



EXPERIENCE DRIVEN INNOVATION

Surgical products for surgeons whom
demand efficiency AND precision.



www.HenslerSurgical.com

Portfolio Product Presentation

Hensler Bone Press - Ortho Edition
Proprietary Cancellous and Bone Marrow
harvesting device for LE Fusion Procedures.

Our products **BELONG** in your OR.

HENSLER



SURGICAL

ORTHOPEDICS

The Most UNIVERSAL Autograft and Marrow Harvester, Designed for Neuro Spine and Orthopedic Cases.

HENSLER BONE PRESS™ - ORTHO EDITION

- Hundreds LESS than Competitive Devices.
- HIGH - YIELD Cancellous Bone and Marrow Harvester.
- Minimally Invasive Approach.
- Patient Benefit Utilizing Their OWN Bone.
- Larger Harvest Compared to Reaming.
- 2-Stage Proprietary Design
- Disposable.

INTRAMEDULLARY CANAL

DISTAL FEMUR

PROXIMAL TIBIA

DISTAL TIBIA

CALCANEUS

EXPERIENCE **DRIVEN** INNOVATION

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(Global HQ): Wilmington, NC USA

Hensler Bone Press™ | Orthopedic Edition

Product: *Hensler Bone Press™ - Orthopedic Edition*
Description: *Ortho / Foot & Ankle: Autograft KIT* | *Cancellous and bone marrow harvest for bone fusion surgery for Orthopedic, trauma, and foot and ankle surgeons.*

Device Class: Class IIa, 510k exempt.
FDA Est. #: 3009657922
Purchase details: Sold in increments of 10 sterile KITS.
Value Proposition: Decrease of reliance of synthetics and/or Biologics. 1:1 savings.
Indication: Intraoperative harvest of cancellous bone and bone marrow, for use in bone Fusion procedures. Sources of graft harvest are as follows, but not limited to:

Lower Extremity Harvest Sites: *HIGHLANDER PROCEDURE*

- Distal Femur
- Proximal or Distal Tibia
- Calcaneal
- Distal Radius

Intramedullary Reaming Sites: *HIGHLANDER IMC PROCEDURE*

- Tibia
- Femur

Part Numbers and Kit Contents for the Hensler Bone Press™ - Ortho Edition

Recommended: : Bundle Part Numbers for the complete kit (2 components): *HBP-OB1*

Includes:

1. **HBP-001** Hensler Bone Press Top, Collection top, Two 80 cc HBP Containers and elbow adapter.
2. **HBP-OC1** Custom, Sterile packed, variable-suction control, suction wand.
 - a. *Not necessarily required for the graft harvest for post intermedullary reaming procedure unless using for BOTH Indications.*

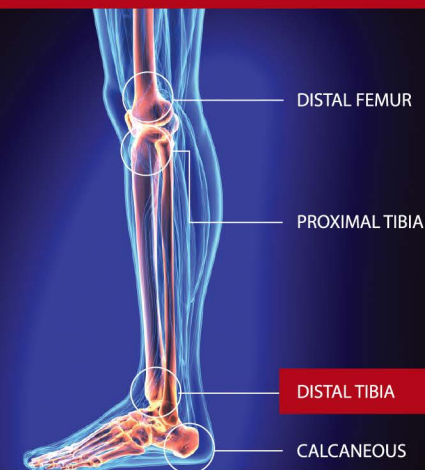
Reimbursement Information: *Refer to DRG Official Guidelines.*

1. **20900** | Bone graft, any donor area, minor or small e.g.: dowel or button.
2. **20902** | Bone graft, any donor area, Major or Large
3. **38220** | Bone marrow; aspiration only

