

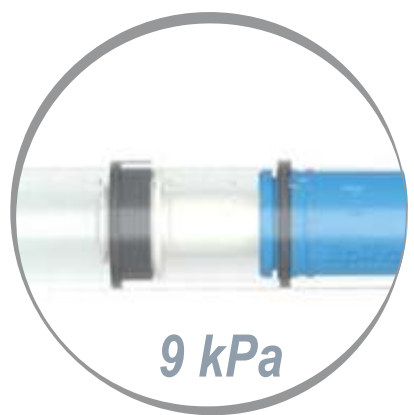
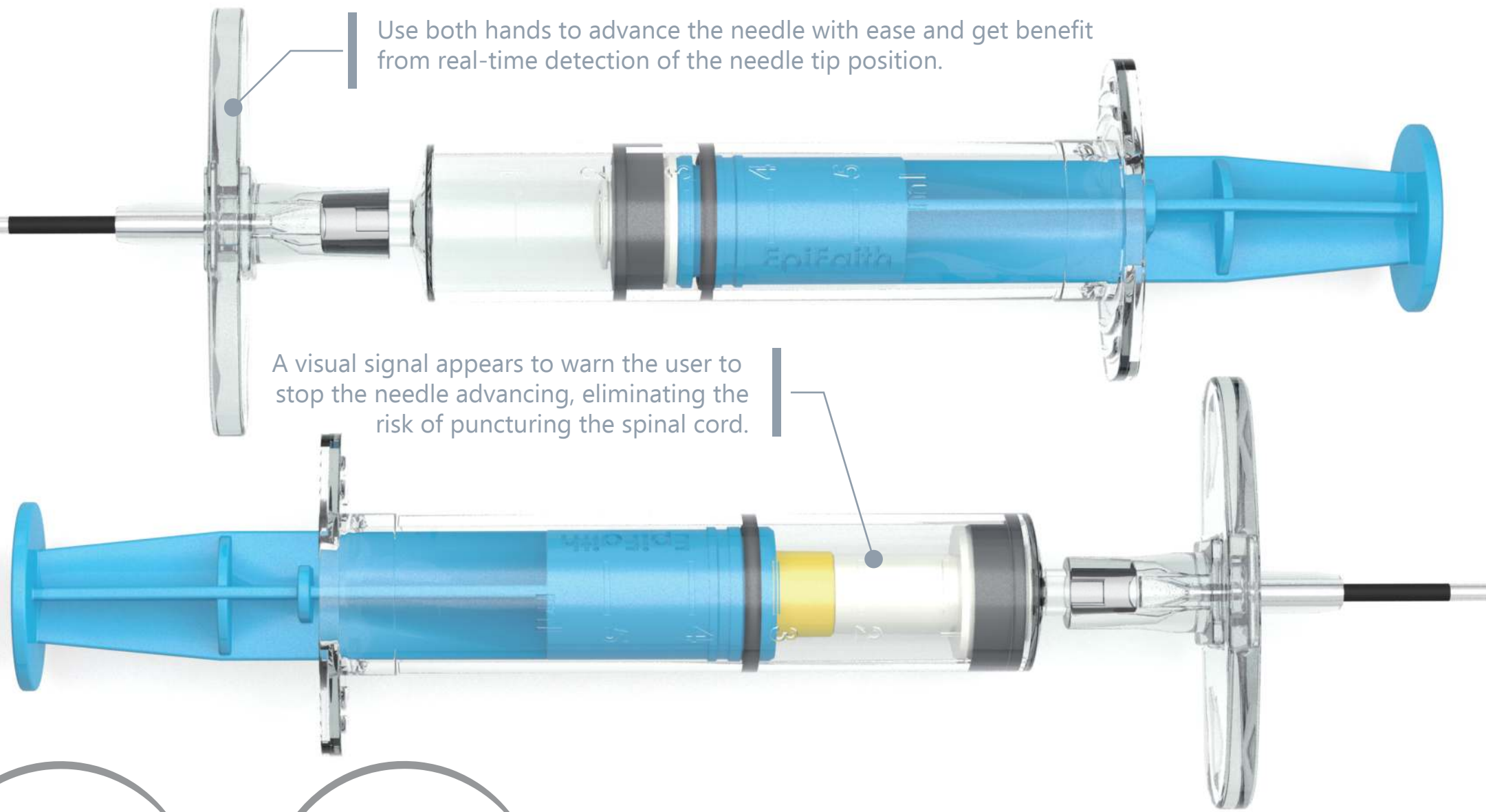
EpiFaith™ Syringe: The Novel LOR Device to Assist the Identification of Epidural Space in Ex- Vivo And In- Vivo Porcine Model

