封面：
完全暴露
Thompson 技术 + 用户手册：髋关节系带系统
“Thompson 髋关节系统具有优雅的设计，可优化仪器和手术技术之间的协同作用，从而在执行肌肉保留（或微创）全髋关节置换术时实现无阻碍的可视化。”
- FACS 和 FAAOS 医学博士 Mark J. Powers

第 2 页：
THOMPSON 技术 + 用户手册 / 生物 + 功能 + 髋关节系统组件

FACS 和 FAAOS 医学博士 Mark J. Powers
Mark Powers 博士是佛罗里达矫形外科专家（Florida Orthopaedic Specialists）的创始成员，是一名经过董事会认证并获得研究金培训的整形外科医生，获得了乔治城大学的本科和医学学位。他在乔治城大学医学中心完成了普通外科培训，并在罗德岛州布朗大学医院完成了骨科手术培训。Powers 博士在犹他州盐湖城运动医学中心接受运动医学专业培训，并在坦帕南佛罗里达大学完成了全关节置换和成人重建手术研究。Powers 博士是佛罗里达州立大学的临床副教授。

Thompson 外科髋关节牵开器是矫形外科医生进行全髋关节置换术的理想选择。该专业系统可使外科医生将牵开器刀片安装到稳定的台式结构上，从而不需要额外的人员来握住牵开器和重物。

无菌台式结构
为牵开器提供稳定和安全的平台，无需在 OR 中增加额外的人员。Elite II 导轨夹可以在无菌区域内固定和调整。

基于解剖学设计的结构
髋关节牵开器结构是所有髋关节手术的理想选择，包含独特的左侧和右侧曲臂，旨在为患者身体进行轮廓调整，实现低姿态设置和最佳牵开器位置。

系绳
快速将牵开器刀片连接到结构上，从而实现移动和灵活性。系绳与任何牵开器刀片兼容。

注意：股骨起子套件（#90025）和肌肉牵开器套件（#SL90060）也可用。需了解的信息。
注意：髋关节牵开器结构与任何髋关节牵开器刀片兼容。不需要购买刀片。

第 3 页：
注意：避免用结构部件压迫患者的身体，以防止神经损伤。
我们建议每 20 分钟放松牵开器上的张力，以确保血流正常。

注意：我们的目标是不断努力提供尽可能最好的产品，因而本用户手册中的某些图像可能与所收到的产品略有不同。

注意：Thompson 牵开器在非无菌条件下使用。请参阅 Thompson 牵开器 IFU，了解清洁、消毒和保养说明，以及其他警告和注意事项。

在线访问我们：THOMPSONSURGICAL.COM

第 4 页：
THOMPSON 技术 + 用户手册 / 结构设置

结构设置
正如 Powers 博士所概述的，下面是建议的前髋关节暴露结构设置步骤。请注意，此结构设置也可用于其他方法，如后方或侧方。

第 1 步：将 Elite 固定到床上
将 Elite 导轨夹放置在台架导轨上，置于外科医生对面一侧的无菌铺巾上，以及病人的腋下。通过顺时针转动顶部旋钮进行固定，在需要时利用悬挂手柄进行杠杆作用。
温馨提示：尽可能将导轨夹放置在靠北的位置，或放置在病人胸中部位。
注意：如果使用 Hana® 台架或腿部定位系统（如拱门系统），请在安装 Elite 导轨夹之前将 20 英寸导轨延长器（#41938）安装到台架上。

第 2 步：安装横杆
A 将横杆放置在导轨夹接头处并调节，使接头更高，臂的远端向患者侧面倾斜。
B 通过翻转凸轮手柄将横杆锁定到接头中。

第 5 页：
结构设置（待续）
第 3 步：安装曲臂
将第一个曲臂置于横杆上的接头处。臂的弯曲部分将形成轮廓，以在患者解剖结构周围形成低高度设置。通过翻转凸轮手柄将臂锁定在接头处，抓住横杆进行杠杆作用。以相同的方式将第二曲臂置于横杆上的第二接头处。
温馨提示：尽可能保持侧曲臂的低位，以便在拉动股骨时不会发生干扰。
温馨提示：当曲臂处于正确的方位时，将形成一个“半月形”形状（见插图）。

