

**ZIMMER[®]
NEXGEN
CRUCIATE
RETAINING
(CR) AND
LEGACY KNEE
POSTERIOR
STABILIZED (LPS)
TRABECULAR
METAL
MONOBLOCK
TIBIAS**

Surgical
Technique
Addendum

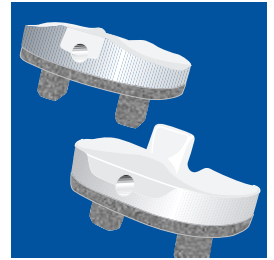


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Confidence in your hands™

SURGICAL TECHNIQUE FOR NEXGEN CRUCIATE RETAINING (CR) AND LEGACY KNEE POSTERIOR STABILIZED (LPS) TRABECULAR METAL™ MONOBLOCK TIBIAS

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INTRODUCTION

The *NexGen*® Complete Knee Solution CR and *Legacy*® Knee Posterior Stabilized (LPS) Monoblock Tibias combine the CR or LPS articular surface geometry with a *Trabecular Metal*™ base plate. This is accomplished by machining the *NexGen* CR or LPS articular surface geometry into polyethylene, which has been compression-molded directly into a *Trabecular Metal* base plate that has a *NexGen* tibial plate profile. The two hex-shaped *Trabecular Metal* pegs can be press fit into the tibia.

The following technique is an addendum to any of the *NexGen* Instrument System Surgical Techniques. These include:

- *Multi-Reference*® 4-in-1 Femoral Instrumentation System
- *MICRO-MILL*® Instrumentation System - Milling or 5-in-1 Saw Blade Option
- Intramedullary Instrumentation System
- Epicondylar Instrumentation System



RESECT THE TIBIA

Using any of the *NexGen* instrumentation systems listed and following the appropriate technique, establish the tibial cutting platform and resect the proximal tibia.

Then, proceed with the following steps to finish the tibia for implanting the *NexGen* CR or LPS *Trabecular Metal* Monoblock Tibia.

FINISH THE TIBIA

Select the appropriate size (3-8) Provisional/Sizing Plate that provides the desired tibial coverage (Fig. 1). If more or less tibial coverage is desired, or if tibial plate size 1, 2, 9, or 10 is selected, you must proceed by using the standard modular *NexGen* CR or LPS tibial plate and corresponding articular surface. The *Trabecular Metal* Monoblock Tibia is only offered in sizes 3-8.

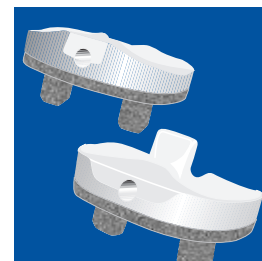


Fig. 1



The tibia can be finished prior to the trial reduction if the implant position will be chosen based on anatomic landmarks (Fig. 2).

Alternatively, the Sizing Plate and provisionals can be used to perform a trial range of motion to aid in tibial position.

Note: Since the Monoblock Tibia is only offered in 10, 12, 14, and 17mm thicknesses, it is strongly suggested that a trial range of motion be performed prior to drilling the peg holes. If greater thickness is required, the standard modular *NexGen* CR or LPS System must be utilized.

After the Sizing Plate position has been chosen, secure the plate with Short-head Holding Pins (Fig. 3).



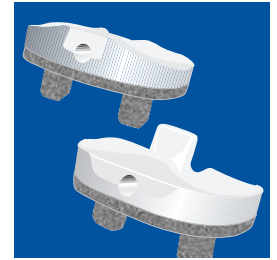
Fig. 2



Fig. 3

Once the Sizing Plate is pinned in position, insert either the CR or LPS articular surface provisional.

Note: Refer to the CR and LPS interchangeability charts below to confirm correct component matching.



NEXGEN CR/CRA TRABECULAR METAL MONOBLOCK TIBIA COLOR KEY

		FEMORAL SIZE					
		C	D	E	F	G	H
M/L (mm)		63	68	72	77	81	85
A/P (mm)		53.5	57.5	61.5	65.5	70.5	76
A/P Box (mm)		40	44	49	53	57	62
Bearing Spacing (mm)		44	44	44	44	44	44
TIBIAL SIZE	3-4	Y	Y	Y	Y	Y	Y
	5-6	G	G	G	G	G	G
	7-8	B	B	B	B	B	B
PRIMARY POROUS PATELLA STANDARD SIZE		32mm 5878-65-32* 35mm 5878-65-35 38mm 5878-65-38 41mm 5878-65-41					

COLOR KEY

Y=Yellow
G=Green
B=Blue

* 32mm Patella not for use with G & H Femoral Components.

