Needle Decompression

ENHANCED

Recent studies have shown that it's time to rethink the techniques and device characteristics utilized when performing needle decompression. By incorporating proven procedural adjustment, and with the addition of new evidence-based features on the needle and catheter, medical providers can achieve a higher rate of successful needle decompression and mitigate additional trauma while performing this life-saving procedure.

"It's time to rethink needle decompression techniques and device characteristics to optimize success"

2023 EMSWORLD INNOVATION AWARDS WINNER

ENHANCED ARS™ AIR RELEASE SYSTEM

NORTH AMERICAN RESCUE®

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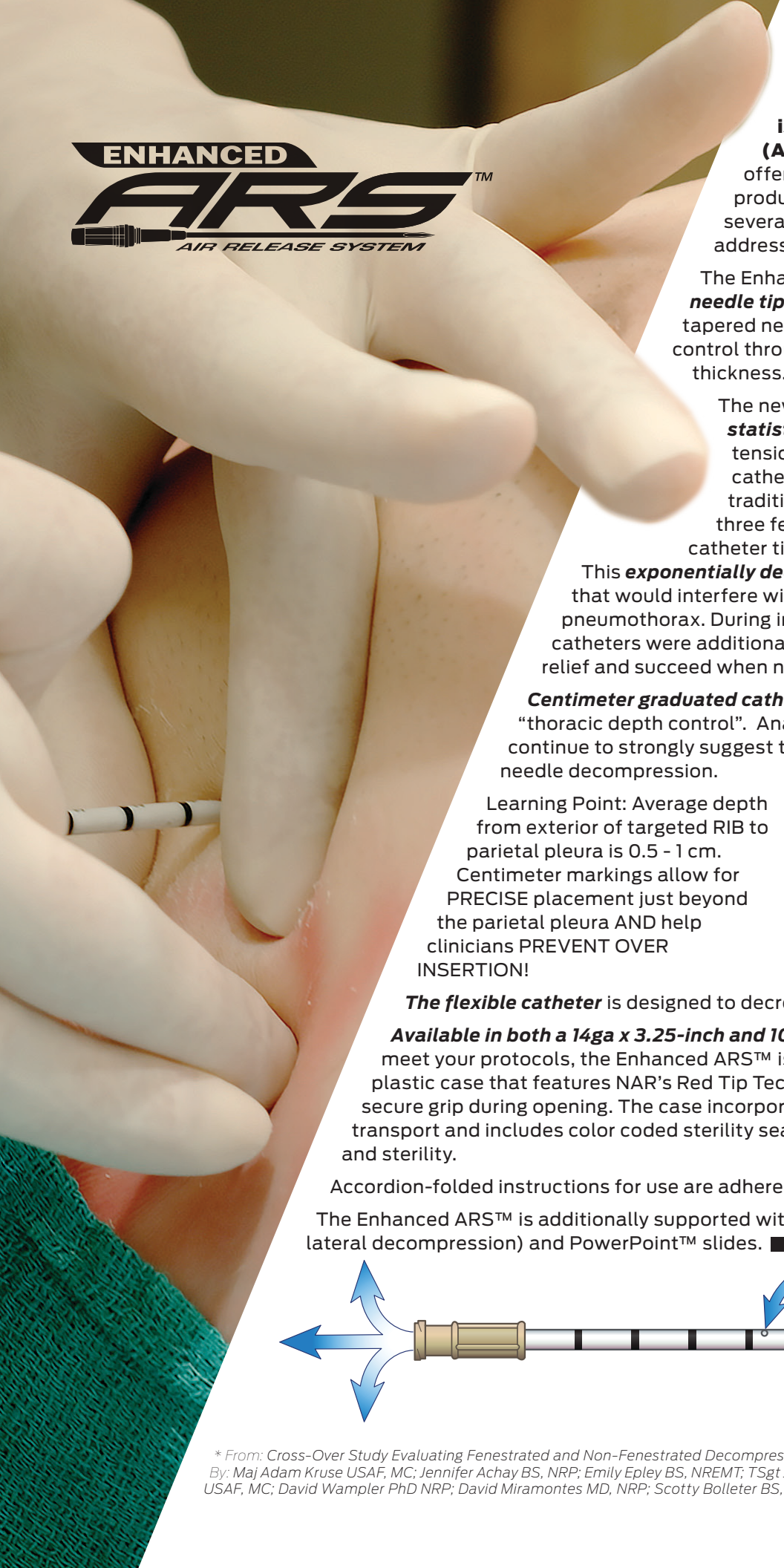


