

GENESIS[®]

UNICOMPARTMENTAL KNEE SYSTEM



MODULAR UNICOMPARTMENTAL
KNEE SYSTEM

EXTRAMEDULLARY ALIGNMENT INSTRUMENTATION

SURGICAL TECHNIQUE

GENESIS

UNICOMPARTMENTAL KNEE SYSTEM

Designed in Conjunction With:

James R. Andrews, M.D.
Clinical Professor of Orthopaedics and Sports Medicine
University of Virginia Medical School
Orthopaedic Surgeon
Alabama Sports Medicine & Orthopaedic Center
Birmingham, Alabama

Philippe Cartier, M.D.
Orthopaedic Surgeon
Clinique des Lilas
Paris, France

William R. Kennedy, M.D.
Orthopaedic Surgeon
Sarasota Memorial Hospital
Sarasota, Florida

Surgical Technique Described By:

Philippe Cartier, M.D.
Orthopaedic Surgeon
Clinique des Lilas
Paris, France

TABLE OF CONTENTS

Introduction	2
Design Features	3
Surgical Technique	4
Catalog Information	29

Nota Bene: The technique description herein is made available to the healthcare professional to illustrate the authors' suggested treatment for the uncomplicated procedures. In the final analysis, the preferred treatment is that which addresses the needs of the specific patient.

The key point to appreciate about the GENESIS Knee System is its flexibility. From primary to revision knee arthroplasty, it is generally not possible to ascertain all details until the knee is actually opened. Although the GENESIS System is an outstanding design for operations in which "all goes as expected," it is in addressing the unexpected that the System's flexibility, in sizes and fit, makes it remarkably useful to the surgeon and beneficial to the patient.

As a unicompartamental knee system, GENESIS recognizes that quality bone stock is important to preserve, and bone resection to match component size may not be a viable option. The GENESIS Unicompartamental Knee System's modularity allows the surgeon to customize a knee prosthesis that suits the needs of each patient.

This flexibility alone would make GENESIS a system worth examining. However, the design of the GENESIS Unicompartamental Knee System makes it an optimal choice for many procedures. Its asymmetric, titanium alloy tibial tray is more anatomically correct, and is available in sizes that offer better fit, thus relieving the surgeon from the unpleasant choice between "overhang" and "underhang."

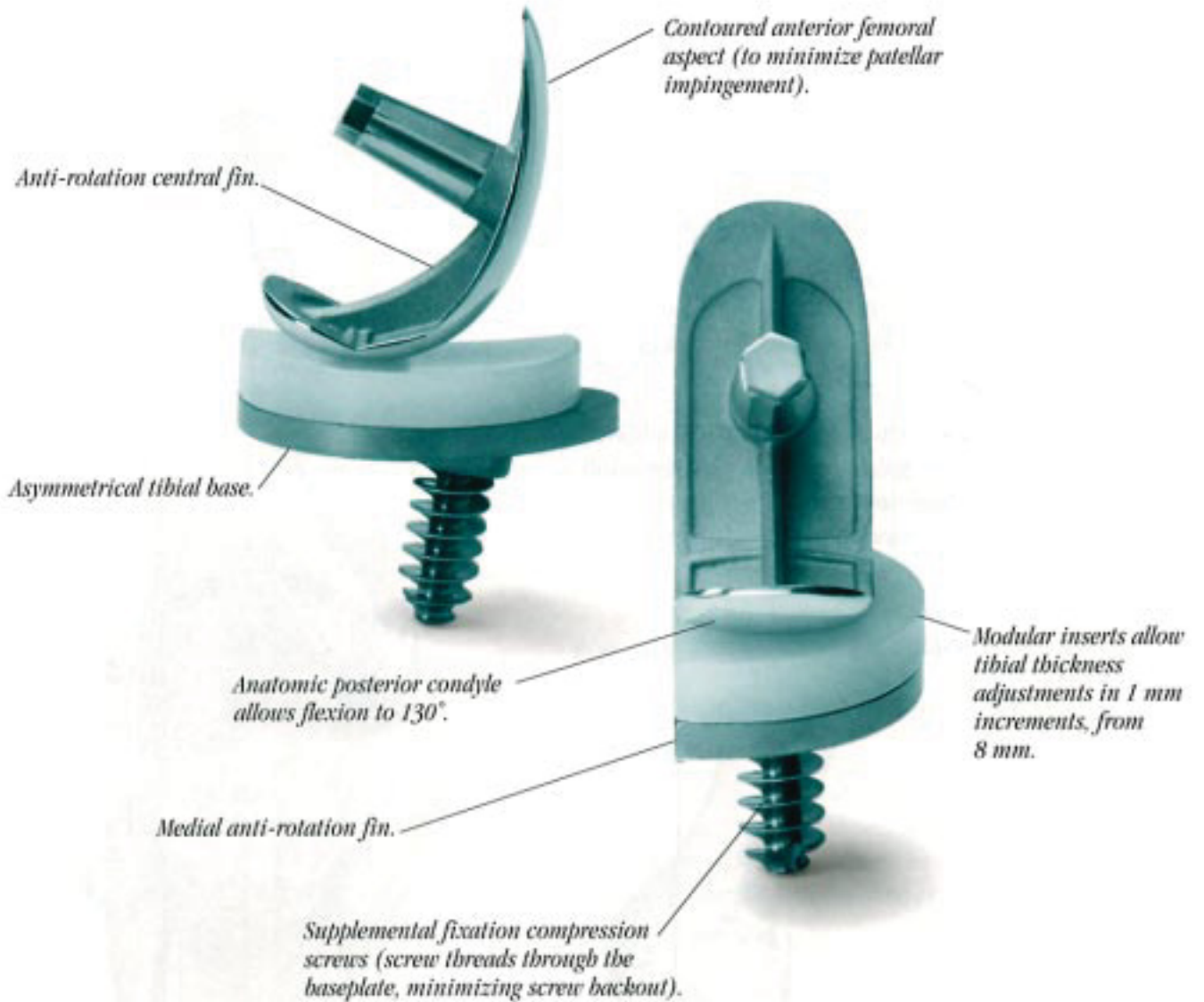
The tibial implants feature an aluminum oxide grit-blast surface with cement grooves, a medial fin, and tibial boss, which can accommodate various supplemental fixation options. Tibial component thickness options allow adjustments from 8 mm to 12 mm in 1 mm increments. **Minimum polyethylene thickness is 6 mm.** It is recommended that 8 mm tibial components be used with low activity patients and a 10 to 12 mm component be used for overweight patients. Although the tibial base is

