

EXOGEN Case Study Report

DISTAL TIBIAL NONUNION

Physician: Damien Billow, MD, Assistant Professor of Surgery, Orthopaedic Surgery, Cleveland Clinic

Patient Information:

Age: 36 years old

Sex: Male

Weight: 224 lbs

Fracture:

Distal tibial fracture with non-displaced posterior malleolus fragment that progressed to nonunion

Outcome:

Successfully healed nonunion, allowing the patient to avoid further surgery

Cause of Injury:

The patient is a police officer who suffered a fracture while making an arrest

Comorbidities/Risk Factors:

Location of fracture

Treatment Objectives:

- Avoid further surgery
- Achieve bony healing
- Restore function

Prior Treatments:

None

Patient Motivation to Heal:

- Return to work as soon as possible
- Avoid further surgery

Treatment Plan:

- June 20, 2016: Surgery for percutaneous screw fixation of posterior malleolus fragment and suprapatellar nailing of distal tibial fracture
- Post Op: NWB due to distal fracture and posterior malleolus involvement
- August 10, 2016: Advanced to WBAT
- September 21, 2016: Initiated EXOGEN use
- November 16, 2016: Showed progressive healing
- February 15, 2017: Healed

DISTAL TIBIAL NONUNION



At Injury, Pre Op:
June 19, 2016 AP



At Injury, Pre Op:
June 19, 2016 Lat



Post Op (~2 Months):
August 10, 2016 AP



Post Op (~2 Months):
August 10, 2016 Lat



~2 Months Post EXOGEN:
November 16, 2016 AP



~9 Months Post EXOGEN:
June 7, 2017 AP



~9 Months Post EXOGEN:
June 7, 2017 Lat

The EXOGEN Ultrasound Bone Healing System is indicated for the non-invasive treatment of established nonunions* excluding skull and vertebra. In addition, EXOGEN is indicated for accelerating the time to a healed fracture for fresh, closed, posteriorly displaced distal radius fractures and fresh, closed or Grade I open tibial diaphysis fractures in skeletally mature individuals when these fractures are orthopaedically managed by closed reduction and cast immobilization. There are no known contraindications for the EXOGEN device.

Safety and effectiveness have not been established for individuals lacking skeletal maturity, pregnant or nursing women, patients with cardiac pacemakers, on fractures due to bone cancer, or on patients with poor blood circulation or clotting problems. Some patients may be sensitive to the ultrasound gel. Full prescribing information can be found in product labeling, at www.exogen.com, or by calling customer service at 1-800-836-4080.

*A nonunion is considered to be established when the fracture site shows no visibly progressive signs of healing.