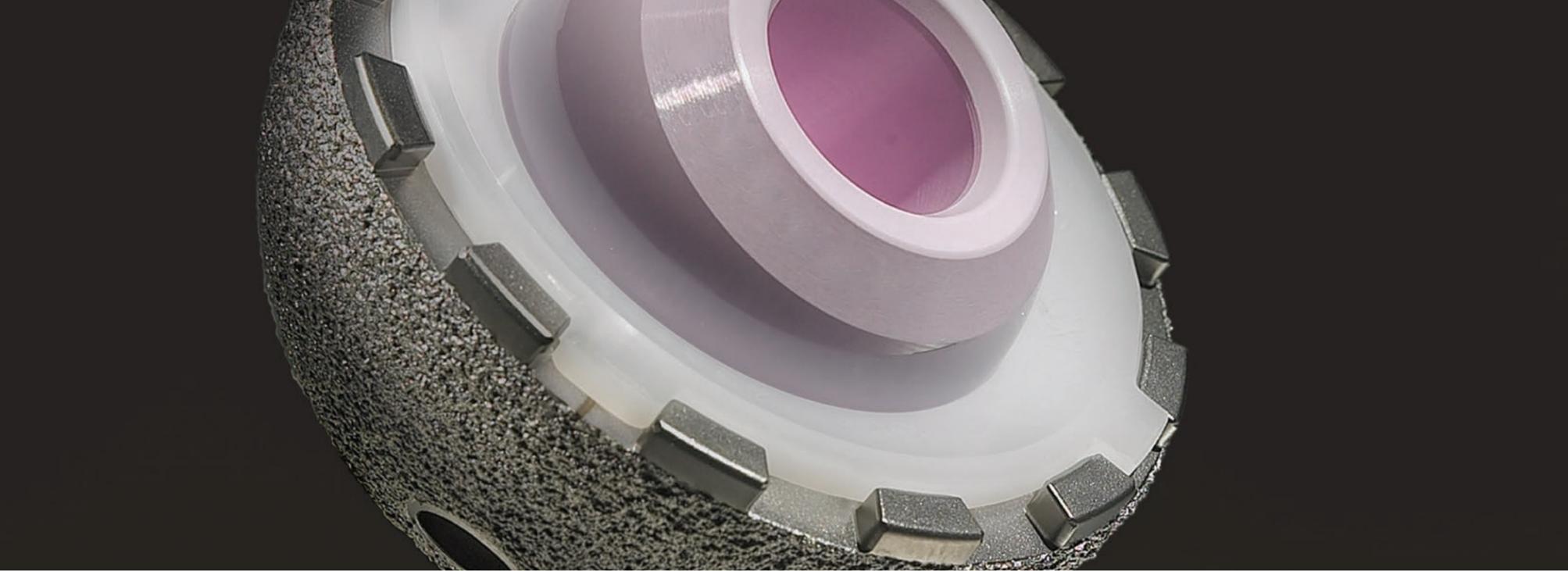




# Comprehensive Hip System

*Surgeon focused. Patient driven.™*

**Exactech®**



## Through the Eyes of a Surgeon

Exactech started with a dream shared by orthopaedic surgeon Bill Petty, MD, his wife Betty, and biomedical engineer Gary Miller, PhD. Drs. Miller and Petty had worked with several orthopaedic companies and thought they saw some things they could do differently, and better.

**They wanted to make a difference in the quality of care provided to patients suffering from injuries or arthritic disease.**

The Pettys and Dr. Miller made the first step toward realizing their vision by incorporating Exactech in 1985.

Since that time, we have leveraged our founding principles to look at clinical challenges through the eyes of a surgeon. It's all about working together, focusing on your needs and then engineering innovative solutions that improve patient outcomes for hip, knee and extremities surgery.



Stable leadership  
for 30+ years



Fast-growing  
orthopaedic  
device company



Distribution in more  
than 30 countries



Innovative bone  
and joint products



## Science As Our Guide

The dream became a reality when Exactech launched its first product—a cemented hip stem. As the hip product line has grown and evolved it maintains one common goal: to provide a system of femoral stems, acetabular components and surgical instrumentation that would address a variety of situations encountered during primary and revision total hip arthroplasty.

