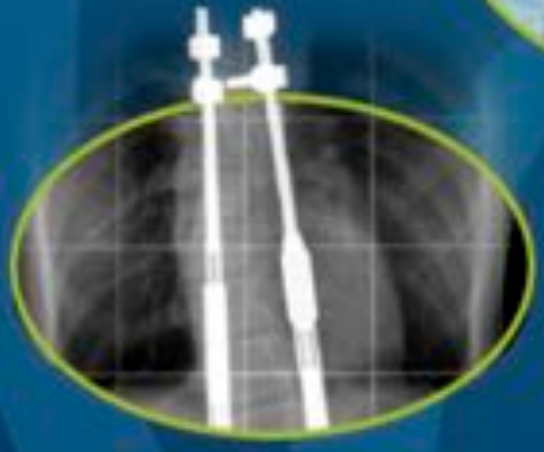
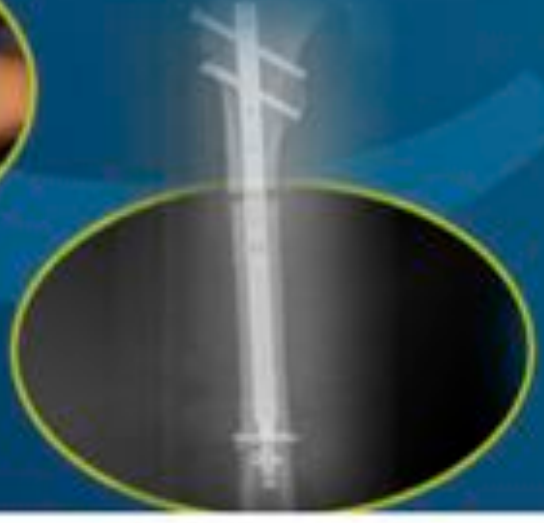


ELLIPSE

ELLIPSE TECHNOLOGIES

MAGEC™ TRAINING PROGRAM



The Company

ELLIPSE

- Founded August 2005
- Focused on the Development of Non-Invasive, Remote Controlled Orthopedic Devices
- 30 Full Time Employees
- Sales coverage in 26 countries worldwide
- CE Mark registration
- 2,500 sq. ft. Facility with Lab Located in Irvine, CA

MAGEC™ Focus:
Early Onset Scoliosis (EOS)

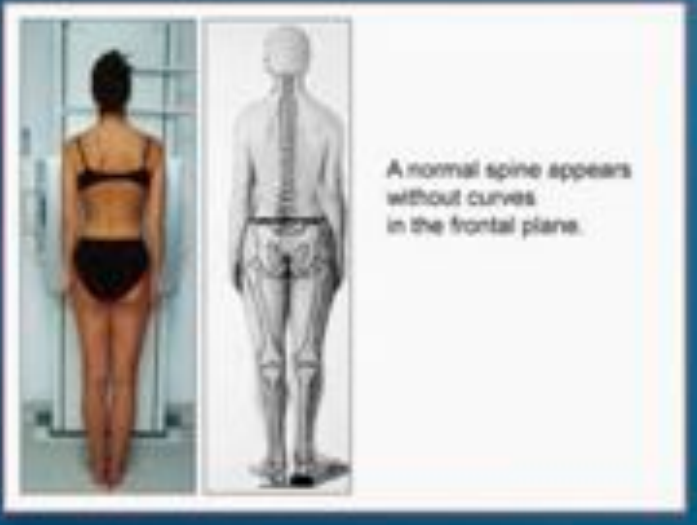
ELLIPSE

- EOS is a form of Idiopathic Scoliosis
  - Cause is "unknown"
  - Occurs in children before 5yrs in age, predominantly in boys
- EOS can progress rapidly into severe, complex curves that impact thoracic organs, lung capacity and respiratory functions
  - Can be fatal
- Can be treated non-invasively or surgically, depending upon the prognosis

Anatomy of the spine

ELLIPSE

- The normal thoracolumbar spine is relatively straight in the coronal plane and has a double curve in the sagittal plane.
- The thoracic spine is convex posteriorly (kyphosis) and the lumbar spine is convex anteriorly (lordosis).
- Normally there should be no lateral curvature of the spine.



