STS National Database
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The Society of Thoracic Surgeons

Adult Cardiac Surgery Database

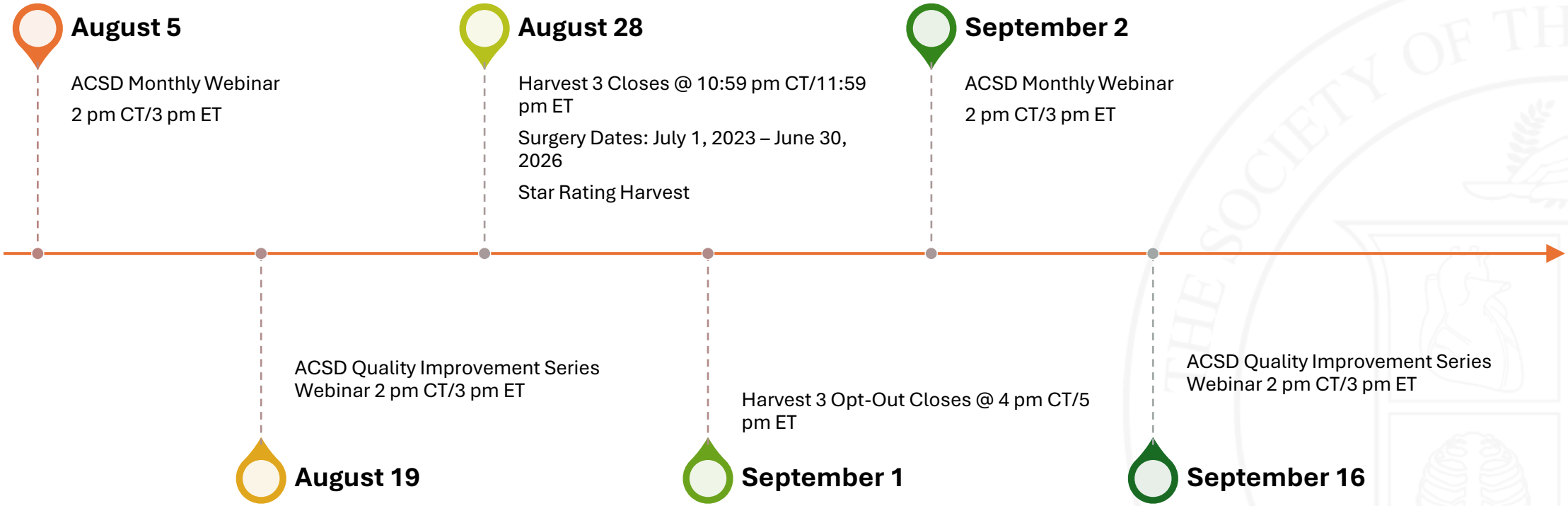
Monthly Webinar

August 5, 2026

Agenda

- Welcome and Introductions
- STS Updates
- Aorta Session #5-Root Additional Anatomical Information to Aorta Measurements-Melinda Offer
- Open Q&A

Important Dates



2026 Harvest Schedule

2026 Harvest

Term	Harvest Submission Window Close	Opt-Out Date	Includes Procedures Performed Through:	Report Posting	Comments
Harvest 1	February 20	February 24	December 31, 2025	Spring 2026	Star Rating
Harvest 2	May 29	June 2	March 31, 2026	Summer 2026	
Harvest 3	August 28	September 1	June 30, 2026	Fall 2026	Star Rating
Harvest 4	November 20	November 24	September 30, 2026	Winter 2026/2027	

Analysis for each harvest is based on a 36-month window.

Data Submission Open is continuous for all harvest terms. Submission Close occurs at 11:59 p.m. Eastern on the date listed.

Harvest Opt-Out closes at 5:00 p.m. Eastern on the date listed.

STS Updates

- Harvest 2 Reports have been published and include the new Surgical Treatment of Atrial Fibrillation Quality Metric.
- The updated National Report Overview document has been published to the IQVIA Library.
- August Training Manual updates were published to the website yesterday.
- The ACSD Public Reporting site will be updated later this summer with 2026 Harvest 1 data.

AQO 2026 – New Orleans

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AQO 2026 will offer a unique opportunity to explore techniques for optimizing data collection, using case scenarios, and driving quality improvement. Head for New Orleans this September to attend the premier gathering of STS National Database professionals as they share valuable research and important clinical findings with hundreds of peers.

- September 30-October 2, 2026
- Intermacs & Pedimacs-Live Virtual Forum-September 24
- CHSD & GTSD Sessions-September 30- October 1
- ACSD Sessions-October 1-October 2 (half day-breakout discussions)

AQO 2026 Justification Letter Request | STS

Event

2026 Advances in Quality & Outcomes: A Data Managers Meeting

Discussions on valuable research and important clinical findings with the goal of improving data collection and patient outcomes.

Register Now

Meetings | STS

Date(s)
Sep 30 – Oct 2, 2026

Location
New Orleans, LA

Audience
Allied Health
Data Manager

Pricing

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In-Person Registration	Registration Fee	Late Registration Fee (after Aug. 31, 2026)
STS Member — One Registry (CHSD or GTSD or ACSD)	$700	$800
STS Member — Two Registries ((CHSD or GTSD) AND (ACSD))	$1,100	$1,200
Non-Member — One Registry (CHSD or GTSD or ACSD)	$800	$900
Non-Member — Two Registries ((CHSD or GTSD) AND (ACSD))	$1,200	$1,300
Industry Employee	$1,200	$1,300

Virtual-Only Registration	Early Bird Registration Fee (through July 31, 2026)	Standard Registration Fee
STS Member Virtual Pass + Intermacs Forum	$450	$550
STS Member Virtual Pass Only (no Intermacs Forum)	$350	$450
Non-Member Virtual Pass + Intermacs Forum	$550	$650
Non-Member Virtual Pass Only (no Intermacs Forum)	$450	$550

Hilton New Orleans Riverside

★★★★½ Based on 1651 reviews

2 Poydras St, New Orleans, LA 70130, US See Map

Hotel Arrangements

A block of rooms has been reserved at the Hilton New Orleans Riverside (2 Poydras Street, New Orleans, LA 70140). The special AQO group rate of $259, plus state and local taxes, is guaranteed **through Tuesday, Sept. 8**, or until the group block is sold out. Guest rooms reserved after the cutoff date or when the room block is sold out are subject to hotel availability. Reserve your room online.

STS- Advances in Quality & Outcomes: A Data Managers Meeting (AQO) - Start your reservation

Welcome to STS- Advances in Quality & Outcomes: A Data Managers Meeting (AQO)

Book your hotel room for the event at special rates, available here on an exclusive basis.

Select attendee type

Attendee

Make reservation

Manage existing reservation

Polling

Are you planning to attend AQO this year?

Polling

If attending AQO this year, have you completed your registration?

Polling

If attending and not yet registered, are you awaiting approval/funding from your institution?

Polling

If you are attending AQO, are you attending in-person or virtually?

Polling

If you are attending AQO in-person, which sessions are you attending?

Polling

If you are not attending AQO this year, please share why you are not attending.

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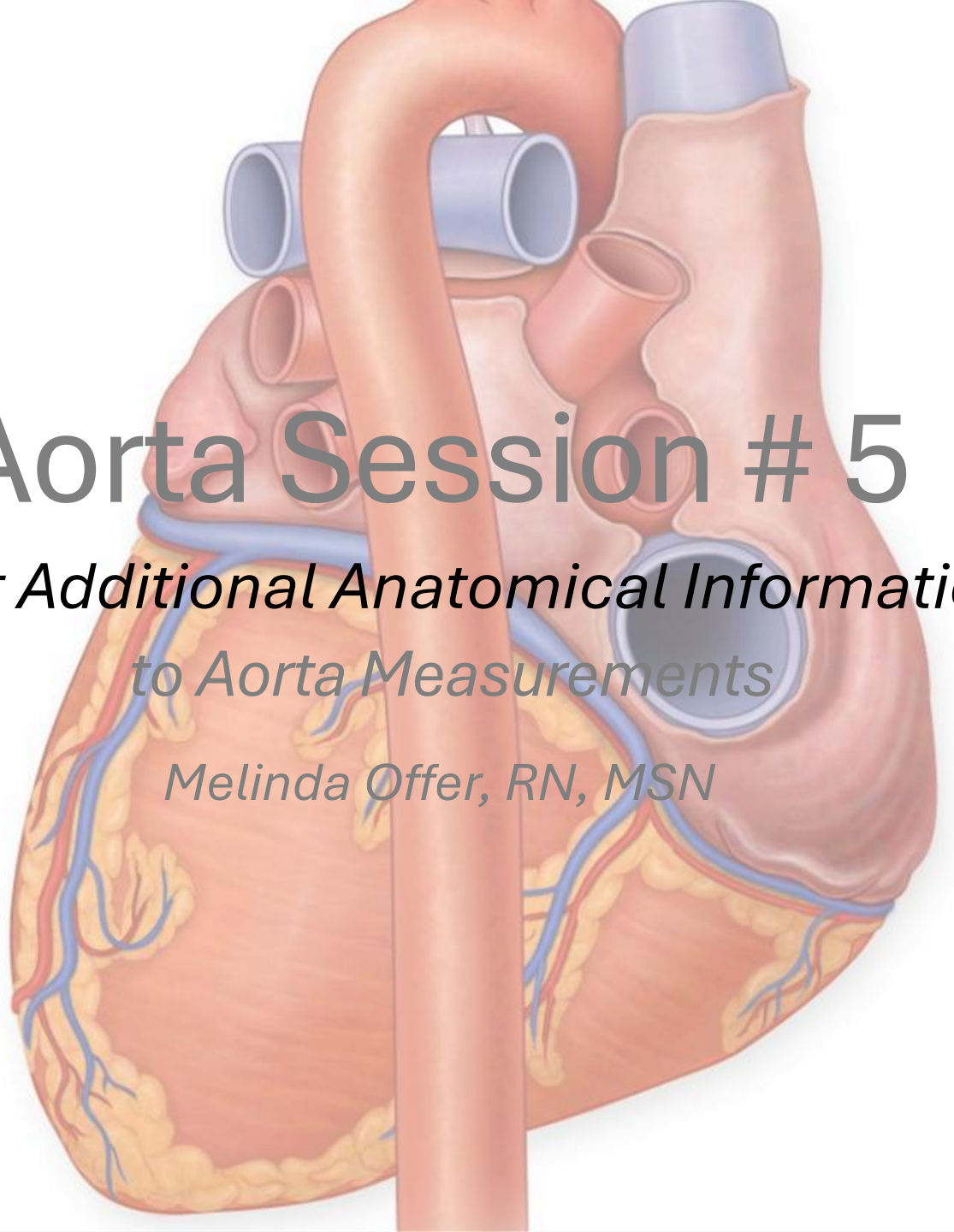
Thank you for participating in our poll!



