Rüsch® Airtraq™ System

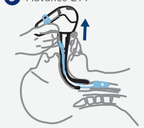
Insertion and Removal

Grasp blade with the tip facing away from you. Place your thumb in the notch on the back side of the blade.

1. Insert midline

2. Center vocal cords

3. Advance ETT



4. Stabilize ETT. Remove the Airtraq™ Blade midline

Troubleshooting

If vocal cords are not seen, it is very likely the Airtraq™ Blade has been inserted too deep. If so, complete the "back and up" maneuver until vocal cords are centered in the view field:

1. Rotate the blade back, away from the glotis

2. Gently pull the blade up

Sizing Guide

Rüsch® Airtraq™ SP Blades

ITEM NUMBER	BLADE SIZE	ETT SIZE	MOUTH OPENING	CASE QTY	
A-011	3	7.0 - 8.5	16.0 mm	2	
A-021	2	6.0 - 7.5	15.0 mm	2	
A-031	1	4.0 - 5.5	11.5 mm	2	
A-041	0	2.5 - 3.5	11.0 mm	2	
Training Blades					
ATQ-811	3	7.0 - 8.5	16.0 mm	2	
ATQ-821	2	6.0 - 7.5	15.0 mm	2	
ATQ-831	1	4.0 - 5.5	11.5 mm	2	
ATQ-841	0	2.5 - 3.5	11.0 mm	2	

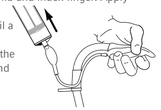
Rüsch® Airtraq™ A-390 Camera

ITEM NUMBER	DESCRIPTION	CASE QTY
A-390-KIT	Airtraq™ A-390 WiFi Camera - Full Kit	1
A-390	Airtraq™ A-390 WiFi Camera	1
A-390-ACC	Airtraq™ A-390 WiFi Camera - Accessories	1

LMA® Supreme™ Airway

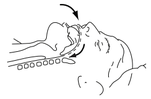
Insertion

1. Fully deflate the mask. Attach a syringe. Compress the distal tip of the mask with thumb and index finger. Apply slight tension to the inflation line while removing all air until a vacuum is felt. Disconnect the syringe. Generously lubricate the posterior surface of the cuff and airway tube.

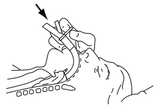


2. Place the patient's head in a neutral or slight "sniffing" position. Hold the LMA® Supreme™ Airway at the proximal end with the connector pointing downward to the chest and the tip of the distal end pointing toward the palate.

3. Press the tip of the mask against the hard palate. While maintaining pressure against the palate, continue to rotate the mask inwards in a circular motion following the curvature of the hard and soft palate.

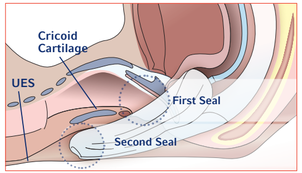


4. Continue until resistance is felt. The distal end of the mask should now be in contact with the upper esophageal sphincter. The device is now fully inserted.



5. While maintaining inward pressure, secure the mask into position by taping cheek to cheek across the fixation tab. This should be done prior to inflation. Inflate with the minimum amount of air needed to achieve an effective seal. The recommended intracuff pressure should not exceed 60 cm H_2O.

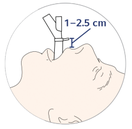
Diagnostic Tests



After the LMA® Supreme™ Airway is inserted, secured and inflated, diagnostic tests #1 and #2 should be performed to confirm the complete separation of the respiratory and alimentary tracts, or the LMA® Supreme™ Airway oropharyngeal and esophageal seal, respectively. Diagnostic test #3 is optional.

Diagnostic Test #1: Fixation Tab Test
(Recommended to confirm correct size and esophageal seal)

After fixation, the taping tab should be positioned 1 to 2.5 cm from the upper lip. If the taping tab is more than 2.5 cm from the upper lip, this suggests the device may be too big. If the taping tab is less than 1 cm from the lip, this suggests the device may be too small. At no time should the taping tab be in contact with the upper lip. Use clinical judgment to replace a mask that appears too big or small.



