

## CONNECTIVE TISSUE GRAFT HARVESTER PROCEDURE

CONNECTIVE TISSUE GRAFT HARVESTER Double Blade

UNIGRAFT KNIFE™ Single Blade

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### UNIGRAFT KNIFE™

For taking precise keratinized epithelial or connective tissue grafts

65-000-14\* Handle only, fits single and double blades

### EPITHELIAL HARVESTING UNIGRAFT KNIFE™ SINGLE BLADE

Allows for the harvesting of a predictable, uniform, keratinized epithelial graft from the palate to build and ensure adequate marginal or crestal gingival epithelium.

#### Replacement Shoe for Single Blade\*

65-000-04 Single Blade, 1.25mm x 6mm

65-000-05 Single Blade, 1.5mm x 6mm

65-000-07 Single Blade, 1.25mm x 9mm

65-000-08 Single Blade, 1.5mm x 9mm

### CONNECTIVE TISSUE GRAFT HARVESTER DOUBLE BLADE

Harvests pieces of connective tissue that have a consistent 1.5mm thickness and a 9mm width.

#### Replacement Shoe for Double Blade\*

65-000-09 Double Blade, 1.5mm x 9mm

\* All listed Replacement Shoes are Interchangeable. The same handle is used for the ACE Unigraft Knife™ and the ACE Connective Tissue Graft Harvester.



**FIGURE 1:** Patient presented with recession and minimal keratinized tissue on tooth 10 and 11.



**FIGURE 2:** Horizontal incisions made for access and flap release. **NOTE:** A more conservative tunneling preparation without horizontal or vertical release incisions may be seen in Saadoun, A. "Current Trends in Gingival Recession Coverage—Part 1: The Tunnel Connective Tissue Graft" Pract Proced Aesthet Dent 2006;18(7):433-438.



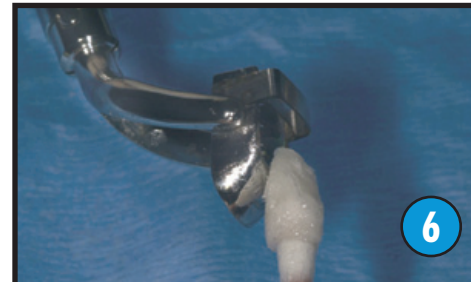
**FIGURE 3:** The root surface is prepared with a diamond bur (92-25-0023) or currettes.



**FIGURE 4:** A small 9mm long V incision is prepared with a #15 blade.



**FIGURE 5:** The prepared V will assist in starting the ACE Connective Tissue graft harvester.



**FIGURE 6:** Vaseline is placed upon the leading edge of the horseshoe to assist in advancing the ACE Connective Tissue graft harvester.



**FIGURE 7:** The leading edge of the ACE Connective Tissue graft harvester blades are placed into the V and it is advanced toward the posterior. The distance advanced should be equal to the amount of tissue needed to treat the recession defect.



**FIGURE 8:** The pedicle epithelial containing layer can be seen as well as the connective tissue layer which is harvested with a #15 blade after harvester removal (see Connective Tissue Sample inset).



