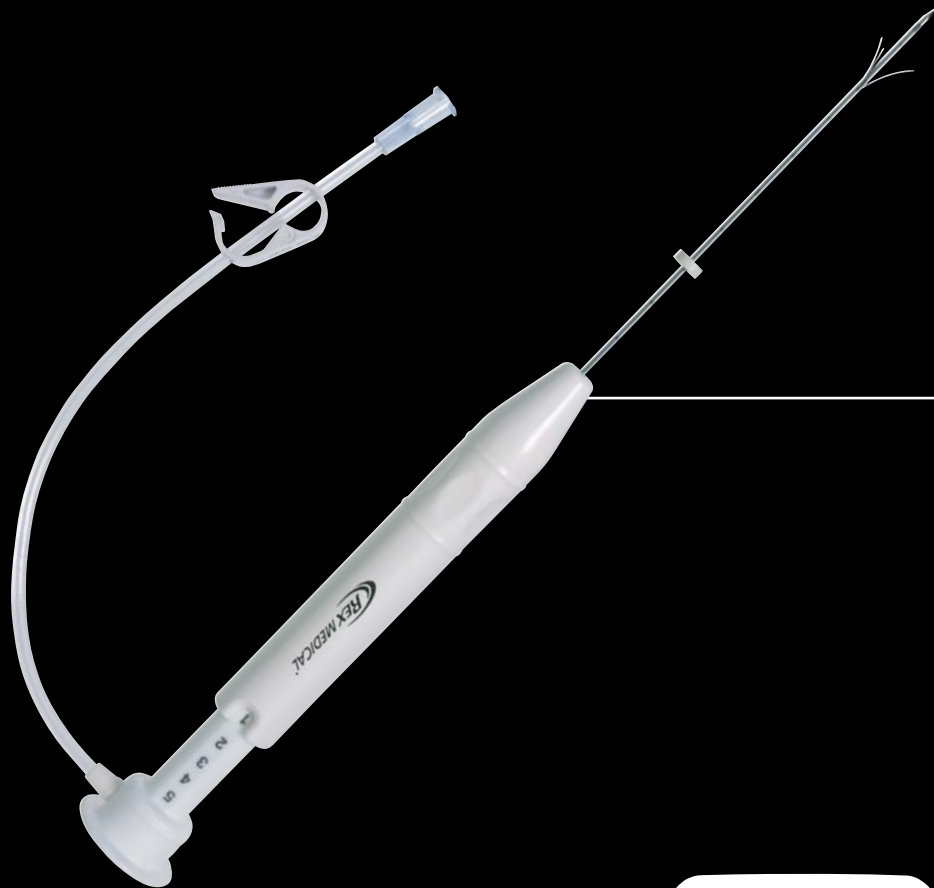


# Quadra-Fuse<sup>\*</sup>

**Multi-Pronged  
Injection Needle**

*The first multi-pronged  
injection needle for  
precision delivery of fluid.*



**inter.v**<sup>®</sup>



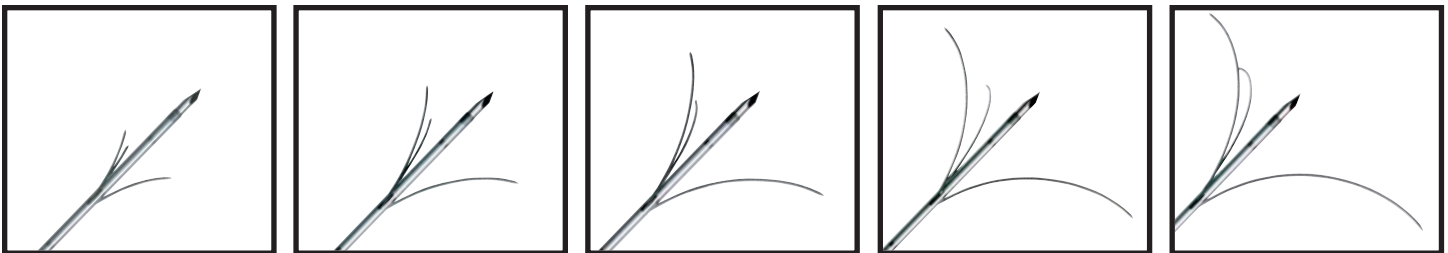
Each of the three tines has two through-holes (four fluid exits) for a total of 12 points of simultaneous infusion into a precisely controlled area.

