

5.1. Izblijantis pacientams, turintiems alergiją metalui

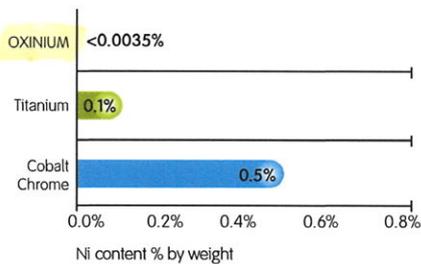
## Metal sensitivity

Just as metal ions are a well described problem for many hip replacement patients, cobalt, chromium and nickel are commonly cited allergens for knee replacement patients. In several cases, sensitivity to one or more of the allergens has resulted in revisions for these patients.<sup>4-7</sup>

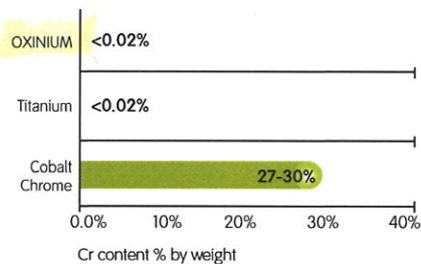
Surgeons should be aware that all metal implants contain varying amounts of cobalt, chromium, and nickel. When selecting the appropriate implant, surgeons should consider the composition of each implant before use. To help with this decision, VERILAST® Technology incorporates proprietary OXINIUM® alloy. Unlike cobalt chrome, OXINIUM alloy has <0.0035% nickel content and <0.02% chromium content.

### Metal content of implants<sup>9</sup>

Maximum nickel content

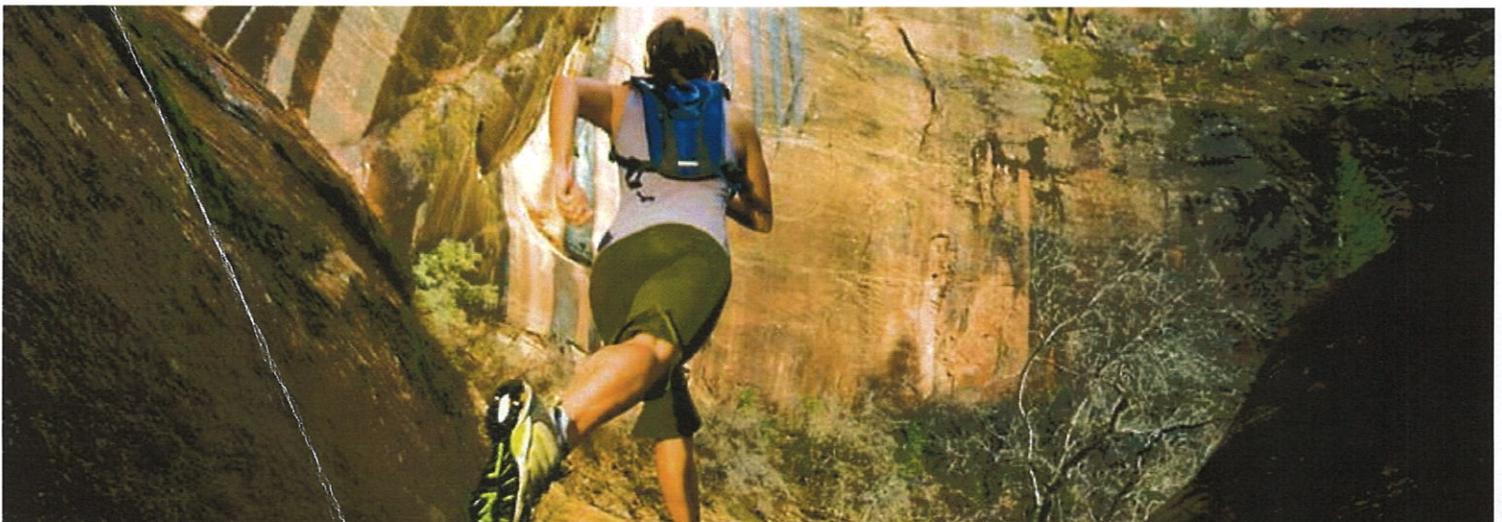
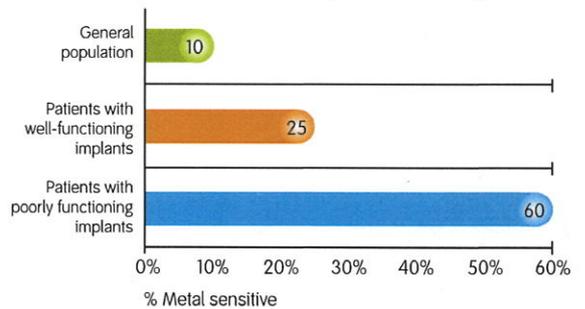


Maximum chromium content



### Clinical studies<sup>8</sup>

Prevalence of patients demonstrating metal sensitivity



# VERILAST<sup>®</sup> Technology

An advanced bearing system for TKA

## Introduction

Long-term success of total knee arthroplasty (TKA) is a multi-factorial issue. Implant design and materials selection play an important role in the wear-related performance of TKA. It is widely recognized that excessive wear of UHMWPE tibial inserts can result in mechanical implant instability and, in some instances, catastrophic wear. However, the more harmful effect occurs with time in vivo when UHMWPE tibial inserts, which wear at a steady rate, annually release billions of sub-micron particles into the host biological environment. The ultimate effect of this wear is osteolysis and attendant implant loosening, which is a major reason for revision surgery at middle to long-term follow-up.

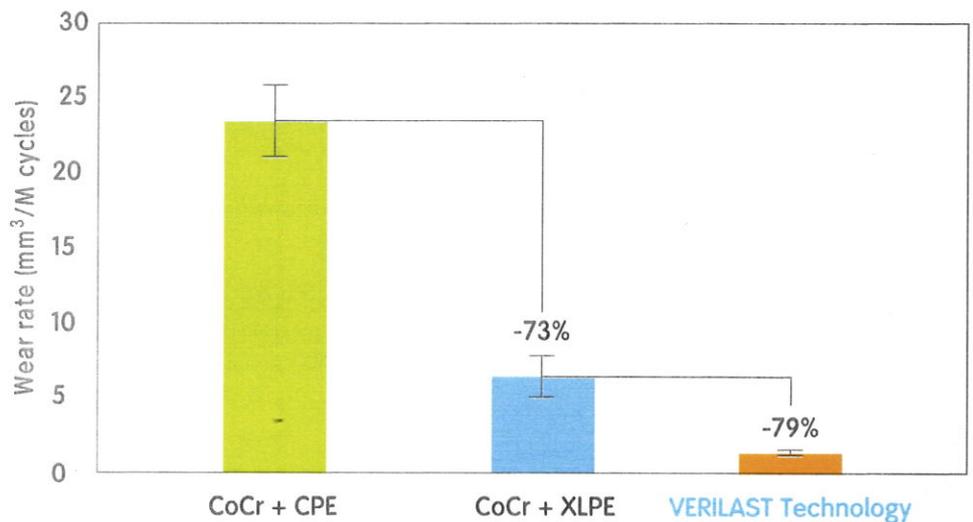


Figure 1: Knee simulator wear rates of virgin UHMWPE (CPE) and 7.5 Mrad XLPE against pristine CoCr and OXINIUM Oxidized Zirconium.

Wear of UHMWPE tibial inserts is a system-wide issue, i.e., it is influenced by the TKA system, which includes the UHMWPE tibial (and patellar) bearing surfaces and the metallic femoral component. Therefore, it stands to reason that the ideal solution to wear in TKA will include improvements to both the UHMWPE bearing materials and the metallic counter-bearing materials. This paper describes wear performance of the VERILAST Technology which features cross-linked UHMWPE (XLPE) tibial inserts mated to OXINIUM<sup>®</sup> Oxidized Zirconium femoral components.

5.1.2. Išaminkantys komponentas pagamintas iš cirkonio substrato medžiagos

5.1.12. Ypatybių medžiaga

### Cross-linked UHMWPE

Cross-linked UHMWPE exhibits improved wear properties compared to virgin UHMWPE. However, crosslinking also affects mechanical and fatigue properties of UHMWPE. Wear and material properties of UHMWPE are influenced by the choice of powder resin (GUR 1050 or GUR 1020), the consolidation method (ram extrusion or compression molding), the crosslink irradiation dose, and finally the post-irradiation thermal treatment (re-melt or sub-melt anneal)<sup>1</sup>. All of these factors need to be balanced for a particular bearing application. For instance, the choices that are ideal for total hip replacement (THA) are not necessarily optimal for TKA.

