

COMPRESSION SCREW SYSTEMS
(CompressX/CompressX 2/Jones Fracture)
PACKAGE INSERT

CAUTION: Federal Law (USA) restricts this device to sale by or on the order of a physician.

DESCRIPTION OF THE MEDICAL DEVICE:

The implants - delivered non sterile - are:

- Compression screws existing in different diameters and lengths
- Implants are made out of Titanium alloy within the frame of the standard ASTM F136

INDICATIONS FOR USE

The Extremity Medical Compression Screw is intended for reduction and internal fixation of arthrodeses, osteotomies, intra- and extra-articular fractures and nonunions of the small bones and joints of the foot and hand. Examples include scaphoid fractures, tarsal and metatarsal fracture, hand, wrist, foot and ankle arthrodeses, metacarpal and metatarsal arthrodeses, distal radius fractures.

WARNING: This device is not approved for screw attachment or fixation to the posterior elements (pedicles) of the cervical, thoracic or lumbar spine.

MATERIAL

Extremity Medical implants are manufactured from a Titanium alloy (ISO 5832-3). The specialized instruments are made primarily of surgical grade stainless steel (ISO 7153/1).

HOW SUPPLIED

Extremity Medical implants and instruments are provided **non-sterile** and must be cleaned and sterilized prior to use according to the procedures outlined in this document.

CONTRAINDICATIONS

The implant should not be used in a patient who has currently, or who has a history of:

- Local or systemic acute or chronic inflammation;
- Active infection or inflammation;
- Suspected or documented metal allergy or intolerance.

WARNINGS and POTENTIAL RISKS

The Extremity Medical implants are designed for **single patient use only and must never be reused**. As with all other orthopedic implants, the Extremity Medical components should never be re-implanted under any circumstances.

The Extremity Medical implants can become loose or break if subjected to increased loading. Factors such as the patient's weight, activity level and

adherence to weight-bearing or load-bearing instructions can affect the implant's longevity. Damage to the weight-bearing bone structures caused by infection can give rise to loosening of the components and/or fracture of the bone.

Serious post-operative complications may occur from the implant in a patient who; lacks good general physical conditions; has severe osteoporosis, demonstrates physiological or anatomical anomalies; has immunological responses, sensitization or hypersensitivity to foreign materials; systemic or metabolic disorders.

These warnings do not include all adverse effects which could occur with surgery, but are important considerations specific to metallic devices. The risks associated with orthopedic surgery, general surgery and the use of general anesthesia should be explained to the patient prior to surgery. See the PRECAUTIONS and POSSIBLE ADVERSE EFFECTS sections for additional warnings.

LABEL SYMBOLS

| | |
|--|------------------------------|
| | Catalog Number |
| | Lot Number |
| | Quantity |
| | Consult instructions for use |
| | Non-Sterile |
| | Do Not Re-Use |
| | Manufacturer |
| | Date of Manufacture |
| | Prescription Use Only |
| | European Conformity Mark |

PRECAUTIONS

The implantation of screw systems should be performed only by experienced surgeons with specific training in the use of this screw system because this is a technically demanding procedure presenting a risk of serious injury to the patient.

Under no circumstances should damaged components or surgically excised components be used. Implants

that have already been in contact with body fluids or body tissues must not be re-sterilized.

Pre-operative assessment of the suitability of the patient's anatomy for accepting implants is made on the basis of x-rays, CT scans and other radiological studies.

Only patients that meet the criteria described in the Indications for Use section should be selected.

Correct selection of the implant is extremely important. The morbidity as well as patient weight height, occupation and/or degree of physical activity should be considered.

Proper implant handling before and during the operation is crucial. Handle the implant components properly. Ensure packaging integrity. Do not allow the implants surfaces to be damaged.

All implants and some instruments are intended for single use only; refer to the product label to determine if the instrument is intended for single use only. Single use devices should not be re-used. Possible risks associated with re-use of single use devices include:

- Mechanical malfunction
- Transmission of infectious agents

Adequately instruct the patient. The physician should inform the patient about orthopedic implant advantages and disadvantages, post-operative limitations, weight/load bearing stresses which could affect bone healing, implant limitations, and the fact that premature physical activity and full weight/load bearing stresses have been implicated in premature loosening, damage and/or fracture of orthopedic prostheses.

IMPORTANT: The Guide wires included in the Extremity Medical Compression Screw System are not intended as implants. The Guide Wires are only intended for use as instruments to facilitate screw insertion.

The CompressX implants have not been evaluated for safety and compatibility in the MR environment. CompressX implants have not been tested for heating or migration in the MR environment.