第 4 步：安装关节式臂杆
A 将共享锁关节式臂杆置于导轨夹的第二个接头处。通过翻转凸轮手柄将臂杆锁定到接头中。
B 通过推动金柱塞，插入叶片接头并释放柱塞，将长型 Hibbs 刀片连接到关节臂杆上。Hibbs 刀片可用于旋转或锁定位置。按下柱塞轻松切换旋转和锁定。
C 逆时针旋转黑色旋钮，松开臂杆张力。按需要定位并顺时针转动黑色旋钮进行锁定。

照片插图：B 旋转；B 锁定

第 6 页：
THOMPSON 技术 + 用户手册 / 暴露 + 股骨起子
暴露技术

第 5 步：解剖技术
使用连接到共享锁关节式臂杆的 Hibbs 刀片进行初始剥离，并进行初始暴露，准备缩回。

第 6 步：刀片放置（髋臼）
选择合适的牵开器刀片。插入和收回。当刀片处于所需位置时，用系绳将其连接到曲臂上，使用曲臂上的“夹板”槽进行固定。重复此步骤以放置多个刀片。

注意：系绳的使用寿命是 10 个后处理周期。

第 7 页：
暴露技术（待续）

第 7 步：暴露（髋臼）
暴露已实现。

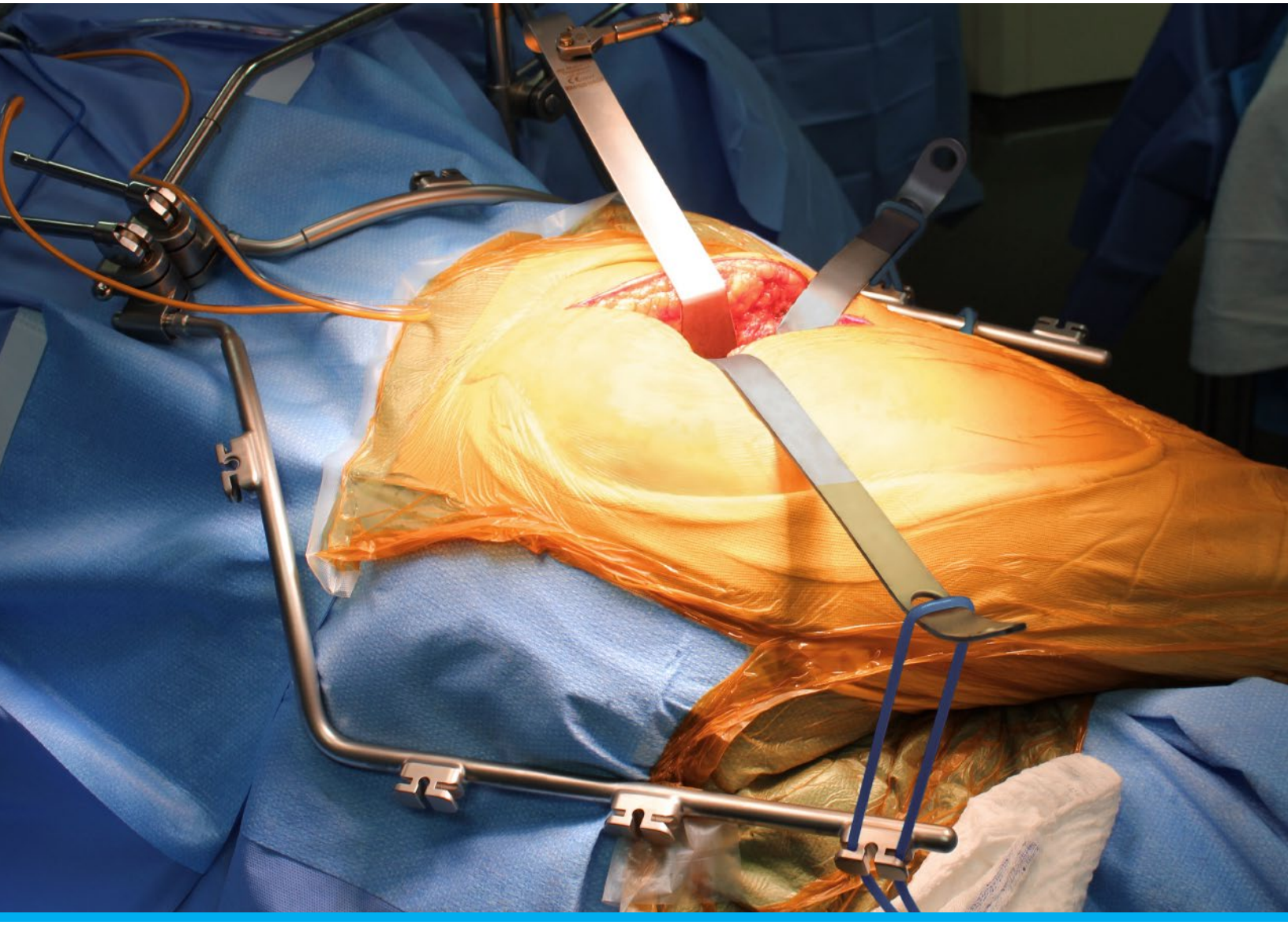
第 8 步：股骨起子
可以通过使用股骨起子来提升和实现暴露，达到股骨近端的可视化目的。
注意：拉削股骨时可能会留下结构。
注意：股骨起子套件（#90025）这时候用得上。