We let science be our guide and conducted an extensive research review to identify the best of the best in design and materials. These proven features were blended with masterfully crafted innovations. Today Exactech Hip boasts a scope of products that spans the continuum of care, offering surgeons a variety of solutions to fit their patients' needs.

**ALTEON**<sup>®</sup>

# Primary Femoral Stems

## Alteon<sup>®</sup> Tapered Wedge Femoral Stem



Achieves Fixation in All Primary Femur Types

The Alteon Tapered Wedge Femoral Stem incorporates specific design features to achieve immediate axial and rotational mechanical stability between the medial and lateral cortices of the femoral canal.

### Proximal/Distal Geometry

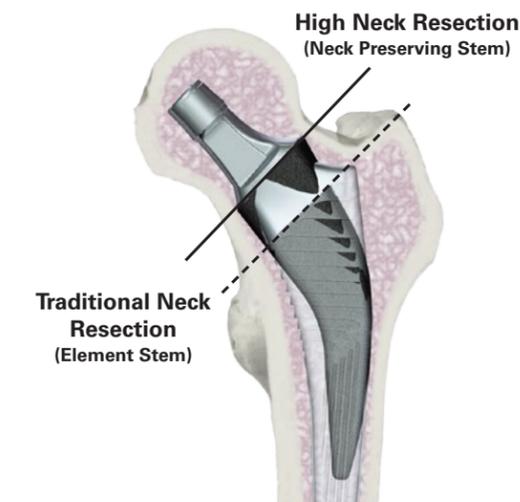
The Alteon Tapered Wedge Stem features an optimized overall length and proximal/distal sizing to achieve fixation in all primary femur types (Dorr A, B, C) without compromising the implant features or surgical technique.

## Alteon<sup>®</sup> Neck Preserving Femoral Stem

Developed for primary femoral solutions, the Alteon Neck Preserving Femoral Stem shares the proven features of conventional stems. Unlike traditional stems, the Neck Preserving Stem was designed to conserve more bone.

### Design Features

- A conservative treatment option, designed for maintaining the maximum amount of proximal femoral bone.<sup>1</sup>
- With a curved geometry and broach-only system, the implant is designed to preserve host bone and follow the native anatomy.





**ALTEON**<sup>®</sup>

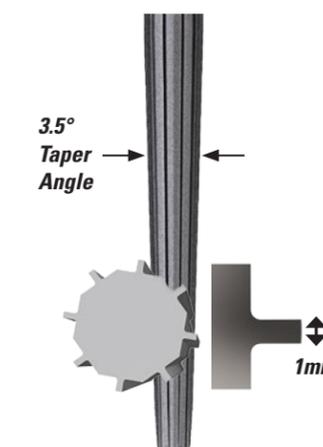
# Revision Femoral Stem



Achieves diaphysis fixation by bypassing damaged proximal bone.

## Alteon<sup>®</sup> Monobloc Revision Stem

The Alteon Monobloc Revision Femoral Stem is a press-fit, distally fixed, one-piece tapered, splined titanium stem. The Monobloc Revision Stem intends to achieve axial and rotational mechanical stability and operative predictability through a carefully engineered combination of design features.



### Taper Angle and Spline Design

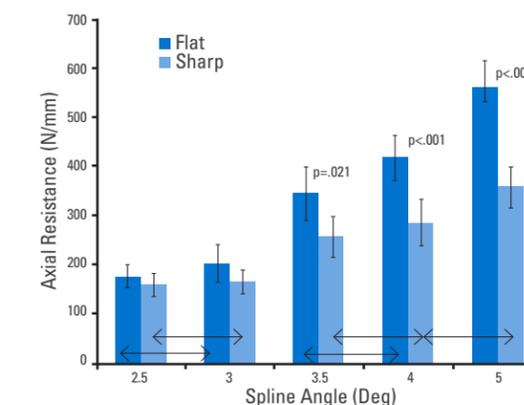
The 3.5 degree taper angle and flat/broad spline geometry play an integral part in the mechanical stability that is designed to resist axial subsidence and rotation.<sup>2</sup>

### Lengths

- 195mm
- 245mm

Note: The length is measured from the center of rotation to the distal tip of the stem

Axial Stability of Different Taper Angles



The arrows indicate groups of statistically equivalent spline angles within each separate spline design. Laboratory test results may not necessarily be indicative of clinical performance.