NEXGEN LPS TRABECULAR METAL MONOBLOCK TIBIA COLOR KEY

		FEMORAL SIZE					
		C	D	E	F	G	H
M/L (mm)		60	64	68	72	76.5	81
A/P (mm)		53.5	57.5	61.5	65.5	70.5	76
A/P Box (mm)		40	44	49	53	57	62
Bearing Spacing (mm)		42	42	44	44	48	48
TIBIAL SIZE	3-4	Y	Y	SY ^{EF}	SY ^{EF}		
	5-6			G	G		
	7-8					B	B
PRIMARY POROUS PATELLA STANDARD SIZE		32mm 5878-65-32* 35mm 5878-65-35 38mm 5878-65-38 41mm 5878-65-41					

COLOR KEY

Y=Yellow
G=Green
B=Blue
SY=Striped Yellow

* 32mm Patella not for use with G & H Femoral Components.

Note: When using the color coding scheme, match a solid color with a solid color; match a striped color with a striped color. Do not match a solid with a striped color. For example, it is not appropriate to match a solid color yellow with a striped yellow.



With the Sizing Plate still pinned in position, place the Drill Guide (10.7mm) into the holes of the Sizing Plate and insert the 10.7mm Drill with Stop until it bottoms out on the Drill Guide (Fig. 4).

Note: The holes should be drilled in straight. Because the Drill Guide has a slight taper where it engages with the Sizing Plate, applying a small axial force will help ensure that the Drill Guide is oriented correctly. Angulation of the holes may prevent the Monoblock Tibia from seating properly.

Re-insert all provisionals (Figs. 5 and 6) and check the range of motion and joint stability. Perform any necessary soft tissue releases. After the trial reduction is complete, remove all provisionals.

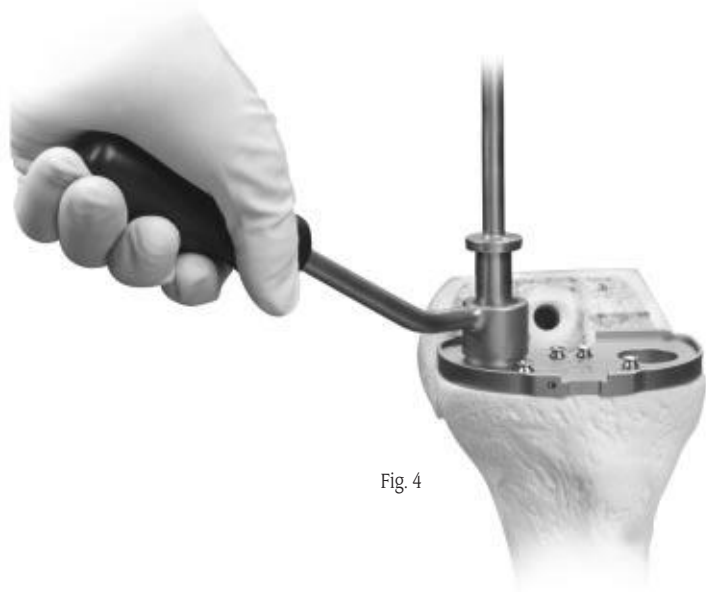


Fig. 4



Fig. 5 - CR Provisionals



Fig. 6 - LPS Provisionals

COMPONENT IMPLANTATION

After the implants have been chosen, check to ensure that the femoral and Monoblock Tibial components match. There should be a two-of-a-kind size/color match. If there is, the components are matched.

If using the **CR Monoblock Tibia**, it should be implanted first, prior to the femoral component for better exposure.

If using the **LPS Monoblock Tibia**, the LPS Femoral Component should be implanted first. This minimizes potential interference between the femoral cam and tibial eminence during insertion. After the LPS Femoral Component is fully seated, assemble the LPS Monoblock Tibia to the Monoblock Tibial Impactor.

To assemble the Monoblock Tibial Impactor to either the CR or LPS Monoblock Tibia, slide the pin into the hole on the anterior surface of the Monoblock Tibia (Fig. 7), then pivot the impactor until it slides onto the articular surface and snaps into place (Fig. 8).

