

REPLICATE NATURAL  
KINEMATICS WITH AN

# ALL TERRAIN KNEE

FEATURING THE  
ANTERIOR PIVOT



## A move forward in mobile bearing knee design

The Zimmer® LPS-Flex Mobile Bearing Knee provides an anteriorly positioned pivot near the entry point of the anterior cruciate ligament (ACL).

- An anterior pivot at the ACL site replicates the anatomic center of rotation<sup>1,2</sup>
- Anterior pivot design leads to lower patellofemoral forces that may lead to anterior knee pain, patellar subluxation and dislocation, and component wear, damage, and loosening<sup>3,4</sup>
- The LPS-Flex Mobile Bearing Knee utilizes a stop on the tibial plate to prevent bearing spin-out and allow 25° of internal/external rotation

With a successful clinical history, MIS compatibility, and safe high flexion up to 155°, the mobile bearing knee with an anterior pivot can deliver more normal knee kinematics for your patients. It's a natural knee choice, naturally from Zimmer.

**References:** 1. Argenson J-NA, et al. *In vivo* kinematic evaluation and design considerations related to high flexion in total knee arthroplasty. *J Biomech.* 2005;38:277-284. 2. Hollister AM, et al. The axes of rotation of the knee. *Clin Orthop Relat Res.* 1993;290:259-268. 3. Smith AJ, et al. Pre-surgery knee joint loading patterns during walking predict the presence and severity of anterior knee pain after total knee arthroplasty. *J Orthop Res.* 2004;22:260-266. 4. Browne C, et al. Patellofemoral forces after total knee arthroplasty: effect of extensor moment arm. *Knee.* 2005;12:81-88.

To learn more about the science of the Zimmer Mobile Bearing Knee, contact your Zimmer representative to arrange a visit. Or visit [www.mobilebearingknee.zimmer.com](http://www.mobilebearingknee.zimmer.com).

NexGen® LPS-Flex  
Mobile  
Bearing  
Knee



# NexGen® LPS-Flex Mobile and LPS-Mobile Bearing Knee

## Important Facts

### DESCRIPTION

LPS-Flex/LPS-Mobile Bearing Knees are semi-constrained, posterior-stabilized, rotating platform mobile bearing knee prostheses. They consist of the following four main components:

- LPS-Flex or LPS femoral component
- LPS-Mobile tibial articular surface component
- Fluted Stem Mobile tibial baseplate component
- All-Poly patella component

The femoral components are designed for use when both cruciate ligaments are excised and when load bearing range of motion is expected to be less than or equal to 155 degrees (when used with the LPS-Flex femoral) or 120 degrees (when used with the LPS femoral). The tibial baseplate components are designed to allow  $\pm 25$  degrees of rotational movement.

### INDICATIONS

This device is indicated for patients with severe knee pain and disability due to:

- Osteoarthritis.
- Primary and secondary traumatic arthritis.
- Avascular necrosis of the femoral condyle.
- Moderate valgus, varus, or flexion deformities (i.e., valgus/ varus deformity of  $\leq 15^\circ$ , fixed flexion deformity of  $\leq 10^\circ$ ).

This device is intended for cemented use only.

### CONTRAINDICATIONS

This device should not be used in patients with:

- A previous history of infection in the affected joint and/or local/systemic infection that may affect the prosthetic joint.
- Insufficient bone stock on femoral or tibial surfaces.
- Skeletal immaturity or neuropathic arthropathy.
- Osteoporosis or any loss of musculature or neuromuscular disease that compromises the affected limb.
- A stable, painless arthrodesis in a satisfactory functional position.
- Severe instability secondary to the absence of collateral ligament integrity.

### WARNINGS

- Do not reuse. This device is for single patient use only.
- Avoid notching, scratching, or striking the device. Improper preoperative or intraoperative implant handling or damage (e.g., scratches, dents, etc.) can lead to crevice corrosion, fretting, fatigue fracture and/or excessive wear.
- Do not use:
  - This product for other than labeled indications.
  - Any component, if damage is found or caused during setup or insertion.
  - Components from other knee systems (and vice versa) unless expressly labeled for such use. Premature wear or loosening may develop and may require surgical explantation.
- NexGen CR, CRA or CR-Flex femoral components with LPS-Mobile articular surfaces. They were not designed to be compatible.

- The LPS-Mobile articular surfaces with **porous** LPS-Flex femoral components or **porous** LPS femoral components as these femoral components are not approved for use with the NexGen LPS-Flex/LPS-Mobile Bearing Knee systems.
- **All LPS-Mobile 17 and 20mm tibial articular surfaces require a locking screw to fasten the articular surface to the Fluted Stem Mobile tibial baseplate.** Failure to use the locking screw may result in premature failure of the components (e.g., separation) due to the greater moment (i.e., forces) acting on these thicker components.
- Use only LPS-Mobile tibial articular surfaces with the Fluted Stem Mobile tibial baseplates (and vice versa) as they are not compatible with other components.
- Use only NexGen all-polyethylene patellas with these femoral components. Patellas made for other systems may demonstrate excessive wear when used with these femoral components.

### PRECAUTIONS

- LPS-Flex/LPS-Mobile components are sized by matching the femoral component letters and the tibial baseplate component numbers to the articular surface label. Ignore any color codes. A knee implant size matching chart is available to supplement these instructions (See the NexGen Complete Knee Solution Component Matching Flowchart in the surgical technique manual). Mismatching may result in poor surface contact and could produce pain, decrease wear resistance, produce instability of the implant, or otherwise reduce implant life.
- Use only instruments and provisional trials specifically designed for use with these devices to help ensure accurate surgical implantation, soft tissue balancing, and evaluation of knee function. Please refer to the accompanying Surgical Technique Manual.
- Thicker polyethylene components may be needed if the patient is young, heavy, and/or physically active.
- The safety and effectiveness of this device has not been established in patients with rheumatoid arthritis, collagen disorders, polyarthritis, or pseudogout; or in patients who need a revision total knee replacement.

### POTENTIAL SIDE EFFECTS ASSOCIATED WITH THE NEXGEN LPS-FLEX/LPS-MOBILE BEARING KNEE SYSTEMS

- Excessive wear secondary to damage of multiple mating wear surfaces that can initiate osteolysis which may result in loosening of the implant
- Tibiofemoral bearing disassembly
- Tibiofemoral subluxation
- Dislocation and/or joint instability
- Knee stiffness



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