# InteGrip®

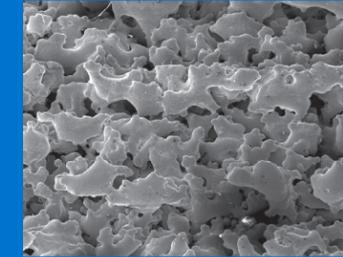
## Primary & Revision Acetabular



## InteGrip® Cup

Developed for revision and complex primary procedures, the InteGrip acetabular shell shares the features of Novation® Crown Cup® with additional material enhancements.

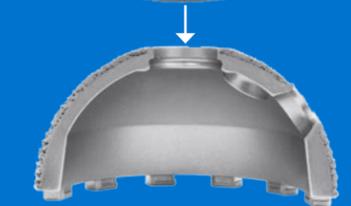
- Comprehensive testing qualifies InteGrip as a three-dimensional, porous ingrowth material. Pore size, count and porosity are optimized to enable adequate ingrowth and maximize material strength properties.<sup>3</sup>
- Achieving initial mechanical stability is important to enable long-term biologic fixation.<sup>4</sup> InteGrip features a 1mm uniform press-fit across the acetabulum similar to Crown Cup.<sup>4</sup>
- Electron Beam Melting (EBM) integrates the porous and solid substrate versus a porous coating adhered to a solid surface. During testing, no detachment of InteGrip from the substrate was observed. The integrated material provides high shear/tensile strength.<sup>5</sup>



Three-dimensional, Porous Ingrowth Material

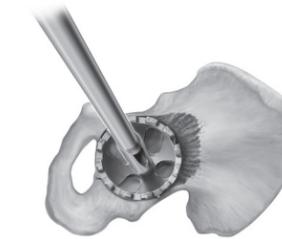


Electron Beam Melting



## InteGrip® Augment

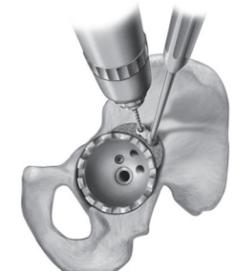
InteGrip Augments feature a unique broach-only surgical technique. These augments are designed with multiple sizing options to accommodate a wide variety of acetabular defects.



Shell Trial Placement



Rasping Defect



Drill Guide Insertion



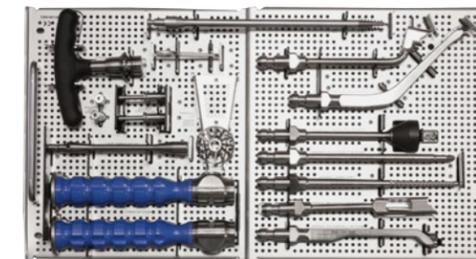
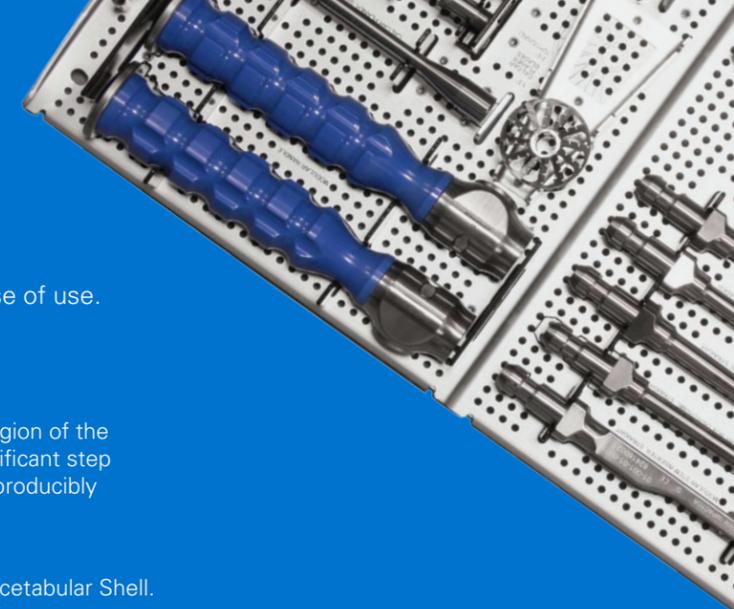
# Platform Instrumentation