The Smith & Nephew XLPE for TKA is manufactured from compression-molded GUR 1020, gamma-irradiated to a dose of 7.5 Mrad, and subsequently re-melted. It has the following attributes:

- Passes all component level static and fatigue strength requirements<sup>2</sup>.
- Free radical concentration (FRC) is not detectable by state-of-the-art electron spin resonance techniques<sup>2</sup>.
- Resistant to oxidative degradation<sup>2</sup>.
- Resistant to delamination under worst-case testing regimen<sup>2</sup>.
- Provides up to 73% reduction in wear compared to unirradiated conventional UHMWPE (CPE), as shown in Figure 1, when tested against pristine CoCr femoral components<sup>3</sup>.
- When compared to CoCr/XLPE, VERILAST<sup>®</sup> Technology provides up to a 79% additional reduction in wear (Figure 1).

### OXINIUM Oxidized Zirconium

OXINIUM Oxidized Zirconium metallic femoral components feature a bearing surface that is transformed to ceramic, which is twice as hard as CoCr<sup>4</sup>. OXINIUM Oxidized Zirconium therefore has toughness and ductility of metals and wear properties of ceramics. The surface ceramic has lower frictional forces than CoCr against UHMWPE. Hence, OXINIUM Oxidized Zirconium reduces the wear rate of CPE and XLPE compared to CoCr<sup>3,5</sup>, as shown in Figure 1. Furthermore, it is well known that CoCr femoral components undergo microabrasive scratching in vivo, from the action of third body debris such as cement fragments, inorganic portions of bone, and other metal debris in the joint<sup>6,7</sup>. The wear rate of UHMWPE tibial inserts increase under these microabrasive conditions<sup>8</sup>. The harder surface of OXINIUM Oxidized Zirconium is more resistant than CoCr to microabrasive scratching<sup>5</sup>. Therefore OXINIUM Oxidized Zirconium maintains the improved wear behavior even under such microabrasive conditions<sup>3</sup>, as shown in Figure 2 for CPE. An additional benefit of OXINIUM Oxidized Zirconium is that it does not contain any measurable nickel and is therefore a good choice for nickel-sensitive patients. Approximately 200,000 OXINIUM Oxidized Zirconium knee femoral components have been implanted since 1997.

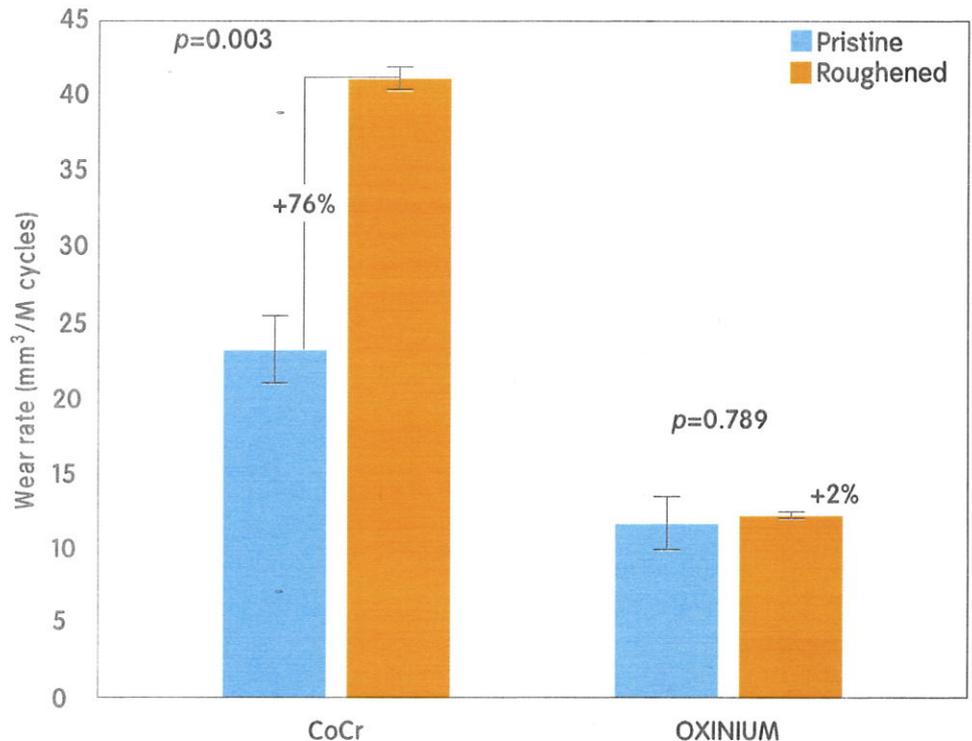


Figure 2: Knee simulator wear rates of virgin UHMWPE (CPE) against pristine and roughened CoCr and OXINIUM Oxidized Zirconium.

5.1.2. pagaminata is carbonio substrato medixiagos

# GENESIS° II Tibial Baseplates

5.1.9.

*Darbini polistuma  
asimetrine*

## Better tibial coverage

Asymmetric shape matches the anatomy of the tibia<sup>4</sup>, eliminating the need for undersizing, which can lead to posterior medial wear, or oversizing/baseplate overhang



## Modularity and backside wear reduction

No need to get locked in a (mono) block. Modular baseplates have proven locking mechanism with anterior and posterior dovetail to reduce micromotion; highly polished baseplate decreases backside wear

5.1.9.

*Darbini polistuma  
poliruota*

## Natural alignment

Medialized stem aligns with center of canal



Standard Baseplate

## MIS-Specific

For MIS procedures or difficult exposures, the MIS Baseplate allows for less soft tissue strain and works with CR and PS components



MIS Baseplate

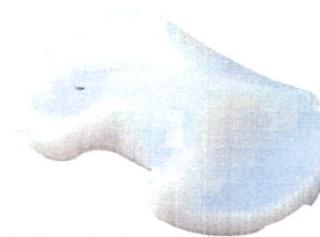
# GENESIS° II Tibial Inserts and Patellae

## Flexion up to 155°

PS High Flex and CR Deep Flex safely support flexion up to 155°

## Wear reduction

GENESIS II polyethylene is machine-compression-molded and sterilized using a non-degrading sterilization method to reduce the possibility of oxidation in vivo



CR Deep Flex Insert



PS High Flex Insert

## Extensive options

GENESIS II tibial insert options include CR, CR Deep Flex, PS, PS High Flex, and Dished for more A-P stability. Patellar implant choices include round and oval resurfacing and biconvex patellae



Oval Resurfacing Patella



Biconvex Patella



Round Resurfacing Patella

*5.1.3. Kujärminenin rypsiä  
buseena*

# The GENESIS<sup>®</sup> II Femoral Component

## Bone conserving

Posterior-stabilized component takes less bone than competitive systems<sup>1</sup>

## Decreased fiddle factor

GENESIS II takes the guesswork out of external rotation by balancing the flexion/extension space by using asymmetric posterior condyles. Added benefits are centralized patella tracking in deep flexion and femorotibial congruency throughout range of motion<sup>2</sup>



## Flexion friendly

Tightly radiused posterior condyles allow for deeper flexion without the risk of edge loading or excessive collateral ligament tension



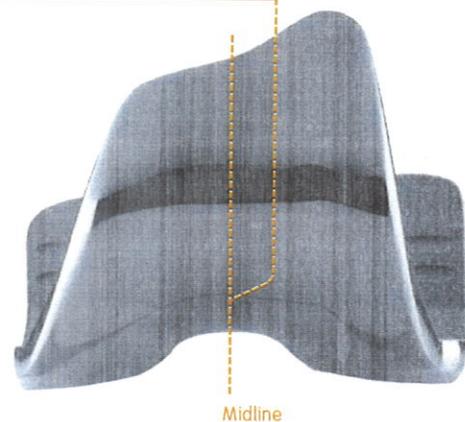
5.1.4. Anatomis "S" formis quoniam talas

## Better patella tracking

Lateralized trochlear groove with S-curve at base funnels patellar toward the midline for better patella tracking in deep flexion

## Wear reduction

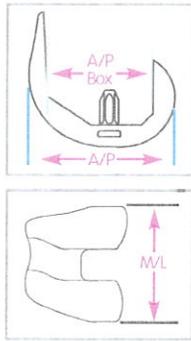
GENESIS II non-porous femoral components are available in OXINIUM<sup>®</sup> Oxidized Zirconium, the only advanced bearing for TKR. OXINIUM material has been shown to reduce wear up to 89% over CoCr<sup>3</sup> in lab testing



5

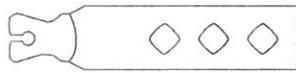
## Femoral Component Dimensions

	A/P	M/L	A/P Box
Size 1	47.0	55	30.5
Size 2	50.5	58	34.3
Size 3	54.5	58	38.1
Size 4	58.5	66	41.7
Size 5	62.0	70	45.0
Size 6	65.5	73	48.3
Size 7	69.5	77	50.3
Size 8	75.0	80	54.9
Size 9	80.0	85	57.7



