DESCRIPTION
The ReSolve CirQ™ Nephrostomy Catheter is a radiopaque nephrostomy catheter designed to be placed in a loop to help prevent inadvertent catheter withdrawal. The ReSolve CirQ may be packaged with the following components:

- Y-connector with locking collar
- FastBreak™ Breakaway Connector connectors with varying connection strengths

INDICATIONS FOR USE
The ReSolve CirQ Nephrostomy Catheter is intended for percutaneous nephrostomy drainage.

CONTRAINdications
- The ReSolve CirQ Nephrostomy Catheter is contraindicated for use where percutaneous drainage catheterization is unacceptable.
- The ReSolve CirQ Nephrostomy Catheter is contraindicated for intravascular use.

WARNINGS
- The ReSolve CirQ Nephrostomy Catheter is not to be used in the biliary system.
- The ReSolve CirQ Nephrostomy Catheter is not to be used to deliver nutritional supplements.
- The ReSolve CirQ Nephrostomy Catheter is contraindicated for intravascular use.
- Catheterization is unacceptable.
- The ReSolve CirQ Nephrostomy Catheter is contraindicated for use where percutaneous drainage catheterization is unacceptable.
- The ReSolve CirQ Nephrostomy Catheter is contraindicated for intravascular use.

PRECAUTIONS
- The ReSolve CirQ Nephrostomy Catheter is intended for percutaneous nephrostomy drainage.

INSTRUCTIONS FOR USE
To replace an existing nephrostomy catheter with a ReSolve CirQ

1. Opacify the renal pelvis and calyces via nephrography.

2. Using standard technique, make a secondary tract (new tract created for CirQ), far enough from the primary tract (existing nephrostomy tract) to prevent the catheter from kinking in the renal pelvis (Fig. 1).

3. Place a guide wire into the renal pelvis through the secondary tract long enough to place the catheter over.

4. Dilate tracts as necessary.

5. Remove the nephrostomy tube in the primary tract while maintaining access.

6. Consider using an appropriate sized sheath for placing the ReSolve CirQ.

7. Using standard methods, capture the guide wire in the secondary tract via the primary tract (Fig. 2).

8. Withdraw the guide wire through the primary tract creating a loop to thread the catheter over (Fig. 3).

9. Wet the distal portion of the ReSolve CirQ catheter prior to use with sterile water or saline. Keep the distal portion of the catheter wet during placement.
   Note: Step 9 is only for catheters with hydrophilic coating.

10. Place the catheter over the guide wire using the secondary tract. (Fig. 4)
   NOTE: Ensure all of the drainage holes are within the renal pelvis.

11. Remove the guide wire through one end of the catheter.

12. Occlude one end of the catheter and perform a nephrogram to confirm proper positioning.

13. If the catheter is not in the appropriate position, re-insert the guide wire and reposition the catheter and repeat steps 5-10.

14. When proper positioning is confirmed, cut the shaft of the catheter with a square cut, to the correct length.
   NOTE: The tapered end of the catheter must be cut prior to connecting to the Y-connector. (Fig. 5)

15. Fasten the ends of the catheter to the Y-connector by pushing the catheter over the barb until the catheter end is past the collar crease (Fig. 6).

16. Connect the desired FastBreak Breakaway Connector to the Y-connector. (Fig. 7)

17. Connect the appropriate drainage bag, tubing or dead end cap to the FastBreak Breakaway Connector.
   WARNING: DO NOT over tighten the connection between the FastBreak Breakaway Connector and drainage tubing or dead end cap (Fig. 6).
   Note: A flush regimen should be designed for the circumstances of each patient and the protocol of the physician.

   Note: Inform patient or other healthcare personnel in appropriate device function and/or maintenance.

   To Exchange an existing ReSolve CirQ Nephrostomy Catheter

1. Clean the catheter using standard technique.

2. Cut both sides of the catheter leaving enough catheter length to hold the catheter from the primary and secondary tracts. (Fig. 8)

3. Thread a guide wire through the catheter.
   NOTE: Some difficulty may be experienced negotiating the guide wire past the drainage holes of the catheter in the renal pelvis.