## Platform Instrumentation

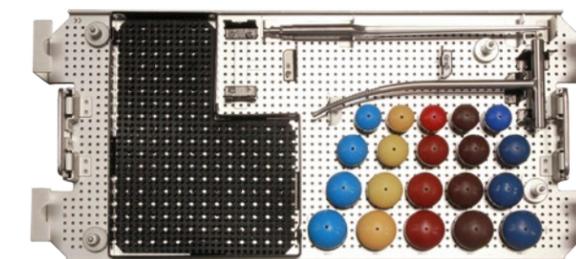
The Alteon family shares a set of common femoral instruments that can be used across multiple stems. Whether you are doing a primary or revision case, the streamlined instrumentation has been designed to accommodate your surgical needs and provide ease of use.

The image to the left highlights some of the unique instrumentation for Alteon products:

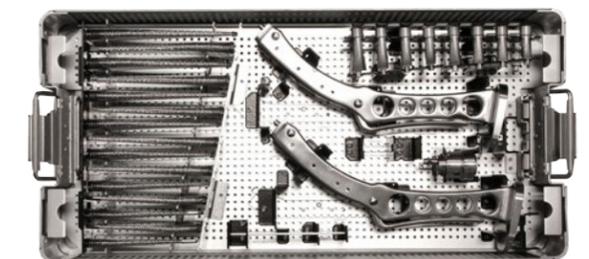
- Trochanteric Reamer (top)**  
 The Trochanteric Reamers were created to maintain the desired press-fit against the cylindrical region of the implant, while relieving trochanteric bone that may hold the stem in three-point fixation. This significant step in the surgical technique ensures distal taper preparation and engagement occurs reliably and reproducibly creating the foundation for a consistent trialing system.
- Cup Impactor (middle)**  
 The Cup Impactor utilizes a unique, non-threaded mechanism for easy on/off attachment to the Acetabular Shell.
- Broach Handles (bottom)**  
 The Alteon Broach Handles come in different offset options to facilitate ease of use in various THA surgical approaches. They were designed to minimize motion between the broach and broach handle to help ensure proper preparation of the femoral canal.



Alteon Common Femoral Kit  
(Upper Level Tray)



Alteon Common Femoral Kit  
(Lower Level Tray)



Alteon Tapered Wedge Instruments

**NOVATION®**



**CONNEXION GXL®**

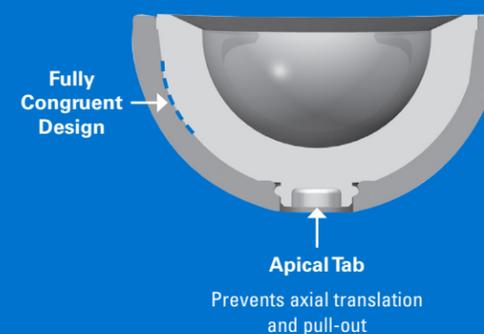


# Primary Acetabular

## Novation® Crown Cup®

The Novation Crown Cup is a titanium, hemispherical design that utilizes Connexion GXL® polyethylene liners, which minimize wear debris over standard polyethylene.

