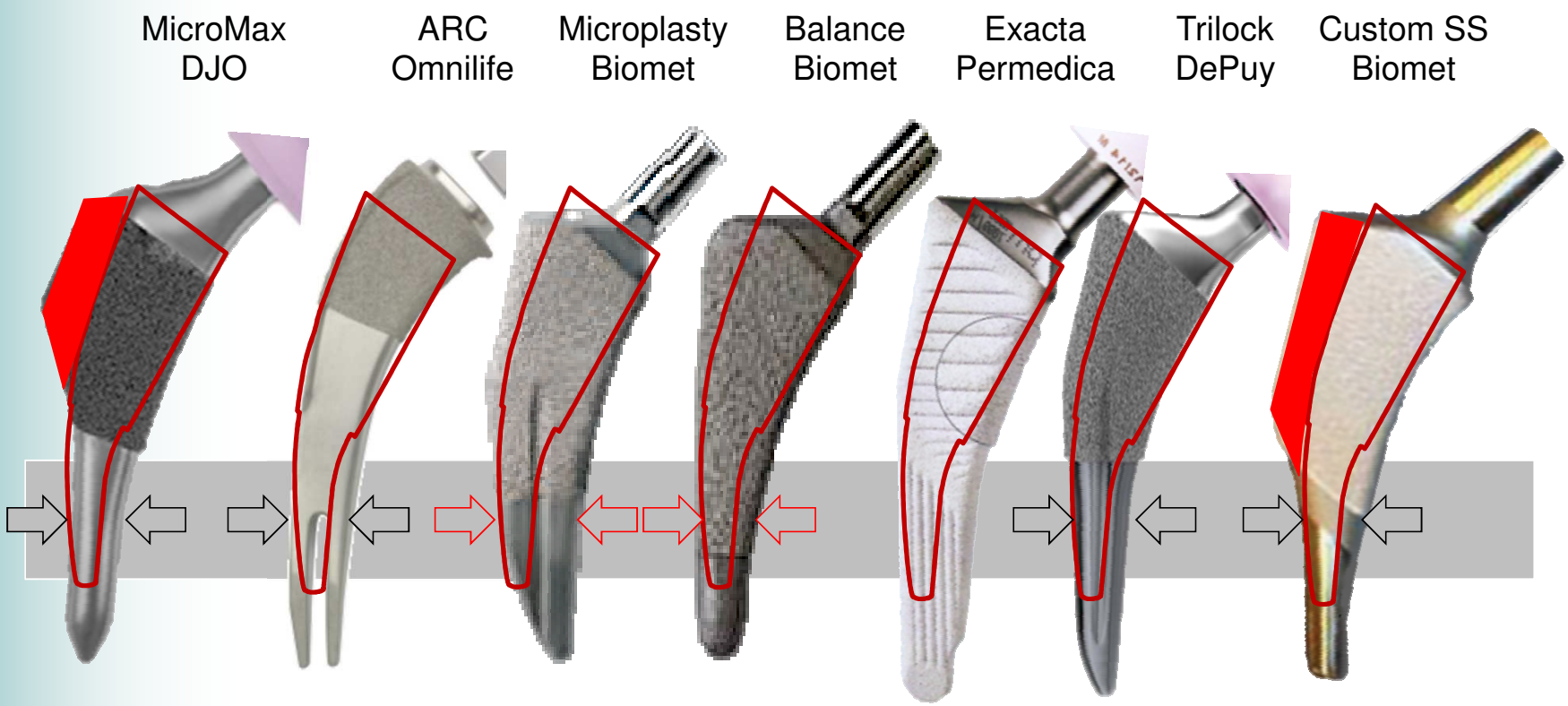
Short does not mean Metaphyseal



Design defines the anchoring concept !!

→ Diaphyseal – Metaphyseal

Short is not Shortened



Design defines the anchoring concept & bone preserving !!