Aorta Session # 5

Root Additional Anatomical Information

to Aorta Measurements

Melinda Offer, RN, MSN

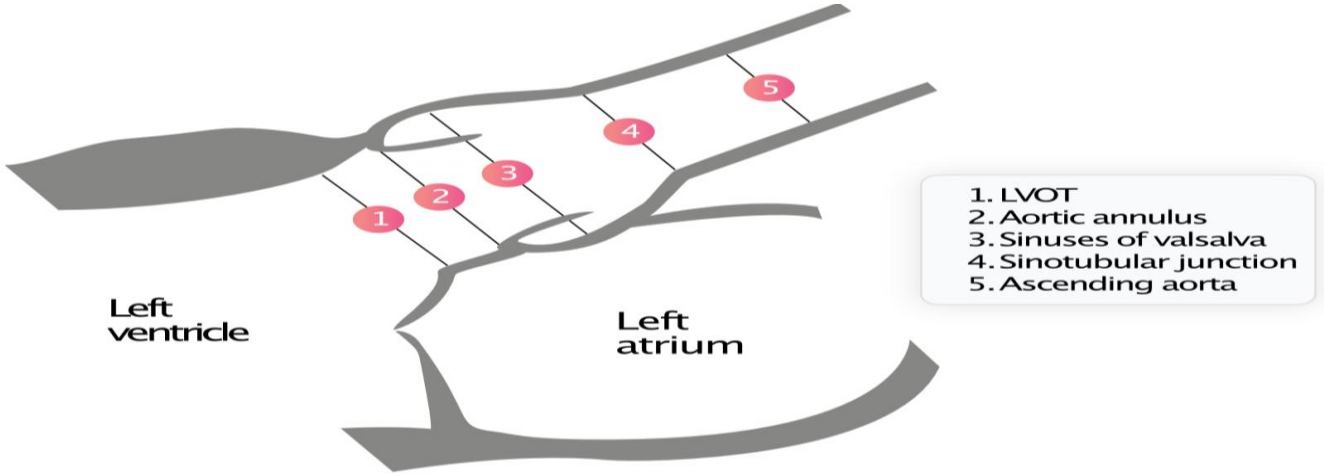
Root Additional Anatomical Information

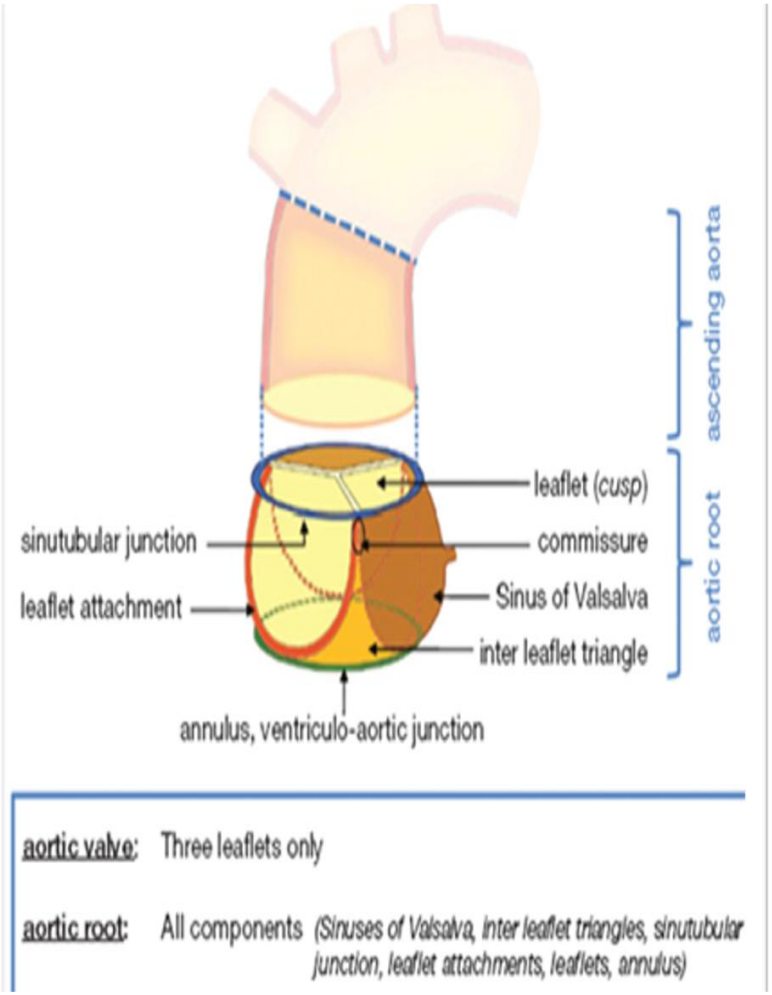
Let's Start with Aortic Root Anatomy Review

Aortic Root and LVOT

- The Aortic Root attaches to the heart at the opening of AV in the left ventricle of the heart

- The Left Ventricular Outflow Tract (LVOT) is the pathway within the heart that guides oxygenated blood from the LV to the aorta. This tract is the final segment of the left ventricle before the aortic valve, serving as the single exit route for blood destined for systemic circulation.



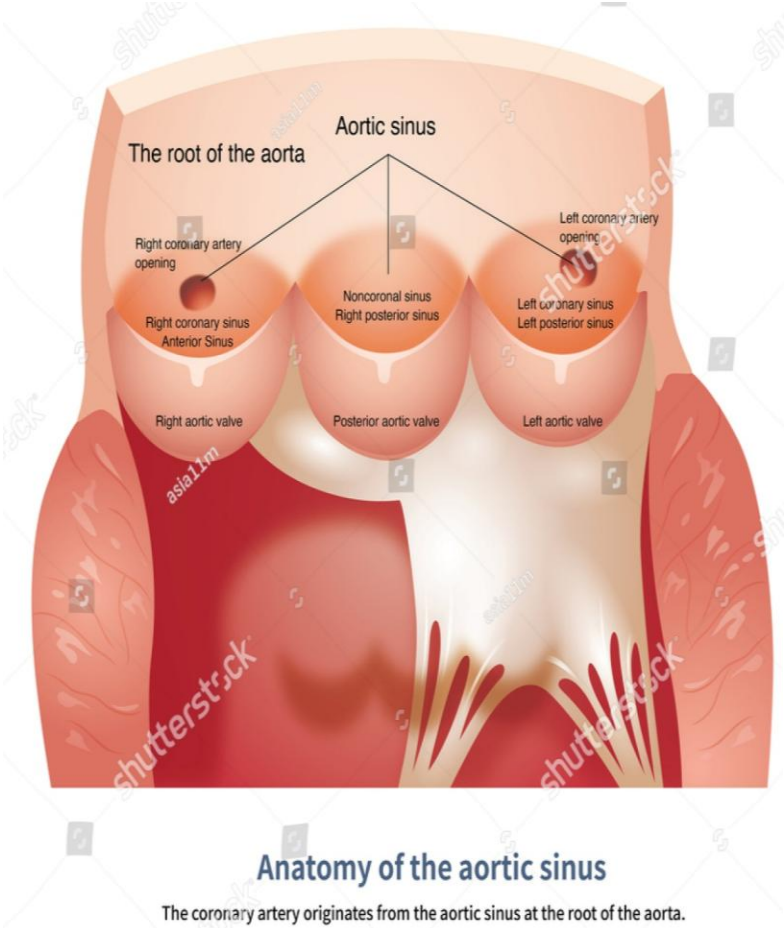


Aortic Root

Origins of Coronary Arteries

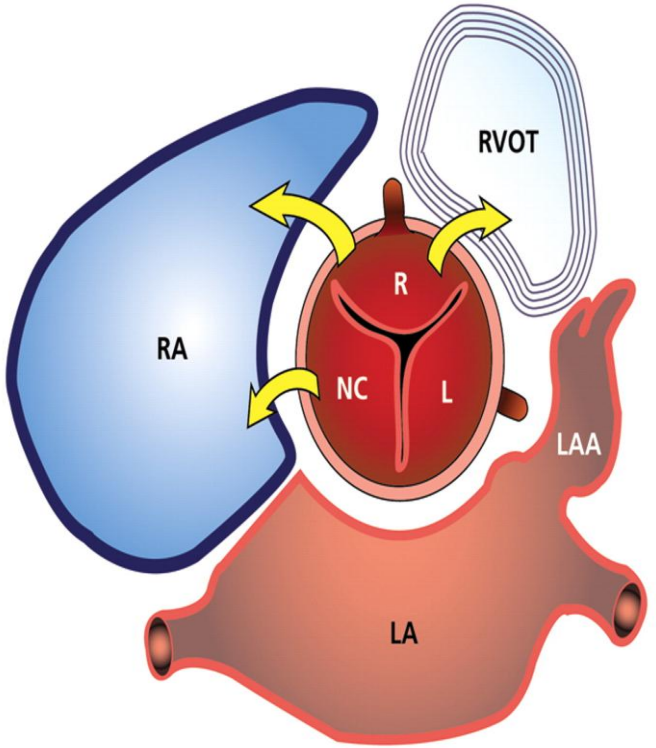
The aorta normally has three small pouches that sit directly above the aortic valve which are called the aortic sinuses or the sinuses of Valsalva.

- The left aortic sinus contains the origin of the left coronary artery (Left coronary sinus)
- The right aortic sinus gives rise to the right coronary artery (Right coronary sinus)
- The posterior aortic sinus does not give rise to a coronary artery (Non-coronary sinus)



Anatomy of the aortic sinus

The coronary artery originates from the aortic sinus at the root of the aorta.



Aorto-Annular Ectasia

Aorto-annular ectasia: ☐ Yes ☐ No ☐ Unknown
RootAAnnEctasia (4855)

Long Name: Root - Aorto-Annular Ectasia
Definition: Indicate whether aorto annular ectasia is present

Intent/Clarification: Aorto-annular ectasia which is also called Annuloaortic ectasia (AAE) is a condition characterized by abnormal enlargement or widening of both the aortic root and the aortic valve annulus. This dilation can cause the valve cusps to shorten and fail to meet during heart contraction, resulting in aortic valve regurgitation.

