

Troubleshooting Guide

Major Steps

- Introducing the Hysteroscope
- Achieving Uterine Distension
- Achieving Uterine Cornual Visualization
- Achieving Ostial Visualization
- Advancing the Micro-insert into the Tube
- Deploying the Micro-insert

Introducing the Hysteroscope

* Use solutions individually, simultaneously, or sequentially as appropriate

Problem	Cause	Solutions*
Inability to Introduce the Hysteroscope into the Uterus	Inadequate Cervical Dilation	<ul style="list-style-type: none"> • Use Hysteroscope with Smaller Outer Diameter • Dilate Cervix • Abandon Procedure
	Severely Retroverted or Anteverted Uterus	<ul style="list-style-type: none"> • Use Tenaculum to Straighten the Angulation Between the Uterus and Cervix • Abandon Procedure

Achieving Uterine Distension

* Use solutions individually, simultaneously, or sequentially as appropriate

Problem	Cause	Solutions*
Inadequate Intrauterine Pressure	Patulous Cervix	<ul style="list-style-type: none"> Gently Twist Tenaculum 45° or Use Additional Tenaculum to Seal Cervix Place Tenaculum at 1 & 5 o'clock or 7 & 11 o'clock position (or both)
	Inadequate Flow	<ul style="list-style-type: none"> Ensure Hysteroscope Valves are Fully Open Inspect Tubing Increase Bag Height or Pressure
	Pinched Tubing	<ul style="list-style-type: none"> Inspect Tubing & Replace if Necessary
	Small or Empty Saline Bags	<ul style="list-style-type: none"> Replace Empty Bags Use Two Bags with "Y" Connector Use 3 Liter Bags
	Inflow / Outflow Ports Clogged or Closed	<ul style="list-style-type: none"> Open Closed Ports Flush Ports
	Leakage at Hysteroscope Valves	<ul style="list-style-type: none"> Check Connections Replace Tubing
	Incorrect Pump Type or Settings	<ul style="list-style-type: none"> Inspect Pump and Stopcocks Read Pump Operators Manual
	Pump Tubing Reversed	<ul style="list-style-type: none"> Change Tubing Direction

Achieving Uterine Distension

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Problem	Cause	Solutions*
Inadequate Intrauterine Pressure	IV Pole for gravity feed is too low	<ul style="list-style-type: none"> • Raise IV pole • Use Pressure Bag
	Defective Pressure Bag	<ul style="list-style-type: none"> • Replace Pressure Bag • Use Gravity Feed
	Obstruction in Hysteroscope Channel	<ul style="list-style-type: none"> • Flush Channel • Remove Hysteroscope and Clean

Achieving Uterine Cornual Visualization

* Use solutions individually, simultaneously, or sequentially as appropriate

Problem	Cause	Solutions*
Poor Uterine Visualization	Debris, Clots or Fog on Lens	<ul style="list-style-type: none"> Remove Camera Head and Clean Remove Hysteroscope and Clean Proximal and Distal Lens
	Inadequate Light Source and/or Cable	<ul style="list-style-type: none"> Inspect Equipment Before Procedure Replace Light Source Bulb or Cable Check Light Cable Connections
	White Balance Not Performed	<ul style="list-style-type: none"> Perform White Balance
	View Not in Focus	<ul style="list-style-type: none"> Adjust Focus Mechanism on Camera Head
	Blood in Uterus	<ul style="list-style-type: none"> Open Outflow Port and Flush Increase Fluid Flow
	Outflow Port is not Open	<ul style="list-style-type: none"> Open Outflow Port Inspect Hysteroscope to Ensure Channel is not Clogged
	Light Gain on Low	<ul style="list-style-type: none"> Turn Gain to High Switch Autogain Off Inspect Equipment to Ensure Auto-Feedback is Functional
	Shaggy Endometrium	<ul style="list-style-type: none"> Flush Uterine Cavity Aspirate Debris

Achieving Uterine Cornual Visualization

* Use solutions individually, simultaneously, or sequentially as appropriate

Problem	Cause	Solutions*
Poor Uterine Visualization	Septated Uterus	<ul style="list-style-type: none"> • Pull Back Hysteroscope to Identify • If Ostia not Identified, Abandon Procedure
	Hysteroscope in Cervical Canal	<ul style="list-style-type: none"> • Advance Hysteroscope Past Cervical Ostium

Achieving Ostial Visualization

* Use solutions individually, simultaneously, or sequentially as appropriate

Problem	Cause	Solutions*
Inadequate Visualization of Ostia	Poor Uterine Distension	<ul style="list-style-type: none"> • See “Inadequate Intrauterine Pressure” and “Poor Uterine Visualization” Sections
	Debris, Endometrial Fluff or Clots	<ul style="list-style-type: none"> • Flush Uterus • Aspirate • Gently Remove with Graspers
	Filmy Tissue Covering Ostia	<ul style="list-style-type: none"> • Gently Probe with a Micro-insert Tip • Insert Micro-insert Gently. Only Proceed if Insertion Meets Minimal Resistance
	Abnormal Ostial Location	<ul style="list-style-type: none"> • Adjust / Rotate Hysteroscope • Rotate Micro-insert Tip • Adjust Patient Position • Abandon Procedure
	Only One Ostium Visualized	<ul style="list-style-type: none"> • Pull Back Hysteroscope to Obtain Full Uterine View • Abandon Procedure