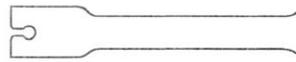
## Sawblade Thickness

Standard Sawblade (for standard blocks)



Cutting thickness and blade thickness should be 0.050" or 1.27 mm

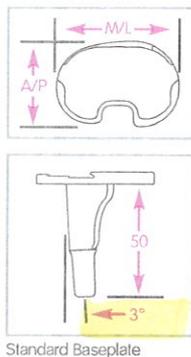
PROFIX<sup>®</sup> Sawblade (for MIS blocks)



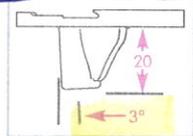
Cutting thickness and blade thickness should be 0.053" or 1.35 mm

## Tibial Tray Dimensions

	A/P	M/L
Size 1	42	60
Size 2	45	64
Size 3	48	68
Size 4	50	71
Size 5	52	74
Size 6	54	77
Size 7	56	81
Size 8	59	85



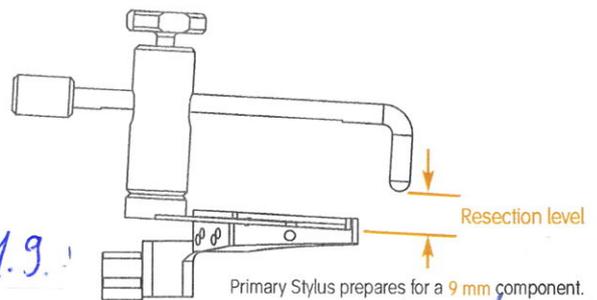
Standard Baseplate



MIS Baseplate

Note: Stem sloped 3° posteriorly. Stem length is 50 mm on all nonporous sizes and 25 mm on all porous sizes.

## Tibial Stylus Thickness

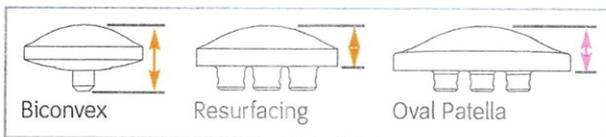


## Articular Insert Interchangeability

Cruciate Retaining inserts: Completely interchangeable with all size femoral components.

Posterior-Stabilized (PS), Dished (DD), Constrained (Con), High Flexion Posterior-Stabilized (HFPS) and Cruciate Retaining Deep Flex (CRDF): Limited interchangeability; chart applies.

## Patellar Dimensions



		Diameter				
		23	26	29	32	35
	Thickness					
Biconvex	13	●	●	●	●	●
Resurfacing	*9		●	●	●	●

Oval Patella Sizing Options					
Diameter	29 mm	32 mm	35 mm	38 mm	41 mm
Thickness	8.5 mm	9.0 mm	9.0 mm	9.5 mm	10 mm

\*13mm including peg height.

Insert Size	Femoral Size								
	1	2	3	4	5	6	7	8	9
1-2 PS, DD, Con	●	●	●						
1-2 HFPS, CRDF	●	●	●	●					
3-4 PS, DD, Con		●	●	●	●				
3-4 HFPS, CRDF		●	●	●	●	●			
5-6 PS, DD, Con				●	●	●	●		
5-6 HFPS, CRDF				●	●	●	●	●	
7-8 PS, DD, Con						●	●	●	
7-8 HFPS, CRDF						●	●	●	●

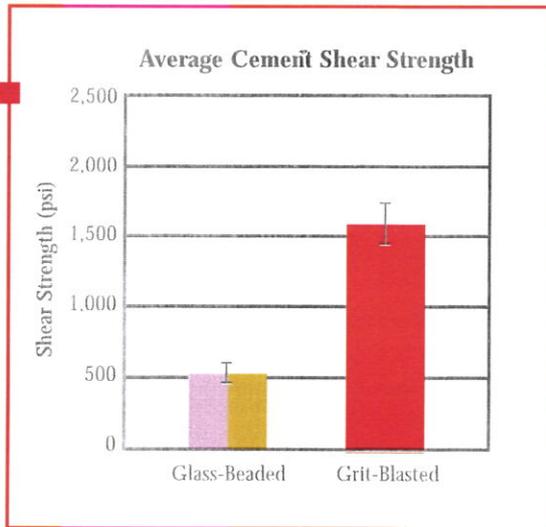
### Femoral Components

External rotation is built-in to the GENESIS II femoral component for ease of surgical implantation. This is accomplished by having different thickness posterior condyles. LDK, cruciate retaining, and posterior stabilized femoral components have asymmetric condyles that help improve femorotibial articulation. In cases where maximum stability is needed, the constrained femoral component is designed to articulate closely with the polyethylene post of the constrained insert. To facilitate this intimate articulation, the posterior condyles of the constrained femoral component are symmetric.

The deepened patellar groove of the GENESIS II femoral components allows for added patellofemoral contact area and greater subluxation resistance. This is accomplished without the need for a “canopy” on the anterior chamfer of the internal box. The GENESIS II femoral components were designed with varying anterior chamfer angles to minimize bone resection and maximize the deepened patellar groove. This kinematic benefit is obtained without additional preparation time or inconvenience.

**Figure 2**

Cement shear strength of varied surface finishes on cobalt chrome.



The femoral components of the GENESIS II Total Knee System incorporate varying fixation features to aggressively attach to the femur. All nonporous femoral components have a grit-blasted surface that has been shown to have significantly better cement attachment strength as compared to a satin finish (Figure 2).<sup>44</sup> Cruciate retaining and posterior stabilized porous

components utilize a coating of sintered beads that yield a uniform pore size for cement attachment.

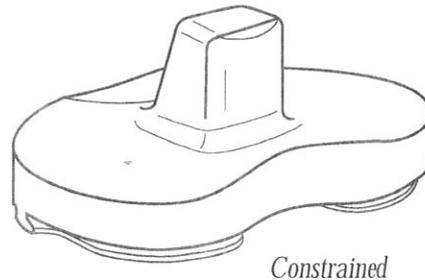
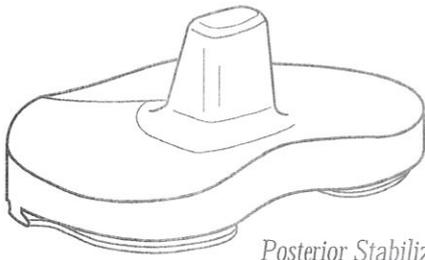
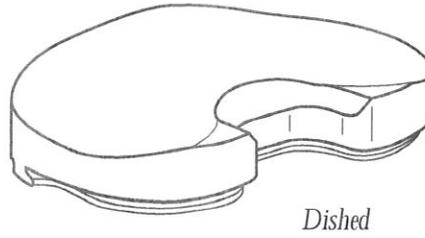
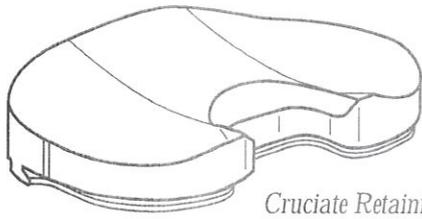
Mediolateral stability is gained by lugs, or an intercondylar housing on the posterior stabilized or constrained femoral components. Long-stems also assist in the fixation of the femoral component by filling the intramedullary canal and distributing some loads to the femoral diaphysis.

5.1 cementinis twistinimas

5.13.