Annuloaortic ectasia can be genetic or acquired:

- Genetic/connective tissue disorders: Marfan syndrome, Loeys-Dietz syndrome, Ehlers-Danlos syndrome, Bicuspid aortic valve
- Acquired: Hypertension, Atherosclerosis, Inflammatory diseases such as Takayasu arteritis or giant cell arteritis and Idiopathic

Key Points:

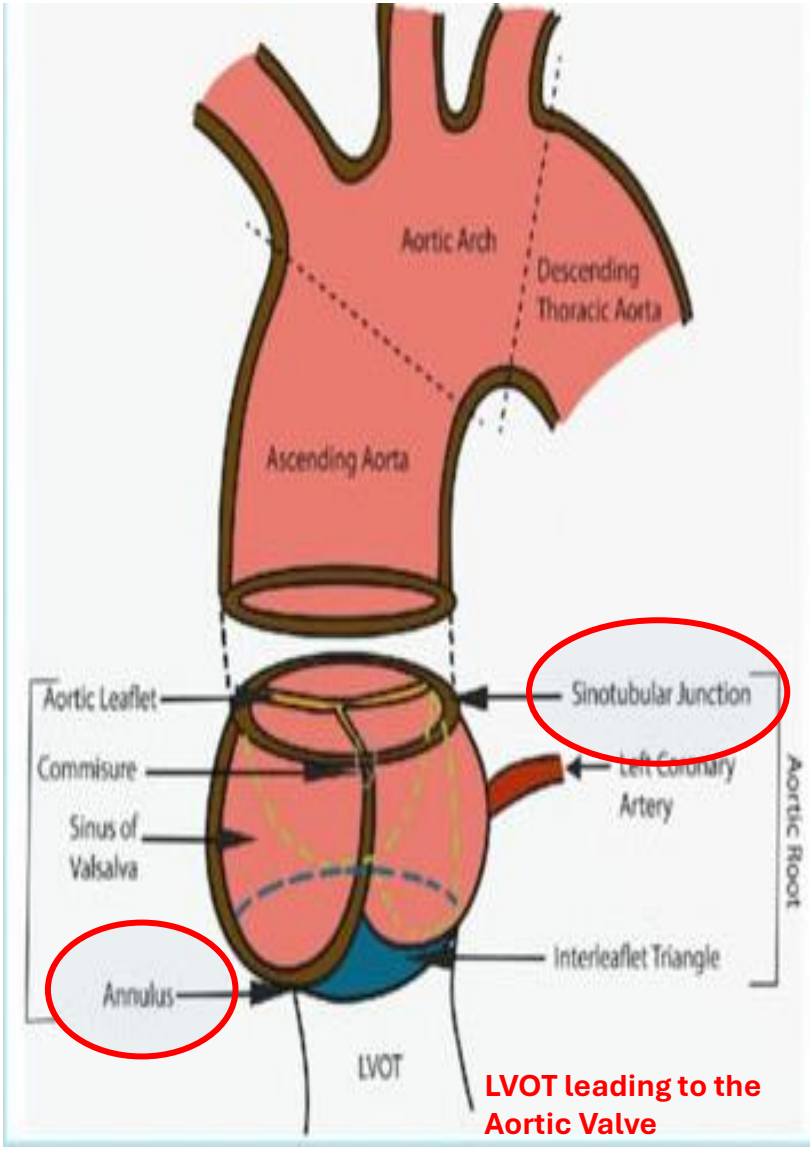
- **Not every patient with a dilated root, dilated aortic annulus, and/or an aortic root aneurysm has aorto-annular ectasia**

DCF Choices:

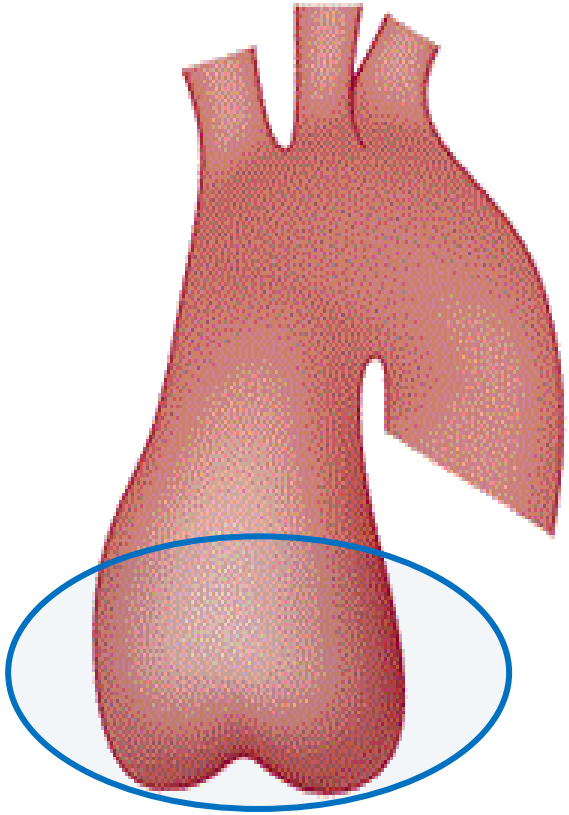
- Code “Yes” if there is surgeon or radiology documentation of aorto-annular ectasia, annuloaortic ectasia or AAE
- Code “No” if there is no surgeon or radiology documentation of aorto-annular ectasia, annuloaortic ectasia or AAE
- Code “Unknown” if there are no imaging studies performed to determine if there is aorto-annular ectasia, annuloaortic ectasia or AAE & no surgeon documentation of aorto-annular ectasia, annuloaortic ectasia or AAE

Anatomy Review Aorto-Annular Ectasia

- The aortic annulus is the ring of tissue at the base of the aortic valve.
- In ectasia, the annulus and adjacent aortic root dilate, often in a pear-shaped, symmetric pattern
- This dilation can cause the valve cusps to shorten and fail to meet during heart contraction, resulting in aortic valve regurgitation in many cases



LVOT leading to the Aortic Valve



Annuloaortic ectasia (Marfanoid)

Abnormal enlargement or widening of both the aortic root and the aortic valve annulus

Asymmetric Root Dilatation

Asymmetric Root Dilation: ☐ Yes ☐ No ☐ Unknown
RootDilaAsym (4870)

Long Name: Root - Asymmetric Root Dilatation
Definition: Indicate whether asymmetric root dilatation is present

Intent/Clarification: Asymmetric root dilatation or dilation refers to predominance of dilatation present **in one or two sinus segments as opposed to more uniform root dilatation involving all 3 sinus segments** (these may often be associated with aortic insufficiency).

In asymmetric root dilation, the root is enlarged, but the **maximum diameter is not the same in all directions**. This can be due to:

- Bicuspid aortic valve (BAV)
- Genetic connective tissue disorders: Marfan syndrome, Loeys-Dietz syndrome
- Chronic hypertension
- Atherosclerosis

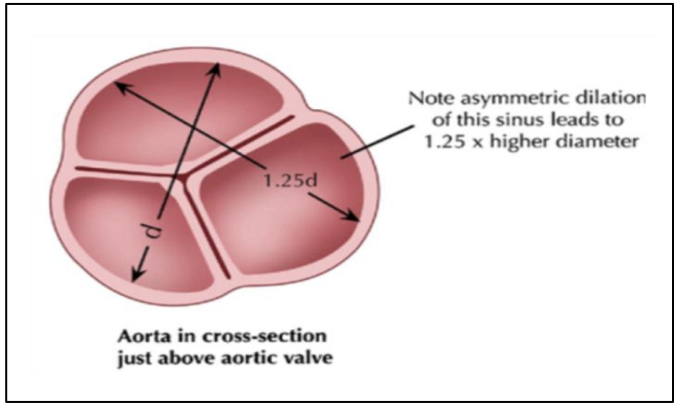
Key Points:

- **Not every patient with a dilated root and/or an aortic root aneurysm has asymmetrical root dilatation**

DCF Choices:

- Code “Yes” if there is surgeon or radiology documentation of asymmetrical root dilatation.
- Code “No” if there is no documentation of asymmetrical root dilatation.
- Code “Unknown” if there are no imaging studies performed to determine if there is asymmetrical root dilatation & no surgeon documentation of asymmetric root dilatation.

Asymmetric Root Dilatation

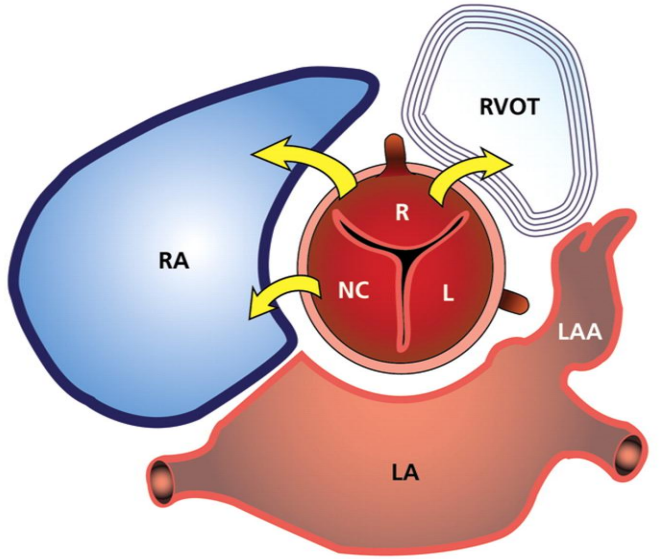


Long Name: Root - Asymmetric Root Dilatation - Location
Definition: Indicate location of asymmetric root dilatation

Intent/Clarification: The intent is to clarify left, right or non-coronary sinus aortic root dilatation.

Key Points:

This field was inadvertently made a select one field so you can only code one sinus location in V 4.2.
If you have 2 sinuses that are dilated which is a normal occurrence in asymmetrical root dilatation, code the larger of the 2 aneurysms in this scenario



DCF Choices:

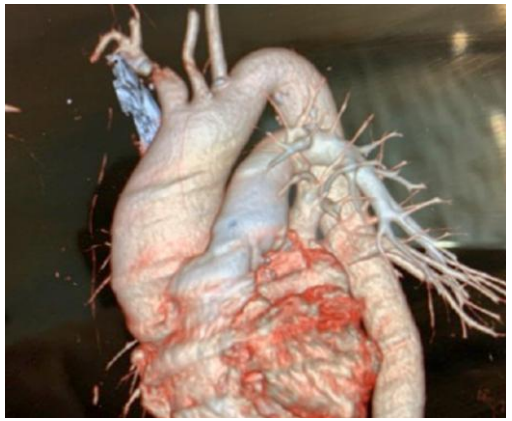
Asymmetric Root Dilation: ☐ Yes ☐ No ☐ Unknown (If Yes →) Dilation Location: ☐ Right ☐ Left ☐ Non-coronary
RootDilaAsym (4870) RoottDilaAsym (4875)

Ascending Asymmetric Dilation

Ascending	Asymmetric Dilatation: AscAsymDil (4891)	☐ Yes ☐ No ☐ Unknown

Long Name: Ascending Asymmetric Dilation
Definition: Indicate whether there is asymmetric dilatation of the ascending aorta

Intent/Clarification: Asymmetric dilatation or dilation refers to abnormal widening or enlargement of the ascending aorta where the enlargement is **unequal on both sides**. This means one side of the aorta is larger than the other, rather than both sides being the same size. It is often noted as a pattern of dilation that affects the greater curvature of the ascending aorta.