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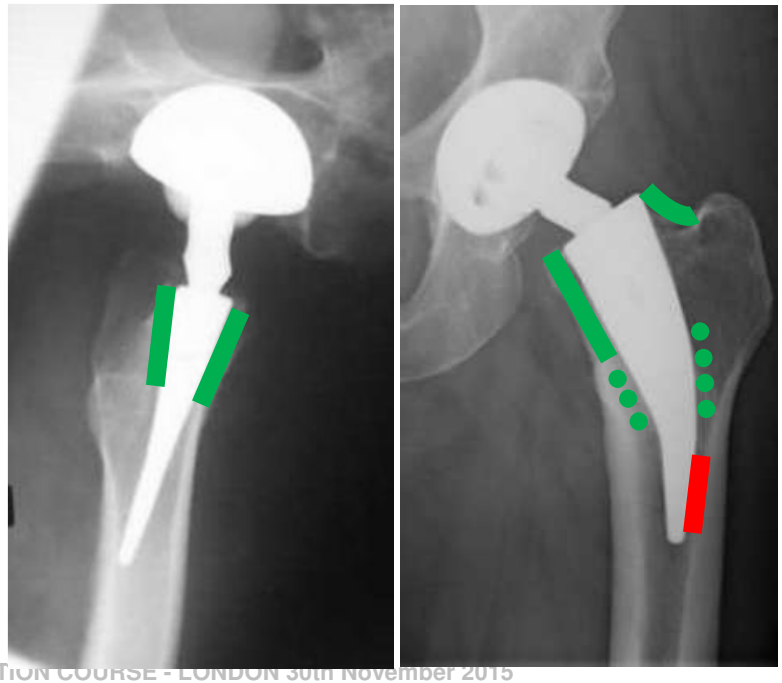

