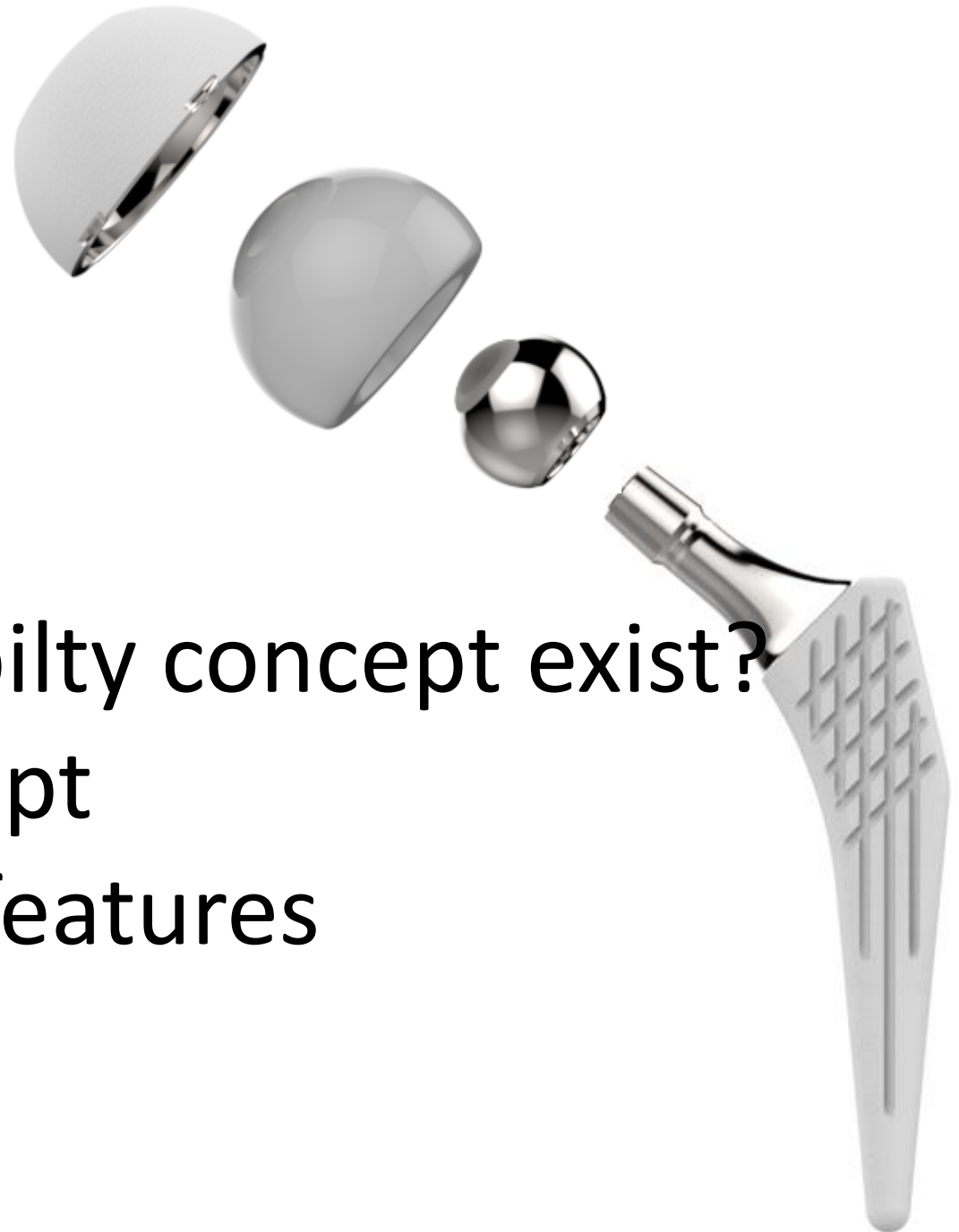




Global Hip System





- 1/ Why does Dual Mobility concept exist?
- 2/ Dual Mobility Concept
- 3/ Symbol ranges and features

Why does Dual Mobility Concept Exist?