POSSIBLE ADVERSE EFFECTS

Pre-operatively, the patient should be made aware of the possible adverse effects of orthopedic surgery. Additional surgery may be necessary to correct some of these anticipated events including, but not limited to:

- Early or late loosening, disassembly and/or breakage of any or all implants;
- Metal sensitivity to a foreign body (implant material allergic reaction), including metallosis, staining, tumor formation, auto-immune disease and/or scarring;
- Skin or muscle sensitivity in patients with inadequate tissue coverage over the operative site, which may result in skin breakdown, penetration, pain, irritation and/or wound complications;
- Tissue damage resulting from improper placement of implants or instruments;
- Infection;
- Hematoma;

- Allergy;
- Thrombosis;
- Nerve or vascular damage due to surgical trauma, including loss of neurological function, neuropathy, neurological deficits (transient or permanent), bilateral paraplegia, appearance of radiculopathy, and paralysis (complete or incomplete);
- Bone loss due to resorption or stress shielding, decrease in bone density or bone fracture at operative site;
- Pain, discomfort or wound healing complications at the surgical site;
- Misalignment of anatomical structures;
- Bone non union or delayed union;
- Adverse effects may necessitate re-operation, revision or removal surgery, arthrodesis of the involved joint, and/or amputation of the limb.

DIRECTIONS FOR USE

To implant the Extremity Medical Compression Screw implants, use only the specialized Extremity Medical Compression Screw instrumentation. Do not use implants or instruments from any other system or manufacturer.

The Extremity Medical Compression Screw implants and Extremity Medical Compression Screw instruments are provided **non-sterile** and must be cleaned and sterilized prior to use according to the procedures outlined in this document. All Extremity Medical Compression Screw device system components should be carefully inspected to ensure proper working condition. Critical areas should be checked for wear, damage or irregularities. Damaged or broken Extremity Medical Compression Screw devices must not be used or processed and should be returned to Extremity Medical for evaluation.

Before using the Extremity Medical Compression Screw System for the first time, the surgeon should be thoroughly familiar with the Extremity Medical Compression Screw Surgical Technique Manual as well as the functionality and assembly of the various components. Pre-operative planning by the surgeon should determine the type of implant required and an adequate supply of the implant sizes should be available prior to surgery, including larger and smaller sizes than those expected to be used.

For complete instructions regarding the proper use and application of all Extremity Medical Compression Screw implants and instruments, please refer to the Extremity Medical Compression Screw Surgical Technique Manual (available at no charge upon request).

CARE AND HANDLING

Extremity Medical Compression Screw implants and Extremity Medical Compression Screw instruments are provided non-sterile and should be stored in the original packaging until cleaned and sterilized. Prior to use, they must be sterilized according to the standard hospital

procedure. Refer to the STERILIZATION section for recommended parameters.

Limitations on Processing

Repeated processing has minimal effect on these implants and instruments. End of life for instruments is normally determined by wear and damage to due to use.

Point of Use

Warning: The following Extremity Medical instruments are intended for single use: guide wires, cannulated drills, and cleaning brushes.

Before being used for the first time and each use thereafter, the instructions outlined below should be followed to ensure safe handling of biologically contaminated devices.

Reprocessing begins at the point of use, which includes initial cleaning measures to prevent drying of the soil and contaminants in and on the devices.

Preparation for Cleaning

- If possible, it is recommended that devices be reprocessed promptly after use.
- Where instruments interface with other devices, disassemble prior to cleaning.
- Remove gross soil with a clean, disposable, absorbent Kimwipe or equivalent.
- Soak and/or rinse cannulated and multi-component assemblies with neutral or mild alkaline cleaning agent solution. Follow the cleaning agent manufacturer's instructions for correct exposure time, temperature, water quality, and concentration.
- Ensure debris are cleared from cannulations/lumens via cleaning brush or equivalent, where applicable.
- Repeat soak/rinse step followed by cleaning via cleaning brush or equivalent until visibly clean
- Extremity Medical devices must be cleaned separately from Extremity Medical instrument trays/cases.
- Instruments must be thoroughly cleaned.

Cleaning (Automated)

- Ensure all gross soil is removed from the device and that all preparation for cleaning steps are complete.
- For devices that have cannulations/lumens or present complexity, a preliminary manual cleaning may be required.
- Use a validated, properly maintained, and calibrated washer disinfectant.
 - Equipment: Washer Disinfectant/Decontaminator (Hydrim L110W) and detergent (HIP Cleaning Solution L110W) or equivalent.
- Place the device(s) in a washer basket or equivalent for loading into washer disinfectant
 - Ensure that the devices are oriented in a way that allows devices to drain

