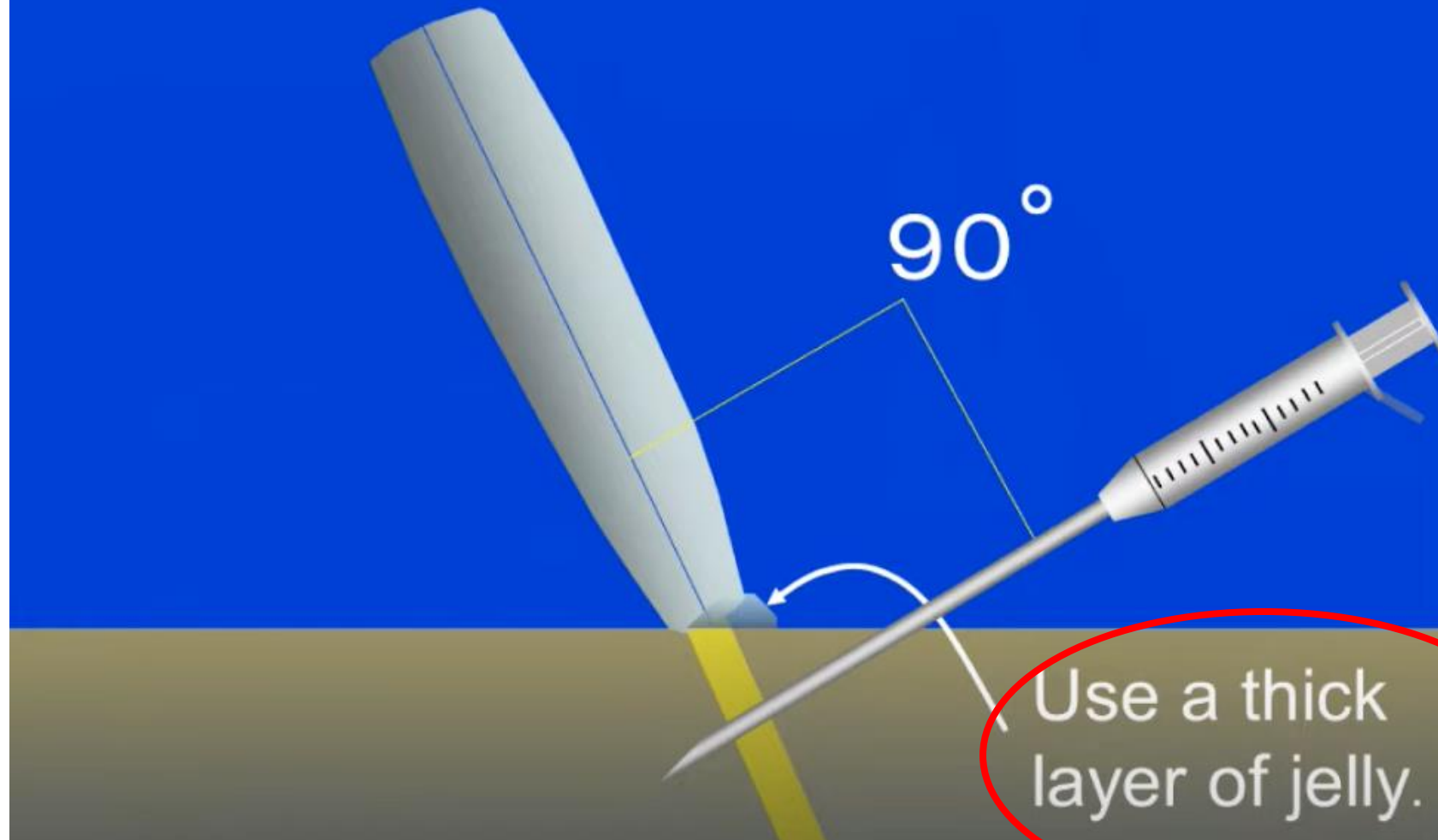


U/S guided dynamic needle
TIP positioning DNTP
to- and- fro method