Scoliosis

ELLIPSE

- Scoliosis is a complicated deformity that is characterized by both lateral curvature and vertebral rotation

- As the disease progresses, the vertebrae and spinous processes in the area of the major curve rotate toward the concavity of the curve.
  - On the concave side of the curve, the ribs are close together. On the convex side, they are widely separated.

Scoliosis

ELLIPSE

- As the vertebral bodies rotate, the spinous processes deviate more and more to the concave side and the ribs follow the rotation of the vertebrae.
  - The posterior ribs on the convex side are pushed posteriorly, causing the characteristic rib hump seen in thoracic scoliosis.
  - The anterior ribs on the concave side are pushed anteriorly.

MAGEC™ Product Description

ELLIPSE

- The Ellipse Technologies, Inc. **(ETI) MAGEC™ Spinal Bracing and Distraction System** is comprised of one or two sterile spinal rods that are surgically implanted using commercially available fixation components (i.e. pedicle screws, hooks and/or connectors).

- *1. The system includes a non-sterile hand held External Remote Controller that is used at various times after implant to non-invasively lengthen or shorten the implanted spinal rods.*
- *2. The rods include a small internal magnet which allows the rods to be lengthened by use of the External Remote Controller.*

MAGEC™ Indications for Use

ELLIPSE

- The implanted rod is used to brace the spine during growth to minimize the progression of scoliosis.

MAGEC™ Contraindications

ELLIPSE

- Infection or Pathologic conditions of bone such as osteopenia which would impair the ability to securely fix the device.
- Metal allergies and sensitivities.
- Patient with pacemaker.
- Patient requiring MRI imaging during the expected period device will be implanted

MAGEC™ Contraindications

ELLIPSE

- Patients younger than 2 years old.
- Patients weighting less than 25 lb. (11.4 kg)
- Patients and/or families unwilling or incapable of following postoperative care instructions.

MAGEC™ Warnings

ELLIPSE

- The ETI MAGEC Bracing and Spinal System Implants are supplied sterile and are for single use only and cannot be reused or resterilized.
- Do not use if the sterile pouch has been damaged or is open.
- Metallic implants can loosen, fracture, corrode, migrate, or cause pain.

MAGEC™ Selected Precautions

ELLIPSE

- Do not use this device without proper training in both device implantation and adjustment.
- Assure that distraction length is assessed by X-ray imaging immediately after non-invasive adjustment procedure, and also at a minimum of once every six months.
- Assure that patient with implanted device does not enter MRI unit.

MAGEC™ Selected Precautions

ELLIPSE

- During period of implant, if brace is used on patient, brace should not have any magnetic metallic components (steel, etc.) which may affect the implanted magnet.
- During period of implant, patient should not participate in contact or severe sports such as weightlifting, tumbling, gymnastics, rowing, or other high risk activities.
- During period of implant, patient should limit backpack weight to 20 lb. (9 kg) or less.

MAGEC™ SYSTEM

ELLIPSE

- Titanium Implant

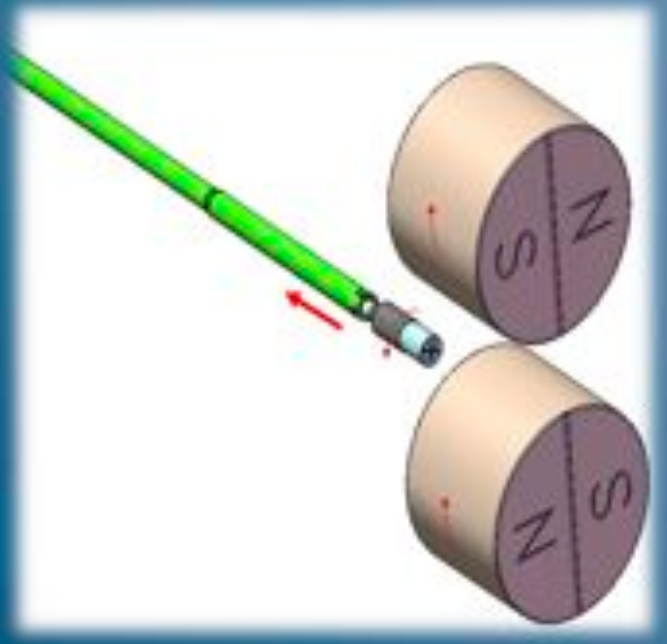
- External Remote Controller (ERC)

Ellipse Magnet Technology

ELLIPSE

Rotational Force

Axial Force



Rare Earth Magnets

Neodymium Iron Boron (NdFeB)

The interaction between rare earth magnets modifies the length of the MAGEC™ implant.