- With a goal of creating a more stable hip replacement, the Novation Crown Cup uses a sizing scheme that allows the largest head possible while maximizing polyethylene thickness.
- The three-facet locking mechanism design minimizes micromotion and potential for backside wear.<sup>6</sup>



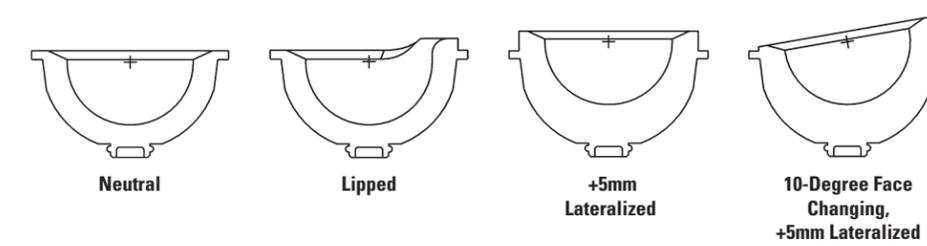
Anti-Rotation Tabs

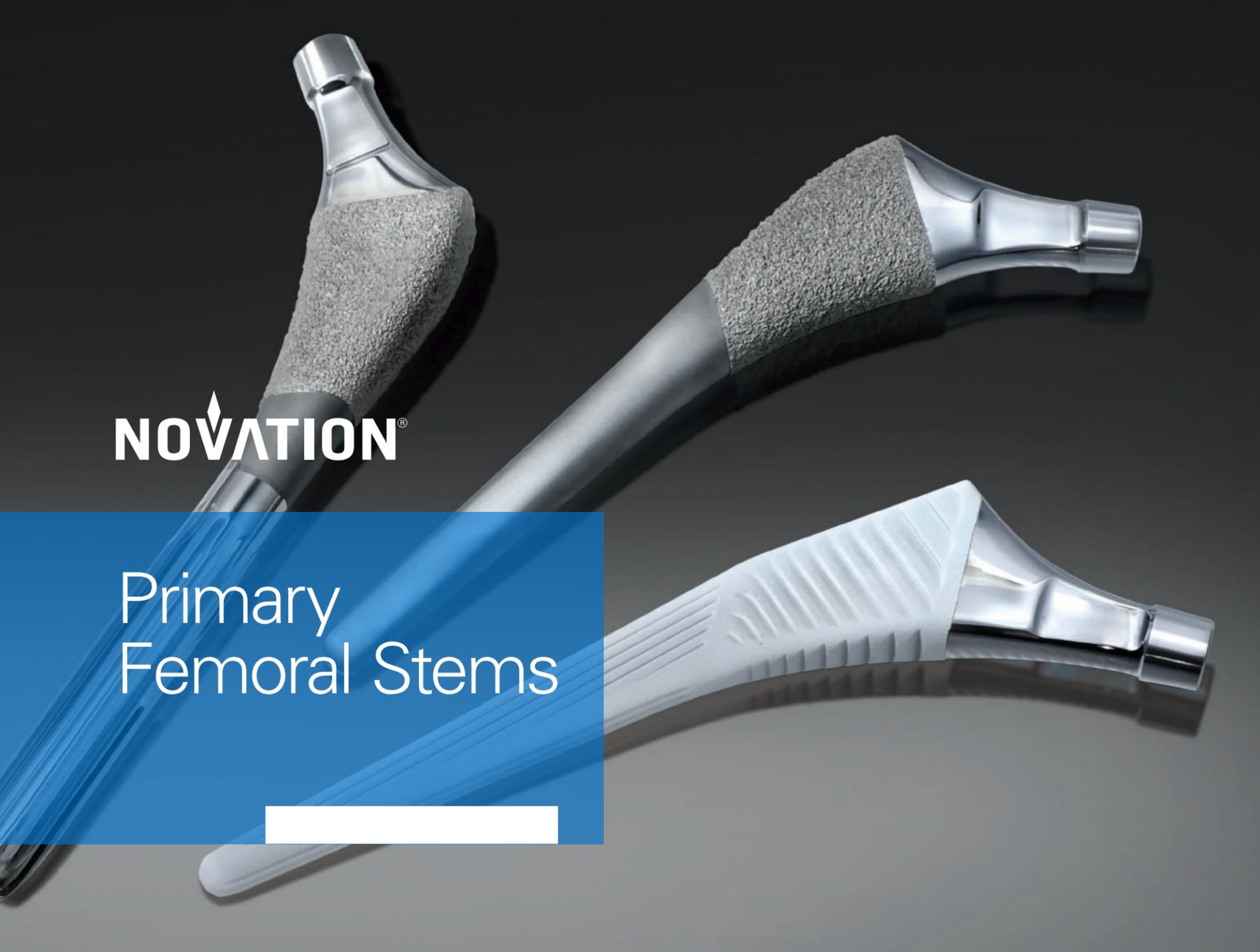
## Connexion GXL® Liners

Connexion GXL enhanced polyethylene acetabular liners provide a low-wear rate while maintaining an appropriate level of fracture toughness.