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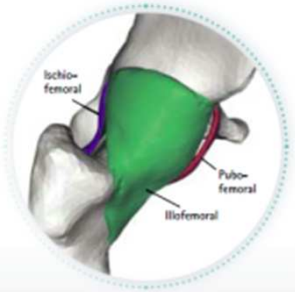
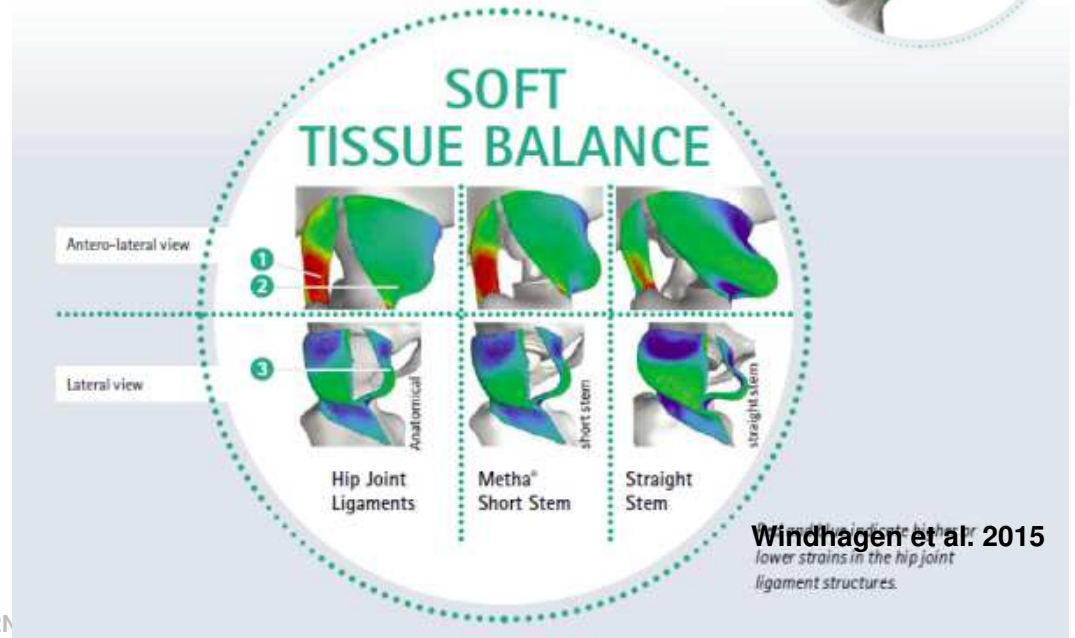
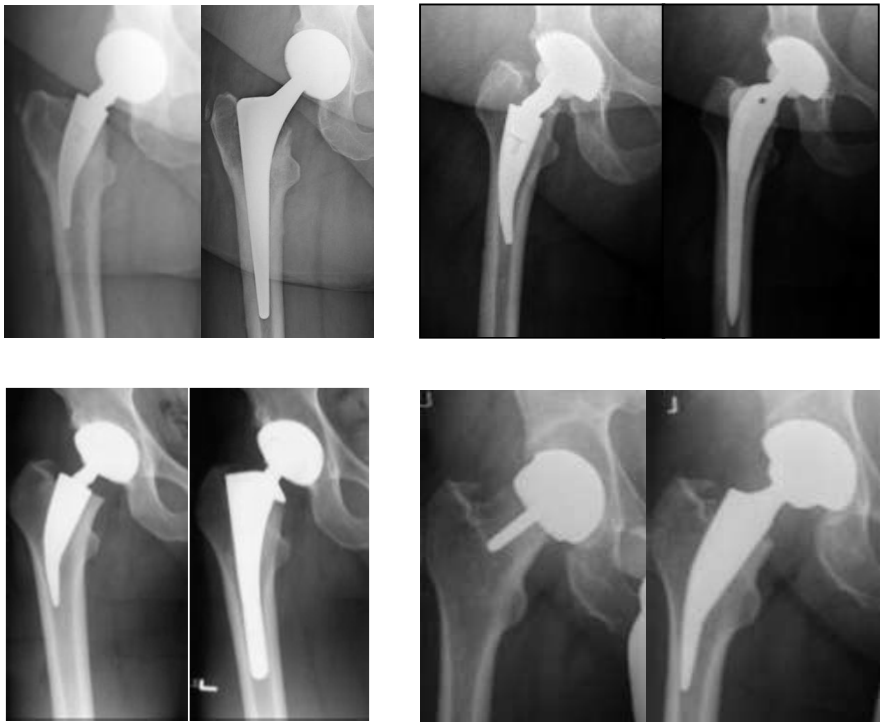




Windhagen et al. 2015

Options for further Revisions

Real short stems can be revised **with conventional standard stems!**



Travaux Scientifiques

- Thèse doctorat médecine Y. Chammai 2012 « Premiers résultats Tige Metha »
- Comparaison à moyen termes Patients Obèses et Non Obèses avec PTH Metha Hip 2014
- Mid-Term comparison between Obeses and non obeses patients with Metha THA EJOST 2014
- Etude systématisée comparative des paramètres radiologiques d'une tige courte de prothèse de hanche, versus longue ou raccoucie OTSR sous presse