1st reason of failure after THA = Instability

Dislocation rates increase in the long run

- 2% to 3% of early dislocations after THA*
- 4,8% dislocations after 10 years**
- Up to 7% at 25 years **

*Chandler RW, Dorr LD, Perry J (1982) The functional cost of dislocation following total hip arthroplasty. Clin Orthop Relat Res 168–172 / Woo RY, Morrey BF (1982) Dislocations after total hip arthroplasty. J Bone Joint Surg Am 64:1295–1306

**Berry DJ, von Knoch M, Schleck CD, Harmsen WS (2004) The cumulative long-term risk of dislocation after primary Charnley, total hip arthroplasty. J Bone Joint Surg Am 86-A:9–14

Hip Cup Dual Mobility in THA



Société Française de Chirurgie Orthopédique
et Traumatologique
84th Annual meeting, 12 November 2009
Symposium on Dual Mobility in THA

- Prospective study in femoral neck fractures
- Retrospective study in primary procedures

> 4000 cases included at 10 years of follow-up

Dislocation rate in Primary Procedures: 0.43%

Dislocation rates in FNF cases:

- DM 5 - 10 x less dislocations than conventional THAs
- DM 2.9 – 4.7 x less dislocations than bipolar hemiarthroplasties implants (3.9 x less if POST approach)



Other main conclusions

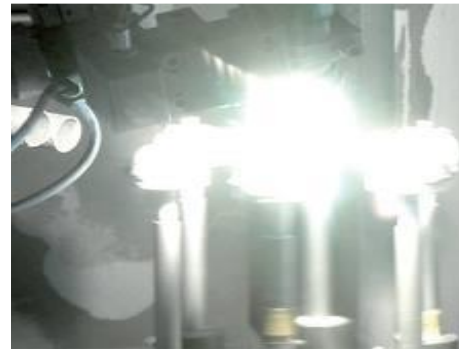
Survivorship according to coating :

- Porous titanium + HA : 100%
- Cobalt chromium + HA : 91%
- Stainless steel + HA : 89%
- Stainless steel + alumina + HA : 86%
- Porous coated stainless steel : 80%



What about material?

- Better results with CoCr



DUAL MOBILITY IN PRIMARY PROCEDURES...

- Clin Orthop Relat Res. 2007 Feb;455:202-8. **Unconstrained tripolar hip implants: effect on hip stability.**
Guyen O, Chen QS, Bejui-Hugues J, Berry DJ, An KN.
- J Arthroplasty. 2007 Sep;22(6):849-58. Epub 2007 Jul 25. **Unconstrained tripolar implants for primary total hip arthroplasty in patients at risk for dislocation.**
Guyen O, Pibarot V, Vaz G, Chevillotte C, Carret JP, Bejui-Hugues J.

167 primary THA with dual mobility in selected patients at risk for dislocation

No dislocation at 40.2 months mean FU (minimum 2-year FU)

Improved ROM to impingement



improved STABILITY

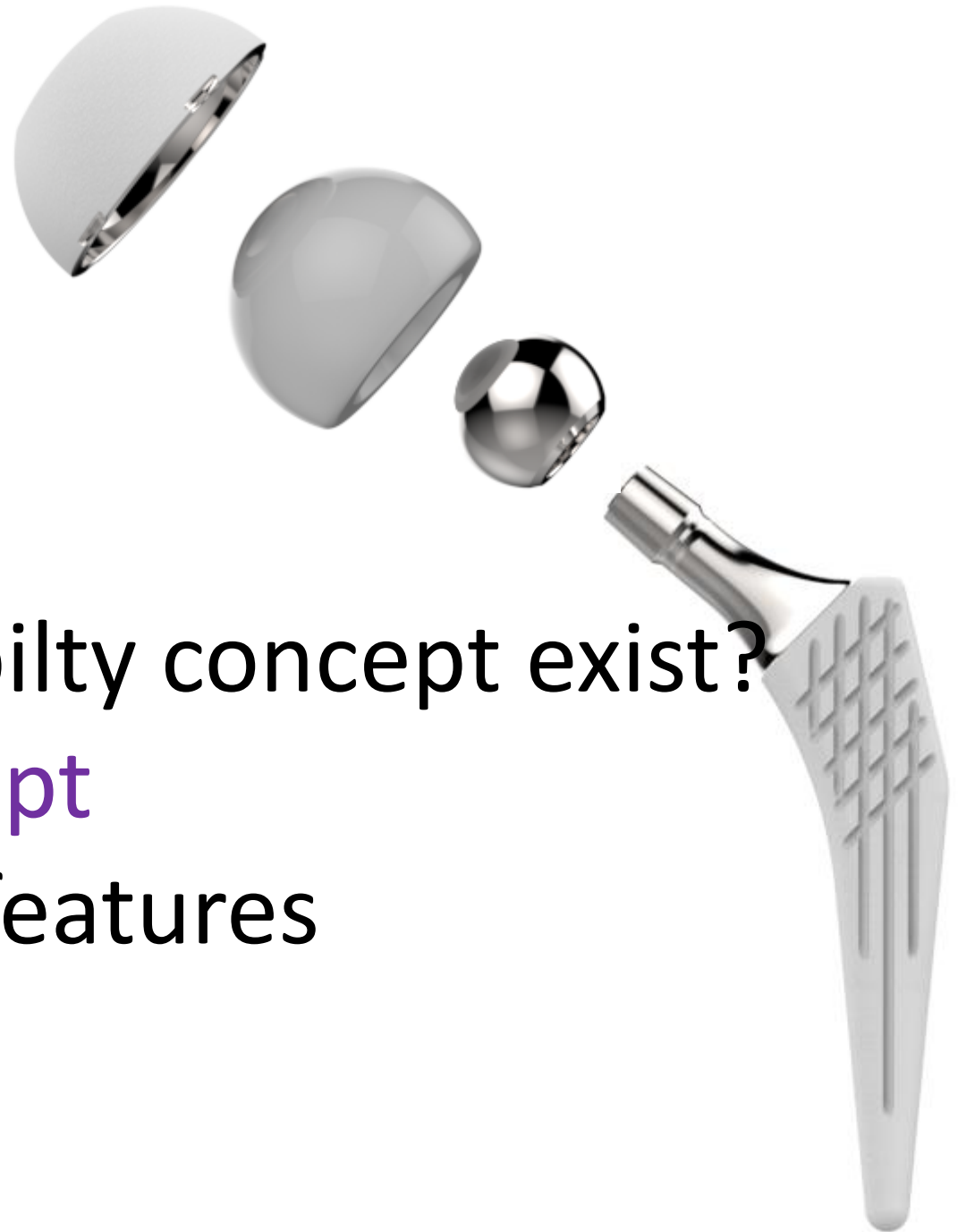
Revisions & Recurrent dislocations.....