- Connexion GXL Liners use two split-precision irradiation doses of 25kGy each for a total of 50kGy of irradiation.
- They are manufactured from compression-molded UHMWPE.
- These liners show a reduction in wear by 59 percent over the clinically successful, standard Exactech polyethylene, while maintaining fracture toughness.<sup>7</sup>

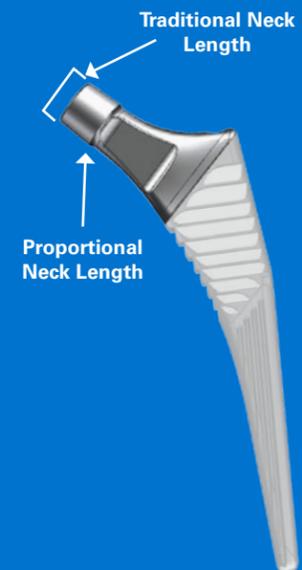
### Novation Liner Configurations





**NOVATION**<sup>®</sup>

## Primary Femoral Stems



## Novation<sup>®</sup> Element<sup>®</sup> Stem

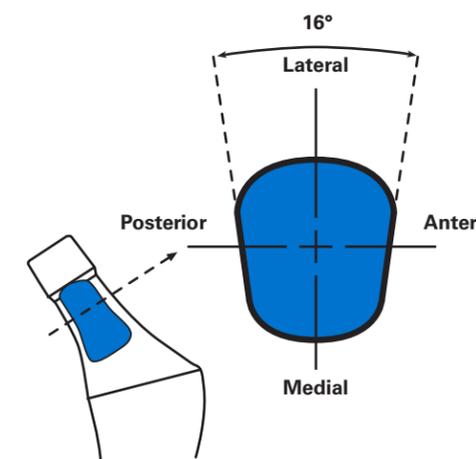
The Novation Element's dual, tapered-wedge stem philosophy and its extensive hydroxyapatite coating, incorporates design and surgical technique principles based on more than 25 years of clinical use.<sup>8,9</sup>

- This bone-conserving system is designed to provide initial stability and biologic fixation while providing surgeons with a simple broach-only system that is flexible enough to accommodate various surgical approaches.<sup>8</sup>
- Proportional neck lengths reduce neck resection and are designed to optimize joint kinematics.<sup>10</sup>

## Novation<sup>®</sup> Tapered/Splined Stems

Designed to provide stability in a wide range of femoral anatomies, the Novation Tapered/Splined Stems feature a 1mm press-fit, commercially pure titanium plasma coating.

- Its neck flats result in 8mm neck cross section, maximizing range of motion and head/neck ratio while maintaining strength.<sup>11</sup>
- In addition, its patented parabolic tip design reduces stress transfer, which has been shown to reduce thigh pain.<sup>12</sup>