第 9 步：闭合
使用连接在关节式臂杆上的 Hibbs 刀片协助闭合切口。

封底：
符号图例：
制造商 EC 授权代表 CE 标志 警告 / 注意事项 非无菌

Thompson Retractor

Uncompromised Exposure™



Thompson Techniques + User Manual:

HIP TETHER SYSTEM

"The Thompson Hip System has an elegant design that optimizes the synergy between instrumentation and surgical technique allowing unimpeded visualization while performing muscle sparing (or minimally invasive) total hip arthroplasty."

- Mark J. Powers, MD, FACS, FAAOS

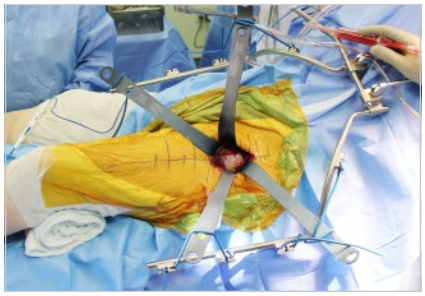
Mark J. Powers, MD, FACS, FAAOS

Dr. Mark Powers, the founding member of Florida Orthopaedic Specialists, is a board-certified and fellowship trained orthopaedic surgeon who received his undergraduate and medical degrees from Georgetown University. He completed his general surgical training at Georgetown University Medical Center and his orthopaedic surgical training at Brown University, Rhode Island Hospital. Dr. Powers received subspecialty training in Sports Medicine at the Salt Lake City Center of Sports Medicine in Utah, and completed a fellowship in Total Joint Replacement and Adult Reconstructive Surgery at the University of South Florida in Tampa. Dr. Powers is an associate clinical professor at Florida State University.

The Thompson Surgical Hip Retractor is ideal for orthopedic surgeons performing total hip replacement. This specialized system allows surgeons to attach retractor blades to a stable table mounted frame which eliminates the need for extra staff to hold retractors and weights.

Sterile Table Mounted Frame

Provides a stable and secure platform for retractors, eliminating the need for extra staff in the OR. Elite II Rail Clamp may be secured and adjusted within the sterile field.