- Clin Orthop Relat Res. 2009 Feb;467(2):465-72. doi: 10.1007/s11999-008-0476-0. Epub 2008 Sep 9. **Use of a dual mobility socket to manage total hip arthroplasty instability.** Guyen O, Pibarot V, Vaz G, Chevillotte C, Béjui-Hugues J.
- J Arthroplasty. 2015 Apr;30(4):631-40. doi: 10.1016/j.arth.2014.10.034. Epub 2014 Nov 10. **Can Dual Mobility Cups prevent Dislocation in All Situations After Revision Total Hip Arthroplasty?** Wegrzyn J, Tebaa E, Jacquel A, Carret JP, Béjui-Hugues J, Pibarot V.
- J Orthop Res. 2013 Jun;31(6):991-7. doi: 10.1002/jor.22314. Epub 2013 Jan 17. **Cementation of a dual-mobility acetabular component into a well-fixed metal shell during revision total hip arthroplasty: a biomechanical validation.** Wegrzyn J, Thoreson AR, Guyen O, Lewallen DG, An KN.
- J Arthroplasty. 2017 Dec 6. pii: S0883-5403(17)31060-4. doi: 10.1016/j.arth.2017.11.055. [Epub ahead of print] **Cementation of a Dual Mobility Construct in Recurrently Dislocating and High Risk Patients Undergoing Revision Total Arthroplasty.** Chalmers BP, Ledford CK, Taunton MJ, Sierra RJ, Lewallen DG, Trousdale RT.
 - LOW DISLOCATION RATE IN REVISION
 - MULTIPLE FIXATION OPTIONS :
 - Cemenless press-fit
 - Cementless + screws & pegs
 - Cemented into a cage
 - Cemented into a well-fixed shell
 - Cemented into porous-metal shell...