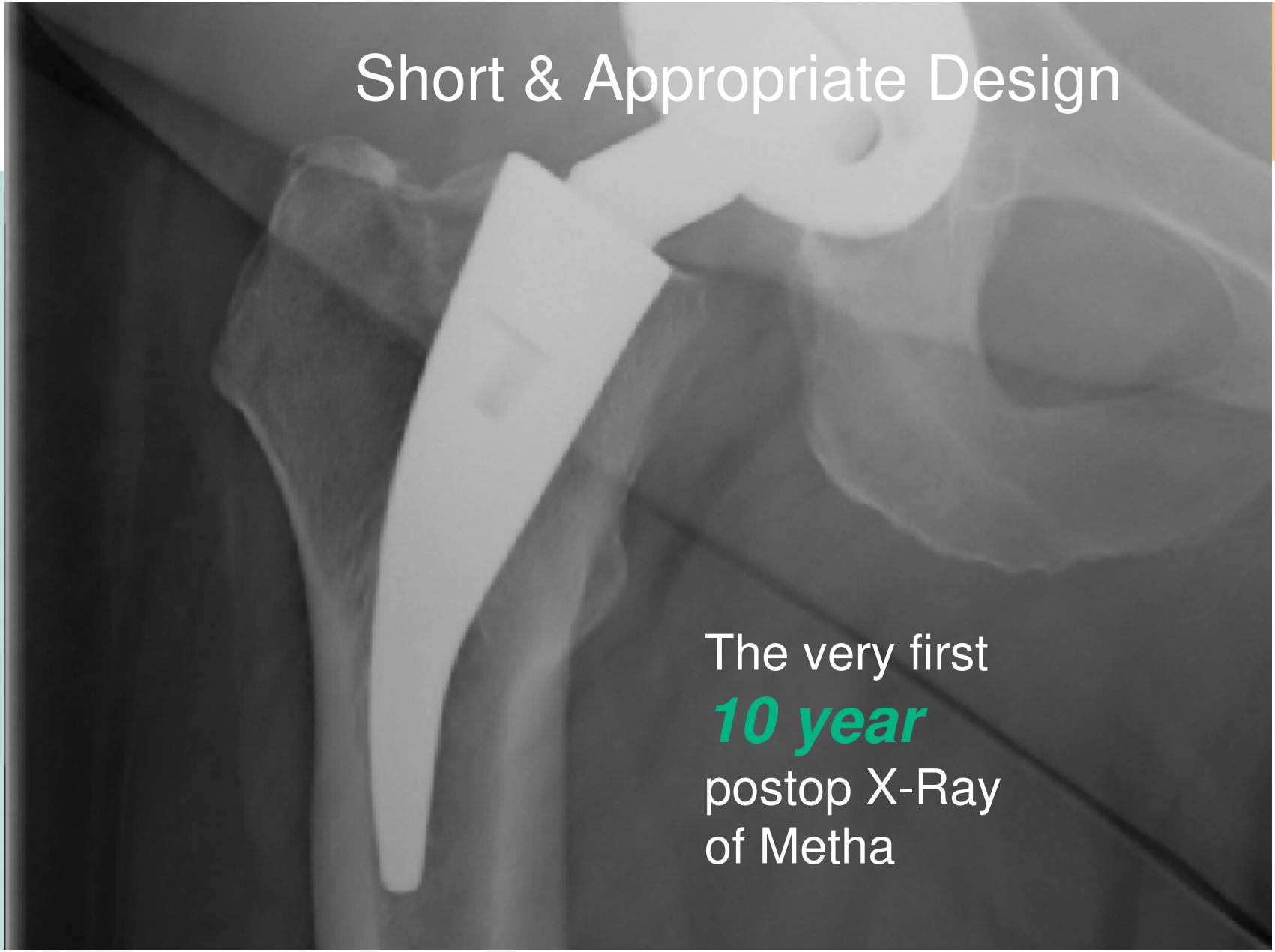
CONCLUSIONS

- 98% de survie à 10 ans
- 98% ont oublié leur prothèse
- Tige utile pour des cas compliqués et vrais obèses
- Courbe d'apprentissage courte et peu de complications
- « Une tige parfaitement fixée n'entrainant AUCUNE modification osseuse d'adaptation avec donc des RX « MUETTES ». Le long terme peut constituer un espoir Logique. Un compromis Radiologique favorable entre ancrage osseux DURABLE et RESPECT de la physiologie de l'os en charge » Jean Alain EPINETTE

48 yo THA + 2 months (METHA)

ESOP 1 VS ESOP 2

Short & Appropriate Design



The very first
10 year
postop X-Ray
of Metha