L. Y. Lin, W. F. Luo, Y. H. Chuang, S. W. Tseng, C. Y. Tsao
National Taiwan University Hospital - Taipei City (Taiwan)

EpiFaith™ syringe, as an improved loss of resistance (LOR) device, was invented to help identification of epidural space (ES) with clear visual signal.

Use both hands to advance the needle with ease and get benefit from real-time detection of the needle tip position.

A visual signal appears to warn the user to stop the needle advancing, eliminating the risk of puncturing the spinal cord.

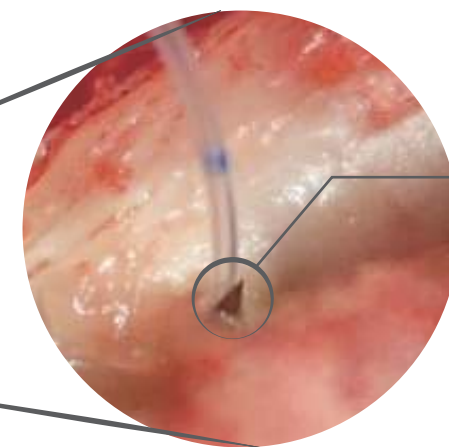


EpiFaith™ syringe

Epidural locating syringe with Faith Signal

Ex- vivo test:

- A fresh porcine spine with 1/3 bilateral ribs, and the vertebral bodies removed.
- Both gas and saline were used, 10 attempts in each group.

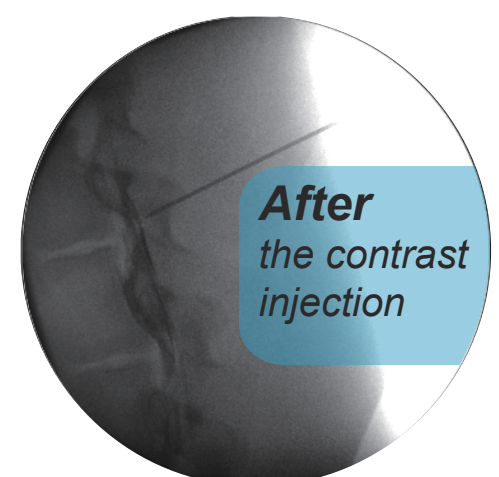
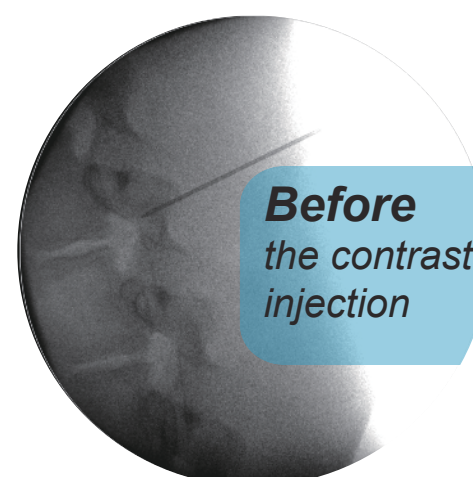


The protruding lengths of needle tip were <1mm

Using saline leads to lower false positive rates, gas does provide faster and clearer visual signals.

In- vivo test:

- A 95kg Swine.
- 4 attempts with saline were performed by paramedian approach.
- Contrast dye was injected after the catheter was inserted to confirm whether the needle location was correct.



The correct spreading of contrast dye were found in all four attempts, suggesting the needle was located successfully.