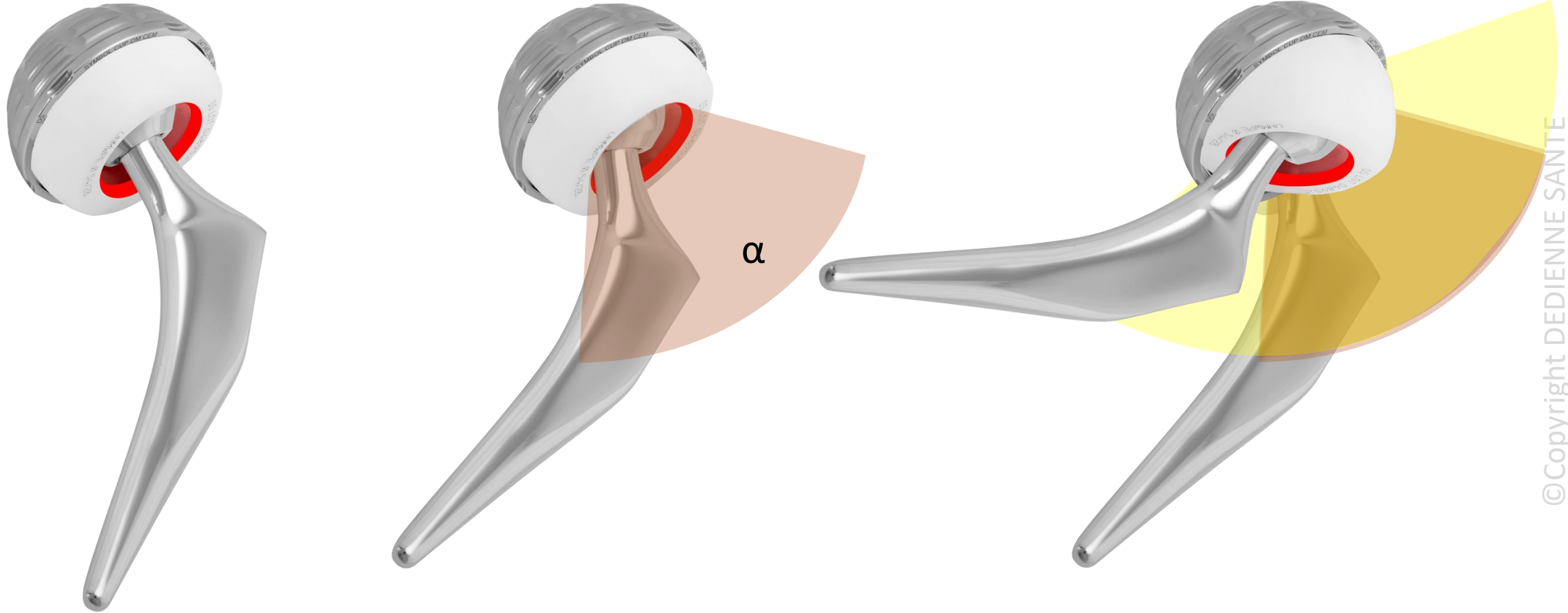
Part 1 : Conclusion

- Instability is the 1st risk of failure after THA
- Dual Mobility reduces the risk of dislocation by factor 8 to 10
- Dual Mobility is an alternative to disclocations
- Cemented DM in revisions case as a safer solution
- Better results with CoCr cup and Ti/HA coating



- 1/ Why does Dual Mobility concept exist?
- 2/ Dual Mobility Concept
- 3/ Symbol ranges and features

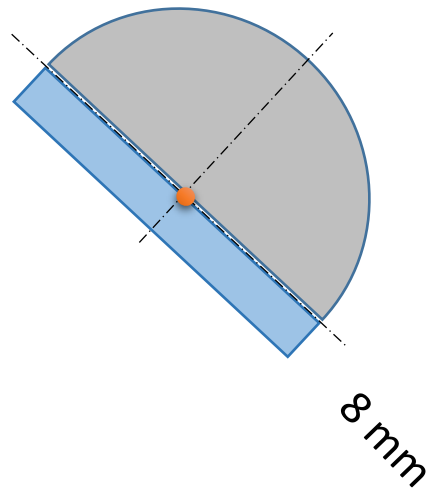
Dual mobility



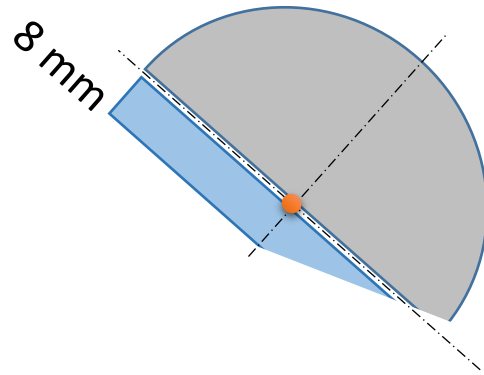
Several designs on the market



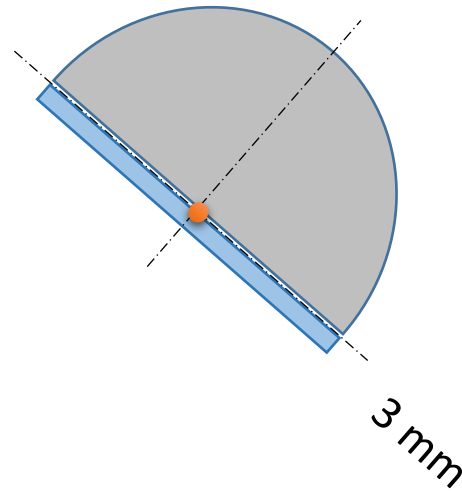
Several designs on the market



1976

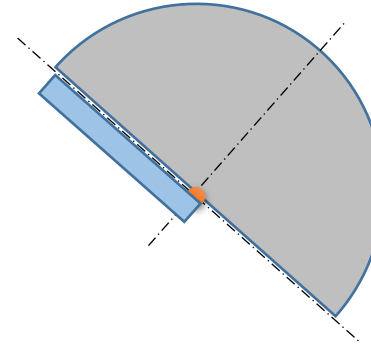
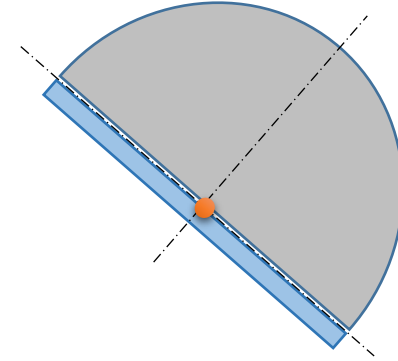