This can be due to:

- Bicuspid aortic valve (BAV)
- Genetic connective tissue disorders: Marfan syndrome, Loeys-Dietz syndrome
- Chronic hypertension
- Atherosclerosis

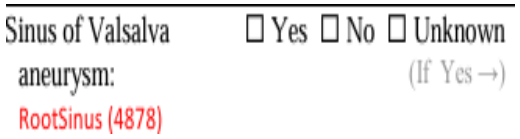
Key Points:

- **Not every patient with a dilated ascending aorta has asymmetrical ascending aorta dilation.**

DCF Choices:

- Code “Yes” if there is surgeon or radiology documentation of asymmetrical ascending aorta dilation.
- Code “No” if there is no documentation of asymmetrical ascending aorta dilation.
- Code “Unknown” if there are no imaging studies performed to determine if there is asymmetrical ascending aorta dilation & no surgeon documentation of asymmetrical ascending aorta dilation.

Sinus of Valsalva Aneurysm

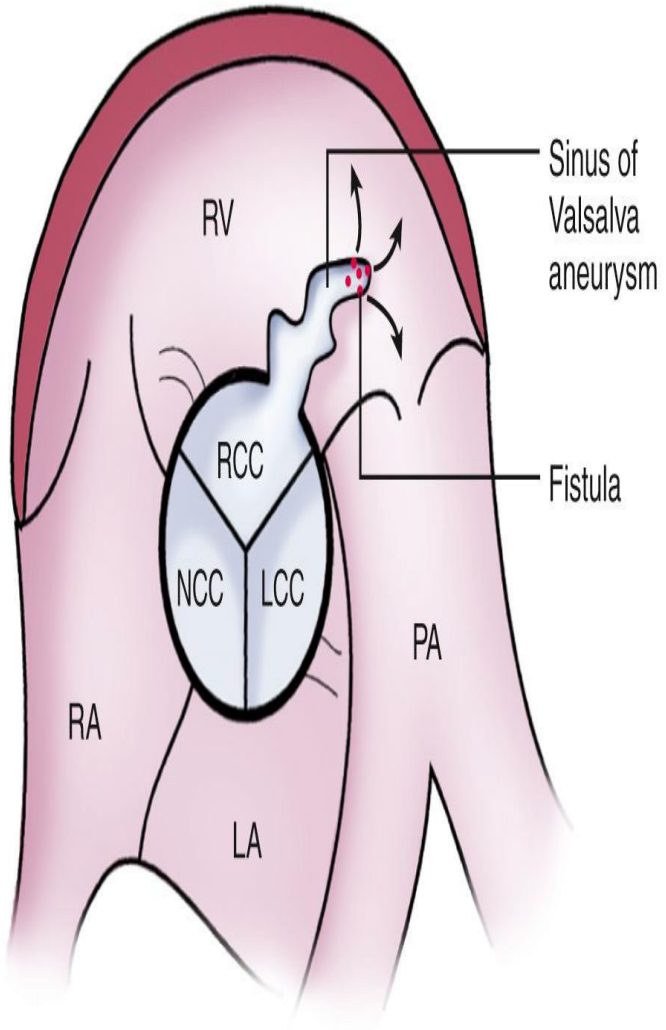


Long Name: Root - Sinus Of Valsalva Aneurysm
Definition: Indicate whether there is a Sinus of Valsalva (SOV) aneurysm

Intent/Clarification: A sinus of Valsalva aneurysm is a distinct dilatation with a windsock appearance in one sinus.

DCF Choices:

- Code “Yes” if there is surgeon or radiology documentation of Sinus of Valsalva Aneurysm
- Code “No” if there is no documentation of Sinus of Valsalva Aneurysm
- Code “Unknown” if there are no imaging studies performed to determine if there is Sinus of Valsalva Aneurysm & no surgeon documentation of Sinus of Valsalva Aneurysm



Sinus of Valsalva Aneurysm Location

Long Name: Root - Sinus of Valsalva Aneurysm – Multi Location
Definition: Indicate locations of Sinus of Valsalva aneurysm

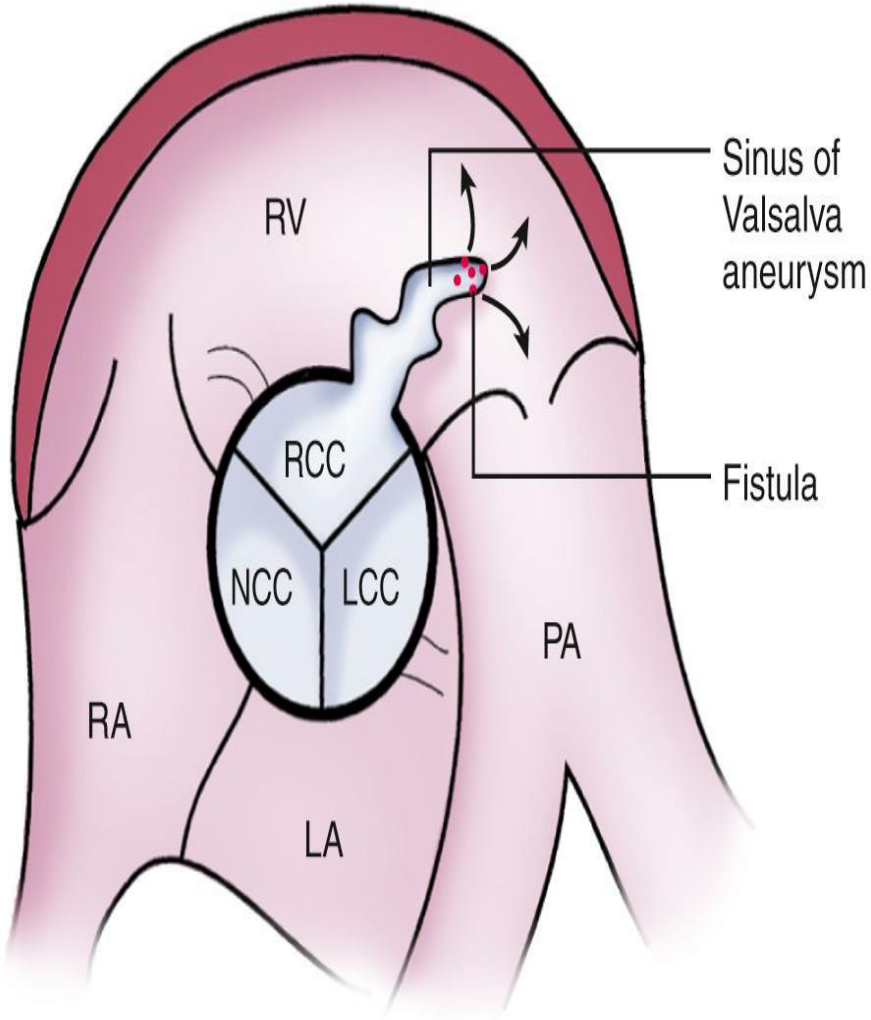
Intent/Clarification: The intent is to clarify left, right or non-coronary Sinus of Valsalva aneurysm.

Key Points:

- A sinus of Valsalva aneurysm is a distinct dilatation with a windsock appearance in one sinus.
- This field was inadvertently made a select all that apply in V 4.2. In a SOV aneurysm, there is only a distinct dilatation in one sinus. Code left, right or non-coronary Sinus of Valsalva aneurysm.

DCF Choices:

Sinus of Valsalva aneurysm: RootSinus (4878)	☐ Yes ☐ No ☐ Unknown (If Yes →)	SV Aneurysm Location (select all that apply) : ☐ Right ☐ Left ☐ Non-coronary RootSinusLocMult (4880)	



PREOPERATIVE DIAGNOSES:
1. Ruptured noncoronary sinus of Valsalva aneurysm with aorto-right atrial fistula.
2. Diastolic congestive heart failure.

POSTOPERATIVE DIAGNOSES:
1. Ruptured noncoronary sinus of Valsalva aneurysm with aorto-right atrial fistula.
2. Diastolic congestive heart failure.

SURGICAL PROCEDURE(S) PERFORMED:
1. Pericardial patch closure of noncoronary sinus of Valsalva aneurysm and resection of the right atrial aneurysmal wind sock.
2. Transesophageal echocardiogram.

INDICATIONS FOR PROCEDURE:
This is a 20-year-old girl who presented with progressive shortness of breath, dyspnea on exertion, and pedal edema. Transthoracic echo showed what originally was felt to be a possible blood cyst of the tricuspid valve. A transesophageal echocardiogram then confirmed the ruptured sinus of Valsalva aneurysm with a large aorto-right atrial fistula. Cardiac catheterization showed nonobstructive coronary artery disease, and she presents for surgery.

FINDINGS:
The aneurysm opening was in the noncoronary sinus just below the commissure between the right and noncoronary cusp and a large windsock extended into the right atrium. There was no evidence of membranous ventricular septal defect. The aortic valve remained competent. The tricuspid valve remained competent, and the patient left the operating room in a normal sinus rhythm. Postoperative transesophageal echocardiogram showed evidence of closure of the fistula between the aorta and right atrium. There was normal aortic valve function with only trace regurgitation. The tricuspid valve was competent. Her overall left ventricular function remained normal, and she left the operating room with a normal sinus rhythm.

This is a perfect example of a SOV Aneurysm

Note the windsock Appearance

Summary Differences between Asymmetric Root Dilatation, Ascending Asymmetric Dilation, Sinus of Valsalva Aneurysm & Aortic Root Aneurysm.

- *An aortic root aneurysm is generalized enlargement of all 3 sinus segments.*
- *Asymmetric root dilatation is generalized enlargement of 1 or 2 sinus segments*
- *Ascending asymmetric dilation refers to abnormal widening or enlargement of the ascending aorta where the enlargement is unequal on both sides*
- *A sinus of Valsalva aneurysm is a distinct dilatation with a windsock appearance in one segment.*

Scenario

Aorta:
The diameter of the aorta at the level of the annulus is approximately 3.1 cm. The diameter at the level of the sinuses of Valsalva is approximately 4.5 cm. The diameter at the sinotubular junction is 3.8 cm. The mid ascending aorta has a maximum diameter of 3.7 cm. The high ascending aorta has a maximum diameter of 3.8 cm. The aortic arch is normal in caliber.

IMPRESSION:
1. Mild ectasia of the ascending aorta which measures up to 4.5 cm
2. Normal caliber descending thoracic aorta and abdominal aorta. Normal caliber iliac arteries. No stenosis or dissection.

Would you code Aorto-Annular Ectasia?

Answer – No this is referring to ectasia of the ascending aorta, not aorto-annular ectasia

Aorto-annular ectasia which is also called Annuloaortic ectasia (AAE) is a condition characterized by abnormal enlargement or widening of both the aortic root and the aortic valve annulus. This dilation can cause the valve cusps to shorten and fail to meet during heart contraction, resulting in aortic valve regurgitation.