क्रुशमिनी राईसिंग  
बुसेना  
CR or PS

DESIGN AND FIXATION



5.1.13  
अंतर्गत  
विषय

design features	fixation features
<ul style="list-style-type: none"><li>• UHMWPE</li><li>• 6.7 minimum polyethylene thickness</li><li>• One size insert fits two sizes of tibial baseplates</li><li>• Universal insert fits left or right baseplate</li><li>• Cruciate retaining: full interchangeability</li><li>• Dished, posterior stabilized, and constrained: one up-one down interchangeability</li></ul>	<ul style="list-style-type: none"><li>• Secure, anterior and posterior dovetail lock</li><li>• Peripheral lock to maximize PE thickness in load bearing areas</li></ul>

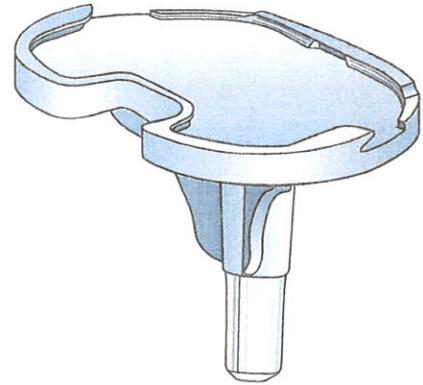
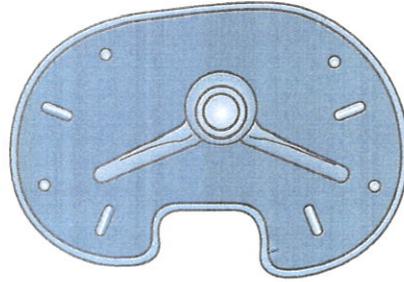
### Tibial Baseplates

The GENESIS II Total Knee System contains both all-polyethylene and metal-backed tibial baseplates. All GENESIS II tibial bases use an anatomical shape to completely cover the proximal tibia to provide more even stress distributions in the proximal tibia. To ensure good fixation with the bone, the distal surface of the all-polyethylene tibial bases has a dovetail groove cut into it to allow the cement to interdigitate with the plastic. This has been shown to provide better resistance to cement separation as compared to round or square groove designs.<sup>47,48</sup>

The stems on the GENESIS II tibial bases are anatomically positioned. First, the stem is proportionally medialized on the proximal tibia to align with the intramedullary canal.<sup>49,50</sup> Second, the stem and fins are sloped posteriorly at 3°. This allows the proximal tibia to be cut at a 3° posterior slope. Researchers have shown that cutting the proximal tibia at a posterior slope parallel to the natural anatomy provides stronger bone that may resist subsidence of the tibial baseplate.<sup>51,52</sup>

5.1.9. Tibialis plato m  
integroctu 3° laipusny  
wapa haliriu molydrin

# DESIGN AND FIXATION



5.1.9.

Poliiruota —

5.1.7.

Pääamintar is  
titano lydirio

5.1.9.

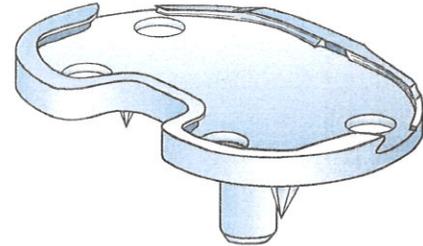
Gali mykbe  
naudoti prailqinty  
stieky ir pleistur

design features	fixation features
<ul style="list-style-type: none"> <li>• Polished proximal surface to aid in the prevention of wear debris</li> <li>• Medialized stem</li> <li>• Structural posterior fins for maximum polyethylene thickness</li> <li>• Stem sloped at 3° posteriorly</li> <li>• Built-in taper for attachment of long-stems</li> <li>• Titanium for enhanced fatigue strength</li> <li>• Accepts block and angled wedge augmentation</li> <li>• Accepts cruciate retaining, dished, posterior stabilized, and constrained articular inserts</li> <li>• 2.5 mm "thin" to allow for less tibial resection and thicker polyethylene</li> </ul>	<ul style="list-style-type: none"> <li>• Anatomically placed stem</li> <li>• Fins to aid with rotational stability</li> <li>• Peripheral lock of insert to tray</li> <li>• Bump and groove design provides mechanical interlock of cement and wedges</li> <li>• Grit-blasted surface</li> </ul>

DESIGN AND FIXATION

5.1.9.

*Blawie haultis  
componental revisions  
of oracifoms*



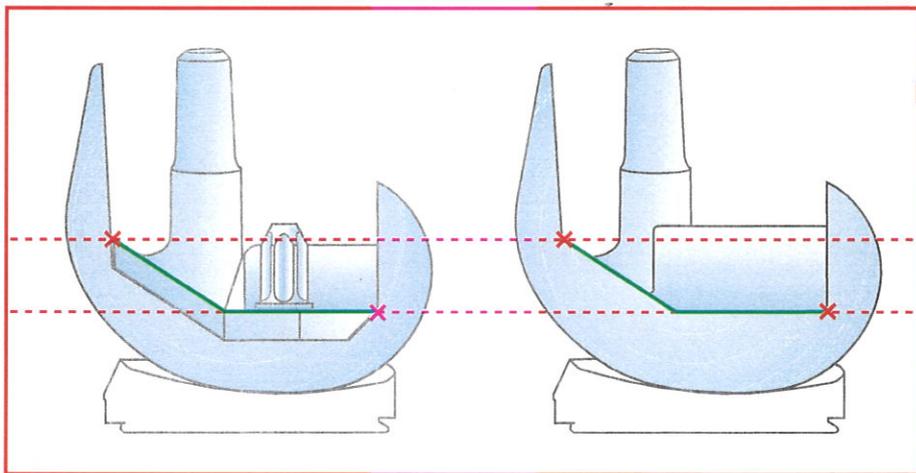
design features	fixation features
<ul style="list-style-type: none"> <li>• Structural anterior and posterior fins for maximum polyethylene thickness</li> <li>• Polished proximal surface to aid in the prevention of wear debris</li> <li>• Screw holes placed outside of articulating bearing track of femoral component</li> <li>• Medialized stem</li> <li>• Stem sloped at 3° posteriorly</li> <li>• Fins coated with sintered beads to prevent migration of debris</li> <li>• Titanium for enhanced fatigue strength</li> <li>• Built-in taper for attachment of long-stems</li> <li>• Accepts cruciate retaining, dished, posterior stabilized, and constrained articular inserts</li> </ul>	<ul style="list-style-type: none"> <li>• Accepts cruciate stems</li> <li>• Fins to aid with rotational stability</li> <li>• Cruciate spikes for added rotational stability</li> <li>• Four peripheral screw holes</li> <li>• Peripheral lock of insert to tray</li> <li>• Sintered beads</li> </ul>

*M*

### Femoral Conversion Module

The GENESIS II Total Knee System offers a variety of augmentation to assist the surgeon in dealing with femoral defects. A long-stem conversion module can be added to the cruciate retaining and posterior stabilized femoral components that adds 5 mm of distal augmentation. This module allows for the attachment of a variety of solid and slotted long-stems and is securely held in place by lugs which incorporate a Spirallock® thread form. Tests have shown that this special thread form evenly distributes the applied load thereby making it stronger for fatigue applications.<sup>60</sup>

In revision cases where long-stems are necessary, the conversion module adds 5 mm of distal augmentation reducing the need for additional wedges in many situations. This additional distal thickness is also built-in to the constrained femoral component. Therefore, the internal box geometries, and hence femoral cuts, are identical for a femoral with a long-stem conversion module and a constrained femoral implant (Figure 15). This leads to a simplified surgical technique and fewer instruments.

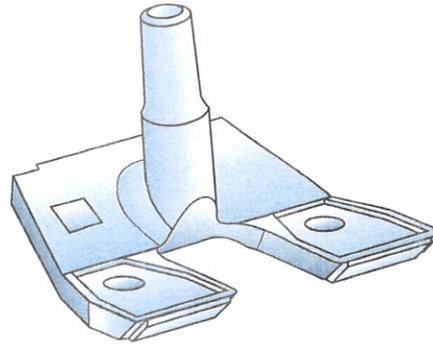


**Figure 15**

Femoral box cuts are identical for implants with a conversion module and the constrained femoral component.

5.1.4. Revisiine stamibaulio komponento versija

## DESIGN AND FIXATION



### design features

- Cobalt Chromium
- For use with cruciate retaining or posterior stabilized femoral components
- Allows for the attachment of universal long-stems
- Intercondylar areas polished for reduction of wear debris
- Edges polished to reduce soft tissue impingement
- Stem angled at 6°

### fixation features

- Attaches to femoral component with lugs
- Grit-blasted surface
- Built-in Morse-type taper securely locks long-stems

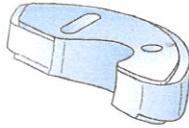
5.1.4.

Naizini  
slaukiaulio  
komponenta  
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prailgintu stiebu

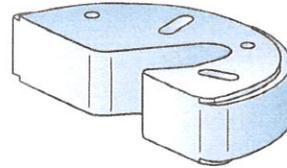
DESIGN AND FIXATION

5.1.9.