1979

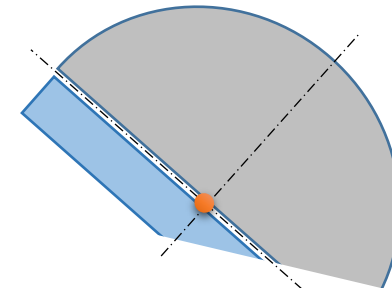


2000

Several designs on the market

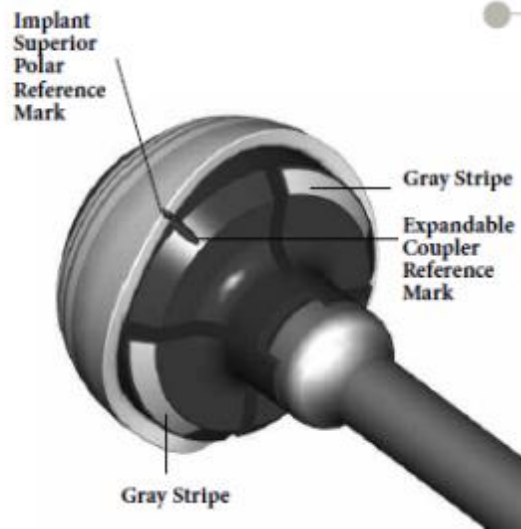


1995's



1970's

Several designs on the market : cut-out designs



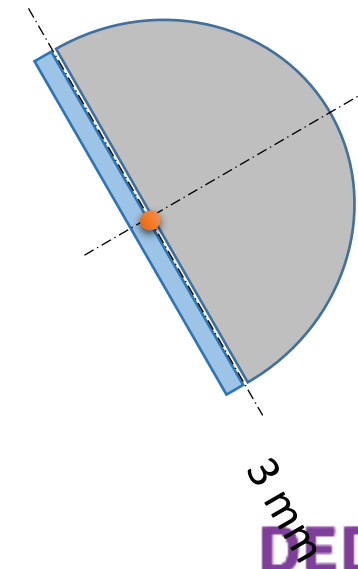
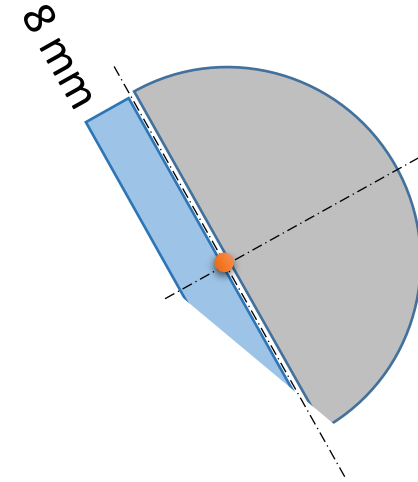
- Implants holding and handling
- Accurate positioning
- Impingements and Psoas pains



- No-touch impaction and holding
- Easy positioning (symetric and hemispheric)
- Less invasive approach and technique

But Dual Mobility Shell remains different with ...

- Different Surgical technique
- Different reaming process
- Different impaction
- Different positioning



Part 2 : conclusion

Dual Mobility gives stability

Dual Mobility is an interesting system

Part 2 : conclusion

Dual Mobility gives stability

Dual Mobility is an interesting system

BUT

Dual Mobility used to be surgically different

Part 2 : conclusion

Dual Mobility gives stability

Dual Mobility is an interesting system

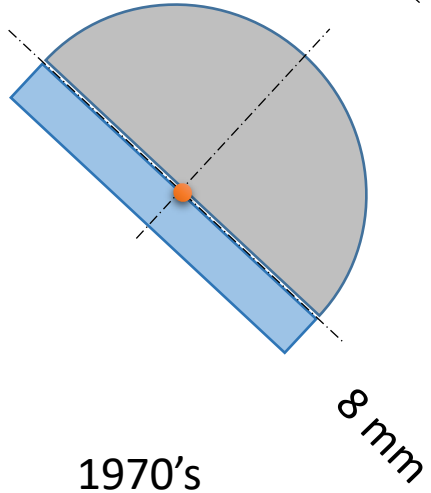
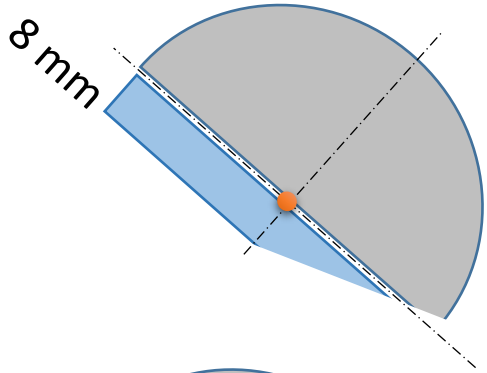
BUT