# Quadra-Fuse<sup>\*</sup>

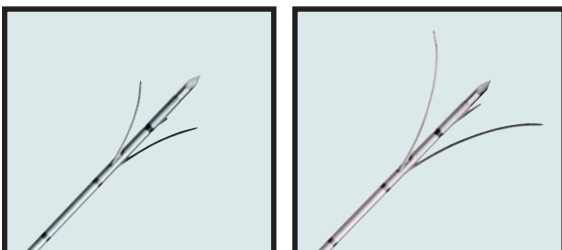
## Multi-Pronged Injection Needle

Quadra-Fuse<sup>\*</sup> is the first multi-pronged injection needle designed for controlled, volumetric dispersion of fluids.

The unique tine array design ensures accurate and uniform distribution of fluid into the designated target location. This patented technology<sup>\*\*</sup> delivers a much greater fluid volume than single source needles. Quadra-Fuse is equipped with multiple tine array diameter settings to accommodate varying target zone diameters. The needle is available in two designs (Quadra-Fuse ST and Quadra-Fuse) for small and large diameter requirements. The Quadra-Fuse's distinctive trocar tip and tine array design is highly echogenic and visible under Ultrasound and CT imaging guidance.



Quadra-Fuse is adjustable in 1 CM increments from 1 to 5 CM tine array diameter.



Quadra-Fuse ST is adjustable from 1 to 2 CM tine array diameter.

Quadra-Fuse is the first multi-pronged injection needle designed for controlled, volumetric dispersion of fluids.

<sup>\*</sup> Trademark of REX MEDICAL

<sup>\*\*</sup>Manufactured under U.S. Patent No. 6,905,480. Other patents pending.

The unique tine array ensures accurate and uniform distribution of fluid to the target location.



### **Quadra-Fuse® Features and Benefits:**

- Three adjustable tines exit the cannula, so one device can be utilized to target varying tissue zones. Each tine has two evenly spaced through-holes (four fluid exits) for a total of 12 points of simultaneous infusion.
- Adjustable tines provide accurate and uniform distribution of fluid agents in a predictable and reproducible fashion
- Trocar style tip allows for reduced penetration force required for needle insertion, elimination of tissue coring and augmented cannula strength.
- Ergonomic product design provides visual and tactile settings for tine array diameter, to ensure accurate deployment of tines and optimal fluid dispersion.
- Device is ultrasound and CT compatible for enhanced visualization for needle placement, dispersion of fluid and post procedure results.

### **Two Quadra-Fuse Designs for Choice of Array Diameters**

- Quadra-Fuse is adjustable from 1 to 5 CM diameter tine arrays in 1 CM increments.
- Quadra-Fuse ST allows for 1 CM or 2 CM tine array diameter.

Quadra-Fuse and Quadra-Fuse ST are each available in 10 CM, 15 CM and 20 CM lengths.

\*\*Manufactured under U.S. Patent No. 6,905,480. Other patents pending.



Radiographic imagery shows the deployed Quadra-Fuse device.

