The Society of Thoracic Surgeons

Adult Cardiac Surgery Database

Monthly Webinar

February 4, 2026

STS National Database™
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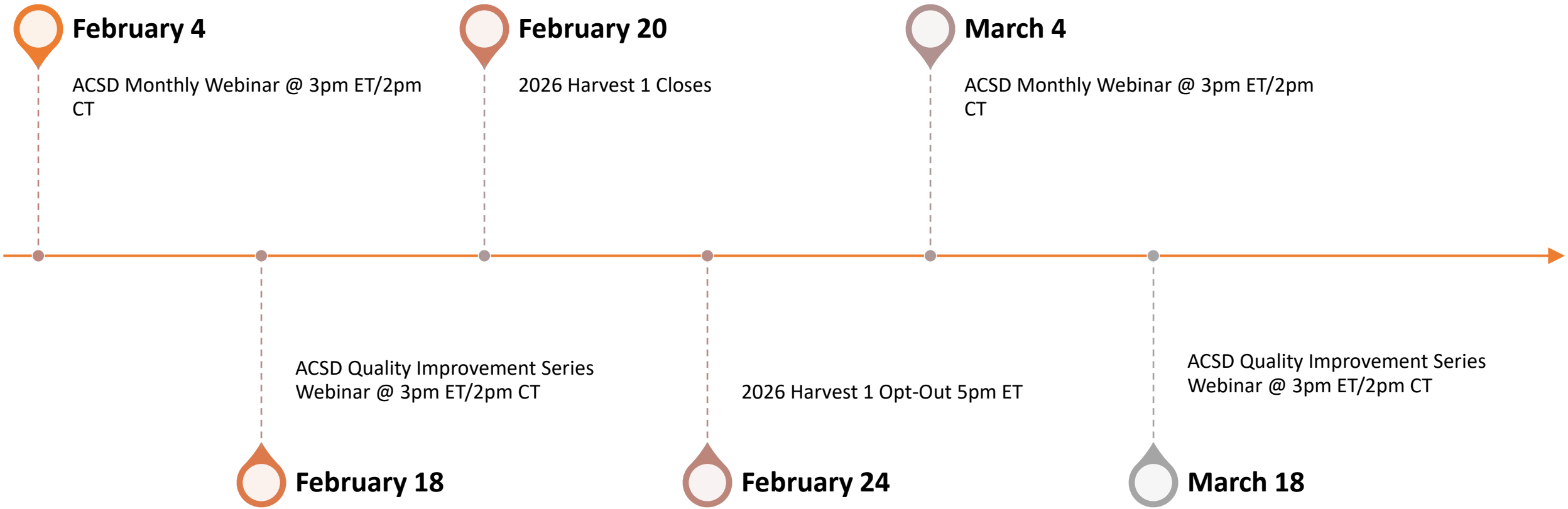
Agenda

- Welcome and Introductions
- STS Updates
- Clinical Education-Aorta Session #1
- Q&A

Important Dates-Timeline



Important Dates-2026 Harvest

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.

Data Clean Up

- Mortality Analysis includes the following variables: Status at Hospital Discharge, Status at 30 days After Surgery, Operative Mortality
- Outcomes and Process Measures Analysis includes the following variables: Internal Artery Mammary Used, Preoperative Beta Blocker, Discharge Anti-platelet, Discharge Beta Blocker, Discharge Anti-lipid

- In addition to meeting required data completeness thresholds, sites must meet the below case count requirements for the 36-month analytical window to be included into analysis.
CABG - 50 cases; AVR - 10 cases; AVR+CAB - 10 cases; MVRR - 36 cases; MVRR+CAB - 25 cases; Multiprocedural - 100 cases

- Color Code Legend
Red - Does not meet requirement for inclusion into composite ratings
Yellow - At risk of not meeting requirement for inclusion in composite ratings
Green - Meets requirement for inclusion into composite ratings

Current Harvest Missing / Unknown % Composite Rating

Current Harvest Missing / Unknown % Composite Rating

Main Category	Procedure	Year	#Missing	#Eligible	% Percent
Mortality Analysis	Isolated CABG	10/01/2022 - 09/30/2023	6	66	9.09
		10/01/2023 - 09/30/2024	0	0	0.00
		10/01/2024 - 09/30/2025	0	0	0.00
	Isolated AVR	10/01/2022 - 09/30/2023	0	2	0.00
		10/01/2023 - 09/30/2024	0	0	0.00