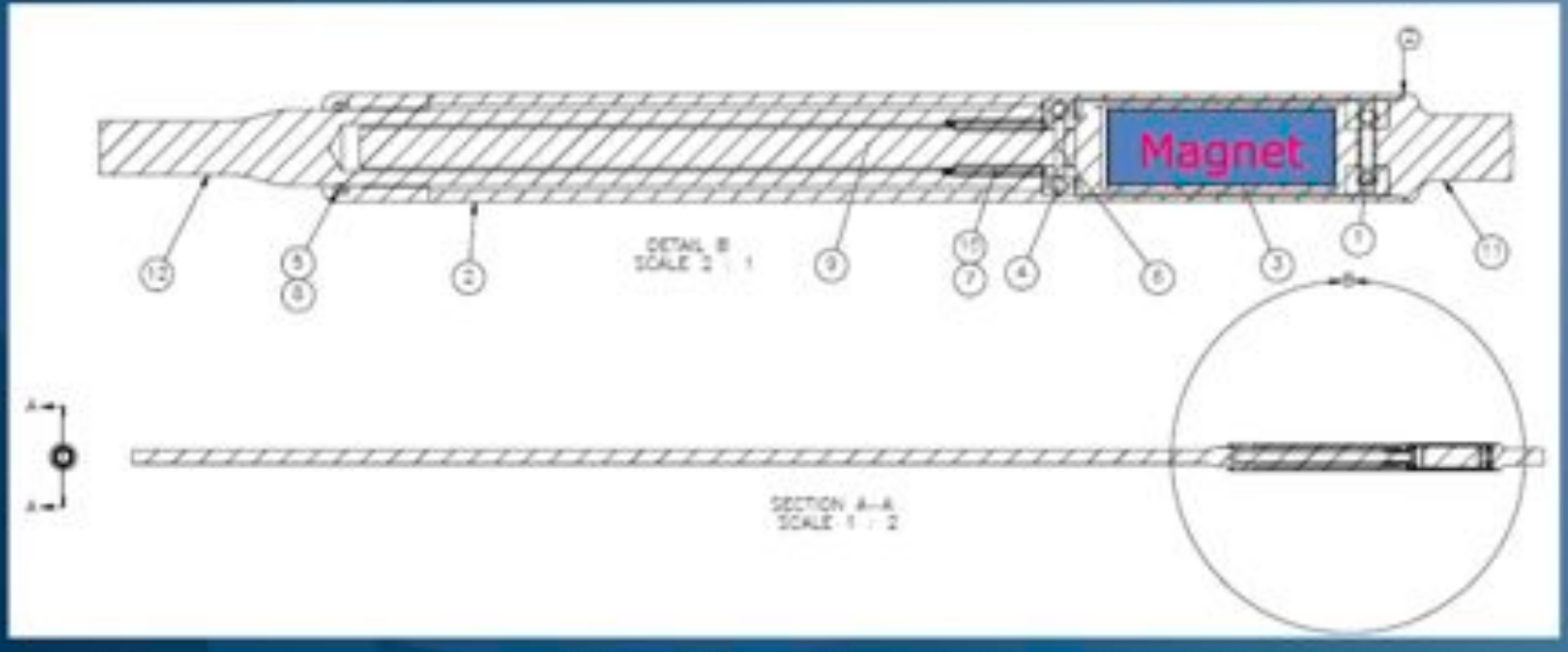
MAGEC™ IMPLANTS

ELLIPSE

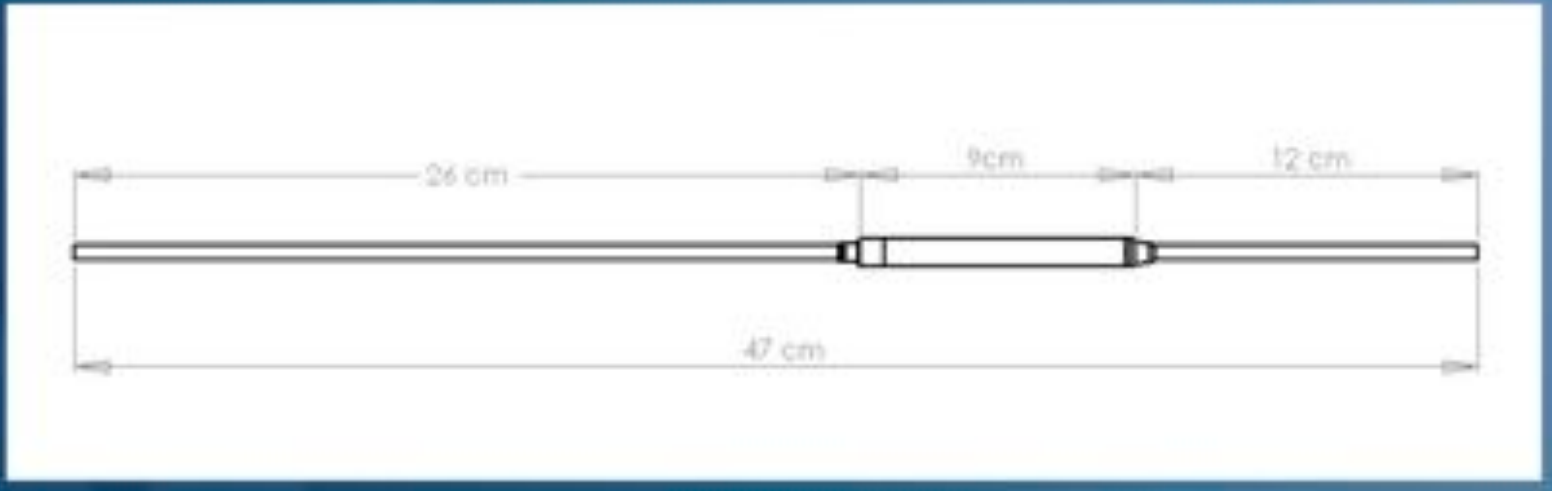
- Available in 4.5mm and 5.5mm sizes.
- Designed to interface between rod and commercially available fixation components, i.e., pedicle