**FIGURE 9:** The epithelium containing pedicle flap is replaced.



**FIGURE 10:** PeriAcryl™ (157-4000) is used to fixate the pedicle flap.



**FIGURE 11:** Connective tissue sutured in place with 5-0 chromic gut suture.



**FIGURE 12:** Flap coronally advanced to cover the connective tissue and sutured with 5-0 chromic gut suture.



**FIGURE 13:** Healing at 5 days.



**FIGURE 14:** Healing at 9 days.

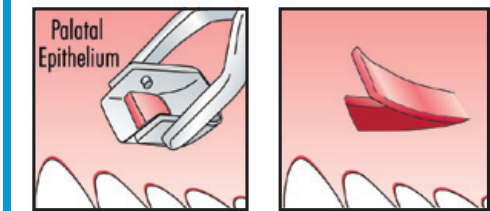


**FIGURE 15:** 1 month healing showing root coverage.

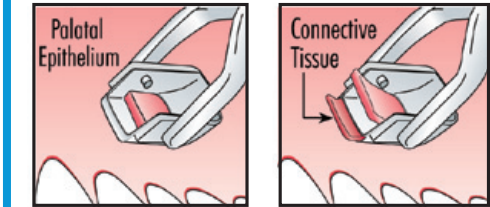


**FIGURE 16:** 1 month palatal healing showing complete healing.

### UNIGRAFT KNIFE™ EPITHELIAL Grafter



### CONNECTIVE TISSUE Graft Harvester

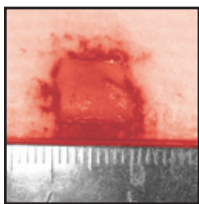


### Tips for Successful Use of the CONNECTIVE TISSUE Graft Harvester

- Follow all the instructions on the ACE Connective Tissue Graft Harvester Procedure Chart, shown at left, (starting incision preparation, lubricant on the leading edge of the horseshoe, etc.).
- A more conservative tunnel release without verticals may be performed for single or multiple teeth when the extent of the defect is not very significant.
- Evaluate the palatal tissue thickness by bone sounding with a probe prior to using the harvester. The harvester works best with tissue of at least 3mm thickness.
- If it is difficult to advance, move the harvester in a small medial lateral wiggle, in addition to the required posterior movement to assist with cutting. Do not use a dull blade (typical life of 3 uses).
- Be sure to put a considerable amount of pressure in a superior direction to avoid making a superficial cut, which can damage the pedicle.

### Connective Tissue Sample

The harvested piece of connective tissue has a consistent 1.5mm thickness and a 9mm width. The length is controlled by the ACE CT Graft Harvester advance and is 10mm for this example.



# CONNECTIVE TISSUE GRAFT HARVESTER CARE/MAINTAINENCE

**! READ ALL INSTRUCTIONS CAREFULLY PRIOR TO USING OR HANDLING THIS INSTRUMENT!**

## SAFETY AND STERILIZATION PRECAUTIONS

The Unigraft Knife has been shipped with the cutter shoe positioned relative to the fork as shown in Figure 1. This has been done to protect the cutting edge of the blade during shipment.

1. When the instrument is being sterilized, or when it is not in use, the cutter shoe should be in this position. (This will keep the blade cutting edge from being damaged.)

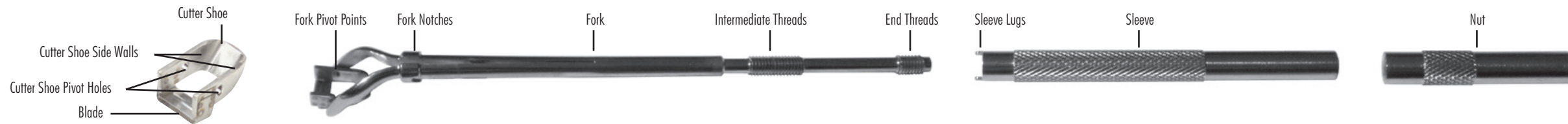
2. **DO NOT TOUCH THE BLADE** cutting edge with fingers or any other foreign object and do not scrub with scrubbing brush.

3. Do not allow any objects to come in contact with the cutter shoe or blade cutting edge when sterilizing or at any other time.