Current Harvest Missing / Unknown % Composite Rating

Current Harvest Missing / Unknown % Composite Rating

Main Category	Procedure	Year	#Missing	#Eligible	% Percent
Mortality Analysis	Isolated CABG	10/01/2022 - 09/30/2023	6	66	9.09
		10/01/2023 - 09/30/2024	0	0	0.00
		10/01/2024 - 09/30/2025	0	0	0.00
	Isolated AVR	10/01/2022 - 09/30/2023	0	2	0.00
		10/01/2023 - 09/30/2024	0	0	0.00

Case List

Category	Procedure Group	Surgery Year	Patient ID	Access Case
Mortality Analysis	Isolated CABG	2022	V3168624	https://sts.irp.iqvia.com/platform/acsdregistry/facility/1522/c
Mortality Analysis	Isolated CABG	2022	V3189346	https://sts.irp.iqvia.com/platform/acsdregistry/facility/1522/c
Mortality Analysis	Isolated CABG	2022	V3181730	https://sts.irp.iqvia.com/platform/acsdregistry/facility/1522/c
Mortality Analysis	Isolated CABG	2022	V3118794	https://sts.irp.iqvia.com/platform/acsdregistry/facility/1522/c

Data Clean Up

STS National Database Webinar Archive

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Access recordings of past webinars for data managers below or visit and subscribe to the STS National Database YouTube channel

Adult Cardiac Surgery Database

Webinar	Date	Description
ACSD Monthly Webinar	February 5, 2025	ACSD Updates for 2025

[STS National Database Webinar Archive | STS]

ACSD Data Manager Training Webinar	March 20, 2025	Data Submission (Harvest), Data Quality Report (DQR)	Listen to recording	View Slides
ACSD Data Manager Training Webinar	March 25, 2025	National Report Analyses Overview, Process and Outcome Measures, STAR Ratings	Listen to recording	View Slides
ACSD Data Manager Training Webinar	April 1, 2025	Helpdesk Support	Listen to recording	View Slides
ACSD Monthly Webinar	April 2, 2025	Data Manager Survey	Listen to recording	View Slides
ACSD Data Manager Training Webinar	April 8, 2025	IQVIA Reporting	Listen to recording	View Slides
ACSD Quality Improvement Series	April 16, 2025	Translating cardiac surgery PBM guidelines into clinical practice: UVA experience, Dr. Karen Singh, UVA	Listen to recording	View Slides
ACSD Monthly Webinar	May 7, 2025	Preparing for Harvest	Listen to recording	View Slides

Contact Information

STSDB-FAQ@sts.org

- Clinical Questions

STSDB_Helpdesk@sts.org

- IQVIA/Database Platform Questions (Uploader, DQR, Missing Variable, Dashboard, Password and Login)

STSDB@sts.org

- Database Operational Questions (Billing, Contracts, Contacts)

Carole Krohn, Director, STS National Database

- ckrohn@sts.org

Nancy Honeycutt, STS National Database Manager, ACSD, Intermacs/Pedimacs

- nhoneycutt@sts.org

Training Manual Updates

- **New Feb 2026 Training Manual will be divided into 2 Volumes**
- **Anesthesia Module will be brought back into the main Training Manual**
  - **Volume 1 of the Training Manual covers Sections A through M.1 and Sections M.3 through Section R, as well as the Anesthesia Module.**
  - **Volume 2 of the Training Manual contains Section M.2 Aorta And Aortic Root Procedures**

AQO 2026 – New Orleans

- September 30-October 2, 2026
- Intermacs & Pedimacs-Live Virtual Forum-September 24th
- CHSD & GTSD Sessions will be held Sept 30th (full day) and October 1st (half day)
- ACSD Sessions will be held October 1st (full day) and October 2nd (half day)
- Half day sessions will include breakout sessions for the on-site databases
- AQO 2026 Session Proposal Form | STS

AQO 2026 Working Groups

If you are interested in volunteering an AQO Working Group, let us know!