screws, hooks, and/or connectors.

MAGEC™ ACTUATOR

ELLIPSE



MAGEC™ rod dimensions



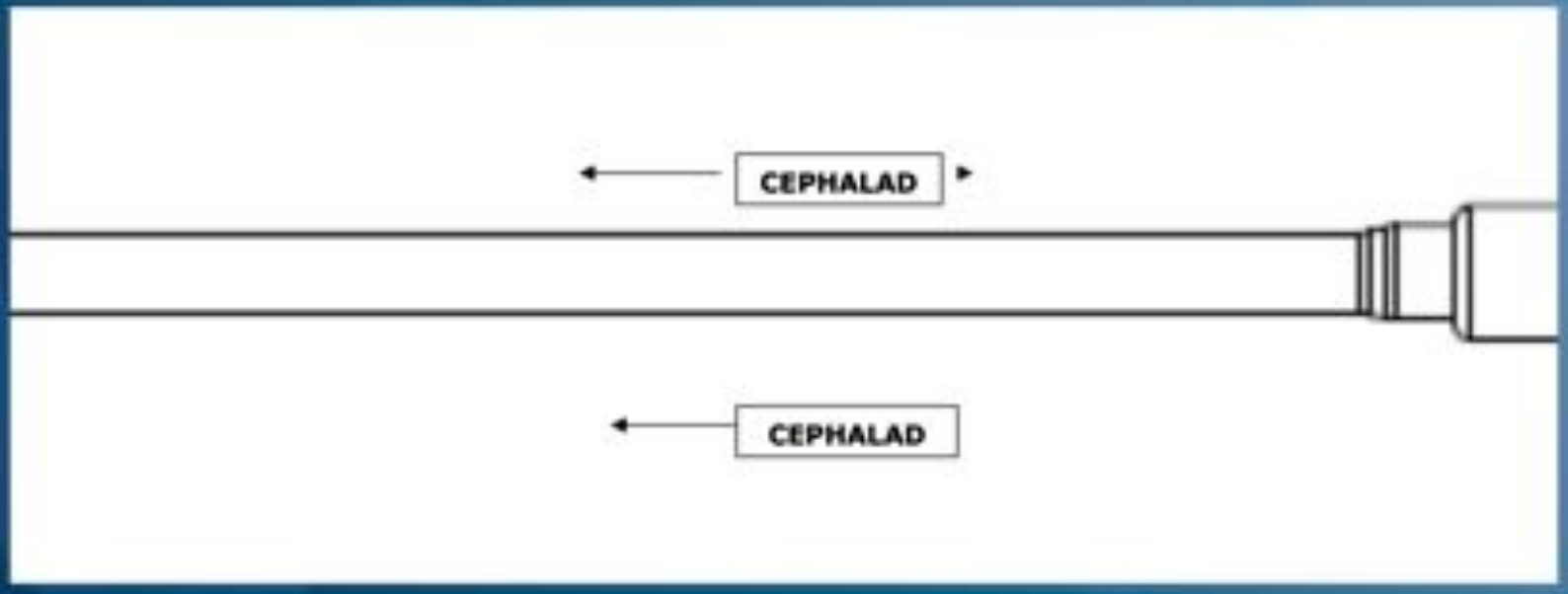
- Proximal rod length 26cm
- Distal rod length 12cm
- Actuator length 9cm
- Actuator diameter is 9mm