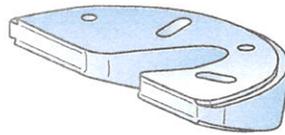
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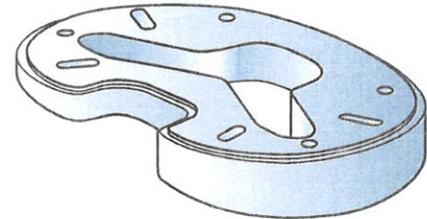
M/L Wedge



Stepped Hemi-Wedge



Angled Hemi-Wedge



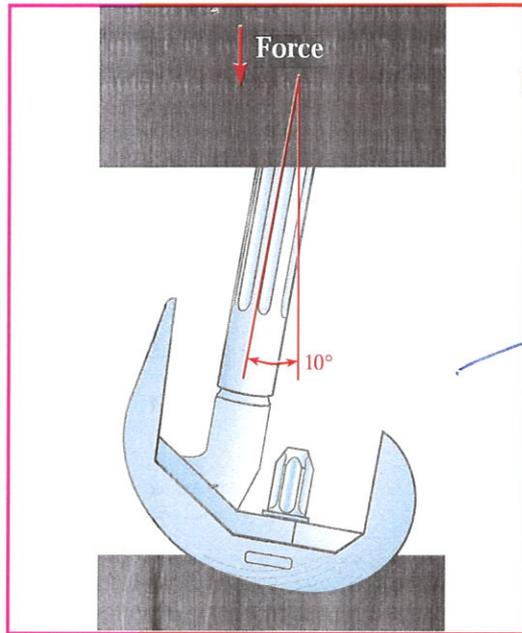
Full Plateau Wedge

design features	fixation features
<ul style="list-style-type: none"> <li>• Mates with two sizes, left and right</li> <li>• Titanium</li> <li>• Edges polished to reduce soft tissue impingement</li> </ul>	<ul style="list-style-type: none"> <li>• Cement</li> <li>• Ridge and groove mechanical interlock</li> <li>• Boss sticks into pocket on baseplate</li> <li>• Grit-blasted surface</li> </ul>

**Stems**

The Morse-type taper attachment used to connect the GENESIS II universal long-stems to the femoral and tibial components has proven clinical success in a wide variety of orthopaedic applications. This method of attachment has been used on the GENESIS system and numerous other knee systems with success for some years.

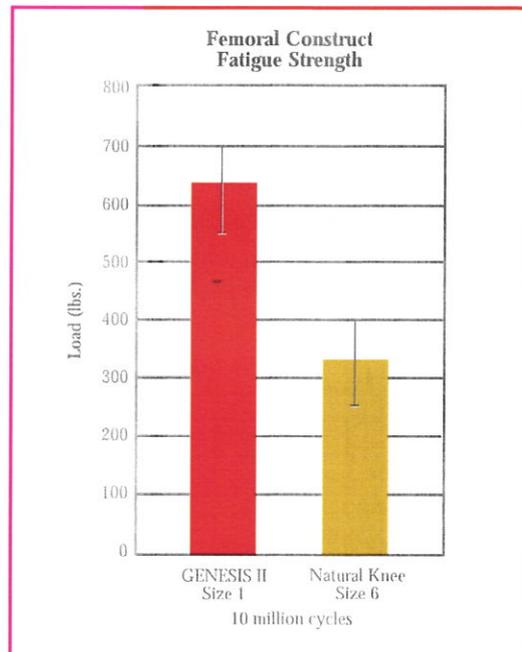
The integrity of the Morse-type taper attachments was tested on both femoral and tibial constructs. A Size 1 GENESIS II femoral component was assembled with a conversion module and 12 mm X 100 mm long-stem. To simulate a worst case scenario, the assembly was held solely by the proximal 1 inch of the long-stem as seen in (Figure 24). This construct was placed at 10° of flexion and loaded for 10 million cycles. This assembly withstood approximately 600 lbs. before failure (Figure 25). Upon failure of the construct, the Morse-type taper of the GENESIS II Total Knee System remained intact. Similarly, a Size 6 femoral component from the Natural Knee System® was tested in the same manner and withstood only approximately 300 lbs. before failure.<sup>30</sup>



**Figure 24**

Taper attachment strength was fatigue tested using a femoral construct.

*5.1.4.  
Kivisaine  
staamiluukko  
komponentto  
versija su  
prailgintu stiebu*



**Figure 25**

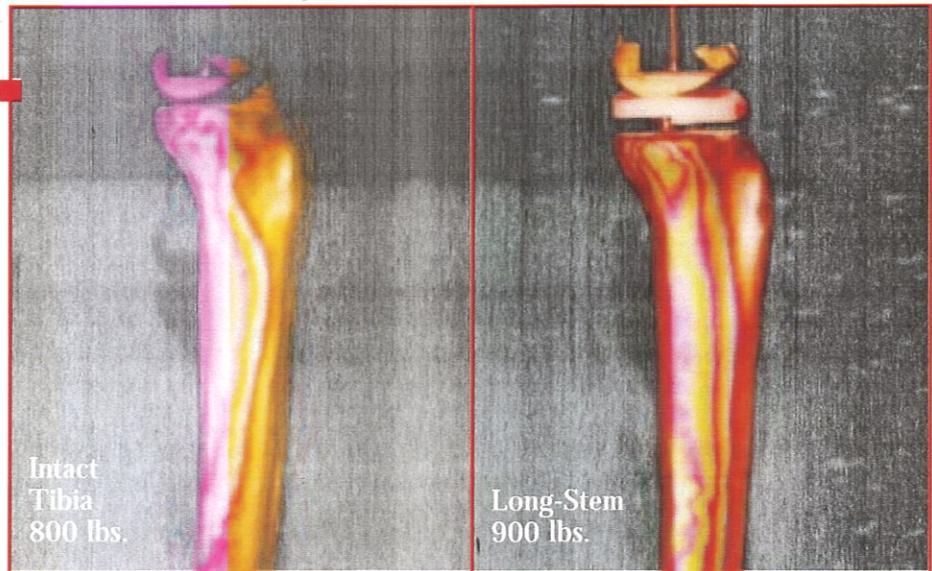
The GENESIS II femoral construct withstood over 600 lbs. of force over 10 million cycles before failure.

*15*

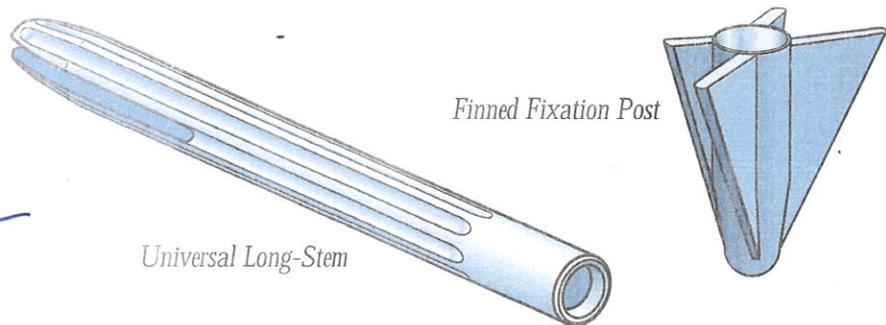
# DESIGN AND FIXATION

**Figure 30**

Photoelastic analysis was used to investigate the strain patterns in the tibia before and after implantation of solid and slotted long-stems.



rigidity of the stem becomes more compliant with the surrounding bone, which in turn may reduce possible incidence of tip pain. Clinical findings revealed that the use of slotted stems resulted in fewer tip pain complaints.<sup>62,63</sup> Photoelastic study of tibiae having slotted and solid stem constructs indicated that the surface strain of a tibia with a slotted stem was more anatomical than the surface strain of a tibia with a solid stem (Figure 30).<sup>64</sup>



5.1.4  
Prailqntar  
stibas  
revixiriam  
slawm hauririam  
komponentu  
5.1.9  
a slawrdihauririam  
komponentu

design features	fixation features
<ul style="list-style-type: none"> <li>• Mates femoral and tibial components</li> <li>• Attach via Morse-type taper</li> <li>• Slot for press-fit applications</li> <li>• Titanium</li> </ul>	<ul style="list-style-type: none"> <li>• Grooves on stem for torsional fixation</li> </ul>

