

# CLUBFOOT ACHILLES TENOTOMY TECHNIQUE

USING THE SINGLE-USE, STERILE PACKED CLUBFOOT ACHILLES TENOTOMY (CAT) KIT





# THE FIRST AND ONLY

# CLUBFOOT Achilles TENOTOMY (CAT) KIT



### KIT COMPONENTS

- Scalpel Handle Dissector
- 2 Mini Blade #6400
- Mini Blade #6700
- 4 17" x 24" OR Towel
- 5 1% Lidocaine, 5ml
- 6 3cc Syringe Leur Lock
- 25-Gauge Needle
- 8 Curved Strabismus Scissors, 4.5"
- Ourved Mosquito Clamp, 3.5"
- 10 Needle Holder, 5"
- 4" x 4" Gauze 12 Ply
- Chloraprep, 3ml
- 43 Adhesive Bandage, 3/4" x 3"
- Meosporin Ointment, 0.9cc
- Medium Exam Gloves (Nitrile PF)
- Large Exam Gloves (Nitrile PF)
- Wrap Poly 30X30
- 18 Tray 9X5X2

### **SURGICAL TECHNIQUE**

Note: Prior to the tenotomy, order the brace and schedule a brace fitting. The foot must be in a dorsiflexed and abducted position to fit into brace.

### • PATIENT POSITIONING

An Achilles tenotomy may be done by the clinician in the clinic or operating room setting.

Two people are required – one to hold the foot and another to perform the tenotomy. The patient is positioned by gripping the child's calves, with his or her knee in extension.

### STERILIZE

Generously apply antiseptic circumferentially to the foot, ankle, and lower leg (Fig. 1).



Fig. 1

### PREPARE AND APPLY DRAPES TO PATIENT

Use the scissors supplied with the kit to make one or two fenestrations in the blue cotton surgical towel depending on if the case is unilateral or bilateral (Fig. 2).



Fig. 2

# **SURGICAL TECHNIQUE (CONT.)**

### 4 INJECTION PRE-TENOTOMY

Palpate the tight Achilles tendon while dorsiflexing the foot to identify its location (Fig. 3). Inject 1/10cc of local anesthetic medial to the Achilles tendon, approximately 1cm proximal to its insertion (Fig. 4).

Note: If too much anesthetic is used, it may be difficult to feel the tendon.

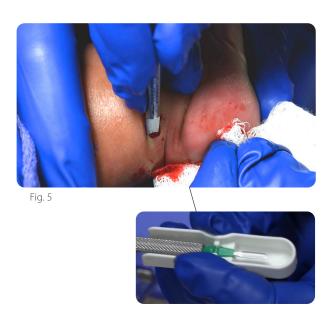


Fig. 3

Fig. 4

### SKIN INCISION

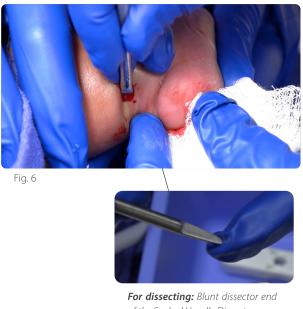
Make a tiny puncture using the selected knife blade on the Scalpel Handle Dissector anteromedial to the Achilles tendon, 1cm proximal to its insertion (Fig. 5).



**For cutting:** #6400 blade attached to the Scalpel Handle Dissector

### 6 DEFINE THE ACHILLES **TENDON BORDERS**

Next, reverse the Scalpel Handle Dissector and insert the blunt dissector end into the incision utilizing the dissector to define a space anterior and posterior to the Achilles tendon, free of the neurovascular bundle (Fig. 6).



of the Scalpel Handle Dissector

# SURGICAL TECHNIQUE (CONT.)

### CUTTING THE TENDON

Re-insert the Scalpel Handle Dissector utilizing the blade end, once again, just anterior to the Achilles tendon in the previously identified space created in Step 6 (Fig. 7).

Turn the scalpel perpendicular to the tendon and dorsiflex the foot (Fig. 8) while applying pressure on the blade to create the tenotomy. Be careful not to button-hole through the skin (Fig. 9).

The "release" obtained after a complete tenotomy is characterized by a palpable "pop." The result will be 10-20 degrees of additional dorsiflexion.



Re-insert Scalpel Handle Dissector using the blunt dissector end to palpate for any residual tendon fibers which may have been left uncut. Using a finger palpate the defect in the tendon through the skin (Fig. 10).



Fig. 10





Fig. 8



Fig. 9

### INJECT THROUGH TENOTOMY SITE

Additional local anesthetic may be injected through the tenotomy site at the skin edges. This will also facilitate hemostasis. If any bleeding is present apply pressure with a gauze for 60 seconds.



Fig. 11

# **SURGICAL TECHNIQUE (CONT.)**

### CLOSURE WITH ABSORBABLE SIMPLE SUTURE

Utilizing the suture, close the wound (Fig. 12) and cover with Neosporin ointment and an adhesive bandage (Fig. 14).



Fig. 12



Fig. 13



Fig. 14

### CASTING

Apply the cast with the feet in maximum dorsiflexion and external rotation (Fig. 15).



Fig. 15