Case Facts

Patient Demographics:	68 y/o female with osteoporosis
Harvest Site:	Distal Tibia <ul style="list-style-type: none"> › Back filled with autograft, gel foam and cancellous chips
Cortical Window:	High-Speed Drill <ul style="list-style-type: none"> › 4 mm Cutting Burr ~ 5-6 mm Cortical Hole
Technique:	Drill inserted and manipulated within the distal Tibia
POST-cortical window Autograft harvest using the Highlander technique	Cancellous bone / Marrow 'clinically' rich site <ul style="list-style-type: none"> › Insert and manipulate drill within distal tibia autograft site. › Allows surgeon to loosen and harvest autograft with precision and tact. › Drill acts as a reamer to accurately release autograft with as much, or as little yield defined by the surgeon. › Depth easily determined by radiograph
Results:	7 cc Cancellous Autograft 4 cc Liquid Bone Marrow
O. R. Time:	5 Minutes (from cortical window to harvest completion)
Value Proposition:	1:1 Savings ▲ Autograft: Allograft
Patient Benefit:	<ul style="list-style-type: none"> › Smallest cortical window without sacrificing yield › Use of patients own Mesenchymal stem cells and growth factors for fusion › Significant fiscal savings › No large pilot hole › Less disruption and less aggressive than other devices

Anatomical Harvest Site



The Collection

Harvest of 7cc Cancellous Autograft
Harvest of 4cc Liquid Bone Marrow

Photo Taken PRE-PRESS



The HBP-Ortho Edge

- › Smallest Cortical Window (Approx. 6-7mm)
- › Time savings utilizing the cutting burr for BOTH cortical window creation, and Bone/Marrow evacuation allows for a rapid & precise Harvest technique.
- › Clinically proven Press mechanism to maximize bone and handling characteristics.
- › Cost reduction & Patient Benefit with every use.



POST-HARVEST: 3 MONTH FOLLOW UP

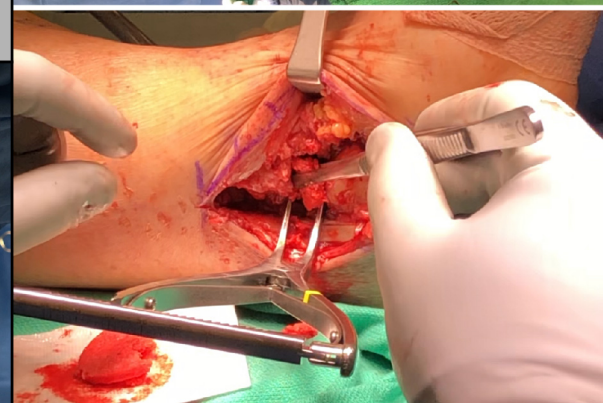
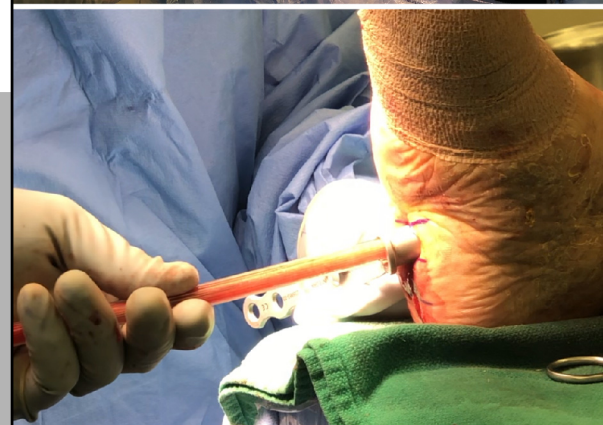
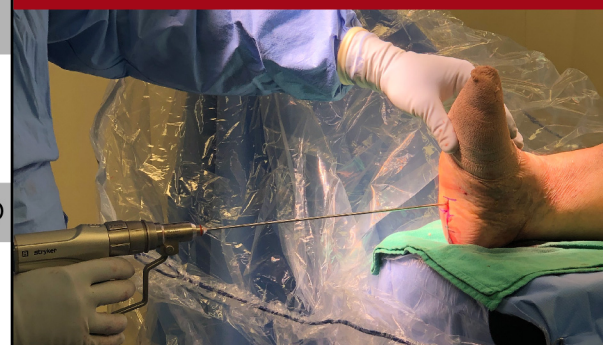
Case Facts