Scenario:

Indications for surgery: Severe aortic regurgitation with aortic root aneurysm. The transthoracic echo shows 45% ejection fraction with dilated left ventricle, severe aortic regurgitation.

CTA chest shows 4.4 cm Sinus of Valsalva, 3.6 cm ascending aorta, minimal ascending aorta and aortic arch calcifications, moderate to severe emphysema.

The aortic valve was trileaflet with a severely prolapsed right coronary cusp causing the severe aortic regurgitation. The aortic root had an asymmetric aneurysm with the left coronary Sinus of Valsalva being the most dilated. Moderate dilatation of the aortic root (4.5 cm).

Would you code this as asymmetrical root dilatation or SOV aneurysm?

Answer - Asymmetrical Root Dilatation

Note the differences:

- ***Asymmetric root dilatation is generalized enlargement of 1 or 2 sinus segments***
- ***A sinus of Valsalva aneurysm is a distinct dilatation with a windsock appearance in one segment.***

Scenario:

THORACIC AORTA:
Bicuspid aortic valve with dilatation of the aortic root with effacement sinotubular junction.

Sinuses of Valsalva: 53 x 45 mm
Sinotubular junction: 42 mm x 44 mm
Maximum diameter ascending aorta: 40 mm x 40 mm
Aortic arch proximal to the left subclavian artery : 31 mm x 31mm

IMPRESSION:
1. Bicuspid aortic valve with effacement of the sinotubular junction compatible with bicuspid aortopathy. Dilatation of the aortic root and thoracic aorta.

Would you code Ascending Asymmetric Dilation ?
Would you code Asymmetric Root Dilation?

Answer

No to ascending asymmetric dilation. There is no Provider documentation of this.

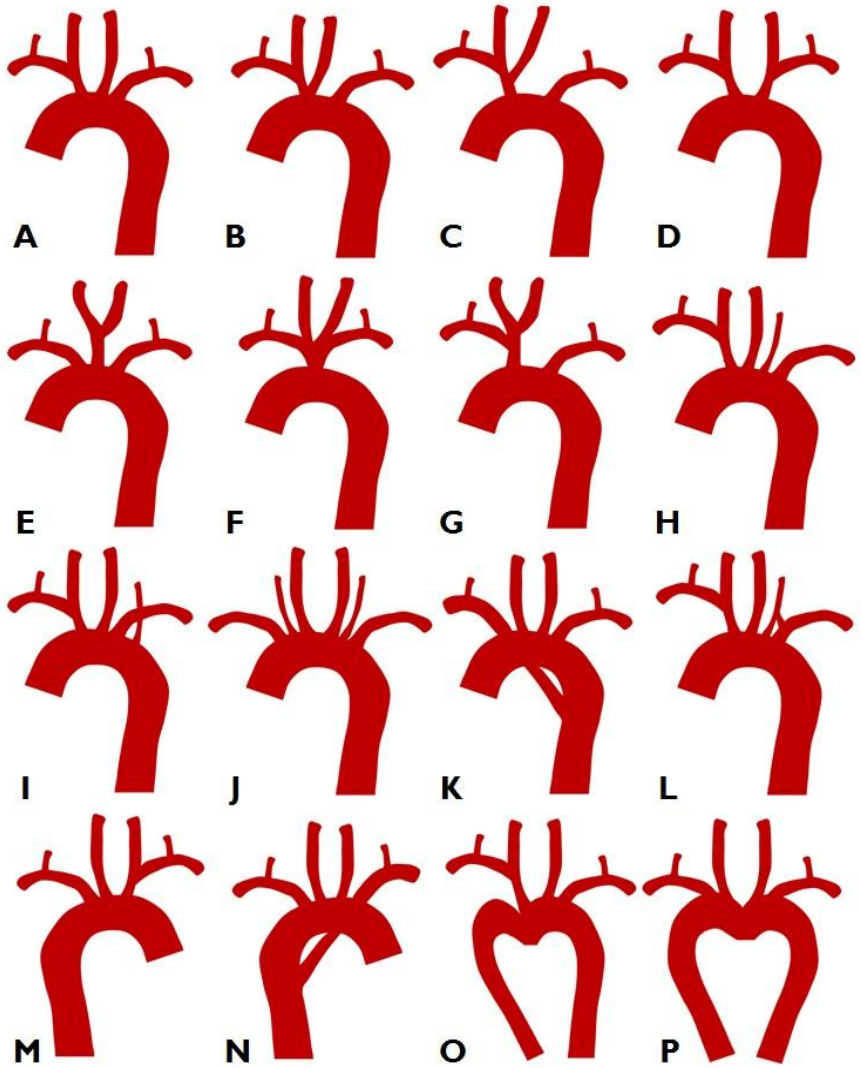
No to asymmetric root dilatation. There is no Provider documentation of this.

- ***Asymmetric root dilatation is generalized enlargement of 1 or 2 sinus segments***

- ***Ascending Asymmetric Dilation refers to abnormal widening or enlargement of the ascending aorta where the enlargement is unequal on both sides***

Aortic Arch Anomalies

MAJOR ANOMALIES AND ANATOMICAL VARIANTS OF THE AORTIC ARCH AND ORIGIN OF THE NECK VESSELS



A. NORMAL AORTIC ARCH
B. BOVINE ARCH
C. TRUNCUS BICAROTICUS
D. COMMON ORIGIN OF THE LEFT COMMON CAROTID ARTERY AND LEFT SUBCLAVIAN ARTERY

E. BICAROTID TRUNK BETWEEN THE SUBCLAVIAN
F. ARTERIES
G. EPIAORTIC SINGLE TRUNK
LEFT COMMON CAROTID ARTERY ORIGIN FROM THE
H. RIGHT COMMON CAROTID ARTERY
ARCH ORIGIN OF THE LEFT VERTEBRAL ARTERY

I. ARCH ORIGIN OF THE LEFT VERTEBRAL ARTERY BETWEEN THE ORIGIN OF THE LEFT COMMON CAROTID ARTERY AND THE LEFT VERTEBRAL ARTERY
J. ABSENCE OF THE BRACHIOCEPHALIC TRUNK
K. ABERRANT RIGHT SUBCLAVIAN ARTERY
L. LEFT VERTEBRAL ARTERY WITH ORIGIN SHARED IN AORTIC ARC AND LEFT VERTEBRAL ARTERY

M. RIGHT AORTIC ARCH
N. DOUBLE AORTIC ARCH
O. RIGHT AORTIC ARCH WITH AN ABERRANT LEFT SUBCLAVIAN ARTERY
P. RIGHT AORTIC ARCH WITH MIRROR-IMAGE

There are many aortic arch anomalies, and we only collect some of them on the DCF

Arch Anomalies

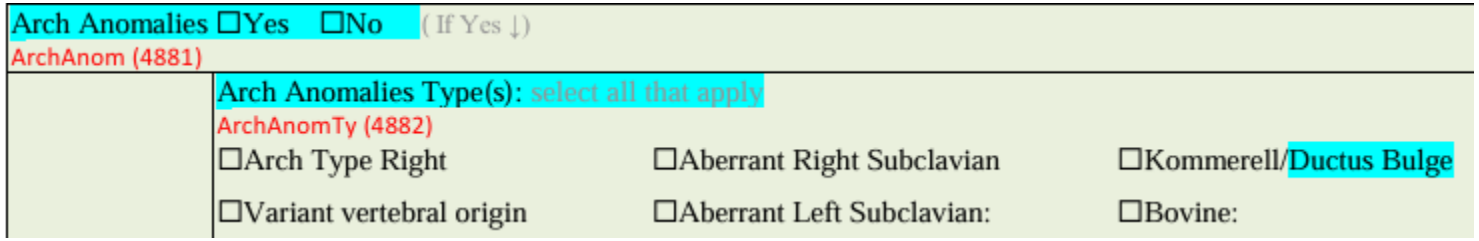
Long Name: Arch Anomalies
Definition: Indicate whether arch anomalies are present

Intent/Clarification: Aortic arch anomalies are congenital conditions characterized by defects in the structure, position, number, and function of the aortic arch. The intent is to identify patients with an unrepaired congenital aortic arch anomaly present at the time of the index surgical aortic repair.

DCF Choices:

- Yes – A documented, previously unrepaired congenital aortic arch anomaly was present at the time of the index surgical aortic repair.

- No – There is no documentation of a congenital aortic arch anomaly, or the documented congenital aortic arch anomaly had been previously repaired before the index surgical aortic repair.



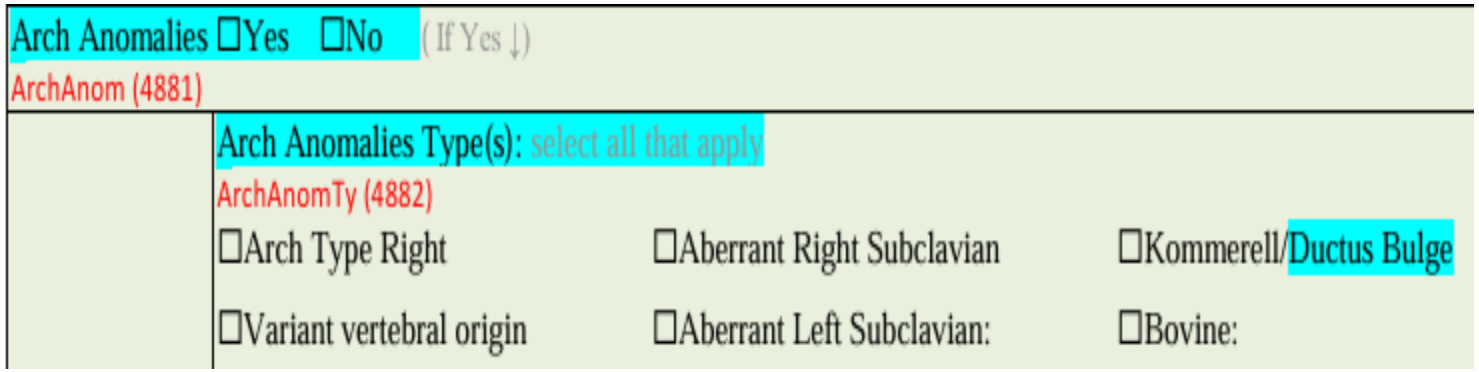
Arch Anomalies Type

Long Name: Arch Anomalies Type
Definition: Indicate which arch anomalies are present. If there are multiple arch anomalies, **choose all that apply.**

Intent/Clarification: The intent is to identify the type(s) of previously unrepaired congenital aortic arch anomaly present at the time of the index surgical aortic repair.