4. Remove the catheter over the guide wire ensuring the guide wire continues to exit both tracts. (Fig. 3)

5. Consider using an appropriate sized sheath for placing the ReSolve CirQ.

6. Wet the distal portion of the ReSolve CirQ catheter prior to use with sterile water or saline. Keep the distal portion of the catheter wet during placement.
   Note: Step 6 is only for catheters with hydrophilic coating.

   WARNING: DO NOT wipe catheter with dry gauze or any solvents because it may damage the catheter coating.

7. Place a new catheter over the guide wire into appropriate tract. (Fig. 4)

8. Remove the guide wire through one end of the catheter.

9. Occlude one end of the catheter and perform a nephrogram to confirm proper positioning.

10. If the catheter is not in the appropriate position, re-insert the guide wire and reposition the catheter and repeat steps 5-7.

11. When proper positioning is confirmed, cut the shaft of the catheter with a square cut, to the correct length.
   NOTE: The tapered end of the catheter must be cut prior to connecting to the Y-connector. (Fig. 5)

12. Fasten the ends of the catheter to the Y-connector by pushing the catheter over the barb until the catheter end is past the collar crease (Fig. 6).

13. Connect the desired FastBreak Breakaway Connector to the Y-connector. (Fig. 7)
14. Connect the appropriate drainage bag, tubing or dead end cap to the FastBreak Breakaway Connector. 
   **WARNING**: DO NOT over tighten the connection between the FastBreak Breakaway Connector and 
   drainage bag, tubing or dead end cap.
   **Note**: A flush regimen should be designed for the circumstances of each patient and the protocol of the 
   physician.
   **Note**: Instruct patient or other healthcare personnel in appropriate device function and/or maintenance.

To place a ReSolve CirQ Nephrostomy Catheter without prior catheter in place

1. Gain primary tract access into a lower pole calyx using standard technique. (Fig. 9)
2. Opacify the renal pelvis and calyces via nephrostogram.
3. Using standard technique, make a secondary tract, far enough from the primary tract to prevent the catheter 
   from kinking in the renal pelvis (Fig. 10)
4. Place a guide wire into the renal pelvis through the secondary tract long enough to place the catheter over. 
   Dilate catheter tracts as necessary.
5. Consider using an appropriate sized sheath for placing the ReSolve CirQ
6. Using standard methods, capture the guide wire in the secondary tract via the primary tract. (Fig. 2)
7. Withdraw the guide wire through the primary tract creating a loop to thread the catheter over. (Fig. 3)
8. Wet the distal portion of the ReSolve CirQ catheter prior to use with sterile water or saline. Keep the distal 
   portion of the catheter wet during placement. 
   **Note**: Step 9 is only for catheters with hydrophilic coating. 
   **WARNING**: DO NOT wipe catheter with dry gauze or any solvents because it may damage the catheter 
   coating.
9. Place the catheter over the guide wire using the secondary tract. (Fig. 4)
   **NOTE**: Ensure all of the drainage holes are within the renal pelvis.
10. Remove the guide wire through one end of the catheter.
11. Occlude one end of the catheter and perform a nephrostogram to confirm proper positioning. 
   **If the catheter is not in the appropriate position, re-insert the guide wire and reposition the catheter and 
   repeat steps 8-10.**
12. When proper positioning is confirmed, cut the shaft of the catheter with a square cut, to the correct length.
   **NOTE**: The tapered end of the catheter must be cut prior to connecting to the Y-connector. (Fig. 5)
13. Fasten the ends of the catheter to the Y-connector by pushing the catheter over the barb until the catheter 
   end is past the collar crease (Fig. 6)
14. Connect the desired FastBreak Breakaway Connector to the Y-connector. (Fig. 7)
15. Connect the appropriate drainage bag, tubing or dead end cap to the FastBreak Breakaway Connector. 
   **WARNING**: DO NOT over tighten the connection between the FastBreak Breakaway Connector and 
   drainage bag, tubing or dead end cap.
   **Note**: A flush regimen should be designed for the circumstances of each patient and the protocol of the 
   physician.
   **Note**: Instruct patient or other healthcare personnel in appropriate device function and/or maintenance.

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**FIGURE 1**

Needle

nephrostomy catheter

**FIGURE 2**

Guide Wire

EnSnare®

**FIGURE 3**

ReSolve CirQ™

**FIGURE 4**

Guide Wire

Guide Wire