Surgical Case Performed/date:	77F - Tibial-Talar-Calcaneal Arthrodesis / 4.25.2019
Harvest Site:	Intramedullary Tibial Canal
Reamer Data:	Intergra® Life Sciences Reemers › Reamed to ~ 180 mm in length within the Tibial Canal › Guide wire diameter: 3.2 mm
Procedure:	Harvest of Cancellous bone and marrow, generated by the Integra® Reemers. › Trimmed a separate suction line and attached to Hensler collection stage. › Inserted around guide wire using wall suction. › Fully inserted and backout out the length of the guide wire – repeating until Autologous material fully harvested.
Autologous Harvest with HBP-O:	› > 20 cc Cancellous bone (Additionally harvested bone around reemers) › > 20 cc Liquid Marrow
O. R. Time:	<10 minutes from Reaming to processing with HBP-O
Value Proposition:	1:1 Savings ▲ Autograft: Allograft › Easily and quickly, harvested > 30 cc of Autologous material. › Thousands saved not utilizing that quantity of Allograft or Biologics.
Benefits From Case:	› Patient benefit using their own Bone vs Cadaver or alternative. › Ease of use from staff to collect and process Bone and Marrow. › Significant fiscal savings › Utilization of the patients own MSC's, Osteoprogenitor cell and Growth factors, allowing for no rejection and maximal restorative benefit. › Hundreds less than competitive devices, that may dilute the liquid marrow. › No dilution of the bone marrow using the HBP-O.

Anatomical Harvest Site

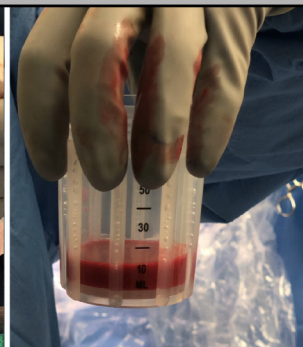
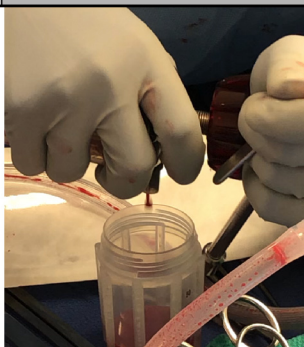


Intuitive Autograft Harvesting with HBP-O



Processing Autograft with HBP-O

- › No suction attached to the press stage.
- › Deploy PRESS top completely down.
- › Tilt while pressing to pour out marrow.
- › Use the second 80 container to collect marrow.



Case Facts

Patient Demographics:	57F - Triple arthrodesis
Harvest Site:	Distal Tibia - Harvest site "back-filled" with gel-foam (no allograft used)
Type of Drill:	High-Speed Drill ‣ 4 mm Cutting Burr
Technique:	Drill inserted and manipulated within the distal Tibia
Cortical Window Creation:	Cancellous bone / Marrow 'clinically' rich site ‣ Drill Method: Highlander Technique ‣ Size of Cortical window: 7 mm ‣ Depth of drilled reaming: 2.3 cm
The Collection:	12 cc Cancellous Autograft 10 cc Liquid Bone Marrow
O. R. Time:	7 Mins (skin to skin)
Value Proposition:	1:1 Savings ▲ Autograft: Allograft
Patient Benefit:	‣ Smallest cortical window without sacrificing yield ‣ Use of patients own Mesenchymal stem cells and growth factors for fusion ‣ Significant fiscal savings ‣ No large pilot hole (compared to competitors) ‣ Less disruptive and aggressive than other competitive devices

Anatomical Harvest Site



Intuitive Autograft Harvesting with HBP-O

After the cortical window is created and the bone/marrow is loosened for evacuation, simply insert the Hensler custom variable-suction wand to harvest BOTH the cancellous bone and marrow.



Processing Autograft with HBP-O

- No suction attached to the press stage.
- Deploy PRESS top completely down.
- Tilt while pressing to pour out marrow.
- Use the second 80 container to collect marrow.



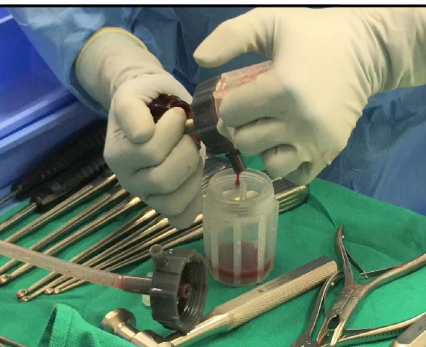
The HBP-Ortho Edge

- Smallest Cortical Window (Approx. 6-7mm)
- Time savings by utilizing the cutting burr for BOTH the cortical window creation and Bone/Marrow collection. This allows for a rapid and precision technique.
- Clinically proven Press mechanism maximizes bone and final graft handling characteristics.
- Cost reduction & Patient Benefit with every use.



