Integra™

Achillon® Achilles Tendon Suture System

SURGICAL TECHNIQUE

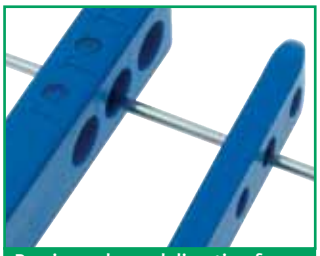
INTEGRA™

LIMIT UNCERTAINTY

Description

The Integra™ Achillon® System is an elegant method to treat acute Achilles tendon ruptures. It is a minimally invasive procedure that allows direct visual control of the repair, as well as percutaneous introduction of the sutures. The surrounding soft tissues and tendon itself are treated with the care to avoid any local trauma. It includes:

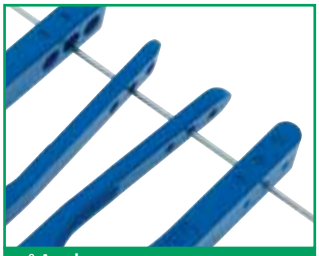
- One Achillon instrument
- One needle driver
- Two surgical needles of 1.6 mm diameter



Precise order and direction for introduction of the sutures

Indications

- Acute rupture (< 10 days)
- Rupture located between 2 and 8 cm above calcaneum
- Open or closed rupture



4° Angle
to conform to the anatomy

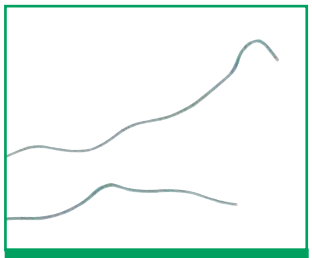
Contraindications

- Previous local surgery
- Chronic or neglected rupture

Needle driver
Material: Polycarbonate

Adjustment screw provides for appropriate adaptation to the tendon stump

Achillon Instrument
Material: Polycarbonate



Sutures size: USP
(3.5 metric)

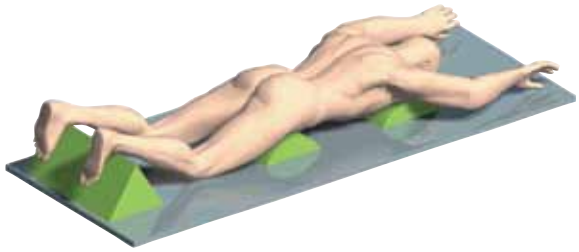
Adjustment screw
Material: Stainless steel 316 L

Surgical Technique

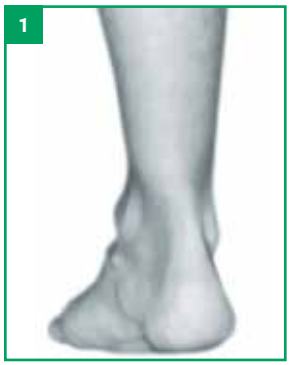
This technique has been developed with the help of Matthew Assal, MD

Note:
As the manufacturer of this device, Integra LifeSciences Corporation does not practice medicine and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any procedure is responsible for determining and using the appropriate techniques for utilizing the device with each patient.

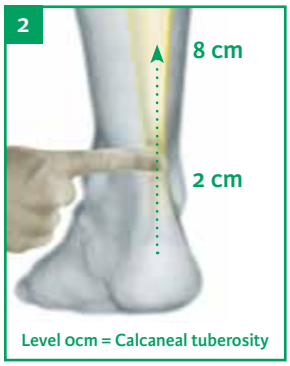
The patient is placed prone on the surgical table with standard protection on the various pressure points. Both ankles are elevated and a tourniquet is applied (except if contraindicated).



1 Antibiotic prophylaxis pre-op.
Do not use plastic drape (percutaneous technique). Inflate tourniquet.



2 Accurately feel the gap (soft spot) corresponding to the rupture site (in more than 90% of cases it is located 4 cm above calcaneal tuberosity). The indication for use of the Achillon® System is for ruptures occurring between 2 and 8 cm proximal to the calcaneal tuberosity.