Advancing the Micro-insert Into the Tube

* Use solutions individually, simultaneously, or sequentially as appropriate

Problem	Cause	Solutions*
Inability to Advance Micro-insert Into Tube (Tracking)	Lateral or Abnormally Located Tubes	<ul style="list-style-type: none"> • Pull Hysteroscope Back and Adjust / Rotate • Pull System Back & Rotate Micro-insert Tip • Adjust Patient Position
	Suspected Tubal Stenosis, Tortuosity or Occlusion	<ul style="list-style-type: none"> • If Tube Appears Patent, Move Hysteroscope Closer and Apply Gentle, Constant Forward Movement of Catheter • If Tube Appears Non-Patent, Abandon Procedure
	Hysteroscope is Too Far Back	<ul style="list-style-type: none"> • Advance Hysteroscope as Close to Ostium as Possible
	Micro-insert Tip Bent, or Catheter Bent or Kinked	<ul style="list-style-type: none"> • Use New System
	Hysteroscope at Incorrect Angle	<ul style="list-style-type: none"> • Rotate Hysteroscope to Achieve Proper Orientation
	Tracking Into False Passage	<ul style="list-style-type: none"> • Remove System and Abandon Procedure if Uncertain About Ostial Location and/or True Tubal Lumen
	Excessive Cramping	<ul style="list-style-type: none"> • Reduce Distension • Increase Pain Medication

Troubleshooting:
Advancing the Micro-insert into the Tube

Deploying the Micro-insert

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Problem	Cause	Solutions
Inability to Retract Delivery Catheter	Catheter Has Been Twisted	<ul style="list-style-type: none"> • Slowly Rotate Catheter to Relieve Twisting • Remove and Replace System
	Catheter Has Been Kinked	<ul style="list-style-type: none"> • Remove and Replace System
Delivery Catheter Stretches (Necking)	Catheter is Damaged in Hysteroscope Working Channel	<ul style="list-style-type: none"> • Remove and Replace System
	Delivery Catheter Sticks in Tube During Retraction	<ul style="list-style-type: none"> • Retract Catheter Slowly • Remove and Replace System
Inadvertent Forward Movement of Micro-insert (Feed Forward)	Handle Not Stabilized During Retraction	<ul style="list-style-type: none"> • Pull System Back to Proper Position Before Deployment
	Delivery Catheter Bent Proximal to Hysteroscope	<ul style="list-style-type: none"> • Straighten System Prior to Attempting Delivery Catheter Retraction
	Delivery Catheter Gripped External to Hysteroscope	<ul style="list-style-type: none"> • Do Not Hold Delivery Catheter External to Scope
Inability to Fully Depress Button	Delivery Catheter not Fully Retracted	<ul style="list-style-type: none"> • Rotate Thumbwheel Until it Stops
	System Failure	<ul style="list-style-type: none"> • Remove and Replace System
Outer Coils Do Not Deploy	Delivery Catheter is Not Fully Retracted	<ul style="list-style-type: none"> • Continue Rotating Thumbwheel Until it Stops • Pull Hysteroscope Back to Maintain Visualization
	Outer Coils are Pressed Against Uterine Wall	<ul style="list-style-type: none"> • Straighten System and Allow Coils to Fully Expand
	Technical Micro-insert Failure	<ul style="list-style-type: none"> • Rotate System Slowly • Gently Jiggle System • Remove and Replace System

Deploying the Micro-insert

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Problem	Cause	Solutions
Device Deployed But Will Not Release From System	Friction Between Inner Coil & Delivery Wire	<ul style="list-style-type: none"> • Straighten delivery system to avoid contact between micro-insert and uterine wall. <p><i>If difficulty still occurs:</i></p> <ul style="list-style-type: none"> • Apply light backward tension to handle. <p><i>If difficulty still occurs:</i></p> <ul style="list-style-type: none"> • Maintain position of delivery wire. • Separately advance hysteroscope gently towards uterine cornua to compress outer coils of micro-insert. • Apply gentle backwards tension of delivery handle system. • Obtain hysteroscopic panoramic view to verify separation of delivery wire. <p><i>If unsuccessful:</i></p> <p>Administer additional pain medication. Pull out micro-insert by gentle, continuous, backward movement of delivery system. Do NOT pull expanded micro-insert through operating channel. Remove entire Essure system and hysteroscope as a unit.</p>
Outer Coils Coming Out of Tube	Retraction of System Prior to Detaching Delivery Wire	<ul style="list-style-type: none"> • Rotate Thumbwheel Back to a Hard Stop Prior to Applying Retraction
Micro-insert Stuck in Hysteroscope	Hysteroscope is Too Far Forward During Deployment	<ul style="list-style-type: none"> • Push Micro-insert Out of Hysteroscope Using Appropriately Sized Graspers