Hips designed to fit the unique anatomies of men and women
Independent control for a natural fit

Simple, practical solutions for optimal restoration of hip joint kinematics

Restoring leg length, joint stability, and range of motion involve distinct surgical challenges. The Zimmer M/L Taper Hip Prosthesis with Kinectiv Technology is a system of modular stem and neck components designed to help the surgeon restore the natural hip joint center intraoperatively by addressing leg length, offset, and version independently. The broad array of neck options efficiently targets a wide range of male and female patient anatomies.

Built on the proven M/L Taper design philosophy

The collarless prosthesis incorporates the bone-conserving design and tapered wedge fixation philosophy of the Zimmer M/L Taper Hip Prosthesis.

Simple technique. MIS-enabled.

Implants and instrumentation with Kinectiv Technology are designed to facilitate insertion and assembly during minimally invasive THR procedures while minimizing soft-tissue trauma. They provide simple intraoperative flexibility in adjusting head center location and optimizing hip kinematics.
Gender Solutions™ Technology

The Zimmer M/L Taper Hip Prosthesis with Kinectiv Technology helps the surgeon address a wide range of bone morphologies. For example, women tend to have lower head centers, less offset, and greater anteversion, whereas men tend to have greater offset and less anteversion. These gender-specific tendencies are addressed by offering a broad range of head centers and progressively increasing version for shorter offset head center locations to better match the anatomical differences between men and women.

Head center data

Plotting head height and offset reveals two distinct populations: female and male.
The kinematic connection

*KineCTiv Technology* allows simple independent adjustment of the three key kinematic dimensions—leg length, offset, and version—to restore appropriate kinematics and help improve overall patient satisfaction.

- Using only a +0mm femoral head component, the system offers 60 different head center locations with varus, valgus, anteverted, and retroverted head center solutions to help restore accurate joint kinematics.

- After implanting the stem based on the most desirable proximal stem fit, the surgeon selects the appropriate modular neck that provides the desired combination of leg length, offset, and version.

- Adjustment of each dimensional factor is achieved independently, allowing the surgeon to optimize leg length, range of motion, and joint stability.

*Preoperative templating establishes precise head center location, while KineCTiv Technology facilitates accurate head center positioning.*
Leg length and offset can both be adjusted for left and right THA using the same provisional tray.

Adjust leg length without affecting offset
- Leg length discrepancy is a leading source of patient dissatisfaction.²⁻¹¹

Adjust offset without affecting leg length
- Proper leg length and offset restoration improve total hip replacement function and minimize the risk of dislocation and limp.¹²⁻¹³

Head center grids located on the tray corners correspond to the head center options shown on the templates.
Independent, intraoperative version adjustment

The Zimmer M/L Taper Hip Prosthesis with Kinectiv Technology allows independent version adjustments after stem implantation. This facilitates optimal stem position based on the patient’s proximal femoral anatomy.

Optimized version without compromising stem orientation

Optimized range of motion

Dislocation can occur up to four times more often in women, and is a costly complication in total hip replacement. Furthermore, component-on-component impingement has been shown to contribute to accelerated wear of the liner. The Zimmer M/L Taper Hip Prosthesis with Kinectiv Technology is designed to reduce the incidence of impingement and dislocation by optimizing range of motion.
**Intraoperative flexibility**

When cup placement is not optimal, Kinectiv Technology allows the surgeon to optimize range of motion intraoperatively by adjusting version without affecting leg length or offset.

**Straight neck with neck impingement**

- Straight neck
- Neutral position

**Anteverted neck resolves neck impingement**

- Anteverted neck
- Neutral position

*Neck impingement*

- Straight neck
- Flexion, abduction, and external rotation

*No impingement*

- Anteverted neck
- Flexion, abduction, and external rotation
Instrumentation designed for simplicity

References

3. Data from Mohamed Mahfouz, PhD, University of Tennessee Center for Musculoskeletal Research. Femoral Bone Atlas.

Locking Stem Inserter provides easy, straight-forward stem insertion.

A simple 90-degree rotation of the provisional neck tray allows the use of the same provisional sets for both right and left hips.

Advancing skills and knowledge

The Zimmer Institute, in true teamwork with the surgeon, provides hands-on training and transfer of knowledge to bring the benefits of minimally invasive surgery to joint replacement partners. The Zimmer Institute and its satellite programs work with surgeons, offering support for procedures from the familiar to the highly advanced. Zimmer training and support enhance the skills and knowledge of surgeons at every stage of their career, so they have confidence in the Zimmer MIS Procedures they perform.

Contact your Zimmer representative or visit us at www.zimmer.com