ENHANCED ARS™
AIR RELEASE SYSTEM

Acting on evidence-based medicine, North American Rescue is introducing the Enhanced ARS™ (Air Release System) as an additional offering in their needle decompression product line. The Enhanced ARS™ brings several features specifically implemented to address needs identified in the data.

The Enhanced ARS features an improved ***needle tip design*** with "scalpel" sharp, bi-bevel, tapered needle tip, which improves penetration control through tissue of varied type and thickness.

The new ***fenestrated catheter delivers statistically significant improvement*** for tension relief and the prevention of distal catheter occlusion when compared to traditional non-fenestrated catheters. The three fenestrations, combined with the catheter tip, deliver four paths for air to escape. This ***exponentially decreases the potential for blockage*** that would interfere with airflow and recurrence of tension pneumothorax. During investigative research, fenestrated catheters were additionally shown to offer faster pressure relief and succeed when non-fenestrated catheters failed.

Centimeter graduated catheter for safer placement utilizing "thoracic depth control". Anatomic evidence and case reports continue to strongly suggest the need for insertion CONTROL with needle decompression.

Learning Point: Average depth from exterior of targeted RIB to parietal pleura is 0.5 - 1 cm. Centimeter markings allow for PRECISE placement just beyond the parietal pleura AND help clinicians PREVENT OVER INSERTION!

"The fenestrated catheters were almost two times more successful than the non-fenestrated catheters."*

The flexible catheter is designed to decrease incidence of catheter kinking.

Available in both a 14ga x 3.25-inch and 10ga x 3.25-inch (8.25cm) assembly to meet your protocols, the Enhanced ARS™ is protected in a rugged, rigid hard plastic case that features NAR's Red Tip Technology® with textured cap for secure grip during opening. The case incorporates a pen clip to secure it during transport and includes color coded sterility seals that make it easy to identify gauge and sterility.

Accordion-folded instructions for use are adhered to each needle case for reference.

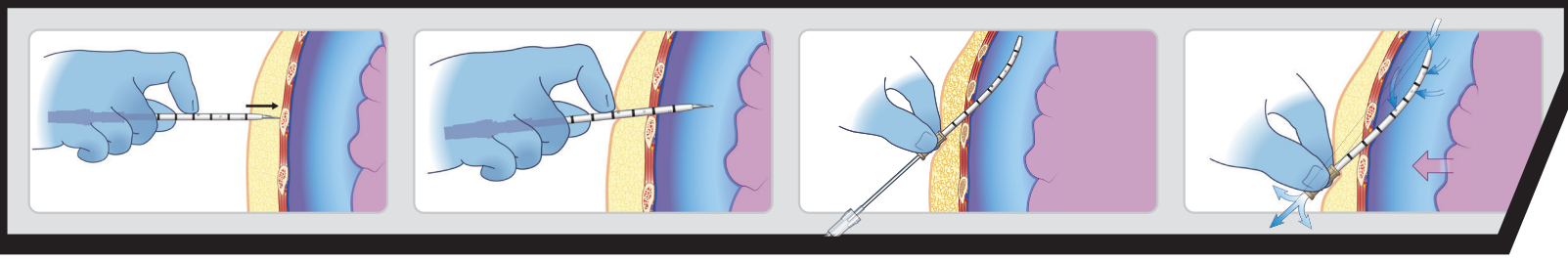
The Enhanced ARS™ is additionally supported with videos (depicting both anterior and lateral decompression) and PowerPoint™ slides. ■