Dual Mobility used to be surgically different

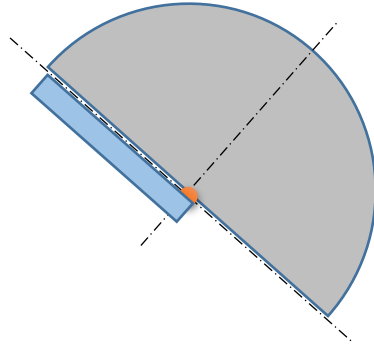
WHY DON'T WE DESIGN AN HEMISPHERICAL SHELL WITH A DUAL MOBILITY LINER?



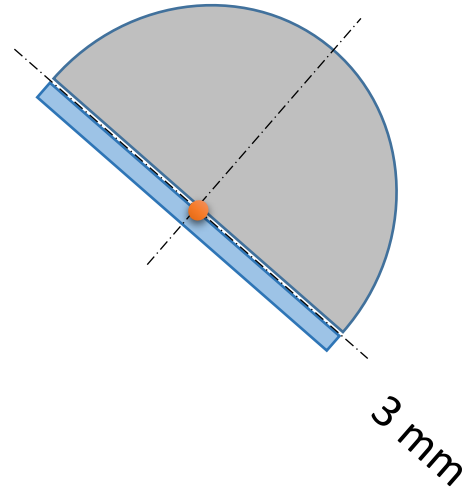
Several designs on the market



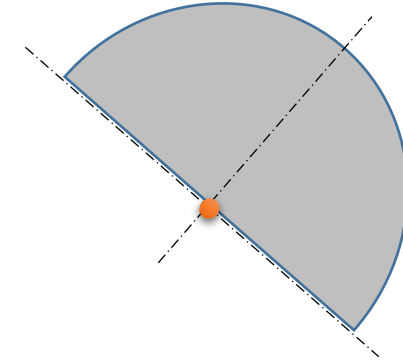
1970's



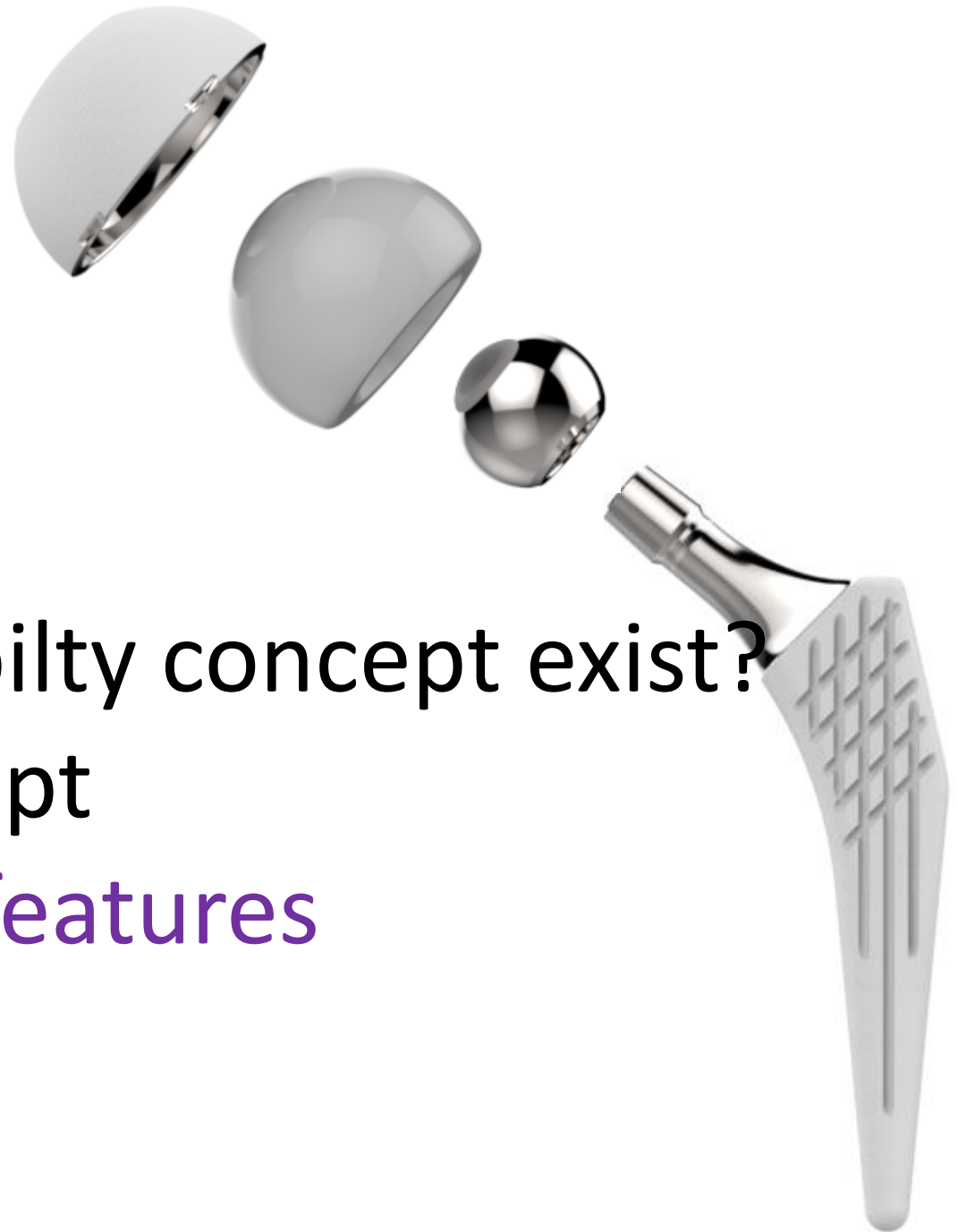
1995's



2000's

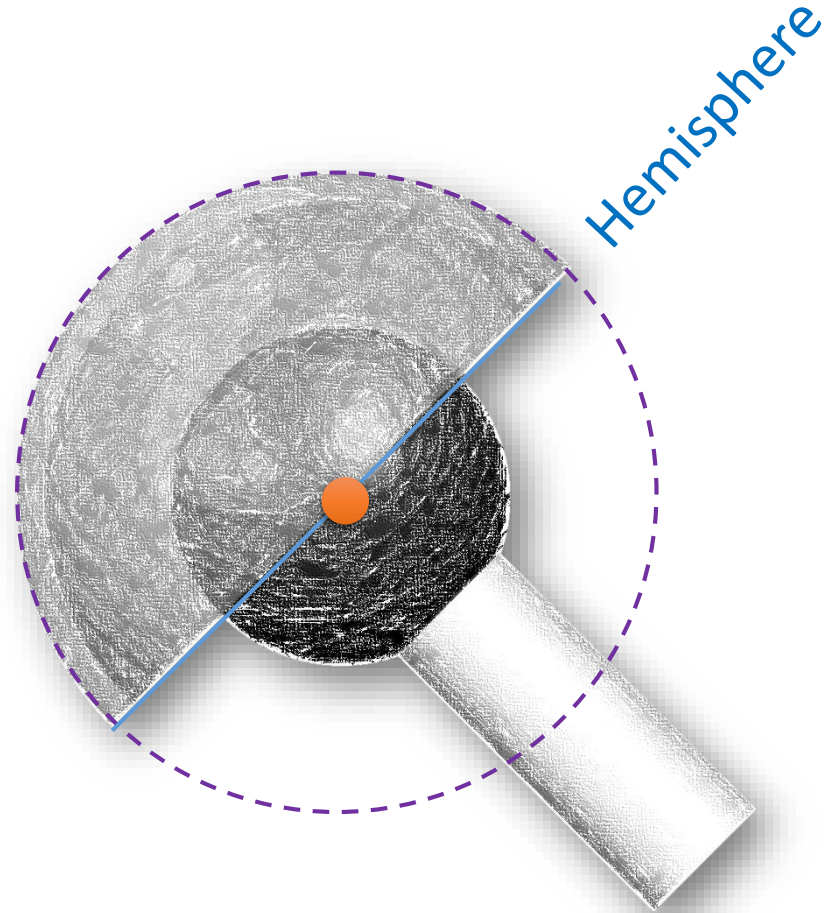