# Quadra-Fuse\*

Multi-Pronged Injection Needle

Trocar Style Tip

Three Stainless Steel Tines, each with two through-holes

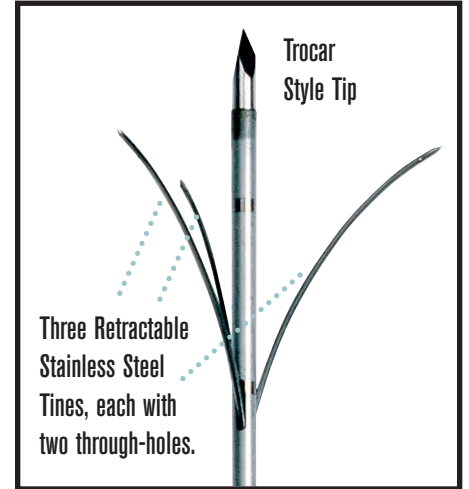
1 CM Depth Markings

Depth Marker Grommet

Extension Tubing Clamp

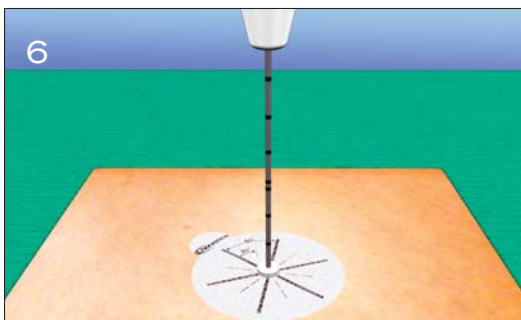
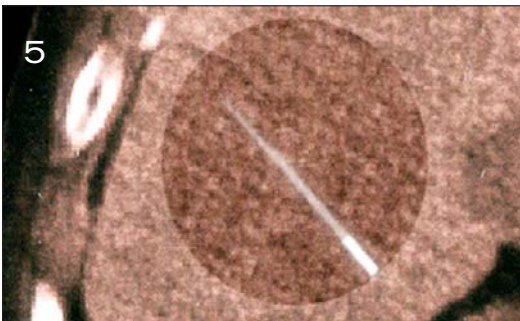
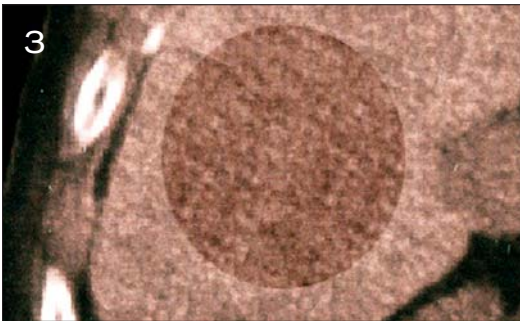
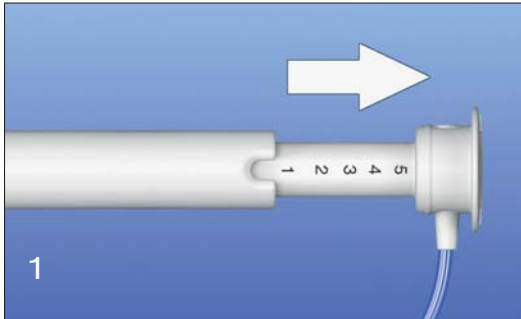
Easy Grip Handle

Tine Array Diameter Adjustment



Quadra-Fuse is equipped with a 30 and 60 degree adhesive skin patch to serve as a guide for needle rotation during the procedure.

## Operating Quadra-Fuse\*



### Protocol for dispersion of fluid:

- 1.** Remove the device from the package and retract plunger completely. Needle prongs should be completely contained inside cannula prior to needle insertion.
- 2.** Flush and fill (prime) with sterile heparinized saline solution prior to use (priming volume is indicated on extension tubing clamp).
- 3.** Determine size of the target tissue using pre-operative imaging.
- 4.** Determine optimal needle array diameter (CM). Adjustable needle array diameter Quadra-Fuse (1, 2, 3, 4 and 5 CM)/Quadra-Fuse ST (1 and 2 CM) is clearly indicated on plunger.
- 5.** Insert and advance the cannula of the Quadra-Fuse/Quadra-Fuse ST needle into the distal portion of the target tissue using ultrasound, CT or other imaging guidance.
- 6.** Cannula depth markings (CM) and grommet may aid in placement accuracy. Skin patch with 30 degree and 60 degree reference chart may assist in placement/deployment accuracy.

*Refer to Directions For Use for complete recommended procedure*

**7.** Deploy the needle prongs of the needle array within the target tissue by advancing the plunger with one hand, while maintaining the position of the cannula and handle with the other hand.