Case Facts

Patient Demographics:	51F - (R) subtalar joint fusion
Harvest Site:	Distal Tibia - Harvest site "back-filled" with gel-foam (no allograft used)
Type of Drill:	High-Speed Drill - 4 mm Cutting Burr
Technique:	Drill inserted and manipulated within the distal Tibia
Cortical Window Creation:	Cancellous bone / Marrow 'clinically' rich site - Drill Method: Highlander Technique - Size of Critical window: 6 mm - Depth of drilled reaming: 2.3 cm
The Collection:	8 cc Cancellous Autograft 11 cc Liquid Bone Marrow
O. R. Time:	7 Mins (skin to skin)
Value Proposition:	1:1 Savings ▲ Autograft: Allograft
Patient Benefit:	- Smallest cortical window without sacrificing yield - Use of patients own Mesenchymal stem cells and growth factors for fusion - Significant fiscal savings - No large pilot hole (compared to competitors) - Less disruption and less aggressive than other devices



Easy Processing: With no suction attached, engage the press top, deploy completely in its downward position, tilt and pour the marrow in the 2nd Hensler 80cc container.

The HBP-Ortho Edge

- Smallest Cortical Window (Approx. 6-7mm)
- Time savings by utilizing the cutting burr for **BOTH** the cortical window creation and Bone/Marrow collection, allows for a rapid & precise Harvest technique.
- Clinically proven Press mechanism maximizes bone and final graft handling characteristics.
- Cost reduction & Patient Benefit with every use.



Anatomical Harvest Site



Intuitive Autograft Harvesting with HBP-O

Once drilled cortical window created and area of bone/Marrow is loosened, Simply insert the custom Hensler Variable-suction wand to harvest BOTH the cancellous bone and marrow.



Case Facts

Patient Demographics:	60M with left arthritic adult acquired flatfoot (stage 3 posterior tibial tendon dysfunction)
Harvest Site:	Distal Tibia - Harvest site "back-filled" with gel-foam (no allograft used)
Type of Drill:	High-Speed Drill > 4 mm followed by 5 mm Cutting Burr > 6 mm & 7 mm currettes to increases window size
Technique:	Drill inserted and manipulated within the distal Tibia
Cortical Window Creation: <i>Autograft harvest using the Highlander technique</i>	Cancellous bone / Marrow 'clinically' rich site > Drill Method: Highlander Technique > Size of Critical window: 7 mm > Depth of drilled reaming: 1.8 cm
The Collection:	10 cc Cancellous Autograft 15 cc Liquid Bone Marrow
O. R. Time:	8 Mins (from cortical window to harvest completion)
Value Propostion:	1:1 Savings ▲ Autograft: Allograft
Patient Benefit:	> Smallest cortical window without sacrificing yield > Use of patients own Mesenchymal stem cells and growth factors for fusion > Significant fiscal savings > No large pilot hole (compared to competitors) > Less disruption and less aggressive than other devices > Early signs of fusion at 4 weeks! > Signs of harvest site healing at 4 weeks without complication! > No harvest site pain postoperative > Residual liquid injected in and around soft tissues surrounding incision and fusion sites; noticeable less post operative inflammation at 1, 2 & 4 weeks.

Anatomical Harvest Site

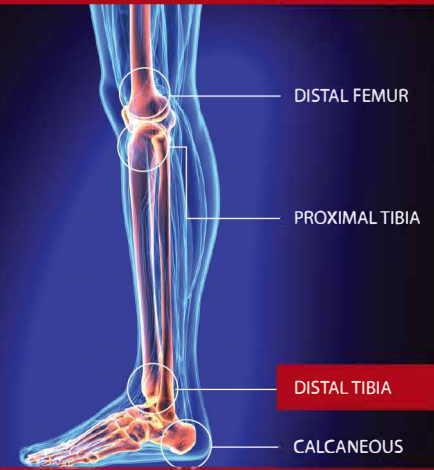


Photo Taken PRE-PRESS

Once separated the solid graft had superior handling with ease of packing into exact location needed without inadvertent graft migration or loss.