MAGEC™ IMPLANTS

ELLIPSE

Actuator must never be bent

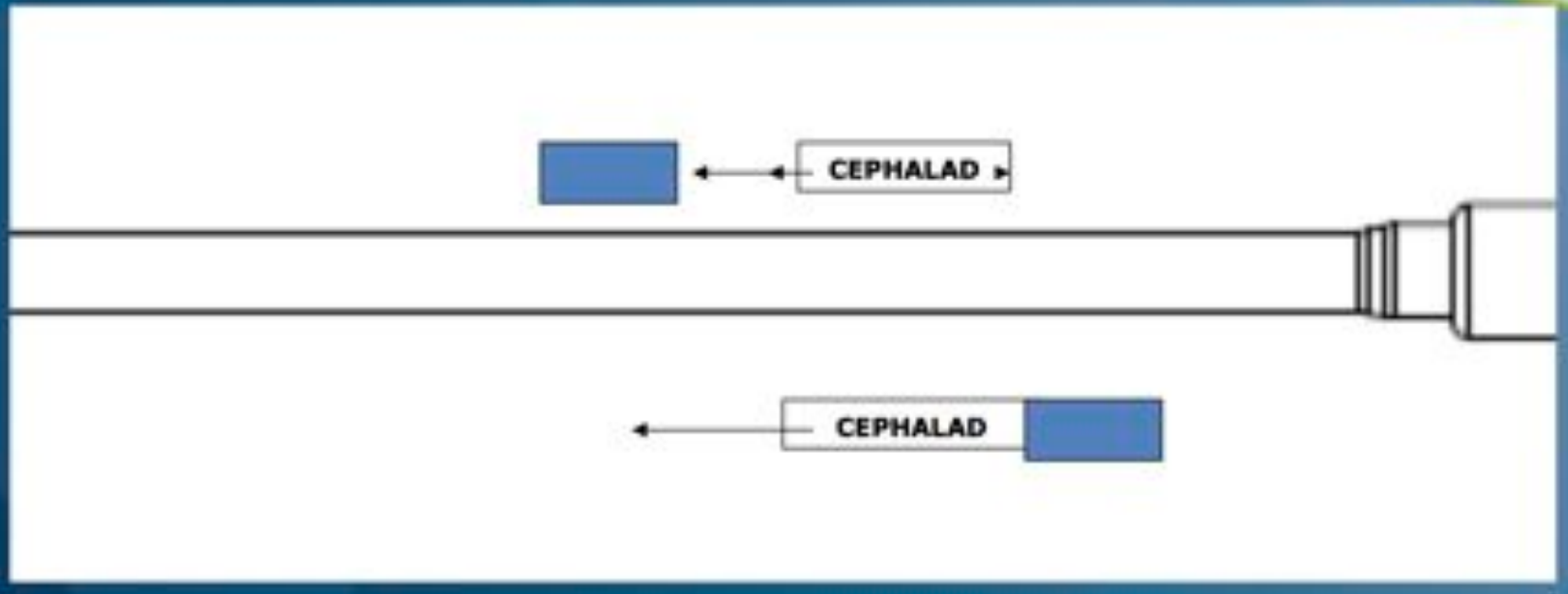
MAGEC™ DUAL RODS



- The longer portion of rod should always point towards the head.

