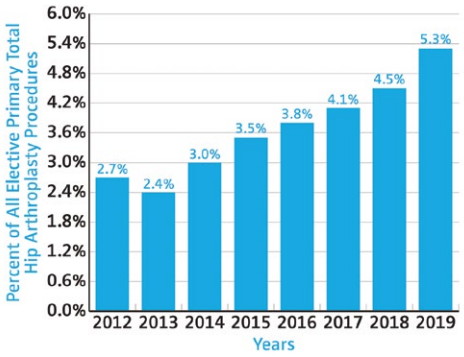
stryker

Exeter
Addressing femoral fractures

After infection, femoral fracture is the second reason for early revision in Total Hip Arthroplasty.[1] Publications and registry data from the U.S. and other countries report a relationship between the use of cementless stems with femoral fractures in certain patient groups.[2,3,4] Here are the things to know:

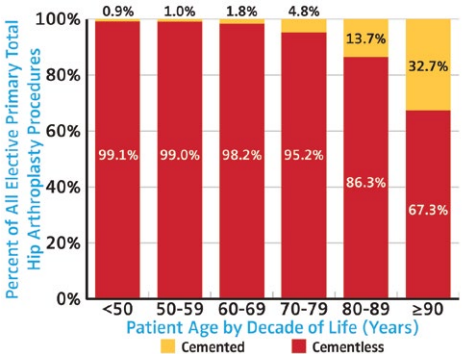
From the AAOS **AJRR report**

Cementless stems are used in 95% of elective primary Total Hip Arthroplasty.[1]



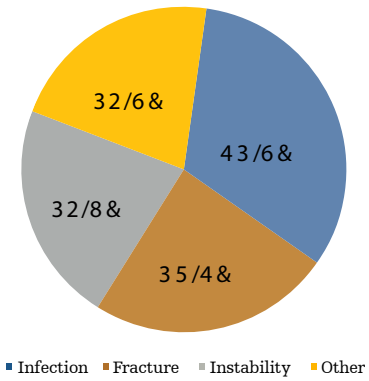
Cemented stem percentage in elective primary total hip arthroplasty

Data shows most patients over 70 years receive cementless stems.[1]



Cement usage by age

Over 50% of revisions after THA occur within 3 months, and fractures make up more than 24% of early revisions.[1]



Reasons for early revision

Higher risk for fracture: **elderly patients (>75)**

Cementless stems are **14x** more likely to cause intraoperative fractures, and **10x** more likely to cause periprosthetic fractures compared to cemented stems.[2]

Risk factors are **females** and patients **over 65 years** old

(Abdel MP, Watts CD, Houdek MT, Lewallen DG, Berry DJ. Epidemiology of periprosthetic fracture of the femur in 32,644 primary total hip arthroplasties: a 40-year experience. Bone Joint J. 2016)

Cementless stems were 2.6x more likely to undergo early revision for PPFx than those with cemented fixation.[3] Risk factors are **female** and **older (>70 years old) patients**

(Springer BD, Etkin CD, Shores PB, Gioe TJ, Lewallen DG, Bozic KJ. Perioperative Periprosthetic Femur Fractures are Strongly Correlated With Fixation Method: an Analysis From the American Joint Replacement Registry. J Arthroplasty)

In patients over **75 years** old, early revision was **9.14x** more common in the **best three cementless** stems compared to the **best three cemented** stems in the Australian registry.[4]

Tanzer M, Graves SE, Peng A, Shimmin AJ. Is Cemented or Cementless Femoral Stem Fixation More Durable in Patients Older Than 75 Years of Age? A Comparison of the Best-performing Stems. Clin Orthop Relat Res. 2018)

Reasons to use **Exeter**

Over 50 years of clinical history

Since its launch in 1970, Exeter stem has now over 50 years of clinical history.

With an endpoint of revision for aseptic loosening…

» Survivorship for Exeter Universal Stem was **99.0%** at **22.8 years** with **110 hips** in **96 patients**.[5]