asymmetric for optimal coverage, universal-shaped articular inserts allow insertion on the left or right and between two sizes of implant bases, minimizing inventory.

The resurfacing design of the cobalt chromium alloy (ASTM F75) femoral component involves minimal bone removal, preserving the hard subchondral bone for long-term fixation. A contoured femoral anterior aspect minimizes patellar impingement. Web-like structures have been strategically placed in the component to enhance cement fixation at the component/cement interface. Implant stability is further maximized with an anti-rotation fin and modular fixation peg. Overall, the femoral geometry and anatomic posterior condyle allow flexion to 130°.

The GENESIS Unicompartamental Knee System incorporates instrumentation and techniques which help preserve bone stock, accurately restore the joint line, and ensure precise, reproducible cuts. The instrumentation offers two distinct advantages to the surgeon – minimal bone resection and full trial capacity before drilling for the final implant. Also, a unique femoral reaming system makes the preparation for the GENESIS femoral component reproducible, eliminating the need for freehand preparation. Extramedullary tibial alignment instruments can also be crossed over from the GENESIS Total Knee System.

The surgical technique that follows has been developed as a guide for using the GENESIS Unicompartamental Knee System. It will also demonstrate that the GENESIS design combines superior fit with an effective, reproducible technique. It can be a most useful addition to your practice.



PREOPERATIVE REQUIREMENTS

As described by Philippe Cartier, M.D.

Preoperative X-Ray Calculation

A careful preoperative X-ray is necessary to obtain a precise idea of the defects and angular deviation.

Three types of X-rays are necessary:

- A full length anteroposterior radiograph of the lower limb made at 4 meters in full weight bearing to calculate the different anatomic and mechanical axis of the limb (*Figure 1*).
- Two knee A-P X-rays in varus and valgus views forced to calculate the thickness of the remaining cartilage. Generally, the magnification is at 15% (*Figure 2*).
- A weight bearing X-ray of the knee with a lateral view. In weight bearing and with the knee at full extension, determine the anterior tibial subluxation (*Figure 3*).

Preoperative templates are also helpful to evaluate the size of the implant needed for the particular patient.



Figure 1

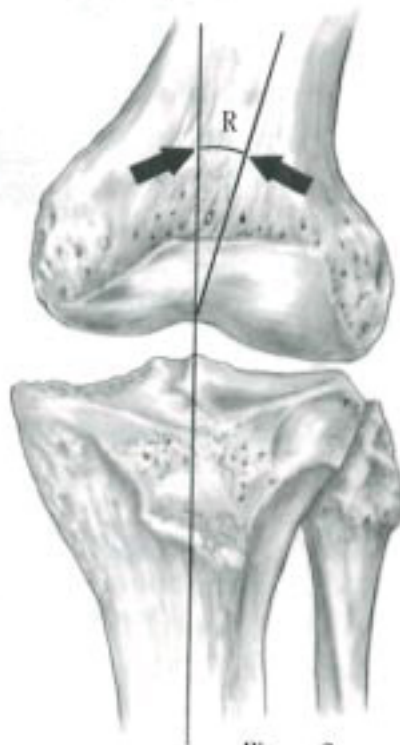
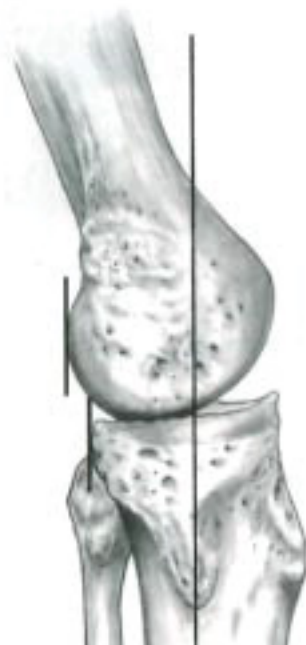


Figure 2



Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.