**8.** Attach syringe to Quadra-Fuse/Quadra-Fuse ST needle luer connector.

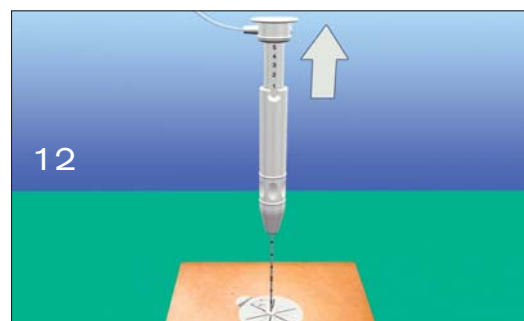
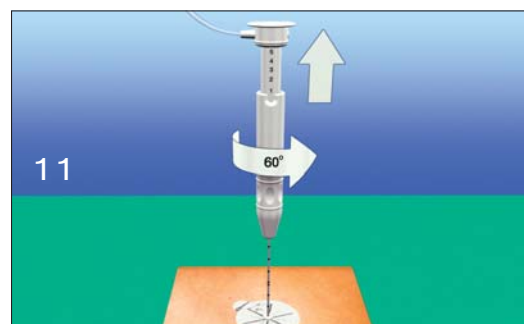
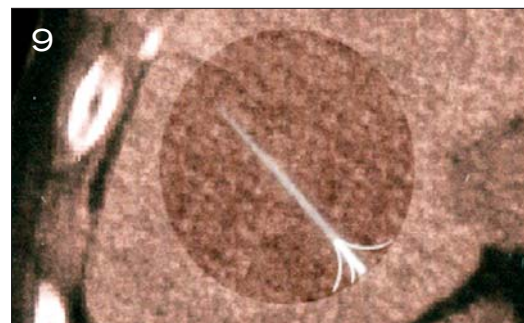
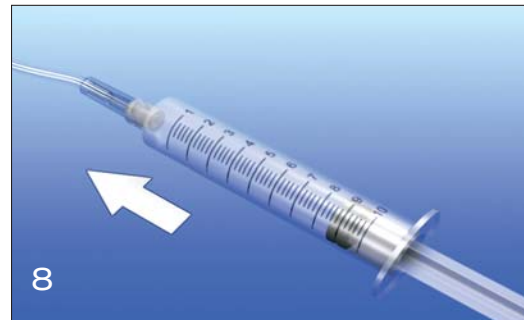
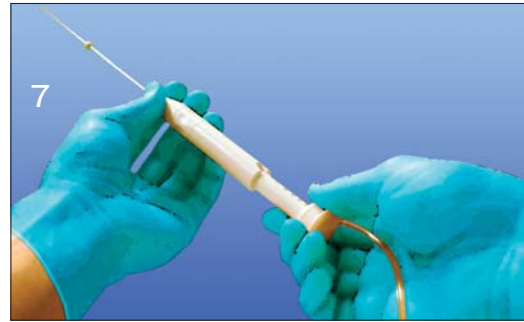
**9.** Confirm proper positioning of all the needle prongs.

**10.** Open extension tubing clamp and inject fluids. Reclamp after each injection.

**11.** A 60 degree rotation and re-injection of fluids into target tissue may be warranted and is optional. Retract the plunger completely before rotation.

**12.** Following completion of fluid injection, retract the needle prongs into the cannula by retracting the plunger completely. Injection of fluids into tissue tract upon device removal may be accomplished with needle prongs fully retracted.

*Refer to Directions For Use for complete recommended procedure*





## ORDERING INFORMATION

### Quadra-Fuse\* Multi-Prong Injection Needle (Each)

| CATALOG NO. | DESCRIPTION                            |
|-------------|--|
| 4518-10SS   | 18 G x 10 CM Stainless Steel; standard |
| 4518-15SS   | 18 G x 15 CM Stainless Steel; standard |
| 4518-20SS   | 18 G x 20 CM Stainless Steel; standard |

### Quadra-Fuse\* ST Multi-Prong Injection Needle (Each)

| CATALOG NO. | DESCRIPTION                             |
|-------------|---|
| 4218-10SS   | 18 G x 10 CM Stainless Steel; short tip |
| 4218-15SS   | 18 G x 15 CM Stainless Steel; short tip |
| 4218-20SS   | 18 G x 20 CM Stainless Steel; short tip |



at the point of innovation

Medical Device  
Technologies, Inc.

3600 SW 47th Avenue  
Gainesville, FL 32608  
Tel: 352/338-0440  
Toll Free: 800/338-0440  
Fax: 352/338-0662  
Toll Free Fax: 800/333-0440

[www.interv.net](http://www.interv.net)



at the point of innovation

Medical Device Technologies, Inc.  
3600 SW 47th Avenue  
Gainesville, FL 32608  
Tel: 352/338-0440  
Toll Free: 800/338-0440  
Fax: 352/338-0662  
Toll Free Fax: 800/333-0440  
**[www.interv.net](http://www.interv.net)**

Designed by:  **REX MEDICAL**\*

\*Trademarks of REX MEDICAL

X9585586 07/05