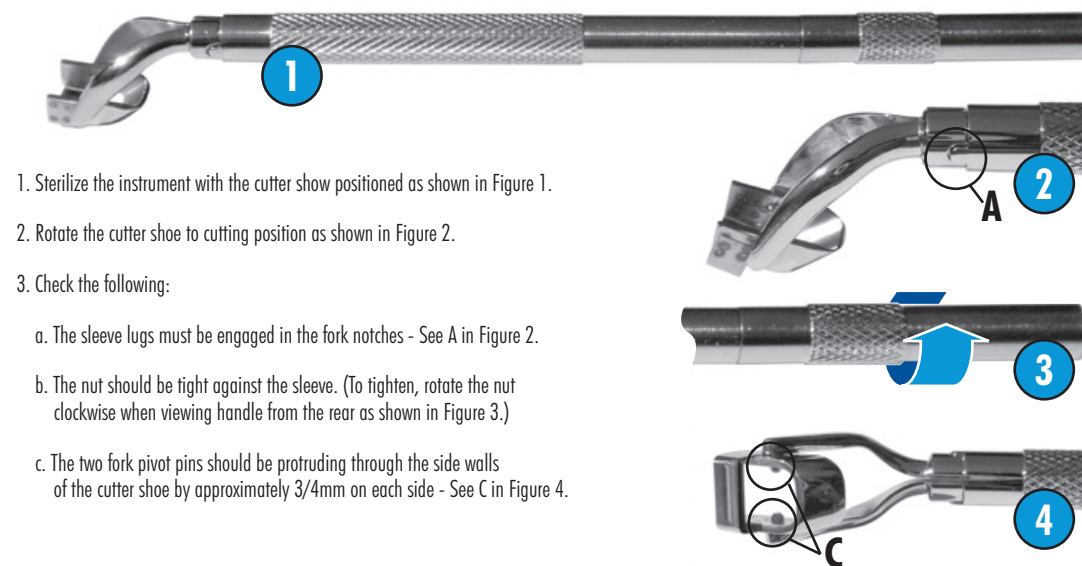
4. Do not clean, store, or process this instrument along with other instruments that may contact the cutting edge of the blade in any possible way. The cutting edge of the blade is a finely honed cutting edge and any nick or damage will decrease the life of the cutter shoe.

5. With proper care, the cutter shoe is capable of five (5) to eight (8) surgeries.

**! WARNING!**  
Improper assembly may permit cutter shoe to fall from fork when in use; therefore, follow all instructions carefully, especially those listed under Preparation for Using the Unigraft Knife.



## PREPARATIONS FOR USING THE UNIGRAFT KNIFE



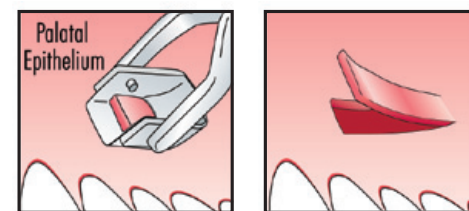
1. Sterilize the instrument with the cutter shoe positioned as shown in Figure 1.
2. Rotate the cutter shoe to cutting position as shown in Figure 2.
3. Check the following:
  - a. The sleeve lugs must be engaged in the fork notches - See A in Figure 2.
  - b. The nut should be tight against the sleeve. (To tighten, rotate the nut clockwise when viewing handle from the rear as shown in Figure 3.)
  - c. The two fork pivot pins should be protruding through the side walls of the cutter shoe by approximately 3/4mm on each side - See C in Figure 4.

## INSTRUCTIONS FOR USING THE UNIGRAFT KNIFE

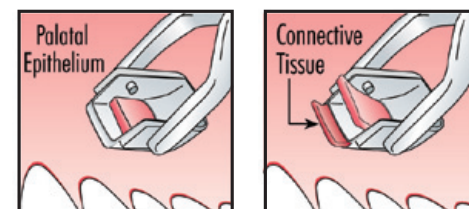
For the complete grafting technique, refer to a current text of periodontal surgery. This section will only review the removal of donor tissue.

1. The area for the donor site should be selected and anesthetized.
2. After the recipient site has been prepared, measure the dimension of the graft needed to cover the recipient site. Transfer this measurement to the palate. Always measure a length 2mm longer than is needed for the graft.
3. Align the cutting edge of the graft knife with the posterior end of the donor site. With a very firm hand, direct the graft knife in a superior and anterior direction. (The graft knife is designed so that the cut depth produced is 1.5mm. Therefore, use enough pressure to seat the blade to the full 1.5mm - see Figure 5 for direction of cut.)
4. When the desired length of tissue has been cut, stop and back the instrument out posteriorly. Now, the donor tissue should be attached at the anterior end.
5. Grasp the donor tissue securely with tissue forceps and cut the donor tissue free at the anterior end with a #15 scalpel blade.
6. Examine the graft tissue and contour if needed.
7. Place the graft on the recipient site as soon as possible to lessen trauma to the tissue.
8. Suture graft in place in the conventional manner.
9. Before and after usage, inspect the Unigraft Knife for damage to the cutting blade, attachment of the cutter shoe to the handle, and tightness of the nut on the handle.