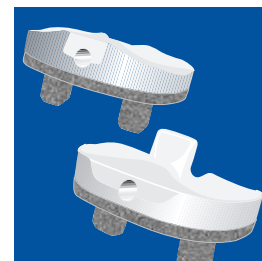


Fig. 7



Fig. 8



Assure that the resected bone surface is flat and free of bone fragments. Place bone cement onto the resected bone.

The Monoblock Tibial Component may be implanted with or without bone cement.

If bone cement is used, the cement should be applied directly to the underside of the Monoblock Tibial Component, the Cement Masks may also be used to mask the *Trabecular Metal* pegs directly from the cement (Fig. 10).

Note: The optional Tibial Peg Cement Masks can be placed in the drilled holes to prevent cement from entering (Fig 9).

The Monoblock Tibial Component is inserted with the knee fully flexed and the tibial advanced forward.

***Note:** The patient's bone stock must be of sufficient density and quality to support a cementless, press-fit Monoblock Tibial Component. If the bone stock is of insufficient quality and may not be capable of supporting the component, the Monoblock Tibial component must be cemented in place.



Fig. 9



Fig. 10

Align axially the two hex-shaped *Trabecular Metal* pegs with the prepared holes in the proximal tibia and impact (Fig. 11). The Monoblock Tibial Component should sit flush with the preparation. If bone cement is used, excess bone cement should be removed from the periphery of the base plate. Assure that no bone cement is on the articular surface.

The *NexGen* CR Femoral Component can now be inserted. Flex the knee to approximately 90° of flexion and impact the femoral component into place.

Caution: Flexing the knee past 90° could result in the posterior femoral condyles impinging on the posterior aspect of the CR Monoblock Tibial Component.



Fig. 11

NEXGEN CR TRABECULAR METAL (TM)

MONOBLOCK IMPLANTS

Cat. No.	Description
5886-04	TM Monoblock CR Implant Kit (includes one each of the items listed below:)
5886-43-10	TM Monoblock CR Tibia, Yellow, Size 3 C-H, 10mm
5886-43-12	TM Monoblock CR Tibia, Yellow, Size 3 C-H, 12mm
5886-43-14	TM Monoblock CR Tibia, Yellow, Size 3 C-H, 14mm
5886-43-17	TM Monoblock CR Tibia, Yellow, Size 3 C-H, 17mm
5886-44-10	TM Monoblock CR Tibia, Yellow, Size 4 C-H, 10mm
5886-44-12	TM Monoblock CR Tibia, Yellow, Size 4 C-H, 12mm
5886-44-14	TM Monoblock CR Tibia, Yellow, Size 4 C-H, 14mm
5886-44-17	TM Monoblock CR Tibia, Yellow, Size 4 C-H, 17mm
5886-45-10	TM Monoblock CR Tibia, Green, Size 5 C-H, 10mm
5886-45-12	TM Monoblock CR Tibia, Green, Size 5 C-H, 12mm
5886-45-14	TM Monoblock CR Tibia, Green, Size 5 C-H, 14mm
5886-45-17	TM Monoblock CR Tibia, Green, Size 5 C-H, 17mm
5886-46-10	TM Monoblock CR Tibia, Green, Size 6 C-H, 10mm
5886-46-12	TM Monoblock CR Tibia, Green, Size 6 C-H, 12mm
5886-46-14	TM Monoblock CR Tibia, Green, Size 6 C-H, 14mm
5886-46-17	TM Monoblock CR Tibia, Green, Size 6 C-H, 17mm
5886-47-10	TM Monoblock CR Tibia, Blue, Size 7 C-H, 10mm
5886-47-12	TM Monoblock CR Tibia, Blue, Size 7 C-H, 12mm
5886-47-14	TM Monoblock CR Tibia, Blue, Size 7 C-H, 14mm
5886-47-17	TM Monoblock CR Tibia, Blue, Size 7 C-H, 17mm
5886-48-10	TM Monoblock CR Tibia, Blue, Size 8 C-H, 10mm
5886-48-12	TM Monoblock CR Tibia, Blue, Size 8 C-H, 12mm
5886-48-14	TM Monoblock CR Tibia, Blue, Size 8 C-H, 14mm
5886-48-17	TM Monoblock CR Tibia, Blue, Size 8 C-H, 17mm



