

The Tracoe Experc Dilation Set, containing all parts necessary to perform a Percutaneous Dilation Tracheostomy based on the Ciaglia technique.

## Preparing the patient

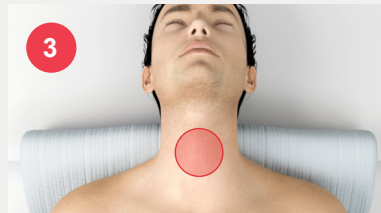


1 Set the bed flat and position the patient supine with a roll of bed sheets or a pillow beneath the shoulders, under the neck below base of skull, so that the head and neck are fully extended.



2 Stabilize the head and neck.

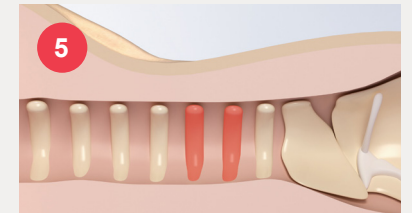
**Tip:** The PDT can be carried out at the bed side. Immediately before the procedure, ensure that the patient is optimally pre-oxygenated and the pharynx should be suctioned.



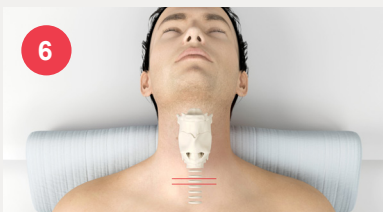
3 The patient's internal and external anatomy should be examined for anatomical anomalies that may adversely affect this procedure.



4 Sedate the patient and monitor in accordance with hospital guidelines. Disinfect the skin in the neck region and cover it with sterile drapes.

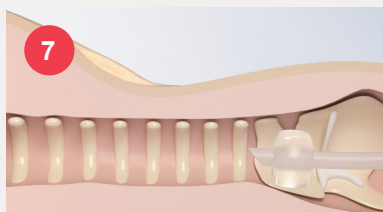


5 The initial puncture typically is performed between the 2nd and 3rd or 3rd and 4th cartilage ring.

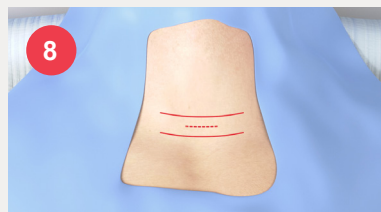


6 Identify and mark the landmarks.

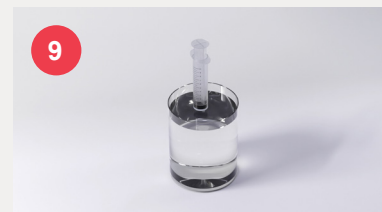
**Tip:** Puncture, dilation and placement of the tracheostomy tube should be done under bronchoscopic guidance.



7 To prevent the endotracheal tube from being pierced, withdraw the ET-tube with a deflated cuff as far as below the vocal folds. The cuff of the ET-tube should then be re-inflated, cuff pressure controlled and ventilation adjusted.



8 The area is locally anesthetized, then a 1.5 to 2 cm incision is made on the midline according to the patient's set landmarks.

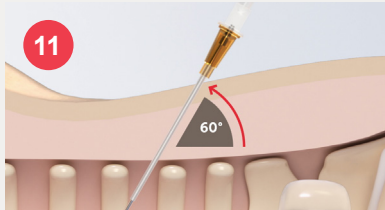


9 Fill the syringe partially with sterile saline solution or sterile water and then attach it to the puncture needle within the Teflon catheter.

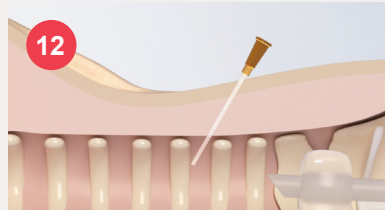


10 Start vertically in the puncture area. Push the puncture needle forward in a posterior, caudal direction until air bubbles can be visualized in the syringe. This indicates the tip of the needle is in the air-filled trachea.

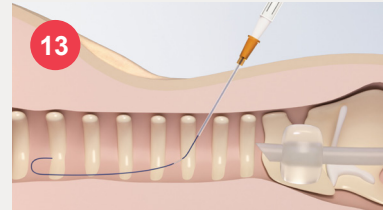
## PDT Procedure



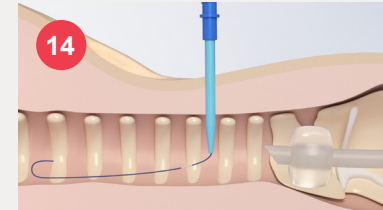
At this time, the needle and syringe are tilted at an angle of 60° toward the anterior wall of the trachea.



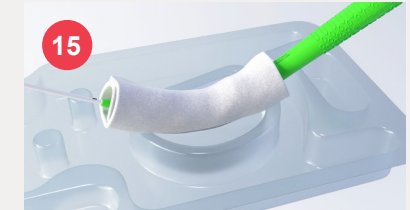
After the air is visualized freely, remove the puncture needle together with the syringe from the Teflon catheter.



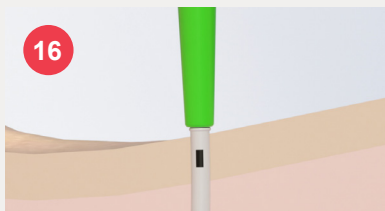
Now insert the Seldinger guide wire by placing the introducer on the Teflon catheter and carefully push the guide wire through. The guide wire should be advanced up to its first marking, approximately 10 cm, into the trachea. Once this is complete, remove the Teflon catheter over the guide wire.



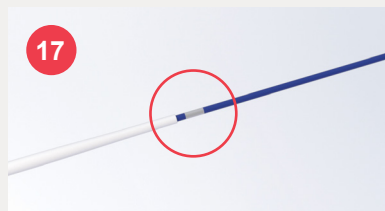
Insert the short blue pre-dilator over the guide wire and into the trachea to pre-dilate the puncture site. Then remove it, while securing the guide wire in place.



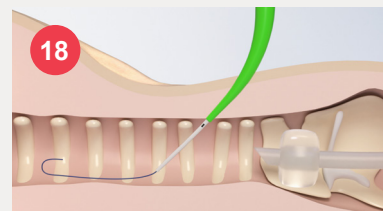
Moisten the Experc dilator with sterile saline solution or sterile water immediately before the insertion to activate the hydrophilic coating to the maximum insertion mark.



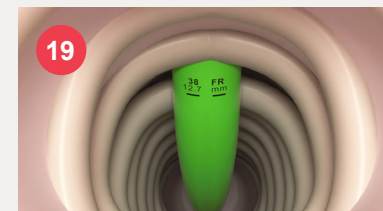
Push the preassembled guiding catheter with the Experc dilator over the guide wire until the safety stop of the guiding catheter reaches skin level.



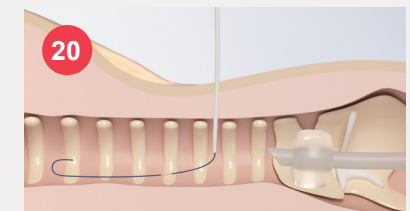
Now visually check the mark at the end of the guide wire. Make sure that the marking of the guide wire is visible even after sliding on the Experc dilator with guiding catheter.



Start inserting the dilator vertically to widen the stoma. Gently advance the dilator into the trachea with a controlled motion.



There are markings on the dilator at 38 French and 41 French for guidance. The 38 French marking should be visible in the lumen of the trachea using the bronchoscope.



Remove the Experc dilator. A tracheostomy tube suitable for the patient should now be placed.