



# TAVI Analysis

Automated segmentation & pre-procedure planning software for transcatheter aortic valve implantation.

Transcatheter Aortic Valve Implantation (TAVI) or Replacement (TAVR) is a procedure for select patients with severe symptomatic aortic stenosis (narrowing of the aortic valve opening). TAVI/TAVR is performed on a beating heart and a replacement valve is delivered via a catheter.

CT provides important information that is important for successful TAVI/TAVR procedures. CT is used to help determine aortic annulus size, to guide selection of appropriate valve, provide dimensions of the entire aorta, help determine the access path for the catheter and give guidance for C-arm angulation for deployment of the device.

GE's TAVI Analysis software provides a streamlined, guided workflow to enable efficient, consistent work-ups of your TAVI studies with connectivity directly to the interventional suite.

## Overview

TAVI Analysis is a post-processing software package for the Advantage Workstation (AW) and AW Server platforms. It is a planning tool used for TAVI/TAVR procedures. It automatically segments the aorta and displays the aortic valve in multiple views for quick and easy measurements of the annulus. TAVI Analysis provides guided workflow and semi-automated tools to help evaluate appropriate access pathways and can communicate directly with the interventional suite.

## What's new

- Automated Aortic segmentation displayed to highlight calcific areas.
- Guided workflow for complete pre-procedure planning measurements.
- Wizard panel for valve measurements used for sizing requirements.
- Perpendicular view demonstrates working angles for valve deployment.
- Auto bone segmentation
- Fast centerline tracking to subclavian and femoral arteries.
- Lumen and curved views showing entire vascular tree.
- Quantification wizard panel.
- Intuitive and easily accessible tools
- Connectivity to the interventional suite



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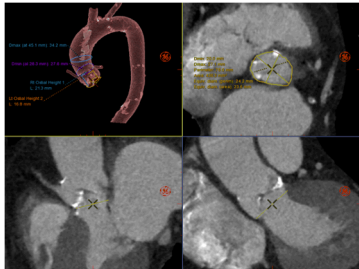
[www.gehealthcare.com/aw/applications/](http://www.gehealthcare.com/aw/applications/)



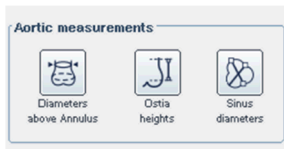
## Features Detail

### Valve Definition

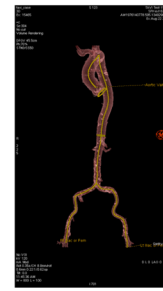
- The TAVI protocol allows users to select single or multiple cardiac phases.
- Automatic segmentation of aorta and auto detection of valve plane with double oblique tool.
- Ability to define minimum and maximum diameters above the annulus along the length of the aorta.



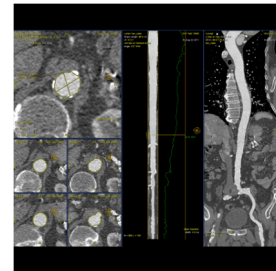
- Analyze, trace and edit annulus contour. Available annulus measurements include:
  - Minimum diameter
  - Maximum diameter
  - Perimeter
  - Area
  - Equiv. diameter based on perimeter and area



- Aortic measurement tools are also available which include:
  - Diameters above annulus
  - Ostia Heights
  - Sinus diameters
- One click perpendicular view demonstrates working angles for valve deployment in the cath lab.



- Quantification view has pre-defined measurements capable of doing measurements for stenosis, aneurysms, 3D angles and distance measurements.



### Access Route Analysis

- Automatic bone segmentation and real time vessel tracking.
- Guided vessel tracking tools allow for easy access planning for all approaches:
  - Subclavian Artery
  - Femoral Artery
  - Apical Approach

- Peripheral artery measurements automatically sent to summary table to allow easy exporting.

Sep 05 2014	
Above Coronaries	<input checked="" type="checkbox"/>
CT - phase 45%	
Min Diameter: 28.6 ± 0.9 mm	
Ascending Aorta - Distal	<input checked="" type="checkbox"/>
CT - phase 45%	
Min Diameter: 34.1 ± 0.7 mm	
Between Brachiocephalic and...	<input checked="" type="checkbox"/>
CT - phase 45%	
Min Diameter: 25.4 ± 0.9 mm	
Subclavian Artery Origin	<input checked="" type="checkbox"/>
CT - phase 45%	
Mean Diameter: 27.1 ± 0.8 mm	
Descending Aorta - Proximal	<input checked="" type="checkbox"/>
CT - phase 45%	
Min Diameter: 24.1 ± 0.9 mm	
Descending Aorta - Diaphragm	<input checked="" type="checkbox"/>
CT - phase 45%	
Min Diameter: 19.9 ± 0.9 mm	



GE imagination at work

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