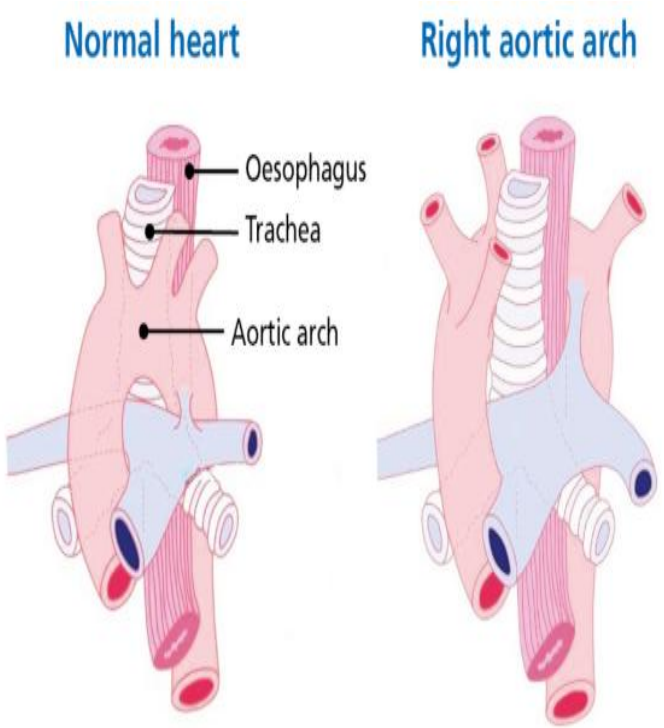
DCF Choices:

- ***Below are the most common choices, if your patient has an arch anomality that is not listed, leave the field blank since we have no choice for "Other"***

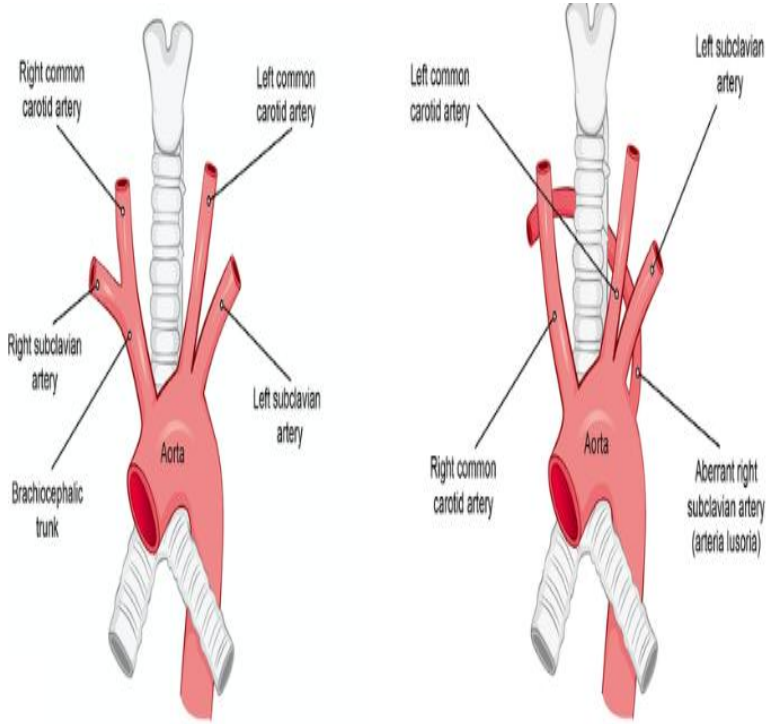


Aortic Arch Anomalies Type

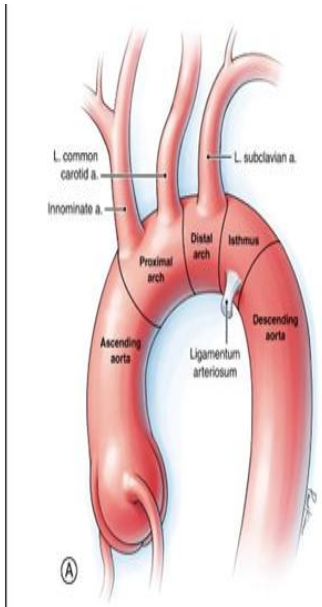
Arch Type Right - *A right arch implies that the aortic arch travels around (anteriorly) to the right mainstem bronchus and right pulmonary artery and then passes posterior to the trachea.*



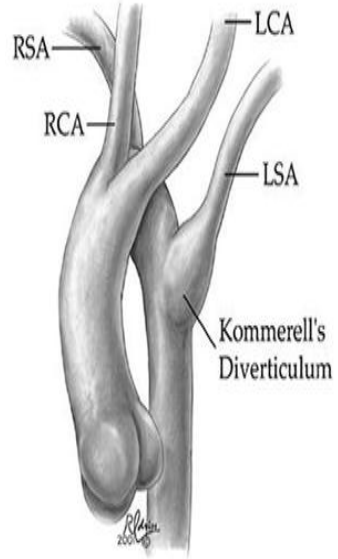
Aberrant Right Subclavian - *An aberrant right subclavian artery is any artery that does not emanate from the innominate artery (these are typically associated with left arch anatomy).*



Kommerell/Ductus Bulge - *This is not a true diverticulum but a remnant of the left fourth aortic arch and is a bulbous dilatation at the origin of the left subclavian artery. It is often associated with other arch anomalies.*



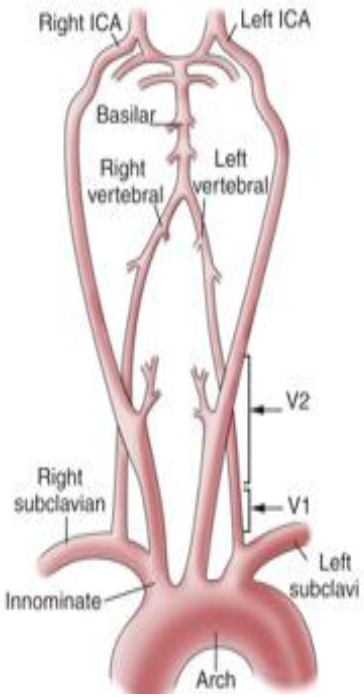
Normal arch anatomy

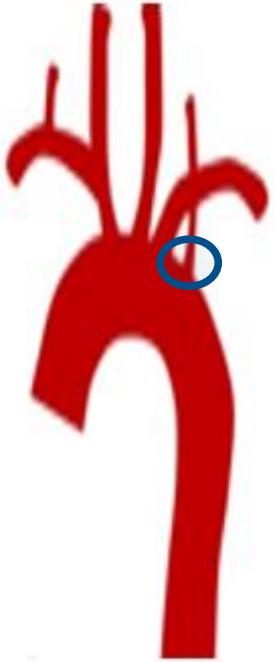


Right aortic arch, aberrant left subclavian artery, with Kommerell diverticulum

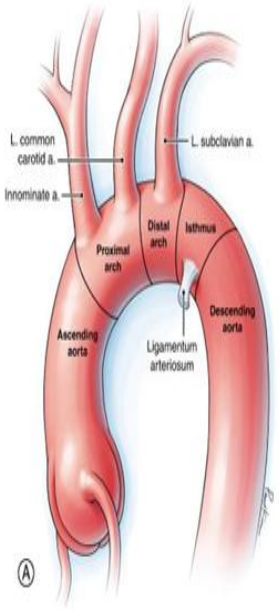
Aortic Arch Anomalies Type

Variant vertebral origin - *This refers to any vertebral artery that emanates directly from the aortic arch rather than a branch of either subclavian artery.*

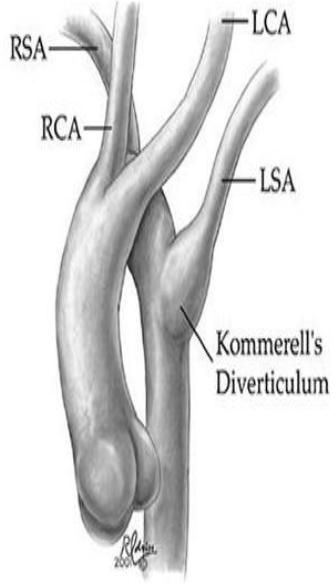




Aberrant Left Subclavian - *An aberrant left subclavian is any left subclavian that does not emanate from the distal arch as a separate ostium sequential and distal to the takeoff of the left common carotid artery on the greater curvature of the aortic arch.*



Normal arch anatomy



Right aortic arch, aberrant left subclavian artery, with Kommerell diverticulum

Bovine - *This entity refers to a common origin of both the innominate artery and the left common carotid artery as they emanate from the greater curve of the arch.*

Common origin of the innominate and left carotid arteries (CILCA, or "bovine trunk")

Patent Internal Mammary Artery Bypass Graft

Long Name: Patent Internal Mammary Artery Bypass Graft
Definition: Indicate whether there is a patent internal mammary bypass graft present

Intent/Clarification: The intent is to identify if there is a patent internal mammary artery bypass graft present.

Key Points:

- This refers specifically to a patient who has undergone prior CABG and has a patent internal mammary graft (either left or right) present prior to OR entry.

- Capture patients who have a prior patent internal mammary graft (either left or right) present, not an internal mammary graft that is placed during the current procedure.

DCF Choices:

- Yes - the patient has had a prior CABG, and the IMA graft is patent
- No - the patient has had a prior CABG, and the IMA graft is not patent
- N/A - the patient has never had a CABG with a prior IMA graft

Ascending Proximal Coronary Bypass Grafts

Long Name: Ascending Proximal Coronary Bypass Grafts
Definition: Indicate whether proximal bypass grafts are present on the aorta

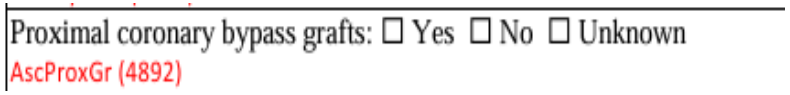
Intent/Clarification: The intent is to identify whether proximal bypass grafts are present on the aorta.

Key Points:

- This refers specifically to a patient who has undergone prior CABG and has a coronary artery graft(s) to include saphenous vein graft, radial artery, free internal mammary artery graft etc. that emanates from the ascending aorta.

- Capture patients who have a prior proximal coronary bypass grafts not proximal bypass grafts that are placed during the current procedure.

DCF Choices:



- Yes - the patient has had a prior CABG and there are proximal coronary bypass graft(s) present on the aorta.
- No - the patient has not had a prior CABG and there are no proximal coronary bypass graft(s) present on the aorta or the patient has had a prior CABG and there were no proximal bypass grafts placed on the aorta
- Unknown

Measurements Treated Zone with the Largest Diameter

Long Name: Treated Zone with the Largest Diameter
Definition: Indicate the treated zone with the largest diameter.

Intent / Clarification: Indicate the treated aorta zone with the largest diameter.