* From: *Cross-Over Study Evaluating Fenestrated and Non-Fenestrated Decompression Catheters in a Cadaver Pneumothorax Model*
By: Maj Adam Kruse USAF, MC; Jennifer Achay BS, NRP; Emily Epley BS, NREMT; TSgt Jeffrey Swenson, BS, NRP; Capt Shannon Thompson USAF, MC; David Wampler PhD NRP; David Miramontes MD, NRP; Scotty Bolleter BS, EMT-P

Safe Insertion Technique:

Procedurally, needle decompression was historically taught suggesting one should "bury to the hub", fully inserting the needle and catheter all of the way until the hub of the catheter was against the skin, then removing the needle. Experts and evidence strongly suggests that ***it's time to stop burying the hub*** and change the way we perform needle decompression.

Eliminate explosive entry! Holding the assembly correctly, and using the centimeter depth gauge markings, it is now possible to accurately control the insertion depth of the assembly as it enters into the pleural space. Once the needle penetrates the pleural cavity (above the rib), the assembly can be angled toward the head while the catheter is threaded safely into the pleural cavity. The needle is then removed (which is the point air most often releases). This procedural change minimizes iatrogenic trauma and reduces the chances for occlusion of the catheter tip. ■

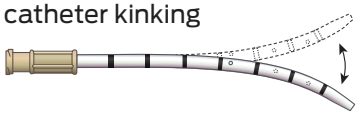


Needle Hub
no flash chamber cap
for immediate air release

Catheter Hub
color coded to meet ISO Standards
for easy identification of corresponding gauge size (light brown for 10ga & orange for 14ga)

Centimeter Markings
(with contrasting colors that are NVG compatible) **for safer placement utilizing "thoracic depth control"** in concert with modified insertion recommendations from leading experts in pulmonology, critical care, emergency medicine, and trauma surgery

10ga (*or 14ga*) 3.25-inch Flexible Catheter to decrease incidence of catheter kinking



Fenestrations showing statistically significant improvement in tension relief and the prevention of distal catheter occlusion when compared to traditional non-fenestrated catheters

Modified Needle Tip
"scalpel" sharp, bi-bevel, tapered needle tip, which improves penetration control through tissue of varied type and thickness helping alleviate explosive entry into thoracic cavity

Images of 3.25-inch (8.26 cm) ***10ga ENHANCED ARS™***

Hardshell "pen like" protective sterile packaging (with proven record as a rugged, easy to open, "chest tube-like" package). **Enhanced ARS™ and SPEAR™ packaging remains a NAR (patented) exclusive development that is mimicked but not duplicated.**

5-year expiration.

10ga Fenestrated Catheters showed statistically significant improvement in tension relief and the prevention of distal catheter occlusion when compared to ALL NDC catheters. 10ga fenestrated catheters were additionally shown to offer marked increase in air outflow and a corresponding decrease in time to relief of tension.

Ready to learn more?

Scan the QR code below to visit NARescue.com and view videos, animations, presentation materials and more.

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*Butler F, Holcomb J, Shackelford S, et al. Management of the Suspected Tension Pneumothorax in Tactical Combat Care, TCCC Guidelines Change 17-02. J Spe Op Med. 2018; 18: 19-35. *Aforementioned publication references ninety-six additional papers worthy of careful review.*

**The Enhanced ARS™ decompression needle system, and the associated training materials, were developed utilizing the latest published evidence, independent research, and the support of dedicated Military and Civilian medical professionals in Emergency Medicine, Trauma Surgery, Pulmonology, Radiology, and Pathology. Clinical providers, regardless of their position, must dedicate themselves to the unrelenting truth that critical care is an evolution on behalf of those in need.*

For additional information about the ENHANCED ARS™

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14ga: 10-0063
10ga: 10-0064

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