Anatomically Designed Frame

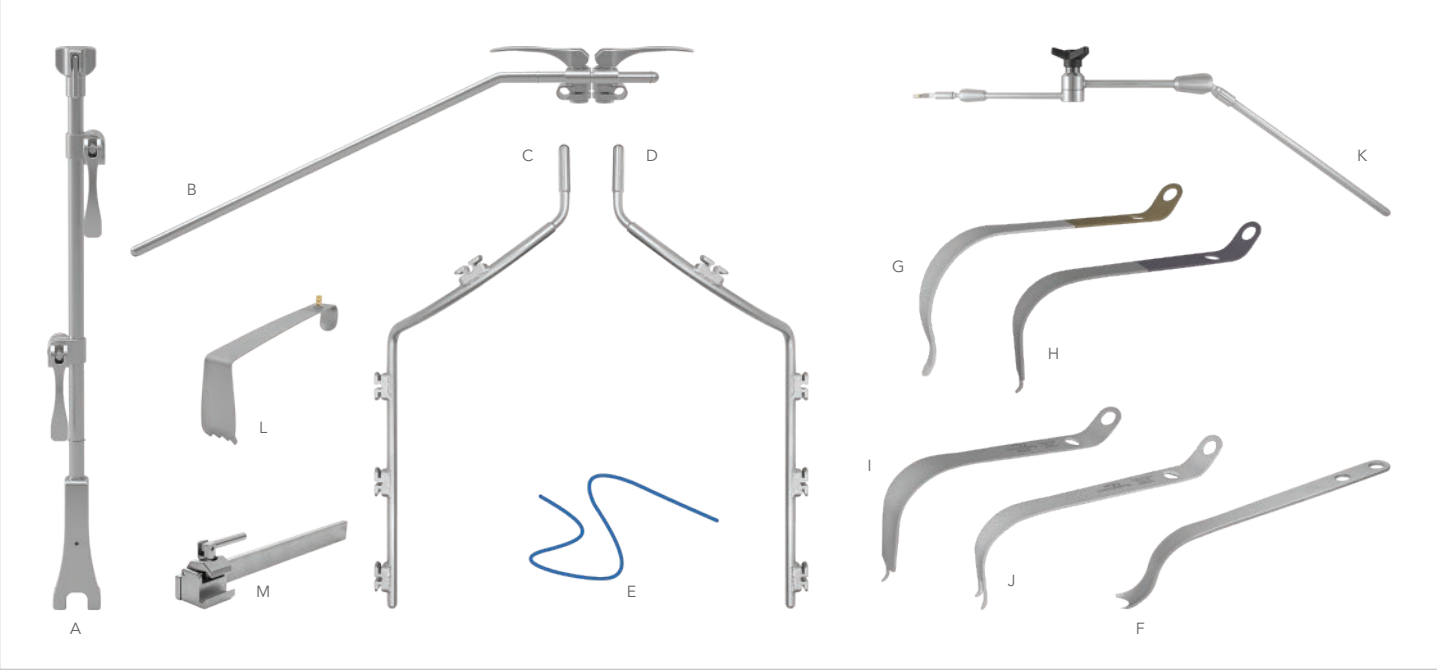
Ideal for all hip procedures, the Hip Retractor Frame contains unique left and right curved arms, designed to contour the patient's body for a low profile set up and optimal retractor placement.

Tethers

Quickly attach retractor blades to frame, allowing movement and flexibility. Tethers are compatible with any retractor blades.

NOTE
Femur Elevator Kit (#90025) and Muscle Retractor Kit (#SL90060) also available. Call for information.

NOTE
Hip Retractor Tether Frame is compatible with any hip retractor blades. Blade purchase not required for use.



HIP TETHER SYSTEM #SL82014

REF	QTY	ITEM DESCRIPTION	PART #
A	1	Elite III Rail Clamp w/2 Cam Joints 22"	43905AC
B	1	Crossbar w/2 Cam Jts 7" x 19 ½"	43990
C	1	20" Curved Arm with Cleats 1	44203
D	1	20" Curved Arm with Cleats 2	44204
E	2	24" Tethers - Pack of 5	42105
F	1	Femoral Neck Elevator	45300
G	2	Curved Cobra Gold 12 ½"	45302C
H	2	Curved Hohmann Narrow Purple 12"	45306C

REF	QTY	ITEM DESCRIPTION	PART #
I	1	Curved Hohmann Wide 12"	45307
J	1	Curved Dual Prong 12"	45308
K	1	S-Lock Articulating Arm	SL42190
L	1	Hibbs w/Teeth Long 25mm x 75mm	SL46411T
M	1	Rail Extender 20" Single Clamp	41938
	1	Instrument Case 26" x 10" x 5"	50000BL
	1	Instrument Case 22" x 11" x 3 ½"	50000G

NOTE

As we continually strive to provide the best products possible, some of the images in this user manual may appear slightly different from the product received.

CAUTION

Avoid compressing the patient's body with frame components to prevent nerve damage.

We recommend relaxing tension on retractors every 20 minutes to ensure proper blood flow.

NOTICE

The Thompson Retractor is provided in a non-sterile condition. Reference the Thompson Retractor IFU for cleaning, sterilization, and care instructions, as well as additional warnings and cautions.

Frame Set Up

Below are the suggested frame set up steps for Anterior Hip exposure, as outlined by Dr. Powers. Please note that this frame setup may also be used for other approaches, such as posterior or lateral.

Step 1: Attach Elite to Bed

Place Elite Rail Clamp onto the table rail over the sterile drape on the side opposite of the surgeon, and at the axilla of the patient. Secure by turning the top knob clockwise, utilizing the hanging handles for leverage when needed.