### UNIGRAFT KNIFE™ EPITHELIAL Grafter

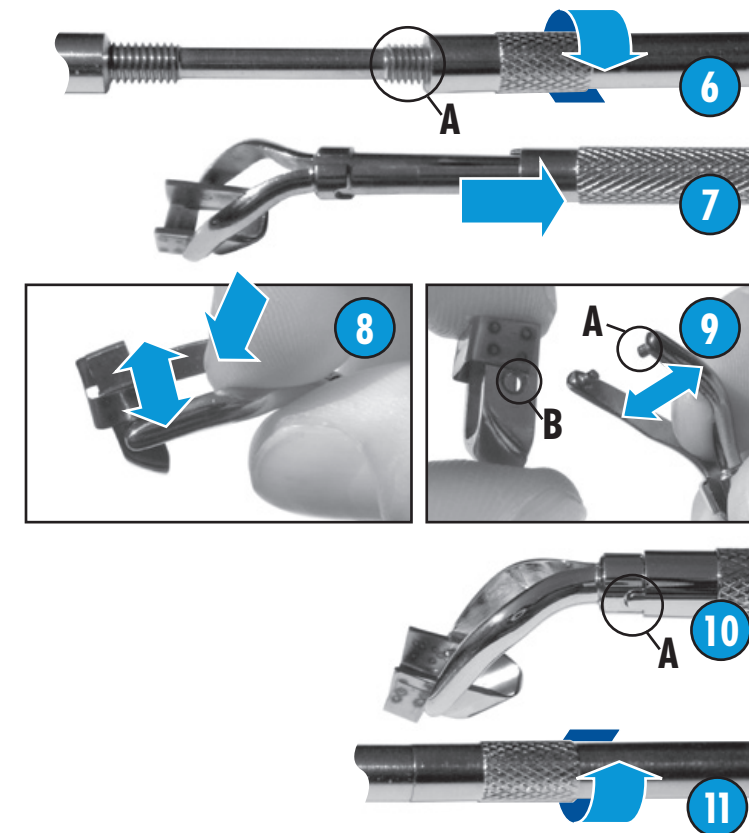


### CONNECTIVE TISSUE Graft Harvester



## INSTRUCTIONS FOR REPLACING THE CUTTER SHOE

1. Unscrew nut from the "intermediate threads", slide to rear (away from fork end), and unscrew nut on "end threads" until 4 or 5 "end threads" are visible as shown in Figure 6A.
2. Slide sleeve to rear (away from fork end) until it rests against the nut as shown in Figure 7.
3. With the sleeve in the rear most position, spread fork slightly to remove cutter shoe as shown in Figure 8. **Caution:** Spread fork only enough to clear cutter shoe.
4. Insert new cutter shoe by spreading fork slightly (Figure 9). Engage fork pivot pins (Figure 9 inset A) into shoe pivot holes (Figure 9 inset B). Close in fork by squeezing fork arms with fingers.
5. Slide sleeve forward engaging sleeve lugs in fork notches (Figure 10 inset A).
6. Tighten nut against sleeve, turning nut clockwise when viewing instrument from rear (Figure 11).
7. Prepare and check instrument for use by repeating steps already outlined.



## IMPORTANT

1. Check for proper orientation of cutter shoe to fork as shown in figures 2 and 5 prior to use.
2. When changing shoes, **DO NOT** spread fork beyond amount necessary for fork pivot pins to clear cutter shoe.
3. Inspect blade cutting edge and proper assembly prior to each usage.
4. **DO NOT** attempt to resharpen blade.
5. **DO NOT** attempt to replace blade in cutter shoe (this is a welded assembly).
6. **DO NOT** exceed the recommended number of 5 to 8 surgeries per cutter shoe.
7. **DO NOT** drop the instrument. If instrument is dropped, return it to ACE Surgical Supply for inspection and/or replacement.
8. **DO NOT** touch the blade cutting edge or allow any foreign objects to touch the blade cutting edge.