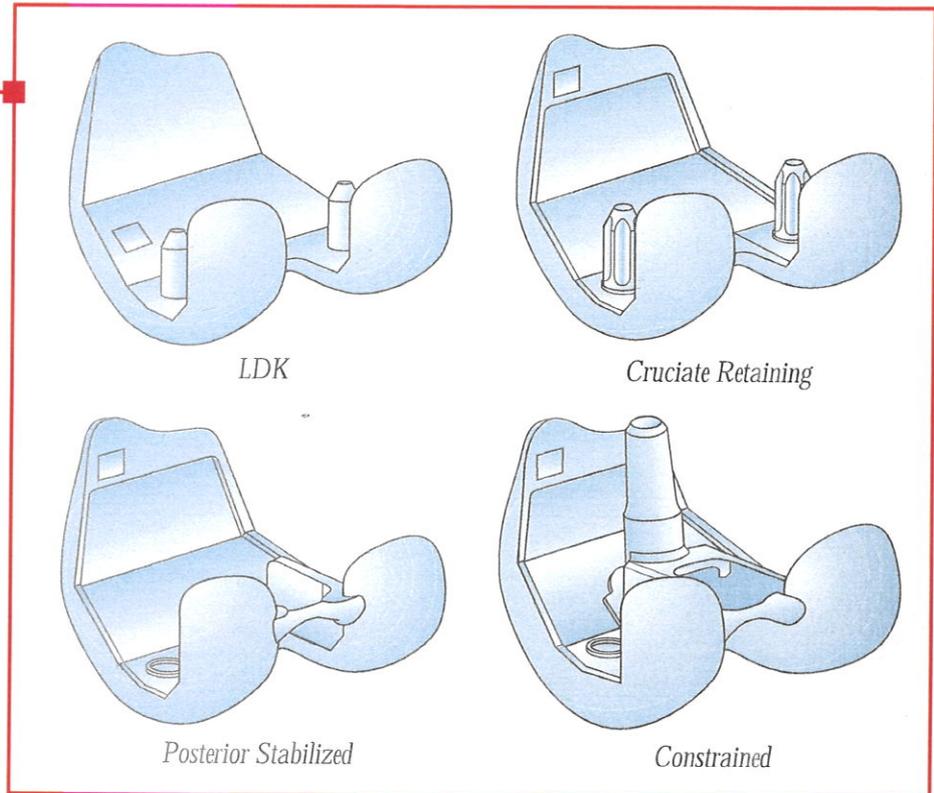
# VERSATILITY

## Femoral Components

The GENESIS II Total Knee System includes four femoral components with different levels of constraint. Left and right LDK, cruciate retaining (CR), posterior stabilized (PS), and constrained (GCS) femoral components exist to offer the surgeon intraoperative flexibility (Figure 5).

**Figure 5**

Varying levels of constraint are offered through the GENESIS II femoral components.



The porous and nonporous cruciate retaining femoral components are indicated for patients whose ligaments provide acceptable mediolateral, anteroposterior, and varus/valgus stability. For cases where bony defects are present, the cruciate retaining nonporous femoral component is designed to accept modular augmentation wedges in both the posterior and distal portions of the component.

The cruciate retaining femoral component is available in both left and right designs in eight sizes. As mentioned previously, the femoral component sizing strategy is based on the patient population bell curve. When used with the cruciate retaining articular insert, full interchangeability between femoral and tibial sizes is available.

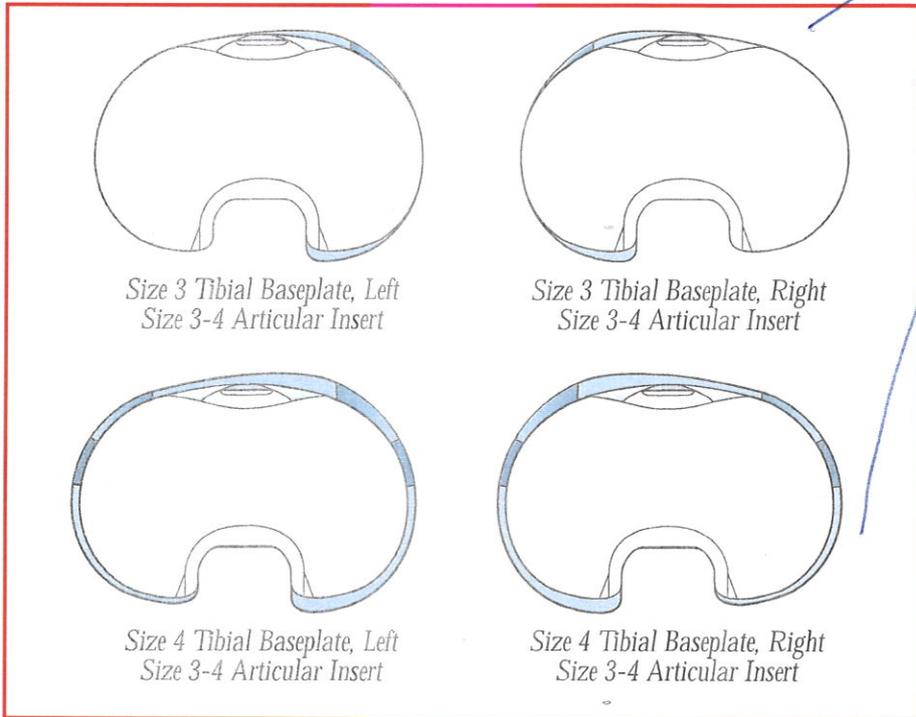
The porous and nonporous posterior stabilized femoral component is indicated for patients whose posterior cruciate ligament is deficient or the

5.1.4  
 shirtingo dydxio  
 klamileaulis or  
 blawdileaulis  
 komponentai  
 deriuami  
 tarqusawye

5.1.8. VERSATILITY

*Blauzdi kaulio platformos padėtis*

To address the issue of cost containment and surgical ease, all tibial inserts are designed to be universal so that one insert will fit two different tibial sizes, left and right (Figure 11). For example, a size 3-4 tibial insert will fit a



**Figure 11**  
The universal articular insert fits four different trays and is positioned toward the posterior to ensure proper polyethylene coverage in high degrees of flexion.

size 3 left, size 3 right, size 4 left, and size 4 right tibial baseplate. This dramatically reduces the number of tibial inserts and tibial insert trials which allows an increased offering of insert thicknesses to enhance patient fit (Figure 12).

**Articular Insert Thickness (mm)**

	9	11	13	15	18	21	25	30
CR	X	X	X	X	X			
D	X	X	X	X	X	X		
PS	X	X	X	X	X	X	X	
GCS		X	X	X	X	X	X	X
CR (All-Poly)	X	X	X	X				
PS (All-Poly)	X	X	X	X				

*Note: Minimum polyethylene thickness for a 9 mm metal-backed component is 6.7 mm thick under the condyles.*

**Figure 12**  
GENESIS II inserts are offered in a wide variety of thicknesses to address the patient's need.

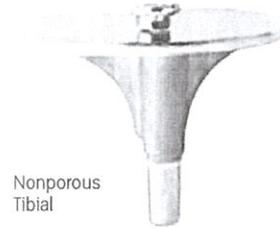
5.1.13  
*Intarų storai*

# Catalog Information

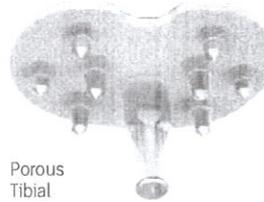
5.1.8.  
Blawzdi kaulio  
plata formos padetis

## Mobile Bearing Tibial Implants

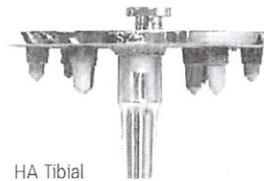
Left		Right	
Size	Cat. No.	Size	Cat. No.
Size 1	7154-9201	Size 1	7154-9101
Size 2	7154-9202	Size 2	7154-9102
Size 3	7154-9203	Size 3	7154-9103
Size 4	7154-9204	Size 4	7154-9104
Size 5	7154-9205	Size 5	7154-9105
Size 6	7154-9206	Size 6	7154-9106
Size 7	7154-9207	Size 7	7154-9107
Size 8	7154-9208	Size 8	7154-9108
Size 1	7154-0201	Size 1	7154-0101
Size 2	7154-0202	Size 2	7154-0102
Size 3	7154-0203	Size 3	7154-0103
Size 4	7154-0204	Size 4	7154-0104
Size 5	7154-0205	Size 5	7154-0105
Size 6	7154-0206	Size 6	7154-0106
Size 7	7154-0207	Size 7	7154-0107
Size 8	7154-0208	Size 8	7154-0108
Size 1	7154-4201	Size 1	7154-4101
Size 2	7154-4202	Size 2	7154-4102
Size 3	7154-4203	Size 3	7154-4103
Size 4	7154-4204	Size 4	7154-4104
Size 5	7154-4205	Size 5	7154-4105
Size 6	7154-4206	Size 6	7154-4106
Size 7	7154-4207	Size 7	7154-4107
Size 8	7154-4208	Size 8	7154-4108



Nonporous Tibial



Porous Tibial



HA Tibial

### Rotation Peg

Cat. No.  
7154-0405



5.1.2.