**NOVATION**<sup>®</sup>

Bipolar/Unipolar



## Bipolar/Unipolar Heads

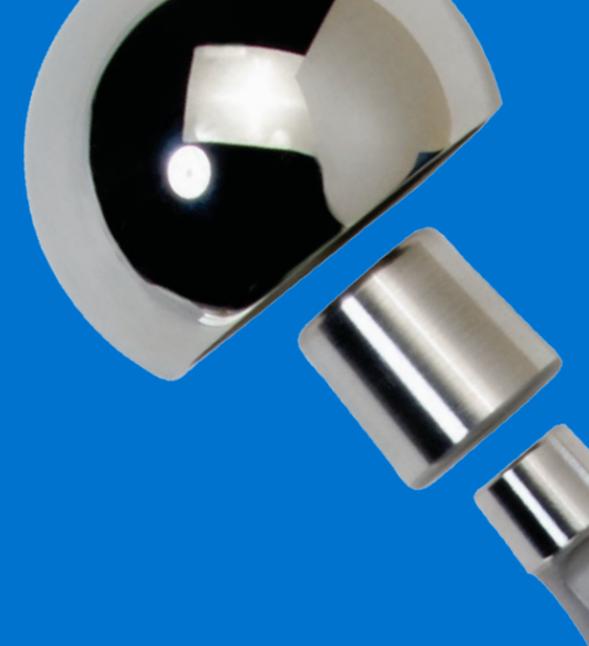
Compatible with all Exactech Femoral Stems, Bipolar/Unipolar Heads incorporate the following design advantages, as shown below.

**Unipolar design advantages incorporate the following:**

- a modular design,
- fully-machined, wrought cobalt chrome shell designed for accurate fit and minimized wear,
- and precision-machined tapers designed for optimum locking capabilities.

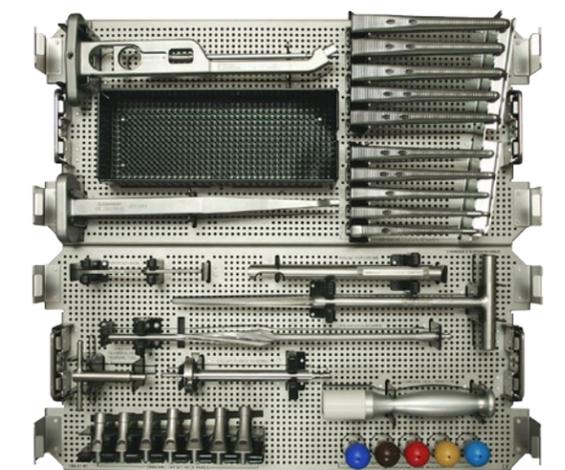
**Bipolar design advantages incorporate the following:**

- easy assembly with hand pressure,
- excellent locking integrity,
- a design to maximize polyethylene durability,
- and an optimal positive eccentricity throughout a range of sizes.



## Novation CFS<sup>®</sup> Femoral Stems

The Novation CFS Femoral Stems are designed to provide surgeons with excellent initial fixation and long-term stability when paired with the core instruments that support Novation Tapered and Splined preparation. This allows for simple preparation and ease of intra-operative transition to a low-demand stem should the need arise.





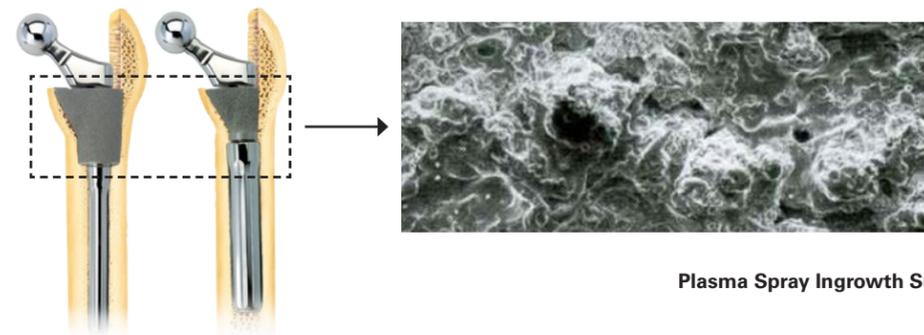
# Revision Femoral Stems



## AcuMatch® M-Series Stem

The M-Series uncouples offset and leg length, providing surgeons a unique way to restore joint stability in complex total hip arthroplasty.

- Trapezoid shape, coupled with optimized plasma coating interference fit, designed to provide stability to promote biologic fixation.<sup>13,14</sup>
- One hundred percent interchangeability enables customization to address a wide range of proximal bone-loss situations. In addition, independent neck version and stem placement minimize the potential of femoral fracture and post-operative dislocation.<sup>15</sup>



Plasma Spray Ingrowth Surface on Proximal Segments

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