The needle shaft is visualized by reflection



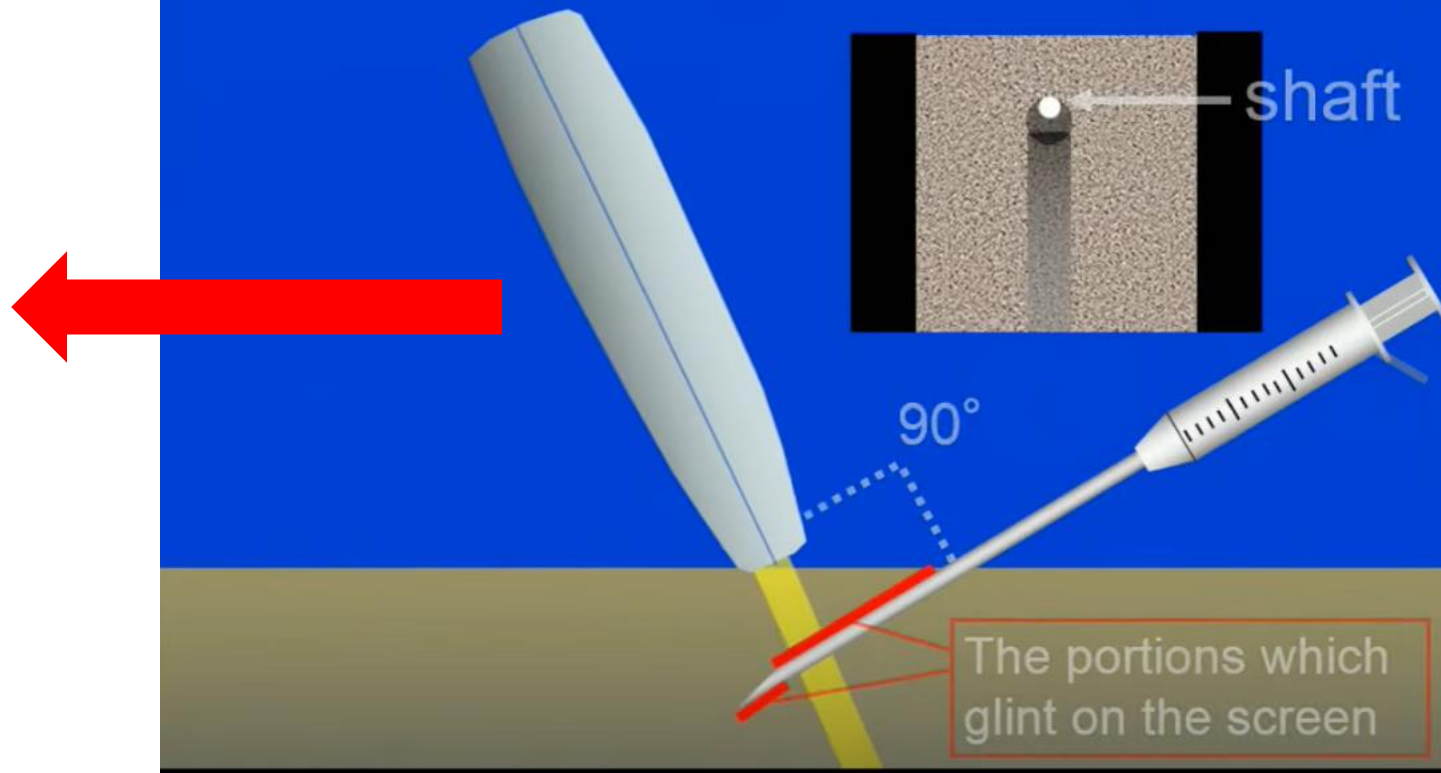
To utilize the law of reflection...



