

## Abstract

Purpose. The Anatomic Fiber Metal plus stem (Zimmer) is ~~one of the~~ anatomically designed cementless stems ~~that can be used~~ to achieve stable fixation ~~by through~~ metaphyseal fit. We ~~studied~~ ~~examined the~~ outcomes of cementless total hip arthroplasty ~~performed~~ using this stem and ~~evaluated the possible~~ effects of metaphyseal fit on ~~the~~ outcomes. Methods. ~~The cementless total hip arthroplasty using this stem was performed for~~ ~~In total~~, 155 hips ~~underwent cementless total hip arthroplasty using this stem~~. ~~Among these~~, ~~One hundred and thirty seven~~ 137 hips of 122 patients were followed for ~~5 to~~ 16 years (mean, 9.7 ~~years~~) ~~years~~ and ~~entered were included into~~ the study. ~~The m~~The metaphyseal fit was ~~defined~~ ~~classified~~ as good or poor ~~in using an a~~ ~~postsurgical~~ anteroposterior radiograph ~~after surgery~~. We ~~also studied~~ ~~examined~~ the fixation of the stem and ~~the~~ bone reaction on an anteroposterior radiograph at the final follow-up. Results. Twelve hips ~~had showed~~ revision, ~~—~~ six ~~for~~ acetabular components and six ~~for~~ acetabular liners. ~~None of the~~ stems ~~was were~~ revised. ~~With respect to the~~ ~~The Regarding~~ biological fixation ~~of the stem~~, ~~of the stem was~~ bone ingrown fixation ~~was noted~~ for 136 hips and ~~unstable~~ ~~instability was noted~~ for one hip. The metaphyseal fit was good for 83 hips and poor for 54 hips. There were no differences ~~for in~~ stem fixation and bone reaction ~~between the two groups~~. Conclusions. ~~The fixation of the s~~Stem fixation was ~~largely~~ stable at a mean ~~followup~~ ~~follow-up~~ of 9.7 years, ~~independently from~~ ~~irrespective~~ ~~of the quality of~~ metaphyseal fit.

Source: [Fixation of an Anatomically Designed Cementless Stem in Total Hip Arthroplasty](#) by Shigeru Nakamura, Noriyuki Arai, Takateru Kobayashi, and Takashi Matsushita, used under CC-BY.

**Comment [A1]:** Please note that no groups have been defined; it is thus unclear which groups are being referred to here.  
Do you mean “between hips with good and those with poor metaphyseal fit”?  
If not, kindly clarify this so that a suitable revision can be made.

**Comment [A2]:** I have added this phrase for clarity.