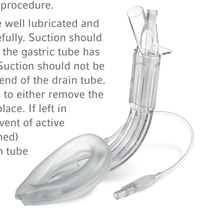
Diagnostic Test #2: Gel Test
(Recommended to confirm correct size and esophageal seal)

Apply ¼ inch of (viscous) water-soluble sterile lubricant to the proximal end of the drain tube and hand ventilate. The gel should remain covered across the top of the drain tube. This indicates that the esophageal seal has been achieved by ensuring the tip of the mask is against the upper esophageal sphincter.

Diagnostic Test #3: OG Tube Placement (Optional)
(Inserting an OG tube allows the option to either suction or decompress the stomach. Successful passage of an OG tube is definitive confirmation of drain tube patency and tract separation.)

To facilitate gastric decompression and/or drainage, an OG tube can be placed into the drain tube of the LMA® Supreme™ Airway and advanced into the stomach at any time during the procedure.

The OG tube should be well lubricated and passed slowly and carefully. Suction should not be performed until the gastric tube has reached the stomach. Suction should not be applied directly to the end of the drain tube. It is clinical preference to either remove the OG tube or leave it in place. If left in place, in the unlikely event of active or passive (non-suctioned) regurgitation, the drain tube would lose its patency.



Sizing Guide

LMA® Supreme™ Airway

ITEM NUMBER	MASK SIZE	PATIENT WEIGHT (KG)	SIZE OG TUBE (MM/FR)	CASE QTY
175010	1	up to 5	6	10
175015	1.5	5 - 10	6	10
175020	2	10 - 20	10	10
175025	2.5	20 - 30	10	10
175030	3	30 - 50	14	10
175040	4	50 - 70	14	10
175050	5	70 - 100	14	10
Plus Packs**				
178130**	3	30 - 50	14	10
178140**	4	50 - 70	14	10
178150**	5	70 - 100	14	10

OG = orogastric tube

It is recommended that the cuff be inflated to a maximum of 60 cm H_2O intracuff pressure.

** Plus packs include LMA® Supreme™ Airway, 60 mL syringe and lubricant

Alternative Sizing Method

Oral Airway Comparison

Size the oral airway according to the traditional sizing method (angle of the jaw to the corner of the mouth). Choose the appropriate size LMA® Supreme™ Airway, based on the following:[1]

80 mm oral airway (#3) = Size 3 LMA® Supreme™ Airway

90 mm oral airway (#4) = Size 4 LMA® Supreme™ Airway

100 mm oral airway (#5) = Size 5 LMA® Supreme™ Airway

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References:

1. Evaluation of the LMA Supreme: a sizing and troubleshooting study. Allan J. Goldman, MD,* Daniel Langille, CRNA,+ Michael Flacco, MD,++ Michael Horn, MD,++ Roxanne Hertzog, MD++
2. Dolister M, Miller S, Borron S, et al. Intraosseous vascular access is safe, effective and costs less than central venous catheters for patients in the hospital setting. *J Vasc Access* 2013;14(3):216-24. doi:10.5301/jva.5000130. Research sponsored by Teleflex Incorporated.
3. Davidoff J, Fowler R, Gordon D, Klein G, Kovar J, Lozano M, Potkya J, Racht E, Saussy J, Swanson E, Yamada R, Miller L. Clinical evaluation of a novel intraosseous device for adults: prospective, 250-patient, multi-center trial. *JEMS* 2005;30(10):s20-3. Research sponsored by Teleflex Incorporated.
4. Cooper BR, Mahoney PF, Hodgetts TJ, Mellor A. Intra-osseous access (EZ-IO®) for resuscitation: UK military combat experience. *J R Army Med Corps.* 2007;153(4):314-316
5. Based on Adult Proximal Humerus data.
6. Puga T, Montez D, Philbeck T, Davlantes C. Adequacy of Intraosseous Vascular Access Insertion Sites for High-Volume Fluid Infusion. *Crit Care Med* 2016; 44(12):143. Research sponsored by Teleflex Incorporated. Based on healthy volunteer study.
7. Montez D, Puga T, Miller LJ, et al. Intraosseous Infusions from the Proximal Humerus Reach the Heart in Less Than 3 Seconds in Human Volunteers. *Annals of Emergency Medicine* 2015;66(4S):S47. Research sponsored by Teleflex Incorporated.
8. Philbeck TE, Miller LJ, Montez D, Puga T. Hurts so good; easing IO pain and pressure. *JEMS*. 2010;35(9):58-59. Research sponsored by Teleflex Incorporated.
9. Based on adult proximal tibia data.
10. Compared to EZ-IO® System tibial insertions.