The HBP-Ortho Edge

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Reimbursement Information

Hensler Bone Press™ - Ortho Edition

The Hensler Bone Press™ - Ortho Edition harvests cancellous bone and liquid bone marrow from the distal femur, proximal and/or distal tibia heads or calcaneus bone sources. This is typically reimbursed under the DRG code of the primary procedure.

Example: If hospital has a DRG 505 procedure, on average the case may obtain \$7,316. Instead of spending \$2-\$7K on expensive biologic alternatives, you would spend significantly less using the Hensler Bone Press™ Ortho edition for the Autograft harvest to cut cost on the case and increase your return from the DRG.

The attachment is an assortment of various lower extremity DRG and CPT codes – but is NOT a comprehensive list. In addition to this, the surgeon may obtain RVU's and/or CPT reimbursement with the following codes:

- Bone graft, any donor area; minor or small eg, dowel or button) (20900)
- Bone graft, any donor area; major or large (20902)
- Bone marrow; aspiration only (38220)
- Autograft for spine surgery only (includes harvesting the graft); local (eg, ribs, spinous process, or laminar fragments) obtained from same incision (List separately in addition to code for primary procedure) (20936)
- Autograft for spine surgery only (includes harvesting the graft); morselized (through separate skin or fascial incision) (List separately in addition to code for primary procedure) (20937)

The following attachment is for reference of applicable DRG codes depending on the primary procedure – this is not a comprehensive list of all possible DRG codes where the Hensler Bone Press™ - Ortho Edition can be utilized.

Hospital Outpatient Coding (APCs)

Ambulatory payment classifications (APCs) is the prospective payment system Medicare uses to reimburse hospitals for outpatient services. Each CPT code for a significant procedure is assigned to a specific APC class based on clinical and resource similarities. Each APC has a relative weight that indicates its rank compared to all other procedures in terms of the relative costs. The relative weight is then converted to a flat payment amount using a standardized conversion factor.

Multiple APCs can be assigned for the same case if multiple procedures are performed. The status indicator (SI) signifies how a code is handled for payment. Status Indicator C indicates an inpatient procedure, Not paid under OPSS. Patients should be admitted and billed as an inpatient. Status indicator J1 will trigger a comprehensive APC payment for the claim, meaning a single APC will be paid while all other items and services on the same date of service will no longer generate separate payment. Status indicator N services are paid under the OPSS, but their payment is packaged into payment for a separately paid service, it is a packaged service/item; no separate payment made. Local carrier determinations may also apply to N when separate payment is allowed. Status indicator T means that the code pays at 100% of the rate when it is the only procedure or is the highest-weighted procedure, but pays at 50% of the rate when it is submitted with another higher-weighted procedure.

For Medicare, with a few exceptions, the APC payment for the procedure code is considered complete. In general, separate payment is not made for implanted devices. Instead, payment for implants used in the procedure is included in the payment for the procedure. However, private payers may have carve-outs for implants.

CPT® Code	Description	APC	APC Title	SI	Relative Weight	Average Payment
27870	Arthrodesis, ankle, open	0052	Level IV Musculoskeletal Procedures Except Hand and Foot	T	85.2438	\$6,320
28705	Arthrodesis; pantalar	0056	Level II Foot Musculoskeletal Procedures	T	70.3645	\$5,217
28715	Arthrodesis, triple	0425	Level V Musculoskeletal Procedures Except Hand and Foot	J1	137.8399	\$10,220
28725	Arthrodesis, subtalar	0056	Level III Foot Musculoskeletal Procedures	T	70.3645	\$5,217
29899	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; with ankle arthrodesis	0042	Level II Arthroscopy	T	58.5867	\$4,344

Reference: Medicare Program: Hospital Outpatient Prospective Payment System Final Rule Addendum C - Final HCPCS Codes Payable Under the 2015 OPSS by APC

Ambulatory Surgery Center (ASC) Coding

Medicare's prospective payment system for ASCs is based on the systems used for hospital outpatient services and physician office-based procedures. Each CPT code for an ASC-covered procedure is assigned a relative weight and flat payment amount which is then adjusted for the ASC setting.