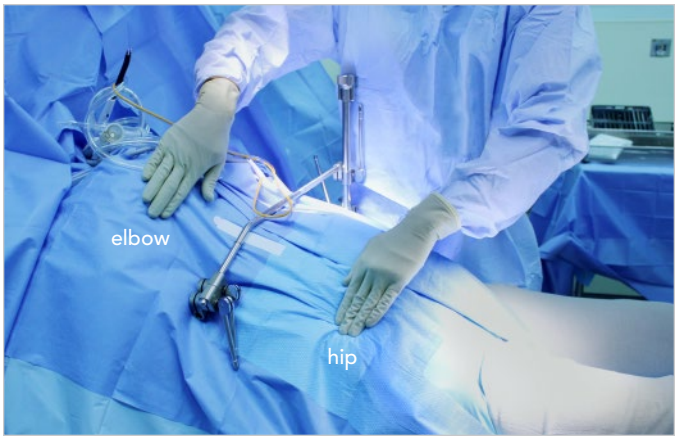
TIP: Position the rail clamp as far north as possible, or at patient's mid-chest level.

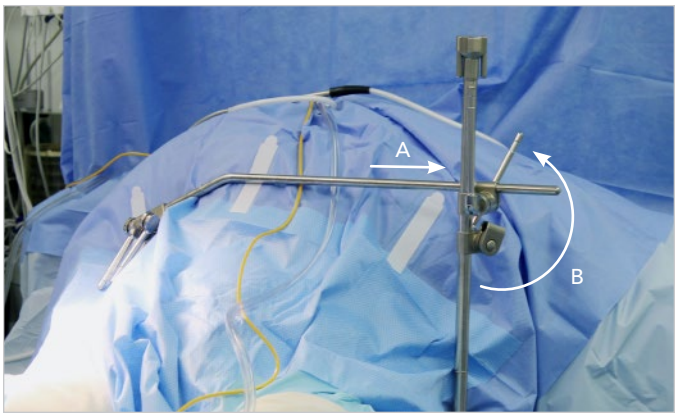
NOTE
If using a Hana® Table or leg positioning system such as the Arch System, add a 20" Rail Extender (#41938) to the table before attaching Elite Rail Clamp.

Step 2: Attach the Crossbar

A Position the crossbar in the rail clamp joint and adjust so that the joint is higher up, with the distal end of the arm angling down towards the lateral side of the patient.

B Lock the crossbar into the joint by flipping the cam handle.





Frame Set Up *(continued)*

Step 3: Attach the Curved Arms

Position the first curved arm in the joint on the crossbar. The curved portion of the arm will contour for a low-profile set-up around the patient anatomy. Lock the arms into the joint by flipping the cam handle, grasping the crossbar for leverage. Position second curved arm in the second joint on the crossbar in the same manner.

TIP: Keep the lateral curved arm as low as possible so that it does not interfere when broaching the femur.

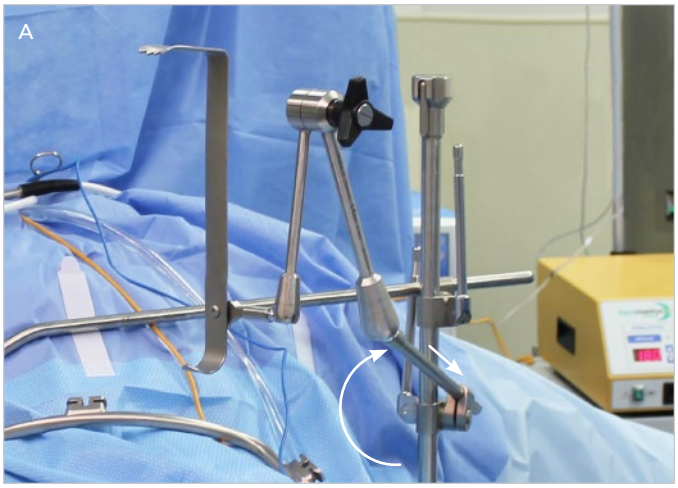
TIP: The curved arms will create a "half moon" shape (see inset) when they are in the correct orientation.

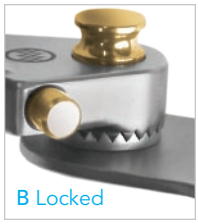
Step 4: Attach the Articulating Arm

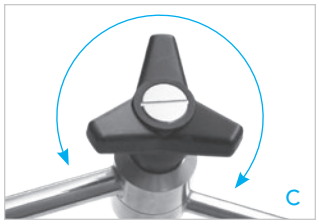
A Position S-Lock Articulating Arm in rail clamp's second joint. Lock the arm into the joint by flipping the cam handle.

B Attach long Hibbs blade to articulating arm by pushing the gold plunger, inserting blade nipple, and releasing plunger. Hibbs blade may be used in the swivel or locked position. Press plunger to easily switch between swivel and locked.