*Based on Adult Proximal Humerus EZ-IO® System insertion data.
+The University of Washington Medical Center (Seattle, WA)
++ Outpatient Anesthesia Services (Seattle, WA) (presented at the 2008 Society for Airway Management Annual Meeting)

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Emergency Medicine Pocket Guide

Intraosseous Access and Airway Management Products

Teleflex®

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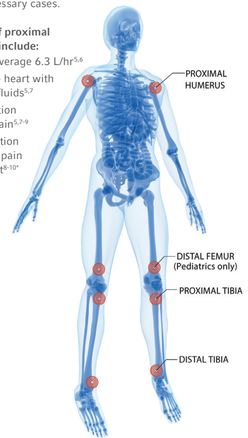
Arrow® EZ-IO® System

Overview

The Arrow® EZ-IO® Intraosseous Vascular Access System offers multiple sites for proven[2], fast[3] and effective[4] vascular access in emergent, urgent, or medically necessary cases.

Advantages of proximal humerus site include:

- Flow rates average 6.3 L/hr[5,6]
- 3 seconds to heart with medication/fluids[5,7]
- Lower insertion & infusion pain[5,7-9]
- Less medication required for pain management[8-10*]

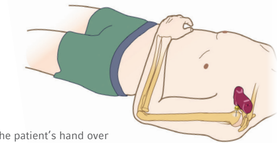


Do NOT use the powered EZ-IO® System in the sternum

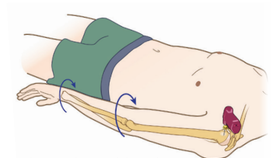
Potential complications may include local or systemic infection, hematoma, extravasations, or other complications associated with percutaneous insertion of sterile devices.

Arm Positioning Options

Using either method below, adduct elbow, rotate humerus internally.



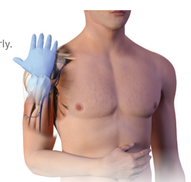
Place the patient's hand over the abdomen with arm secured tight to the body.



OR - Place and secure the arm tight against the body, rotate the hand so the palm is facing outward, thumb pointing down.

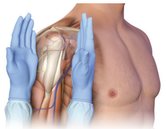
Landmarking

1. Place your palm on the patient's shoulder anteriorly.
   - The area that feels like a "ball" under your palm is the general target area
   - You should be able to feel this ball, even on obese patients, by pushing deeply

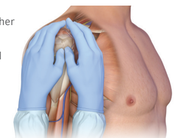


Landmarking

2. Place the ulnar aspect of one hand vertically over the axilla. Place the ulnar aspect of the opposite hand along the midline of the upper arm laterally.

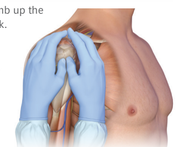


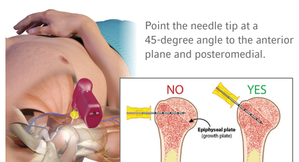
3. Place your thumbs together over the arm.
   - This identifies the vertical line of insertion on the proximal humerus



4. Palpate deeply as you climb up the humerus to the surgical neck.
   - It will feel like a golf ball on a tee – the spot where the "ball" meets the "tee" is the surgical neck

The insertion site is on the most prominent aspect of the greater tubercle, 1 to 2 cm above the surgical neck.

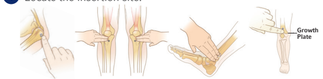




Point the needle tip at a 45-degree angle to the anterior plane and posteromedial.

Insertion

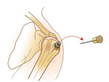
1. Locate the insertion site.