2014



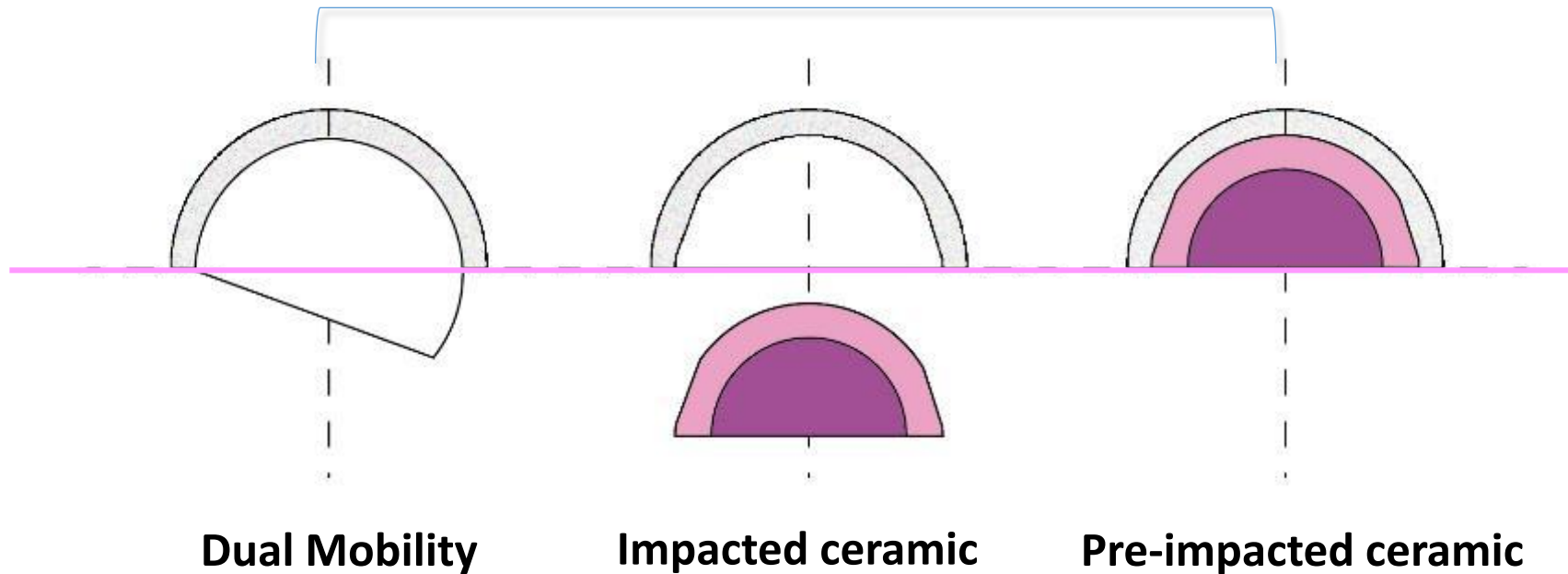
- 1/ Why does Dual Mobility concept exist?
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- 3/ **Symbol ranges and features**

SYMBOL Concept



Concentric

- Same External design for all shells



1 set of instruments / 5 shells





Several designs on the market : Modular

52mm



52mm



Only 1 set