5.1.5:

Dysplasia

## Femoral Implants

LEGION® Cemented Femoral Components – CR

Size	CoCr		OXINIUM® Oxidized Zirconium	
	Left	Right	Left	Right
2	7142-3202	7142-3212	7142-1232	7142-1222
3N	7193-3640	7193-3644	7142-1243	7142-1253
3	7142-3203	7142-3213	7142-1233	7142-1223
4N	7193-3641	7193-3645	7142-1244	7142-1254
4	7142-3204	7142-3214	7142-1234	7142-1224
5N	7193-3642	7193-3646	7142-1245	7142-1255
5	7142-3205	7142-3215	7142-1235	7142-1225
6N	7193-3643	7193-3647	7142-1246	7142-1256
6	7142-3206	7142-3216	7142-1236	7142-1226
7	7142-3207	7142-3217	7142-1237	7142-1227
8	7142-3208	7142-3218	7142-1238	7142-1228

LEGION Cementless (CoCr) Femoral Components – CR

Size	Porous without HA coating		Porous with HA coating	
	Left	Right	Left	Right
2	7142-3242	7142-3252	7142-5202	7142-5212
3	7142-3243	7142-3253	7142-5203	7142-5213
4	7142-3244	7142-3254	7142-5204	7142-5214
5	7142-3245	7142-3255	7142-5205	7142-5215
6	7142-3246	7142-3256	7142-5206	7142-5216
7	7142-3247	7142-3257	7142-5207	7142-5217
8	7142-3248	7142-3258	7142-5208	7142-5218

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5.1.5.

Dysplasia

LEGION® Cemented Femoral Components – RK (Revision)

Size	CoCr		OXINIUM® Oxidized Zirconium	
	Left	Right	Left	Right
2	7142-5002*	7142-6002*	7142-1162	7142-1172
3	7142-5003	7142-6003	7142-1163	7142-1173
4	7142-5004	7142-6004	7142-1164	7142-1174
5	7142-5005	7142-6005	7142-1165	7142-1175
6	7142-5006	7142-6006	7142-1166	7142-1176
7	7142-5007	7142-6007	7142-1167	7142-1177
8	7142-5008	7142-6008	7142-1168	7142-1178

\*Non-standard, limited availability.

LEGION Cemented Femoral Components – PS

Size	CoCr		OXINIUM® Oxidized Zirconium	
	Left	Right	Left	Right
2	7142-3222	7142-3232	7142-1212	7142-1202
3N	7193-3648	7193-3652	7142-1263	7142-1273
3	7142-3223	7142-3233	7142-1213	7142-1203
4N	7193-3649	7193-3653	7142-1264	7142-1274
4	7142-3224	7142-3234	7142-1214	7142-1204
5N	7193-3650	7193-3654	7142-1265	7142-1275
5	7142-3225	7142-3235	7142-1215	7142-1205
6N	7193-3651	7193-3655	7142-1266	7142-1276
6	7142-3226	7142-3236	7142-1216	7142-1206
7	7142-3227	7142-3237	7142-1217	7142-1207
8	7142-3228	7142-3238	7142-1218	7142-1208

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## Inserts

### LEGION® (GENESIS® II) CR standard inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7142-0480	7142-0490	7142-0500	7142-0510
11mm	7142-0482	7142-0492	7142-0502	7142-0512
13mm	7142-0484	7142-0494	7142-0504	7142-0514
15mm	7142-0486	7142-0496	7142-0506	7142-0516
18mm	7142-0488	7142-0498	7142-0508	7142-0518

### LEGION (GENESIS II) CR Deep Dish Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7142-0754	7142-0766	7142-0778	7142-0790
11mm	7142-0756	7142-0768	7142-0780	7142-0792
13mm	7142-0758	7142-0770	7142-0782	7142-0794
15mm	7142-0760	7142-0772	7142-0784	7142-0796
18mm	7142-0762	7142-0774	7142-0786	7142-0798
21mm	7142-0764	7142-0776	7142-0788	7142-0800

### LEGION (GENESIS II) Cruciate Retaining High Flex (CRHF)

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7142-1531	7142-1536	7142-1542	7142-1547
11mm	7142-1532	7142-1537	7142-1543	7142-1548
13mm	7142-1533	7142-1538	7142-1544	7142-1549
15mm	7142-1534	7142-1539	7142-1545	7142-1551
18mm	7142-1535	7142-1541	7142-1546	7142-1552

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### LEGION® (GENESIS® II) PS Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7142-0802	7142-0816	7142-0830	7142-0844
11mm	7142-0804	7142-0818	7142-0832	7142-0846
13mm	7142-0806	7142-0820	7142-0834	7142-0848
15mm	7142-0808	7142-0822	7142-0836	7142-0850
18mm	7142-0810	7142-0824	7142-0838	7142-0852
21mm	7142-0812	7142-0826	7142-0840	7142-0854
25mm	7142-0814	7142-0828	7142-0842	7142-0856

### LEGION PS Constrained Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7142-0959	7142-0523	7142-0537	7142-0551
11mm	7142-0960	7142-0524	7142-0538	7142-0552
13mm	7142-0962	7142-0526	7142-0540	7142-0554
15mm	7142-0964	7142-0528	7142-0542	7142-0556
18mm	7142-0966	7142-0530	7142-0544	7142-0558
21mm	7142-0968	7142-0532	7142-0546	7142-0560
25mm	7142-0970	7142-0534	7142-0548	7142-0562
30mm	7142-0972*	7142-0536*	7142-0550*	7142-0564*

### LEGION (GENESIS II) PS High Flex Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7142-1501	7142-1508	7142-1515	7142-1522
11mm	7142-1502	7142-1509	7142-1516	7142-1523
13mm	7142-1503	7142-1510	7142-1517	7142-1524
15mm	7142-1504	7142-1511	7142-1518	7142-1525
18mm	7142-1505	7142-1512	7142-1519	7142-1526
21mm	7142-1506	7142-1513	7142-1520	7142-1527
25mm	7142-1507	7142-1514	7142-1521	7142-1528

### LEGION CR Deep Dish XLPE Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7145-3271	7145-3277	7145-3284	7145-3291
11mm	7145-3272	7145-3278	7145-3285	7145-3292
13mm	7145-3273	7145-3279	7145-3286	7145-3293
15mm	7145-3274	7145-3281	7145-3287	7145-3294
18mm	7145-3275	7145-3282	7145-3288	7145-3295
21mm	7145-3276	7145-3283	7145-3289	7145-3296

\*Non-standard, limited availability.

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5.1.13. Yutarpa dydžiai

21

# 5.1.13 Intarpo dydžiai

## Inserts (continued)

### LEGION® PS High Flex XLPE Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7145-3201	7145-3211	7145-3221	7145-3231
10mm	7145-3171	7145-3173	7145-3175	7145-3177
11mm	7145-3202	7145-3212	7145-3222	7145-3232
12mm	7145-3172	7145-3174	7145-3176	7145-3178
13mm	7145-3203	7145-3213	7145-3223	7145-3233
15mm	7145-3204	7145-3214	7145-3224	7145-3234
18mm	7145-3205	7145-3215	7145-3225	7145-3235
21mm	7145-3206	7145-3216	7145-3226	7145-3236
25mm	7145-3207	7145-3217	7145-3227	7145-3237

### LEGION PS XLPE Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7145-3241	7145-3246	7145-3252	7145-3257
11mm	7145-3242	7145-3247	7145-3253	7145-3258
13mm	7145-3243	7145-3248	7145-3254	7145-3259
15mm	7145-3244	7145-3249	7145-3255	7145-3261
18mm	7145-3245	7145-3251	7145-3256	7145-3262

### LEGION CR High Flex XLPE inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7145-3101	7145-3111	7145-3121	7145-3131
10mm	7145-3181	7145-3183	7145-3185	7145-3187
11mm	7145-3102	7145-3112	7145-3122	7145-3132
12mm	7145-3182	7145-3184	7145-3186	7145-3188
13mm	7145-3103	7145-3113	7145-3123	7145-3133
15mm	7145-3104	7145-3114	7145-3124	7145-3134
18mm	7145-3105	7145-3115	7145-3125	7145-3135

### LEGION CR XLPE Inserts

Thickness	Sizes 1-2 catalog item	Sizes 3-4 catalog item	Sizes 5-6 catalog item	Sizes 7-8 catalog item
9mm	7145-3141	7145-3146	7145-3152	7145-3157
11mm	7145-3142	7145-3147	7145-3153	7145-3158
13mm	7145-3143	7145-3148	7145-3154	7145-3159
15mm	7145-3144	7145-3149	7145-3155	7145-3161
18mm	7145-3145	7145-3151	7145-3156	7145-3162

## Patellas

### GENESIS® II Patella, Biconvex

Catalog item	Size
7142-0566	23mm
7142-0568	26mm
7142-0570	29mm
7142-0572	32mm

### GENESIS II Patella, Resurfacing

Catalog item	Size
7142-0574	29mm
7142-0576	32mm
7142-0578	35mm
7142-0580	26mm

### GENESIS II Patella, Oval Resurfacing

Catalog item	Size
7142-1029	29mm
7142-1032	32mm
7142-1035	35mm
7142-1038	38mm
7142-1041	41mm