MAGEC™ DUAL RODS

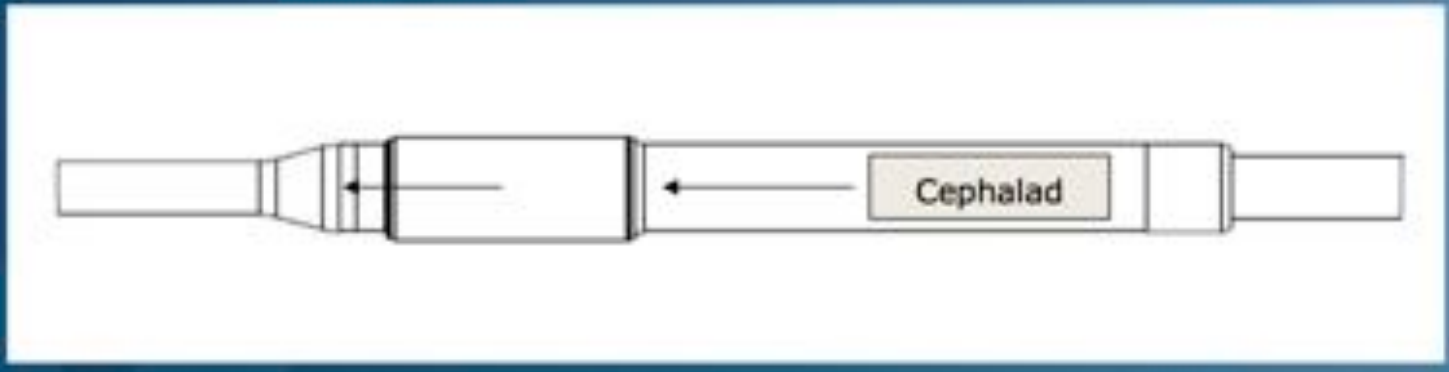
ELLIPSE



- When using dual rods in a patient, the actuators should be placed at the same height as each other in relation to caudal and cephalad

MAGEC™ SINGLE ROD "SL"

ELLIPSE



- Diameter of actuator SL 10.5mm

MAGEC™ IMPLANT

ELLIPSE

- STERILE WRAPPED IMPLANT

MAGEC™ IMPLANT

ELLIPSE

- Minimally invasive implant & explant
- 4.5mm and 5.5mm sizes available
- 48mm of lengthening available
- Eliminates multiple surgeries
- Bi-directional axial adjustments
- Single or dual rod constructs
- Meets International Magnetic Safety

MAGEC™ ERC

ELLIPSE

- EXTERNAL REMOTE CONTROLLER (ERC2)

MAGEC™ ERC

ELLIPSE

ERC2 Proper Patient Positioning

MAGEC™ ERC DISPLAY

ELLIPSE

Control Panel

MAGEC™ ERC CASE

ELLIPSE

ERC2

MAGEC™ ERC

ELLIPSE

- ✓ Patient returns to Dr. office
- ✓ Non-invasive procedure
- ✓ Minutes vs. hours or days
- ✓ Less mental and physical trauma
- ✓ Fewer infections from multiple surgeries
- ✓ LCD readout
- ✓ ERC is portable

COMPETITION

- VEPTR – Synthes
- Traditional Growing Rods
- Shilla-Medtronic
- Phenix-France

Summary

ELLIPSE

- ✓ Minimally invasive procedure
- ✓ Single or dual rod construct
- ✓ Non-invasive adjustments
- ✓ Less traumatic for patients & family
- ✓ Eliminates need for multiple surgeries
- ✓ Reduces risk of infections
- ✓ Less pain & suffering