Key Points:

- **Not all aorta cases will have measurements**
- If the measurement is not included in the surgeon dictation or the available in studies, the field should be left blank.
- If the aneurysm spans 2 zones, code the most proximal zone. For example, the surgeon stated the aneurysm measured 7 cm from the root to the innominate. Code below the STJ.
- The “Below the STJ” selection includes aortic root, the Sinuses of Valsalva, the aortic annulus and the STJ. The aortic valve annulus is also called the aortic annulus. The annulus is the region where the left ventricular outflow tract meets the aortic root.

Measurements (Largest Diameter)	
Treated Zone with the Largest Diameter: TrtZnLrgDiam (4926)	☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
Measurement: TrtZnLrgDiamMeas (4927)	_____mm
Method Obtained: TrtZnLrgDiamMeasMeth (4928)	☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ☐ PreOp Echo ☐ Intra Operatively

Measurements Treated Zone with the Largest Diameter - Measurement

Long Name: Treated Zone with the Largest Diameter - Measurement
Definition: Indicate the size of the largest diameter of the treated zone. Measurement to be recorded in millimeters (mm).

Measurements (Largest Diameter)	
Treated Zone with the Largest Diameter: TrtZnLrgDiam (4926)	☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
Measurement: TrtZnLrgDiamMeas (4927)	_____mm
Method Obtained: TrtZnLrgDiamMeasMeth (4928)	☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ☐ PreOp Echo ☐ Intra Operatively

Intent/Clarification / Key Points:

- Indicate the size of the treated aorta zone with the largest diameter
- Timeframe - capture results closest to within 1 year of OR date.
- Record dimension in millimeters (mm).
  - If reported in centimeters, you will need to convert. Example 5.3cm = 53mm.
  - If the largest diameter is reported as 2 measurements such as 50x48 mm, code as 50 mm.
- When there are two measurements, one pre-op and one intra-op code the intraoperative measurement.
- If the diameter measurement is not included in the surgeon dictation or the available in studies, the field should be left blank.

Measurements Treated Zone with the Largest Diameter – Method Obtained

Long Name: Treated Zone with the Largest Diameter – Method Obtained
Definition: Indicate the method used to obtain the recorded size. See Intent/Clarification section for directions if more than one source is available.

Intent/Clarification / Key Points:

- Indicate the method used to obtain the size of the treated aorta zone with the largest diameter
- Timeframe - capture results closest to and within 1 year of OR date.
- When there are two measurements, one pre-op and one intra-op code the intraoperative measurement.
- The data manager should not use the measurements from the PACs (Picture Archiving and Communication System) unless the measurements are supported by documentation from the surgeon. It is not the intention of the STS that the data manager interpret measurements.

DCF Choices:

- Pre-op 3D or 4D Reconstruction
- PreOp CT
- PreOp MRI
- PreOp Echo
- Intra Operatively

Measurements (Largest Diameter)	
Treated Zone with the Largest Diameter: TrtZnLrgDiam (4926)	☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
Measurement: TrtZnLrgDiamMeas (4927)	_____mm
Method Obtained: TrtZnLrgDiamMeasMeth (4928)	☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ☐ PreOp Echo ☐ Intra Operatively

Measurements Proximal to Treated Zone Available

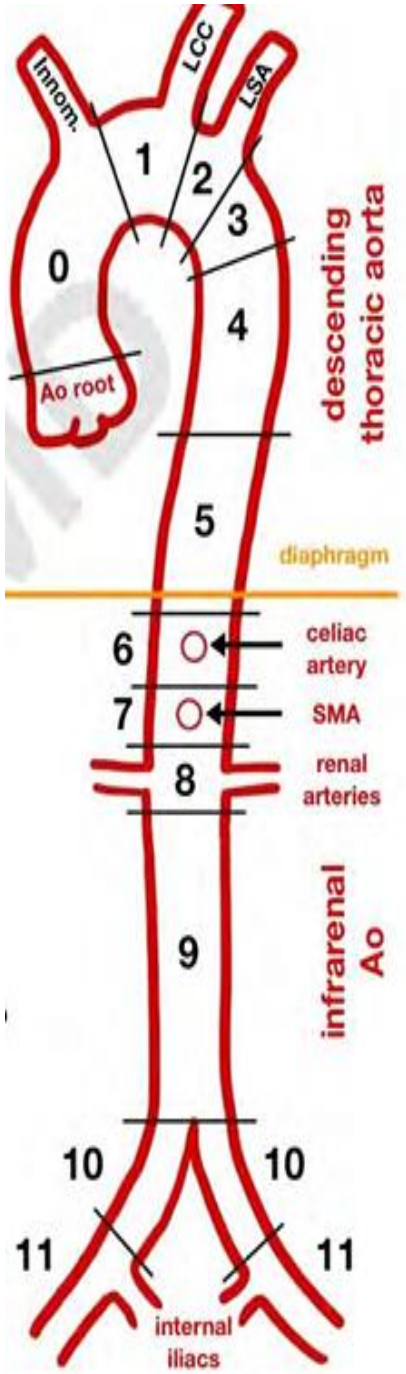
Long Name: Proximal to Treated Zone(s) (Largest Diameter) Available
Definition: Indicate if a measurement is available on the zone proximal (closest to the heart) to treated area.

Intent/Clarification: The intent is to indicate if a measurement is available for the aorta zone proximal to the treated aorta zone. This is the aorta zone right before the treated section.

Key Point:

Not all aorta cases will have measurements.

Proximal to Treated Zone(s) (Largest Diameter) Available: ☐Yes ☐No ProxTreatZoneAvail (4929)	Location: ProxTreatZoneAvailLoc (4930) ☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
(If Yes →)	Measurement: _____mm ProxTreatZoneAvail Meas (4931)
	Method Obtained: ☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ☐ PreOp Echo ☐ Intra Operatively ProxTreatZoneAvail Meth (4932)



Measurements Proximal to Treated Zone Location

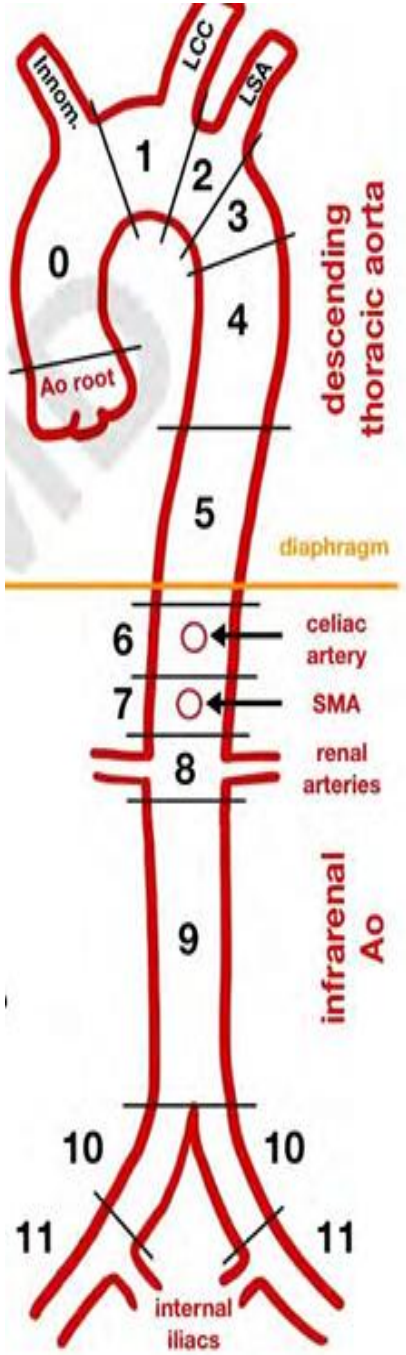
Long Name: Long Name: Proximal to Treated Zone(s) (Largest Diameter) Available - Location
Definition: Indicate the zone proximal (closest to the heart) to the treated zone(s)

Intent/Clarification: Indicate the aorta zone proximal to the treated aorta zone. This is the aorta zone right before the treated section.

Key Points:

- The “Below the STJ” selection includes aortic root, the Sinuses of Valsalva, the aortic annulus and the STJ.
- The aortic valve annulus is also called the aortic annulus. The aortic annulus is the region where the left ventricular outflow tract meets the aortic root.

Proximal to Treated Zone(s) (Largest Diameter) Available: ☐Yes ☐No ProxTreatZoneAvail (4929) (If Yes →)	Location: ProxTreatZoneAvailLoc (4930) ☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
	Measurement: _____mm ProxTreatZoneAvail Meas (4931)
	Method Obtained: ☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ☐ PreOp Echo ☐ Intra Operatively ProxTreatZoneAvail Meth (4932)



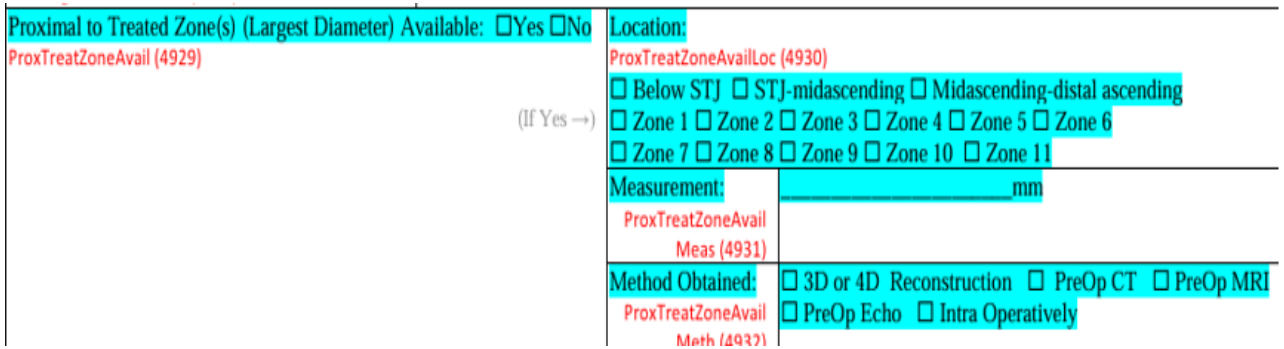
Proximal to Treated Zone Measurement and How It Was Obtained

Long Name: Proximal to Treated Zone(s) (Largest Diameter) Available - Measurement
Definition: Indicate the largest diameter of the zone proximal (closest to the heart) to the treated zone(s).

Intent/Clarification: Indicate the method used to obtain the size of the aorta zone that is proximal to the treated aorta zone.

DCF Choices:

- Pre-op 3D or 4D Reconstruction
- PreOp CT
- PreOp MRI
- PreOp Echo
- Intra Operatively



Measurements Distal to Treated Zone Available

Long Name: Distal to Treated Zone(s) (Largest Diameter) Available
Definition: Indicate if a measurement is available on the zone distal (further from the heart to treated area).