C Release the tension of the arm by turning the black knob counter-clockwise to loosen. Position as desired and lock into place by turning the black knob clockwise to tighten.



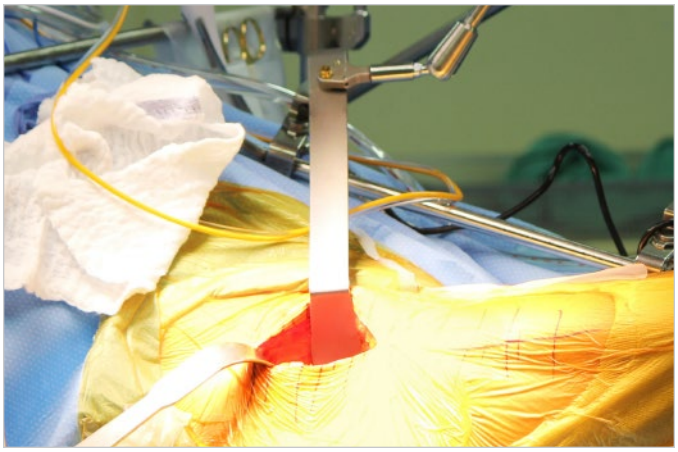




Exposure Techniques

Step 5: Dissection Technique

Use Hibbs blade, attached to S-Lock Articulating Arm, for initial dissection and to gain initial exposure in preparation for retraction.



Step 6: Blade Placement (Acetabulum)

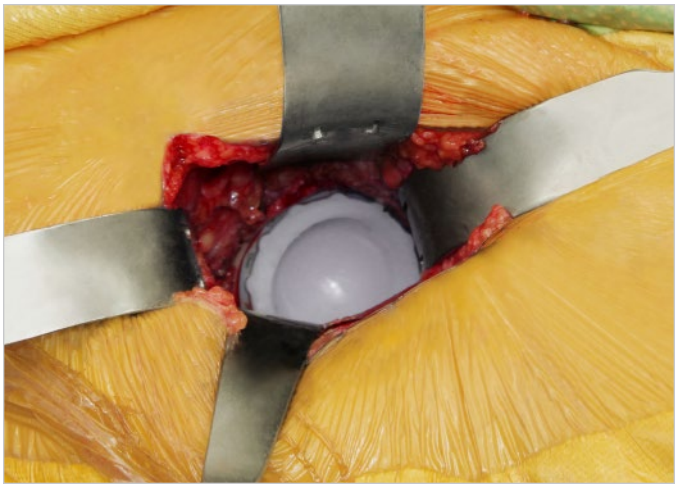
Choose the appropriate retractor blade. Insert and retract. When blade is in the desired position, attach to curved arm with tether, using slots on curved arm "cleats" to secure. Repeat this step for placement of multiple blades.

NOTICE
Service life of tethers is 10 reprocessing cycles.

Exposure Techniques *(continued)*

Step 7: Exposure (Acetabulum)

Exposure has been attained.

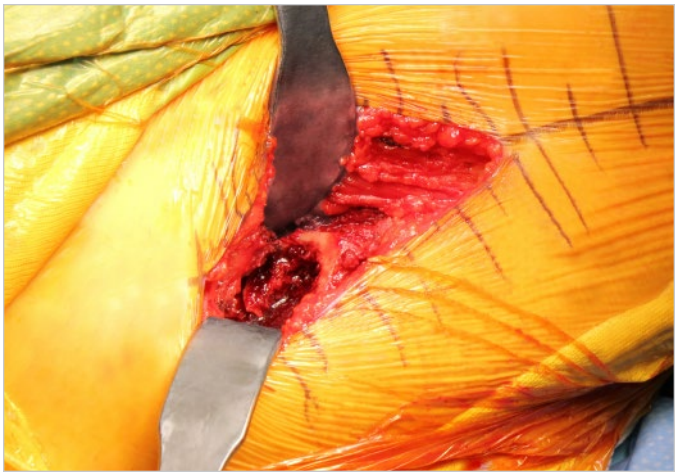


Step 8: Femur Elevation

Visualization of the proximal femur may be achieved using the femoral elevator to lift and gain exposure.

NOTE: Frame may be left in place while broaching the femur.

NOTE: A Femur Elevator Kit (#90025) may be used at this time.



Step 9: Closing

Use Hibbs blade, attached to articulating arm, to aid in closing the incision.

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Uncompromised Exposure

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Other patents pending.

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