- Ensure device orientation aligns with manufacturer's orientation recommendations.
- It is recommended that a pH-neutral enzymatic solution is used. If using an alkaline solution, a neutralizer must be added. Please follow manufacturer's datasheet for concentration of solution, time of use, and temperature.
- Rinse devices using sterile or freshly prepared purified water
- Use automated drying cycle to dry devices or hand dry using absorbent, non-shedding cloth.
- The following cycle will be selected (at a minimum):

| | |
|-----------------------------|---|
| Prewash | Cold Water + Hot Water for 2 minutes (tap water) |
| Pulsed Enzyme | Hot water for 11 minutes (tap water) with Prolystica 2x Concentrate Enzymatic Pre-Soak and Cleaner (1/8oz of detergent/gallon of water) |
| Rinse | Purified water for 2 minutes |
| Thermal Disinfection | 90°C for 5 minutes |
| Dry | High Temperature for 30 minutes |

- Inspection: When unloading, visually inspect the devices for complete removal of any debris. If the device is not visually clean, repeat the automated cleaning cycle or use manual cleaning.
- Remove instruments from the Washer/Disinfector and wrap devices with sterilization wrap or place instrument in a sterilization pouch.

Cleaning (Manual)

Warning: Movable components and blind holes require particular attention during cleaning.

All cleaning agents should be prepared at the use-dilution and temperature recommended by the manufacturer. Softened tap water may be used to prepare cleaning agents. Use of recommended temperatures is important for optimal performance of cleaning agents.

Manual Cleaning Instructions:

- Alcohol wipe the instruments
- Bathe the instruments in an enzymatic solution for 20 minutes; where appropriate, the instrument shall be rotated and briskly moved in bath to promote flushing. Where appropriate, a large syringe or pulsating water jet may be used to thoroughly flush all channels and lumens with the solution.
- Scrub the instruments with a soft brush.
- Rinse the instruments in cold water.

- Submerge the instruments in cleaning/ disinfection solution and sonicate for 15 min at 40°C (104°F).
- Scrub the instruments with a soft brush.
- Rinse the instruments in deionized water until all traces of cleaning solution are removed.
- Pat dry the instruments with a clean, disposable, absorbent Kimwipe or equivalent.
- Visually inspect the instruments for complete removal of any debris. If the device is not visually clean, repeat manual cleaning.

Disinfection

Disinfection solution may be used in accordance with the label instructions.

If automated cleaning is employed, a final rinse at 60°C for 20 minutes may be used to affect thermal disinfection.

Maintenance and Repair

Warning: The use of damaged instruments may increase the risk of tissue trauma, infection and length of operative procedures.

Warning: Do not attempt to repair any Extremity Medical instrument.

If your Extremity Medical instrument requires repair or maintenance, return the instrument in the Extremity Medical box or other sturdy box with adequate packaging material to protect the instrument. Send the packaged instrument to:

Extremity Medical, LLC
300 Interpace Parkway
Building A, 2nd Floor
Parsippany, NJ 07054

Attn: Extremity Medical Technical Services

Note: Instruments returned to Extremity Medical must have a statement which testifies that each instrument has been thoroughly cleaned and disinfected. Failure to supply evidence of cleaning and disinfection will result in a cleaning charge and delayed processing of your instrument repair.

Inspection and Function Testing

All instruments: Visually inspect for damage and wear. Where instruments interface with other devices, inspect to ensure that the interface is not damaged.

Check for misalignment, burrs, bent or fractured tips. Mechanically test the working parts to verify that each instrument functions correctly. Remove stained, discolored or damaged instruments.

Packaging

Instruments may be loaded into dedicated instrument trays, or in general-purpose trays. Wrap the trays using an appropriate method.

Storage

Extremity Medical instruments must be completely dry before storing and must be handled with care to prevent damage. Store in designated trays and in areas which provide protection from dust, insects, chemical vapors and extreme changes in temperature and humidity.

Sterilization/Resterilization Procedure

In conformity with the requirements of standards ISO 17664, ISO 17665 and AAMI TIR12 the following sterilization procedures has been validated:

| | U.S. Cycle | EU Cycle |
|------------------------|-------------------|-----------------|
| Sterilizer Type | Pre-Vacuum | Pre-Vacuum |
| Minimum Temp. | 132°C | 134°C |
| Exposure* | 4 min | 3 min |
| Dry Time | 20 minutes | |


Note: Only FDA-cleared sterilization barriers (e.g., wraps, pouches, or containers) should be used by the end-user for packaging terminally sterilized devices.

LIABILITY

Extremity Medical declines all responsibility in case of deviation from the above mentioned directions.

CUSTOMER SERVICE

For further information regarding the Extremity Medical Compression Screw System or a copy of the Extremity Medical Compression Screw Surgical Technique Manual, please contact Extremity Medical, LLC. or your local Extremity Medical Distributor.



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