### GENESIS II 7.5MM Patella, Resurfacing\*

Catalog item	Size
7193-2634	26mm
7193-2635	29mm
7193-2636	32mm
7193-2637	35mm

\*Only available in US and Israel

## Femoral Wedges

### LEGION® RK Distal Femoral Wedge

Catalog item	Description	Catalog item	Description
7142-1654	Sizes 2-8, 5mm	7142-1656	Sizes 2-8, 15mm
7142-1657			
7142-1661			
7142-1664			
7142-1667			
7142-1671			
7142-1674			
7142-1655	Sizes 2-8, 10mm	7142-1656	Sizes 2-8, 15mm
7142-1658			
7142-1662			
7142-1665			
7142-1668			
7142-1672			
7142-1675			

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## Femoral Wedges (continued)

### LEGION® RK L-Wedge

Catalog item	Description	Catalog item	Description	Catalog item	Description
7142-1711	Sizes 2-8, 5mm Distal x 5mm Posterior	7142-1713	Sizes 2-8, 10mm Distal x 5mm Posterior	7142-1715	Sizes 2-8, 15mm Distal x 5mm Posterior
7142-1721					
7142-1731					
7142-1741					
7142-1751					
7142-1761					
7142-1771					
7142-1722	Sizes 3-8, 5mm Distal x 10mm Posterior	7142-1724	Sizes 3-8, 10mm Distal x 10mm Posterior	7142-1726	Sizes 3-8, 15mm Distal x 10mm Posterior
7142-1732					
7142-1742					
7142-1752					
7142-1762					
7142-1772					
7142-1772					

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### LEGION® RK Posterior Femoral Wedge

Catalog item	Size	Length
7142-1801	Sizes 1-2	5mm
7142-1802	Sizes 1-2	10mm
7142-1803	Sizes 3-4	5mm
7142-1804	Sizes 3-4	10mm
7142-1805	Sizes 5-6	5mm
7142-1806	Sizes 5-6	10mm
7142-1807	Sizes 7-8	5mm
7142-1808	Sizes 7-8	10mm

### LEGION Screws

Catalog item	Description
7142-1698	5Mm Distal Wedge Screw
7142-1699	10Mm Distal Wedge Screw
7142-1670	15Mm Distal Wedge Screw
7142-1827	5Mm Posterior Wedge Screw
7142-1828	10Mm Posterior Wedge Screw
7142-4228	Locking Set Screw

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## Tibial Baseplates

5.1.10 Blauzdi kaulio komponento dydžiai

### LEGION® Cemented Tibial Baseplate – Male tapered

Size	Left catalog item	Right catalog item
1	7142-0160	7142-0176
2	7142-0162	7142-0180
3	7142-0164	7142-0182
4	7142-0166	7142-0184
5	7142-0168	7142-0186
6	7142-0170	7142-0188
7	7142-0172	7142-0190
8	7142-0174	7142-0191

### LEGION RK Cemented Tibial Baseplate – Female tapered

1	7142-4001*	7142-4011*
2	7142-4002	7142-4012
3	7142-4003	7142-4013
4	7142-4004	7142-4014
5	7142-4005	7142-4015
6	7142-4006	7142-4016
7	7142-4007	7142-4017
8	7142-4008	7142-4018

\*Not in standard set, limited availability.

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## Tibial Wedges

### LEGION® RK 5mm Hemi-Stepped Tibial Wedge

Catalog item	Description	Catalog item	Description
7142-1141	Sizes 1-2, 3-4, 5-6, 7-8	7142-1145	Sizes 1-2, 3-4, 5-6, 7-8
7142-1142	Left-Medial/Right-Lateral	7142-1146	Left-Lateral/Right-Medial
7142-1143		7142-1147	
7142-1144		7142-1148	

### LEGION RK Full-Stepped Tibial Wedge

Catalog item	Description	Catalog item	Description
7142-3057	Sizes 1-2, 3-4, 5-6, 7-8	7142-3061	Sizes 1-2, 3-4, 5-6, 7-8
7142-3058	10mm	7142-3062	15mm
7142-3059		7142-3063	
7142-3060		7142-3064	

### LEGION RK 10mm Hemi-Stepped Tibial Wedge

Catalog item	Description	Catalog item	Description
7142-3033	Sizes 1-2, 3-4, 5-6, 7-8	7142-3037	Sizes 1-2, 3-4, 5-6, 7-8
7142-3034	Left-Medial/Right-Lateral	7142-3038	Left-Lateral/Right-Medial
7142-3035		7142-3039	
7142-3036		7142-3040	

### LEGION RK Screws

Catalog item	Description
7142-3097	Tibial Wedge Screw

### LEGION RK 15mm Hemi-Stepped Tibial Wedge

Catalog item	Description	Catalog item	Description
7142-3041	Sizes 1-2, 3-4, 5-6, 7-8	7142-3045	Sizes 1-2, 3-4, 5-6, 7-8
7142-3042	Left-Medial/Right-Lateral	7142-3046	Left-Lateral/Right-Medial
7142-3043		7142-3047	
7142-3044		7142-3048	

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# Stems

## LEGION® Press-Fit Stems

Stem Diameter	120mm Catalog item	160mm Catalog item	220mm Straight Catalog item	220mm Bowed Catalog item**	280mm Bowed Catalog item**
9mm	7142-4022*	7142-4042*	N/A	N/A	N/A
10mm	7142-4023	7142-4043	7142-4063	7142-4083	7142-4103
11mm	7142-4024	7142-4044	7142-4064*	7142-4084	7142-4104
12mm	7142-4025	7142-4045	7142-4065	7142-4085	7142-4105
13mm	7142-4026	7142-4046	7142-4066*	7142-4086	7142-4106
14mm	7142-4027	7142-4047	7142-4067	7142-4087	7142-4107
15mm	7142-4028	7142-4048	7142-4068*	7142-4088	7142-4108
16mm	7142-4029	7142-4049	7142-4069	7142-4089	7142-4109
18mm	7142-4031	7142-4051	7142-4071	7142-4091	7142-4111
20mm	7142-4033	7142-4053	7142-4073	7142-4093	7142-4113
22mm	7142-4035*	7142-4055	7142-4075*	7142-4095	7142-4115
24mm	7142-4037*	7142-4057*	7142-4077*	7142-4097	7142-4117

\* Not in standard set, limited availability

\*\* Not in standard set, limited availability and may vary by country or territory.

## LEGION Cemented Stems

Stem diameter	120mm Catalog item	160mm Catalog item
10mm	7142-4182	7142-4202
12mm	7142-4184	7142-4204
14mm	7142-4186	7142-4206
16mm	7142-4188	7142-4208
18mm	7142-4190	7142-4210
20mm	7142-4192	7142-4212

## GENESIS® II Stems

Stem diameter	Catalog item – 100mm	Catalog item – 150mm
10mm	7142-0628	7142-0647
12mm	7142-0630	7142-0649
14mm	7142-0632	7142-0648
16mm	7142-0634	7142-0650
18mm	7142-0636	
20mm	7142-0638	
22mm	7142-0640	
24mm	7142-0642	

## GENESIS II REVISION Press-Fit Stem

Stem diameter	Catalog item – 100mm	Catalog item – 150mm
10mm	7142-1310	7142-1318
12mm	7142-1312	7142-1320
14mm	7142-1314	7142-1322
16mm	7142-1316	7142-1324

## GENESIS II Tibia Offset Couplers

Catalog item	Description
7142-2002	GENESIS II 2mm Tib offset coupler
7142-2004	GENESIS II 4mm Tib offset coupler

## LEGION® Stem Extensions and Offset Couplers

Catalog item	Description
7142-4163	Short Stem Extension 12 x 80
7142-4221*	Offset Coupler Angled
7142-4223	Offset Coupler + 2mm
7142-4225	Offset Coupler + 4mm
7142-4227	Offset Coupler + 6mm

## Impactor Sleeves for the Offset Couplers and Cemented Stems\*

Catalog item	Description
7143-4270	Size 9-12
7143-4271	Size 13-18 (Offset Coupler)
7143-4272	Size 20-24

\*Use only on Cemented Stems & Offset Couplers, single use

## LEGION Male-To-Male Couplers\*

Catalog item	Description
7193-3693	LEGION Male-to-Male Mini Coupler 2mm
7193-3694	LEGION Male-to-Male Mini Coupler 4mm
7193-3695	LEGION Male-to-Male Mini Coupler 6mm
7193-3696	LEGION Male-to-Male Mini Coupler Trial 2mm
7193-3697	LEGION Male-to-Male Mini Coupler Trial 4mm
7193-3698	LEGION Male-to-Male Mini Coupler Trial 6mm
7193-K178	LEGION Male-to-Male Mini Coupler Set (includes implants and trials)

\*Not in standard set, limited availability and may vary by country or territory.

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