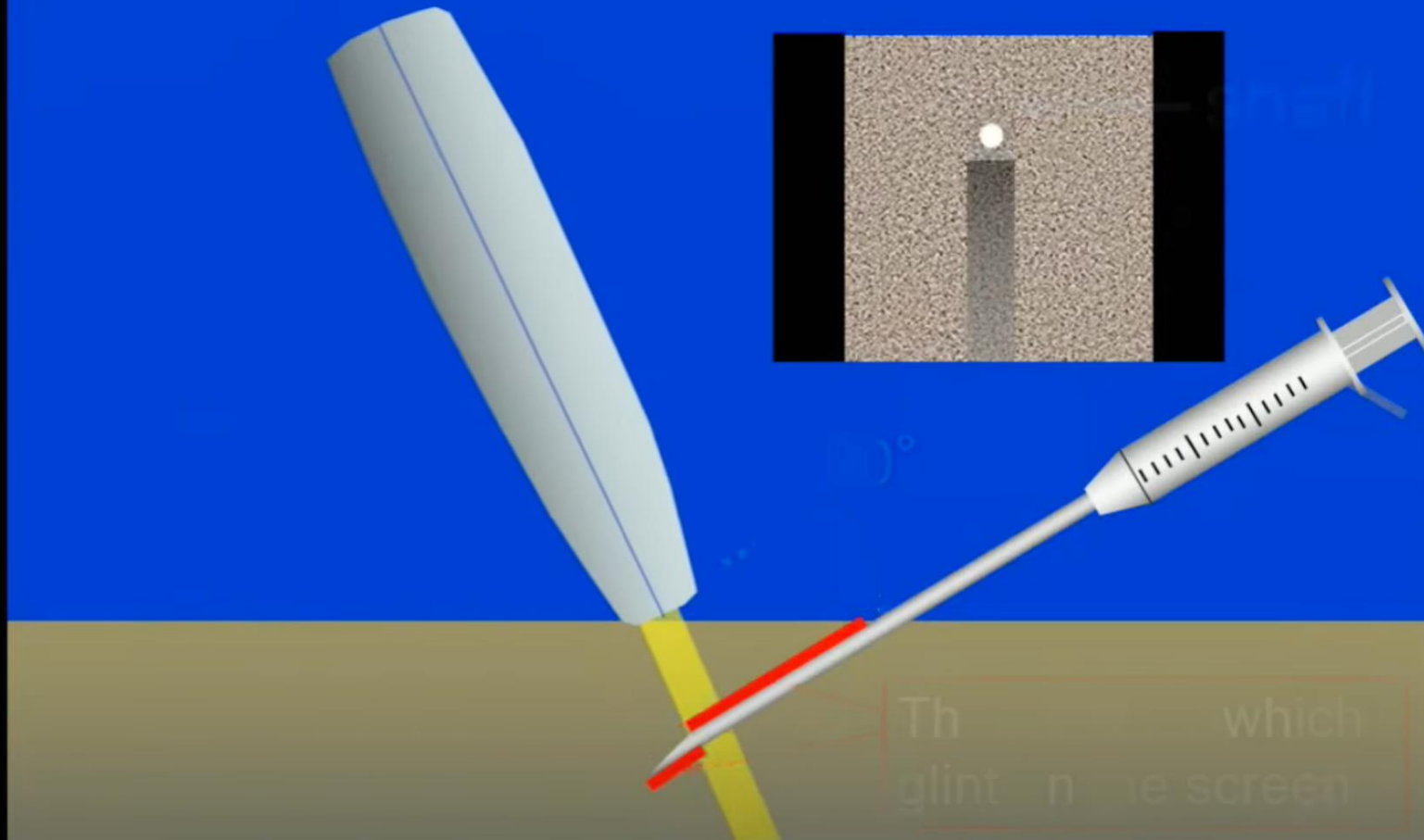
sterile gel for CVC

to- and- fro method

Distinguishing tip from shaft



Distinguishing tip from shaft



Technically, it is important to stop the probe exactly at the moment the bright spot has disappeared.

jiggling



Jiggling (subtle back-and-forth movement) the needle promotes the visibility of the tip. Although such jiggling is useful in central venous cannulation, I do not recommend it for peripheral vessel cannulation, because those vessels are fine and thin.