

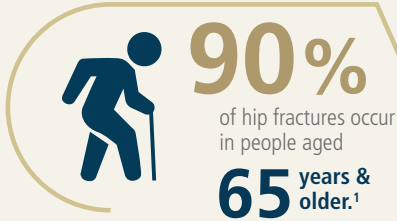
TRAUMACEM™ V+ Augmentation System

Enhanced Implant Fixation in Patients with Poor Bone Quality

A polymethylmethacrylate (PMMA) cement and delivery devices for augmentation of a TFN-ADVANCED® Proximal Femur Nailing System (TFNA) head element.

EPIDEMIOLOGY

HIP FRACTURES ARE FREQUENTLY



SERIOUS OSTEOPOROTIC FRACTURES²

<50% have the same walking ability they had prior to the fracture

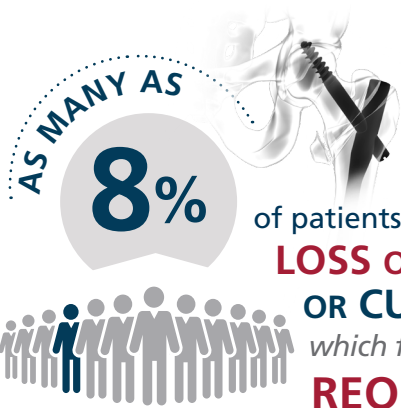


Mortality rates can be as high as

34%



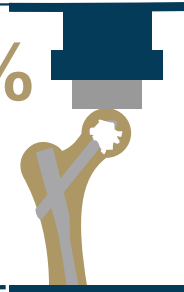
1 year after hip fracture³



BIOMECHANICAL TESTING

AUGMENTED HEAD ELEMENTS HAD UP TO

346% MORE CYCLES UNTIL VARUS COLLAPSE



AND UP TO **244%** INCREASE IN RESISTANCE TO CUT-OUT compared to constructs with non-augmented head elements.^{5,6}

CLINICAL COMPLICATION

PUBLISHED CLINICAL RESULTS

USED IN **10,000+** CASES WORLDWIDE IN CLINICAL USE SINCE **2010⁷**



IN THREE PROSPECTIVE MULTI-CENTER TRIALS WITH OVER 150 PATIENTS

NO UNEXPECTED HEAD ELEMENT MIGRATION OBSERVED

NO CLINICAL COMPLICATIONS

RELATED TO AUGMENTATION⁸⁻¹⁰

HISTORY OF AUGMENTATION

1 Gu G, Koenig L, Mather R, Tongue J. Surgery for Hip Fracture Yields Societal Benefits That Exceed the Direct Medical Costs. Clin Orthop Relat Res 2014; 472:3536-3546.
 2 Broderick JM, Bruce-Brand R, Stanley E, Mulhull KJ. Osteoporotic Hip Fractures: The Burden of Fixation Failure. The Scientific World Journal Volume 2013.
 3 Senbo L, Johnell O. Consequences of a hip fracture: a prospective study over 1 year. Osteoporosis International. 1999;3(3): 148-153.
 4 Wu D, Ren G, Peng C, Zheng X, Mao F, Zhang Y. Inter-Tan nail versus Gamma3 nail for intramedullary nailing of unstable trochanteric fractures. Diagn Pathol. 2014 Oct 1; 9:191.
 5 DePuy Synthes Test Data on file, Windchill 0000268245.
 6 Hofmann L, Zderic I, Hagen J, Agarwal Y, Scherrer S, Weber A, Altmann M, Windolf M, Gueorguiev B. Biomechanical effect of bone cement augmentation on the fixation strength of TFNA blades and screws. Presented at 22nd Congress of the European Society of Biomechanics. 10-13 July 106. Lyon, France.
 7 DePuy Synthes Trauma Data on file. Worldwide Sales Data. 2018.
 8 Kammerlander C, Gebhard F, Meier C, et al. Standardized cement augmentation of the PFNA using a perforated blade: A new technique and preliminary clinical results. A prospective multicenter trial. Injury. 2011;42(12):1484-1490.
 9 Kammerlander C, Doshi H, Gebhard F, Scola A, Meier C, Linhart W, Garcia-Alonso M, Nistal J, Blauth M (2014). Long-term results of the augmented PFNA: a prospective multicenter trial. Arch Orthop Trauma Surg 134(3):343-9
 10 Kammerlander C, Hem, ES, Klopfer T, Gerbhard F, Sermon A, Dietrich M, Bach O, Weil Y, Babst R, Blauth M. Cement augmentation of the Proximal Femoral Nail Antistrotion (PFNA) – A multicenter randomized clinical trial. Injury. Int. J. Care Injured 2018.