INSTRUMENTS

Cat. No.	Description
5973-06	NexGen™ TM Monoblock CR/LPS Tibial Instrument Kit (includes items listed below:)
5887-43	NexGen Monoblock Tibial Prov/Drill Guide, Size 3
5887-44	NexGen Monoblock Tibial Prov/Drill Guide, Size 4
5887-45	NexGen Monoblock Tibial Prov/Drill Guide, Size 5
5887-46	NexGen Monoblock Tibial Prov/Drill Guide, Size 6
5887-47	NexGen Monoblock Tibial Prov/Drill Guide, Size 7
5887-48	NexGen Monoblock Tibial Prov/Drill Guide, Size 8
5887-51	NexGen Monoblock Tibial Drill Guide, 10.7mm Dia
5887-52	NexGen Monoblock Tibial Drill w/ Stop, 10.7mm Dia
5887-55	NexGen Monoblock Tibial Peg Cement Mask, qty 2
5887-56	NexGen Monoblock CR/LPS Tibial Impactor
5887-94-01	NexGen Monoblock CR/LPS Tibial Instrument Case
5977-56-01	Short-head Holding Pin, qty 4



NEXGEN LPS TRABECULAR METAL (TM)

MONOBLOCK IMPLANTS

Cat. No.	Description
5886-04-01	TM Monoblock LPS Implant Kit (includes one each of the items listed below:)
5886-53-10	TM Monoblock LPS Tibia, Yellow, Size 3 C/D, 10mm
5886-53-12	TM Monoblock LPS Tibia, Yellow, Size 3 C/D, 12mm
5886-53-14	TM Monoblock LPS Tibia, Yellow, Size 3 C/D, 14mm
5886-53-17	TM Monoblock LPS Tibia, Yellow, Size 3 C/D, 17mm
5886-54-10	TM Monoblock LPS Tibia, Yellow, Size 4 C/D, 10mm
5886-54-12	TM Monoblock LPS Tibia, Yellow, Size 4 C/D, 12mm
5886-54-14	TM Monoblock LPS Tibia, Yellow, Size 4 C/D, 14mm
5886-54-17	TM Monoblock LPS Tibia, Yellow, Size 4 C/D, 17mm
5886-63-10	TM Monoblock LPS Tibia, Str Yellow, Size 3 E/F, 10mm
5886-63-12	TM Monoblock LPS Tibia, Str Yellow, Size 3 E/F, 12mm
5886-63-14	TM Monoblock LPS Tibia, Str Yellow, Size 3 E/F, 14mm
5886-63-17	TM Monoblock LPS Tibia, Str Yellow, Size 3 E/F, 17mm
5886-64-10	TM Monoblock LPS Tibia, Str Yellow, Size 4 E/F, 10mm
5886-64-12	TM Monoblock LPS Tibia, Str Yellow, Size 4 E/F, 12mm
5886-64-14	TM Monoblock LPS Tibia, Str Yellow, Size 4 E/F, 14mm
5886-64-17	TM Monoblock LPS Tibia, Str Yellow, Size 4 E/F, 17mm
5886-55-10	TM Monoblock LPS Tibia, Green, Size 5 E/F, 10mm
5886-55-12	TM Monoblock LPS Tibia, Green, Size 5 E/F, 12mm
5886-55-14	TM Monoblock LPS Tibia, Green, Size 5 E/F, 14mm
5886-55-17	TM Monoblock LPS Tibia, Green, Size 5 E/F, 17mm
5886-56-10	TM Monoblock LPS Tibia, Green, Size 6 E/F, 10mm
5886-56-12	TM Monoblock LPS Tibia, Green, Size 6 E/F, 12mm
5886-56-14	TM Monoblock LPS Tibia, Green, Size 6 E/F, 14mm
5886-56-17	TM Monoblock LPS Tibia, Green, Size 6 E/F, 17mm
5886-57-10	TM Monoblock LPS Tibia, Blue, Size 7 G/H, 10mm
5886-57-12	TM Monoblock LPS Tibia, Blue, Size 7 G/H, 12mm
5886-57-14	TM Monoblock LPS Tibia, Blue, Size 7 G/H, 14mm
5886-57-17	TM Monoblock LPS Tibia, Blue, Size 7 G/H, 17mm
5886-58-10	TM Monoblock LPS Tibia, Blue, Size 8 G/H, 10mm
5886-58-12	TM Monoblock LPS Tibia, Blue, Size 8 G/H, 12mm
5886-58-14	TM Monoblock LPS Tibia, Blue, Size 8 G/H, 14mm
5886-58-17	TM Monoblock LPS Tibia, Blue, Size 8 G/H, 17mm

Please refer to package insert for complete product information, including contraindications, warnings, precautions, and adverse effects.

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