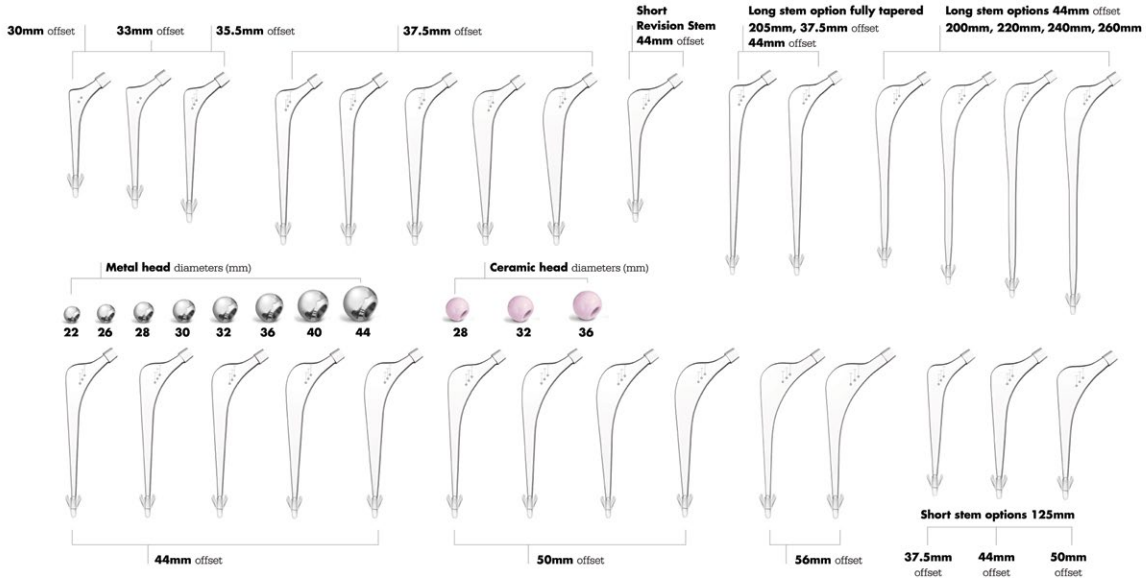
» Survivorship for Exeter V40 Stem was **100%** at **10 years** in **374 hips**.[6]

» In a study comparing the most frequently used combinations of implants in England, the authors concluded "The hybrid **Exeter V40 Trident** seemed to produce the best **overall** results."[7]

For more clinical results for the Exeter stem, go to "Link for clinical compendium""

One – for a wide variety of patients

Exeter accommodates primary, revision and hip fracture cases with one implant and instrument system. The streamlined system helps promote operating room efficiencies by simplifying the training required for OR staff. The wide range of stem sizes, offsets and length options in the Exeter system allows surgeons to intraoperatively restore a wide variety of patient anatomies with one hip system.



References:

1. American Academy of Orthopaedic Surgeons AJRR Annual report 2020 p34 & p.44.
2. Abdel MP, Watts CD, Houdek MT, Lewallen DG, Berry DJ. Epidemiology of periprosthetic fracture of the femur in 32 644 primary total hip arthroplasties: a 40-year experience. Bone Joint J. 2016 Apr;98-B(4):461-7. doi: 10.1302/0301-620X.98B4.37201. Erratum in: Bone Joint J. 2020 Dec;102-B(12):1782.
3. Springer BD, Etkin CD, Shores PB, Gioe TJ, Lewallen DG, Bozic KJ. Perioperative Periprosthetic Femur Fractures are Strongly Correlated With Fixation Method: an Analysis From the American Joint Replacement Registry. J Arthroplasty. 2019 Jul;34(7S):S352-S354. doi: 10.1016/j.arth.2019.02.004. Epub 2019 Feb 10.
4. Tanzer M, Graves SE, Peng A, Shimmin AJ. Is Cemented or Cementless Femoral Stem Fixation More Durable in Patients Older Than 75 Years of Age? A Comparison of the Best-performing Stems. Clin Orthop Relat Res. 2018 Jul;476(7):1428-1437. doi: 10.1097/01.blo.0000533621.57561.a4. Erratum in: Clin Orthop Relat Res. 2020 May;478(5):1131.
5. Petheram TG, Whitehouse SL, Kazi HA, Hubble MJ, Timperley AJ, Wilson MJ, Howell JR. The Exeter Universal cemented femoral stem at 20 to 25 years: A report of 382 hips. Bone Joint J. 2016 Nov;98-B(11):1441-1449. doi: 10.1302/0301-620X.98B11.37668.
6. Westerman RW, Whitehouse SL, Hubble MJW, Timperley AJ, Howell JR, Wilson MJ. The Exeter V40 cemented femoral component at a minimum 10-year follow-up: the first 540 cases. Bone Joint J. 2018 Aug;100-B(8):1002-1009. doi: 10.1302/0301-620X.100B8.BJJ-2017-1535.R1.
7. Pennington M, Grieve R, Black N, van der Meulen JH (2013) Functional Outcome, Revision Rates and Mortality after Primary Total Hip Replacement – A National Comparison of Nine Prosthesis Brands in England. PLoS ONE 8(9): e73228. doi:10.1371/journal.pone.0073228.

Joint Replacement

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