

Masterfully Crafted

NOVATION®
Comprehensive Hip System

Splined Femoral Stem



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For the surgeon, Novation means stable reconstruction, with the best and brightest in bearing alternatives, for the widest range of anatomies. To the patient, it means a renewed outlook on life.

A MASTERFULLY CRAFTED PLAN

The Novation® Comprehensive Hip System design provides a system of femoral stems and surgical instrumentation that addresses a variety of situations encountered during primary total hip replacement. The system provides stable reconstruction of a wide range of anatomies and low-profile instrumentation and implants that are compatible with a multitude of surgical approaches.

A COMPREHENSIVE SYSTEM

Novation Splined Stem

Novation Splined Stems rely on proximal fixation for initial stability and are enhanced by the distal splines for added rotational stability. In cases of proximal/distal mismatch, the Novation Splined Stem is also available in a Reduced Distal Diameter (RDD) option. A coronal slot reduces stiffness of the stem by up to 20 percent in the larger sizes.³

Features

- Circumferential titanium plasma coating of 0.5mm per side (1mm total)
- Sizes 9-18 provide wide range of stem diameters to more intimately fit the femoral canal
- Parabolic tip provides gradual stress transfer at the distal bone interface^{1,2}
- 1mm of press-fit built into the stem's distal splined segment
- A coronal slot (sizes 9-18) is present to increase stem flexibility
- Neck flats result in 8mm neck cross-section maximizing range of motion and head/neck ratio while maintaining strength³
- Two offsets provide lateralization without increasing leg length
- Multiple femoral head lengths adjust offset and leg length to more closely match the patient's normal anatomy
- Polished neck
- 12/14 femoral neck taper
- 131-degree neck angle designed to predictably restore normal anatomy^{4,5}

References:

1. U.S. Patent #5,152,799.
2. Englehardt JA, Tomaszewski PR. Hip stem and tip geometry a theoretical model for thigh pain. Proceedings of the 37th Annual Meeting of the Orthopaedic Research Society. 1991, p. 270.
3. Data on file at Exactech. 711-01-80 The Effect of Femoral Head and Neck Cross Section on Range of Motion Technical Profile
4. Robinson RP, Simonian PT, Gradisar IM, Ching RP. Joint motion and surface contact area related to component position in total hip arthroplasty. J Bone Joint Surg Br. 1997 Jan; 79(1):140-6.
5. Noble PC, Alexander JW, Lindahl LJ, Yew DT, Granberry WM, Tullos HS. The anatomic basis of femoral component Design. Clin Orthop Relat Res. 1988 Oct;(235):148-65.

