

# Transseptal Puncture 8

## Procedural Training Module

**Mentice Transseptal Puncture Training Module** is designed for interventionalists to learn the skills essential to safely perform the procedure. Transseptal puncture of the fossa ovalis was introduced nearly 50 years ago and is still considered a challenging procedure. The procedure serves as a gateway for many emerging technologies and therapies to include left atrial ablation, percutaneous valve replacement and repairs, left atrial appendage devices and ventricular assist devices.

### Educational Context and Skills

The Mentice Transseptal Puncture Module offers various anatomies with different learning objectives to facilitate technical, procedural and cognitive skills training in a complete risk-free environment.

- Learn the procedural steps for transseptal puncture
- Gain experience with the device assembly used for transseptal puncture
- Adjust the device manipulation to manage the anatomical variations of right atrium and the fossa ovalis
- Perform various techniques for rotating and the positioning of devices
  - activate or deactivate catheter placements for reference (HIS, CS, Pigtail)
  - activate or deactivate anatomical landmarks for training reference points
- Recognize important anatomical landmarks used for verifying correct puncture sites
- Implement steps for safely gaining access to left heart post-puncture
- Utilize needle pressure readings to confirm location
- Review each step in multiple projections to validate device positions
  - reference ultrasound image for additional perspective

### Functionality and Features

- Actual clinical devices recommended for realistic experience
- ECG and pressure curves enhance the procedure environment
- Configurable for specific procedural oriented approaches (ie: EP, Structural heart and Cardiac)
- Simulated learning environment provides training and a teaching model
- Intuitive User Interface



Sheath injection in LA



3D view with fossa visualization



Activity Reference Screen

## Features

- Full C-arm and table manipulation  
LAO/RAO & CRA/CAU angulations, image intensifier control, table height adjustment, magnification, brightness
- Imaging modalities  
- Positive X-ray, negative X-ray and 3D mode (unique to simulation)  
- Reference Images for visual perspective
- Projection controls  
Pre-set standard projections, possible to save user preferred projections for later use in training case
- Contrast injections  
Manual syringe injection
- Imaging  
- Series: cine recording, playback, acquisition of landmarks, ability to return the C-arm to previous projections and blending of landmarks  
- Measuring capabilities
- Transseptal specific features may be active or inactive  
- Landmarks: CS catheter, HIS catheter, AO pigtail  
- Flushing; Saline flush, Injecting Heparin, Contrast through AO pigtail  
- Guiding: sheath/dilator rotational indicator; needle rotational indicator

- “Fluoro & Vitals” screen  
- Realistic fluoroscopic image  
- Status bar with case statistics  
- Vital signs always visible  
- X-ray reference image of patient position- Device status panel showing selected and active devices

## Inventory

- .032”, .035” and .014” guide wires
- Transseptal sheath and dilator assembly
- Transseptal needle
- 7F Guide catheters
- 5F Diagnostic catheters

## Simulation

- Three cases with different learning objectives and challenges for the trainee  
- Case 1: normal  
- Case 2: fibrotic fossa  
- Case 3: aneurysmal fossa

## VIST® - Family of Simulation Solutions

provides a relevant, realistic teaching and learning environment for hands-on training of angiographic and interventional skills.

### VIST® Simulator Systems

The VIST® and the VIST®-C systems share unique advantages in terms of highest fidelity, clinical realism and use of actual clinical devices.



VIST® Lab is compatible with both VIST® and VIST®-C systems.

VIST®-C is a fully portable high-fidelity simulator.



### VIST® Training Modules

A structured and comprehensive suite of modules with clearly defined learning objectives giving trainees exposure to a wide range of patient scenarios and anatomical variations.



Neuro Intervention



Carotid Intervention



Coronary Angiography



Coronary PRO



Transseptal Puncture



Cardiac Rhythm Management



EndoVascular Aortic Repair



Peripheral Angiography



Renal Intervention



Uterine Artery Embolization



Iliac/SFA Intervention



BTK Intervention

**MENTICE** is a global medical simulation company founded in 1999 with headquarters in Gothenburg, Sweden. The company pioneered virtual reality for medical training and is today the global leader in endovascular simulation.

Contact us to learn more about simulation and how it can benefit your training efforts:

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