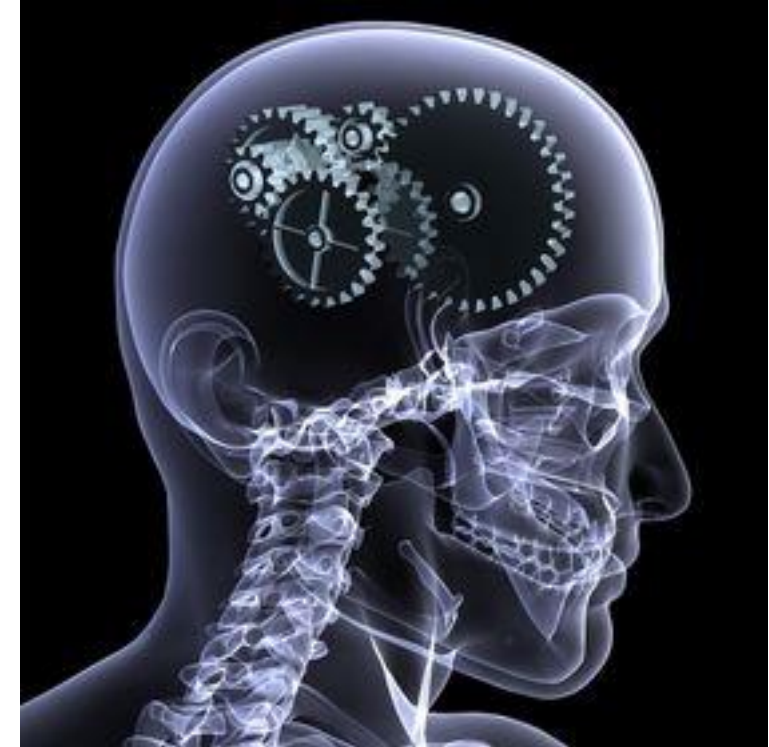


À usage interne uniquement

Patented Impaction System



- All advantages from Dual Mobility Cups
- SYMBOL range of cups : same design
- 1 set for 5 shells
- A very comfortable choice for the surgeon





SYMBOL DM Cups

- Last generation of Hemispherical DM cups
- 3 versions : cemented, HA, tripode HA
- >22 000 units sold