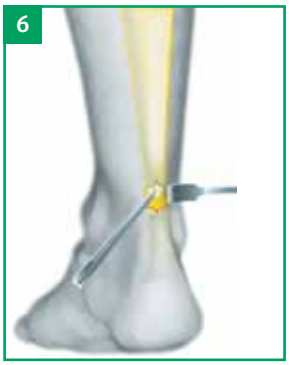


3 Incision: vertical and medial to the tendon, 1.5 to 2 cm in length, proximally from the soft spot. With scalpel blade N°15 (smallest size), delicately dissect the thin subcutaneous tissue.

4 Retract the skin layer with 2 small hook retractors (Guillis type). Carefully identify the paratenon. Make a 2 cm vertical incision in the paratenon.

5 Place a stay suture in each edge of the paratenon. The space under the paratenon has to be cleared proximally and distally in order to visualize its “tunnel shape”. This maneuver will facilitate the introduction of the Achillon.

6 Identify both proximal and distal tendon stumps. On the medial side, the plantaris tendon may be visualized. Note: In most cases the tendon stumps have become frayed. If the rupture spot is particularly difficult to locate, the skin incision can be extended proximally or distally.



7 Introduce the Achillon in the closed position (minimal width) under the paratenon proximally. The tendon stump comes in between the two internal branches.

8 As soon as the Achillon is introduced, it is progressively widened. The tendon stump is held with fine forceps or a clamp passed under the Achillon (Kocher or Mosquito).

9 Before introducing the sutures, the appropriate position and angulation of the Achillon is confirmed by external digital palpation. The tendon should fall between the two central branches of the instrument. Using the needle driver, the first needle is introduced according to arrows and numbers printed on the instrument.

10 Three sutures are passed and left outside.

11 The Achillon is withdrawn gently in order to prevent any suture or soft tissue damage. As it is being withdrawn, the Achillon is progressively closed. Note: From an extracutaneous position, the sutures become subperitendinous. Thus, the tendon itself becomes the only site of tissue attachment for the suture.

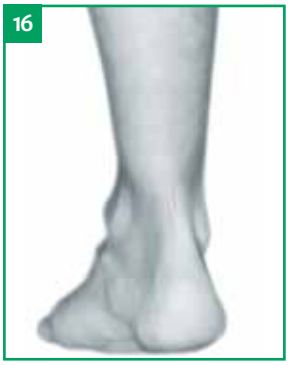
12 A clamp is placed on the 3 sutures coming out laterally and another clamp is placed on the 3 sutures coming out medially. Each clamp must remain on its respective side. In this way sutures will not cross the midline. Note: If any suture fails, it has to be replaced by repeating the previous technique.

13 The same sequence is performed on the distal stump. The Achillon is introduced under the paratenon and pushed until it touches the calcaneum. Again 3 sutures are placed.

14 Correctly organize the suture pairs. They must not cross the midline: the sutures coming out on the lateral side have to remain lateral and those on the medial side have to remain medial.

15 The sutures are tied by corresponding pairs. The tendon reduction is controlled under direct vision. If the tendon is frayed and prevents any landmark for control of length, then the tendon tension should be compared to the opposite leg.

16 Careful closure of paratenon and skin. The ankle is maintained in 30° of plantarflexion with a splint, during the first three weeks. It is then progressively brought to the neutral position over the following five weeks. Always be sure of patient compliance.



Integra™
Achillon® Achilles Tendon Suture System

Product

Catalog Number	Description
119700ND	One Achillon instrument, one needle driver, two surgical needles of 1.6mm diameter

Product Information Disclosure

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- The products are manufactured and referenced within the frame of the standards in force.
- Implantation procedures are described in the surgical technique.
- WARNING: Federal law (USA) restricts this device to sale by or on the order of a physician.

For more information or to place an order, please contact:
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