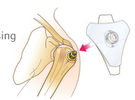
2. Clean insertion site per hospital protocol. Stabilize extremity.

3. Gently press needle through the skin until the tip touches the bone. The 5 mm black mark on the catheter must be visible prior to insertion. Squeeze the trigger, apply gentle steady pressure.

4. Stabilize hub and remove driver and stylet. Place stylet in an appropriate sharps container.



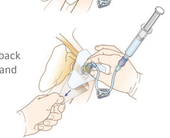
5. Place the EZ-Stabilizer® Dressing over the catheter hub.



Application

6. Attach primed EZ-Connect® Extension Set. Firmly secure to catheter hub with clamp open.

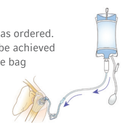
7. Remove adhesive from back of EZ-Stabilizer® Dressing and apply to skin.



8. Confirm placement. Flush the EZ-IO® Catheter with normal saline (5-10 mL for adults; 2-5 mL for infants/children). May require multiple flushes.

Prior to flush, consider intraosseous 2% preservative- and epinephrine-free lidocaine IO for patients responsive to pain – follow institutional protocols/policy.

9. Deliver medication and fluids as ordered. If adequate IO flow rates cannot be achieved with an infusion pump, a pressure bag should be considered.



Removal

10. Using a sterile luer-lock syringe as a handle, attach to hub of needle, maintain alignment and rotate clockwise while pulling straight up. Avoid rocking the needle on removal. Dispose of catheter with syringe attached in an approved sharps container.

Consider Using Anesthetic for Patients Responsive to Pain

The following recommendations are based on published intraosseous clinical literature:

Adult

2% lidocaine (preservative-free and epinephrine-free)
Adult initial dose typically 40 mg (2 mL) followed by 20 mg

1. Prime Extension Set with lidocaine*
2. Administer lidocaine 1 mL over 60 seconds
3. Attach normal saline (NS) syringe
4. Displace lidocaine in extension set with NS 1 mL over 60 seconds
5. Dwell 60 seconds, then flush with 5-10 mL of NS
6. Attach lidocaine syringe and displace NS in extension set with lidocaine 1 mL
7. Attach NS syringe and displace lidocaine in extension set with 1 mL NS over 60 seconds

≥ 4 minutes total time
*Extension set primes with approximately 1 mL

Pediatrics

2% lidocaine (preservative-free and epinephrine-free)
Infant/child typically 0.5 mg/kg followed by ½ initial dose.
For patients over 40 kg follow adult flowchart instructions.

1. Carefully attach lidocaine syringe directly to hub and administer initial dose over 120 seconds
2. Dwell 60 seconds
3. Carefully attach NS syringe directly to hub
4. Administer 2-5 mL rapid NS flush
5. Administer 1/2 initial dose of lidocaine directly to hub over 60 seconds
6. Attach primed extension set*

≥ 4 minutes total time
*Extension set primes with approximately 1 mL

Observe cautions/contraindications for lidocaine, confirm dose per solution

Ordering Information

Arrow® EZ-IO® System

ITEM NUMBER	DESCRIPTION	PATIENT WEIGHT	QTY/ CASE
9058	EZ-IO® Vascular Access Driver	NA	1
9079P-VC-005	EZ-IO® 45 mm Needle Set* + EZ-Stabilizer® Dressing	≥40 kg	5
9079-VC-005	EZ-IO® 45 mm Needle Set*	≥40 kg	5
9001P-VC-005	EZ-IO® 25 mm Needle Set* + EZ-Stabilizer® Dressing	≥3 kg	5
9001-VC-005	EZ-IO® 25 mm Needle Set*	≥3 kg	5
9018P-VC-005	EZ-IO® 15 mm Needle Set* + EZ-Stabilizer® Dressing	3-39 kg	5
9018-VC-005	EZ-IO® 15 mm Needle Set*	3-39 kg	5
9066-VC-005	EZ-Stabilizer® Dressing	NA	5

*Each Needle Set includes a 15 gauge sterile EZ-IO® Needle, EZ-Connect® Extension Set, Patient Wrist Band and NeedleVISE® Sharps Block

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