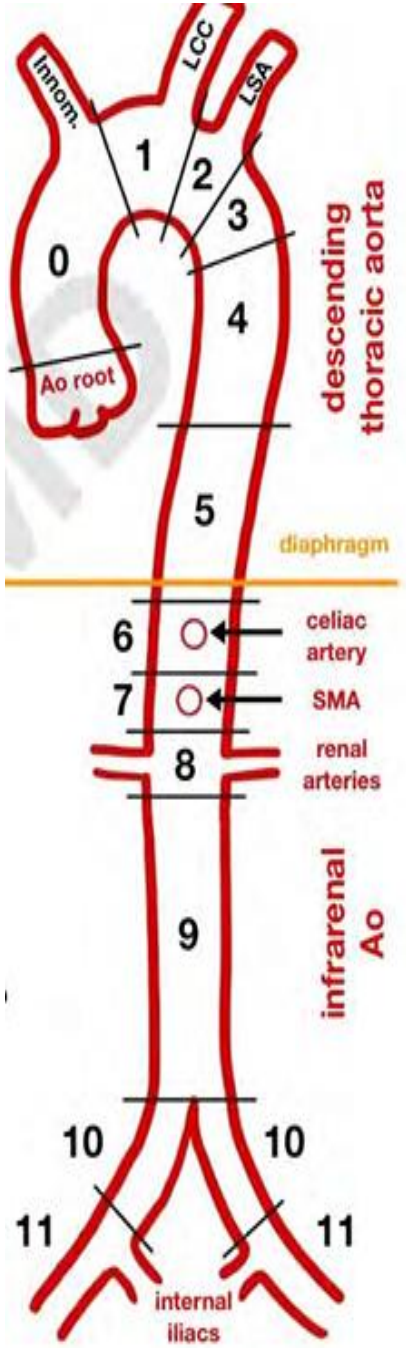
Intent/Clarification: The intent is to indicate if a measurement is available for the aorta zone distal to the treated aorta zone. This is the aorta zone right after the treated section.

Key Point:

- Not all aorta cases will have measurements

Distal to Treated Zone(s) (Largest Diameter) Available: ☐Yes ☐No DistTreatZoneAvail (4933)		Location: DistTreatZoneAvailLoc (4934) ☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
	Measurement: DistTreatZoneAvailMeas (4935)	_____mm
	Method Obtained: DistTreatZoneAvailMeth (4936)	☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ☐ PreOp Echo ☐ Intra Operatively

(If Yes →)



Measurements - Distal to Treated Zone Location

Long Name: Distal to Treated Zone(s) (Largest Diameter) Available - Measurement
Definition: Indicate the largest diameter of the zone distal (furthest from the heart) to the treated zone(s)

Intent/Clarification: Indicate the aorta zone distal to the treated aorta zone. This is the aorta zone right after the treated section.

Key Points:

- The “Below the STJ” selection includes aortic root, the Sinuses of Valsalva, the aortic annulus and the STJ. The aortic valve annulus is also called the aortic annulus.

- The aortic annulus is the region where the left ventricular outflow tract meets the aortic root.

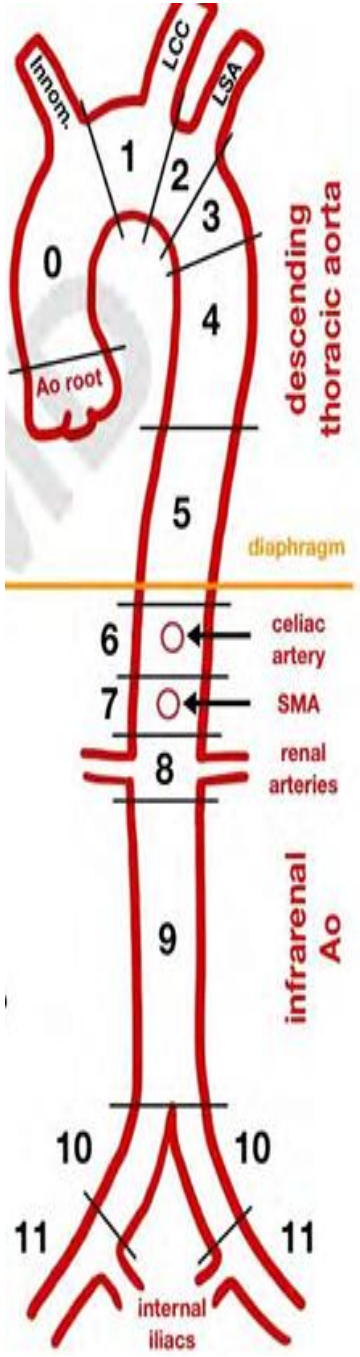
Measurements Distal to Treated Zone Location

Long Name: Long Name: Proximal to Treated Zone(s) (Largest Diameter) Available - Location
Definition: Indicate the zone proximal (closest to the heart) to the treated zone(s)

Intent/Clarification / Key Points:

- Indicate the measurement of the aorta zone distal to the treated aorta zone.
- Timeframe - capture results closest to within 1 year of OR date.
- When there are two measurements, one pre-op and one intra-op code the intraoperative measurement.
- Record dimension in millimeters (mm).
    - If reported in centimeters, you will need to convert. Example 5.3cm = 53mm.
    - If the largest diameter is reported as 2 measurements such as 50x48 mm, code as 50 mm.

Proximal to Treated Zone(s) (Largest Diameter) Available: ☐Yes ☐No ProxTreatZoneAvail (4929) (If Yes →)	Location: ProxTreatZoneAvailLoc (4930) ☐ Below STJ ☐ STJ-midascending ☐ Midascending-distal ascending ☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8 ☐ Zone 9 ☐ Zone 10 ☐ Zone 11
	Measurement: _____mm ProxTreatZoneAvail Meas (4931)
	Method Obtained: ☐ 3D or 4D Reconstruction ☐ PreOp CT ☐ PreOp MRI ProxTreatZoneAvail Meth (4932) ☐ PreOp Echo ☐ Intra Operatively



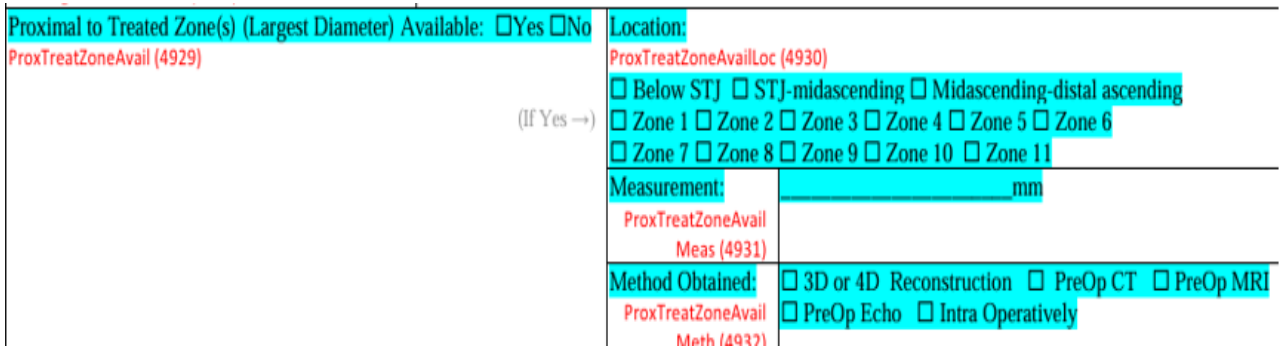
Distal to Treated Zone Measurement and How It Was Obtained

Long Name: Proximal to Treated Zone(s) (Largest Diameter) Available - Measurement
Definition: Indicate the largest diameter of the zone proximal (closest to the heart) to the treated zone(s).

Intent/Clarification: Indicate the method used to obtain the size of the aorta zone that is distal to the treated aorta zone.

DCF Choices:

- Pre-op 3D or 4D Reconstruction
- PreOp CT
- PreOp MRI
- PreOp Echo
- Intra Operatively



Scenario Measurements Treated Zone with the Largest Diameter

Surgery - Ascending Aorta Replacement Date of Surgery 1/4/26

CT 4/18/25 ascending aorta is 4.8,
CT 11/19/25 ascending aorta is 4.9
CT 12/12/25 ascending aorta measures 4.7
There were no intra-op measurements done. Surgeon states in op report ascending aorta 4.9.

What measurement should you use?

Answer = 47

Key Points:

- **Timeframe - capture results closest to within 1 year of OR date.**
- **Record dimension in millimeters (mm).**
- **When there are two measurements, one pre-op and one intra-op code the intraoperative measurement.**
- **If the diameter measurement is not included in the surgeon dictation or the available in studies, the field should be left blank.**

Scenario Measurements Treated Zone

Surgery Ascending Aorta Replacement Date of Surgery 4/2/26

CT Aorta done on 2/22/2026
Thoracic aortic aneurysm measuring up to 43 mm at the mid ascending aorta. Arch branch pattern is conventional.
Sinus of Valsalva: 32 x 33 x 30
Sinotubular junction: 35
Mid ascending aorta: 43
Mid descending thoracic aorta: 30
Aorta at the diaphragm: 28

Intra Op TEE pre procedure:
Dilated ascending aorta with a diameter of 4.1 cm.

What is the measurement for the largest diameter in treated zone, measurement proximal to treated zone, and measurement distal to treated zone?

Answer:

Measurement Treated Zone with Largest Diameter = 41 based on intra-op TEE
Measurements Proximal to Treated Zone = STJ at 35
Measurements Distal to Treated Zone = mid descending at 30

Scenario Measurements Treated Zone

Surgery AVR with root replacement and coronary artery reimplantation

LVOT Diameter 26.1 x 27.2 mm
Aortic Valve Annulus Diameter: 47.3 x 47.0 mm
Sinus Of Valsalva Diameter: 36.9 x 30.6 mm
Sinotubular Junction Diameter: 32.8 x 30.4 mm
Minimum Ascending Aortic Diameter: 30.0 mm

What is the measurement for the largest diameter in treated zone, measurement proximal to treated zone, and measurement distal to treated zone?

Answer:

Measurement Treated Zone with Largest Diameter = 47.3 (Aortic Valve Annulus Diameter: 47.3 x 47.0 mm)
Measurements Proximal to Treated Zone = No measurement – no aorta zone more proximal to the aortic root
Measurements Distal to Treated Zone = 30 (Minimum Ascending Aortic Diameter: 30.0 mm)

Key Points:

- **We are focusing on aorta measurements**
- **DCF choice "Below the STJ" includes the aortic root, the STJ, the aortic annulus, and the sinus of Valsalva. The aortic valve annulus is also called the aortic annulus. The annulus is the region where the left ventricular outflow tract meets the aortic root and lies at the level of a plane defined by the lowest point of the aortic sinuses.**

Please use the raise-hand function.

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!

We Need You!

If you have implemented a QI project at your site, we want to hear about your work!
Please reach out to
Nancy Honeycutt @ nhoneycutt@sts.org.

STS National Database
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Thank You for Joining!

ACSD QI Series Webinar
Wednesday, August 19, 2026, at
2pm CT/3pm ET