Multiple procedures can be paid for the same case if multiple codes are submitted. The payment indicator (PI) signifies how a code is handled for payment. Specifically, payment indicator A2 means a surgical procedure whose payment is based on the hospital outpatient rate. Payment indicator J8 indicates Device-intensive procedure; paid at adjusted rate. Payment indicator N1 indicates a packaged procedure/item; no separate payment made. NA indicates surgical procedures excluded from payment in ASCs for CY 2015. When the Multiple Procedure Discount is Yes, it indicates that the code pays at 100% of the rate when it is the only procedure or is the highest-weighted procedure, but pays at 50% of the rate when it is submitted with another higher-weighted procedure.

For Medicare, with a few exceptions, the ASC payment for the procedure code is considered complete. In general, separate payment is not made for implanted devices. Instead, payment for implants used in the procedure is included in the payment for the procedure. However, private payers may have carve-outs for implants.

CPT® Code	Description	PI	Multi-Procedure Discounting?	Relative Weight	Medicare Average Payment
27870	Arthrodesis, ankle, open	A2	Y	78.6374	\$3,466
28705	Arthrodesis; pantalar	A2	Y	64.9113	\$2,861
28715	Arthrodesis, triple	J8	N	177.9456	\$7,842
28725	Arthrodesis, subtalar	A2	Y	64.9113	\$2,861
29899	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; with ankle arthrodesis	A2	Y	54.0462	\$2,382

Reference: Medicare Program: Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Final Rule, Addendum AA -- Final ASC Covered Surgical Procedures for CY 2015 (Including Surgical Procedures for Which Payment is Packaged), Addendum EE -- Surgical Procedures Proposed to be Excluded from Payment in ASCs for CY 2015

Hospital Inpatient Diagnosis Related Group (MS-DRGs) and ICD-9-CM Procedure Codes

Diagnosis Related Groups (MS-DRGs) is the prospective payment system Medicare uses to reimburse hospitals for inpatient services. Each inpatient stay is assigned to a specific group based on clinical and resource similarities for its ICD-9-CM diagnosis and procedure codes. Only one DRG is assigned to each inpatient case, regardless of the number of diagnosis and procedure codes. Both CC and MCC refer to secondary diagnoses that are designated as complications/comorbidities (CC) or major complications/comorbidities (MCC). Each DRG has a relative weight which is then converted to a flat payment amount using standard operating and capital amounts.

For Medicare, with a few exceptions, the MS-DRG payment for the procedure is considered complete and payment for implants is included in the MS-DRG payment. However, private payers may have carve-outs for implants.

DRG	DRG Title	Relative Weight	Medicare National Unadjusted Payment	ICD-9-CM Procedure Codes and Descriptions
492	Lower Extremity and Humerus Procedures Except Hip, Foot, Femur with MCC	3.1873	\$18,695	81.11 81.12
493	Lower Extremity and Humerus Procedures Except Hip, Foot, Femur with CC	2.0354	\$11,938	
494	Lower Extremity and Humerus Procedures WO CC/MCC	1.5397	\$9,031	
503	Foot Procedures W CC	2.3338	\$13,688	81.13
504	Foot Procedures W CC	1.5691	\$9,203	
505	Foot Procedures WO CC/MCC	1.2474	\$7,316	
509	Arthroscopy	1.5494	\$9,089	80.27 with 81.29
515	Other Musculoskeletal System and Connective Tissue O.R. Procedures W MCC	3.2235	\$18,907	81.29
516	Other Musculoskeletal System and Connective Tissue O.R. Procedures W CC	2.0434	\$11,985	
517	Other Musculoskeletal System and Connective Tissue O.R. Procedures WO CC/MCC	1.7251	\$10,118	

Reference: Medicare Program: Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals Table 5— List of Medicare Severity Diagnosis Related Groups (MS-DRGs) Relative Weighting Factors— FY2015 Final Rule

The logo for Hensler Surgical Technologies features the company name in a clean, sans-serif font. The word 'HENSLE' is in grey, followed by a red 'X' symbol with a registered trademark symbol (®) above it. 'SURGICAL' is in grey, and 'TECHNOLOGIES' is in red. A small trademark symbol (™) is located at the end of 'SURGICAL'. The background of the entire page is a dark grey with a pattern of light grey, angular, overlapping shapes that resemble surgical instruments or anatomical structures.

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