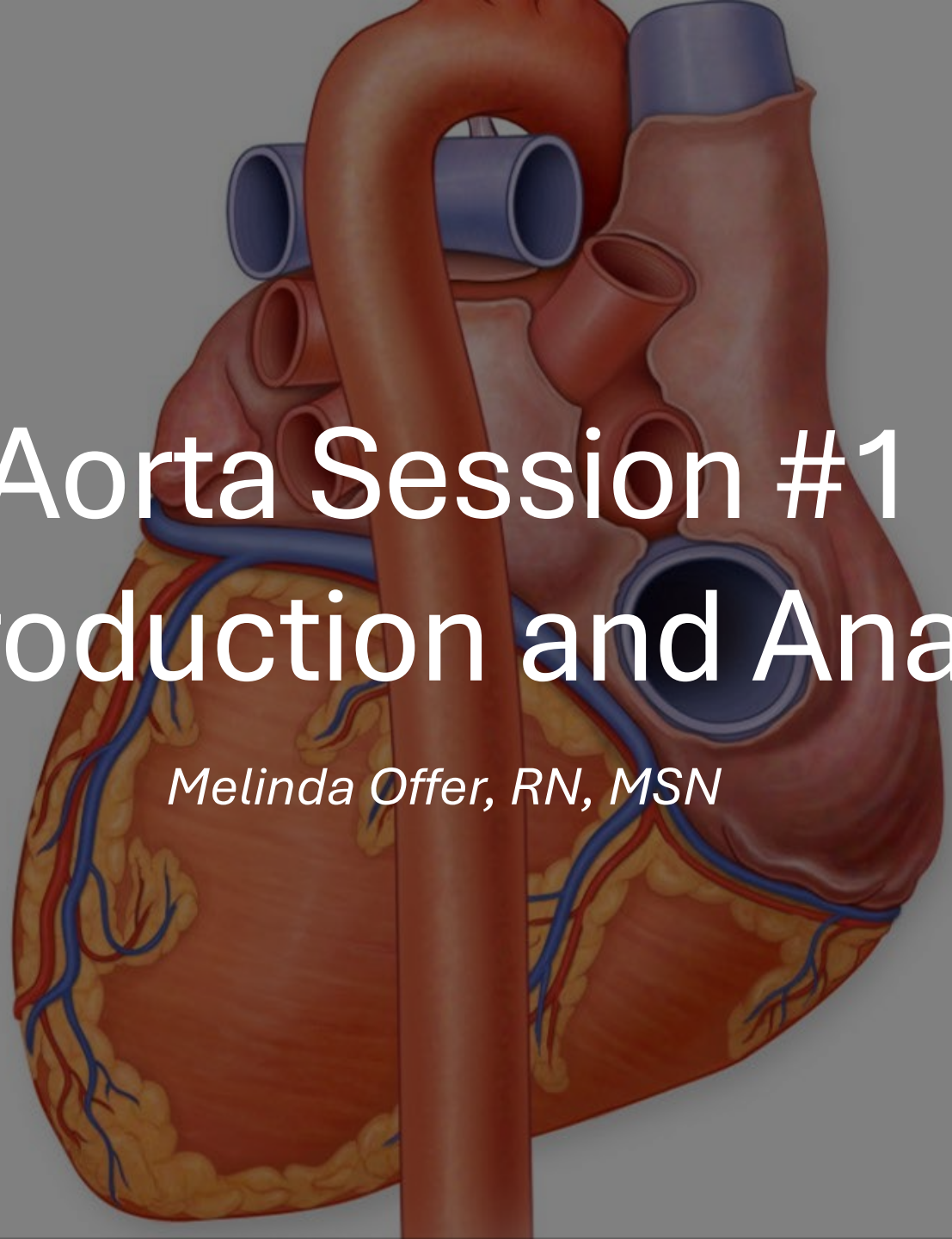
AQO Planning Group

Members wanted who are willing to be involved in AQO on the day of the event

- giving a talk in person or working with an experienced speaker to do a presentation,
- facilitating a break-out session
- reviewing content that someone else made to make sure it is correct
- presenting on-demand content
- helping a surgeon speaker

AQO Abstract Review

- Members wanted who have experience or knowledge in reviewing abstracts.
- Members will receive 3-5 abstracts to review prior to AQO and provide feedback to authors



Aorta Session #1
Introduction and Anatomy

Melinda Offer, RN, MSN

Polling Question

How long have you been abstracting aorta cases?

A. Less than 1 year
B. 1- 3 years
C. 3-5 years
D. Greater than 5 years

Polling Question

I am comfortable abstracting a straightforward open surgical aortic aneurysm case.

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree

Polling Question

What is the most challenging part of doing an aorta case?

A. Determining the Primary Indication and Etiology
B. Entering the Measurements
C. Identifying the proximal and distal locations
D. Entering the devices
E. Everything is challenging!

Polling Question

Does your surgeon / CTS team help by doing the aorta worksheet or answering your questions?

A. Yes, worksheet done and answers questions
B. Yes, answers questions if needed
C. No, only input provided is the dictated op note

Polling Question

Are you comfortable with reading the op note and determining what procedures were preformed and devices that were placed?

A. Yes, most of the time
B. Yes, some of the time
C. No, it is a struggle to figure out what is happening

Polling Question

Is the Training Manual helpful when abstracting aorta cases?

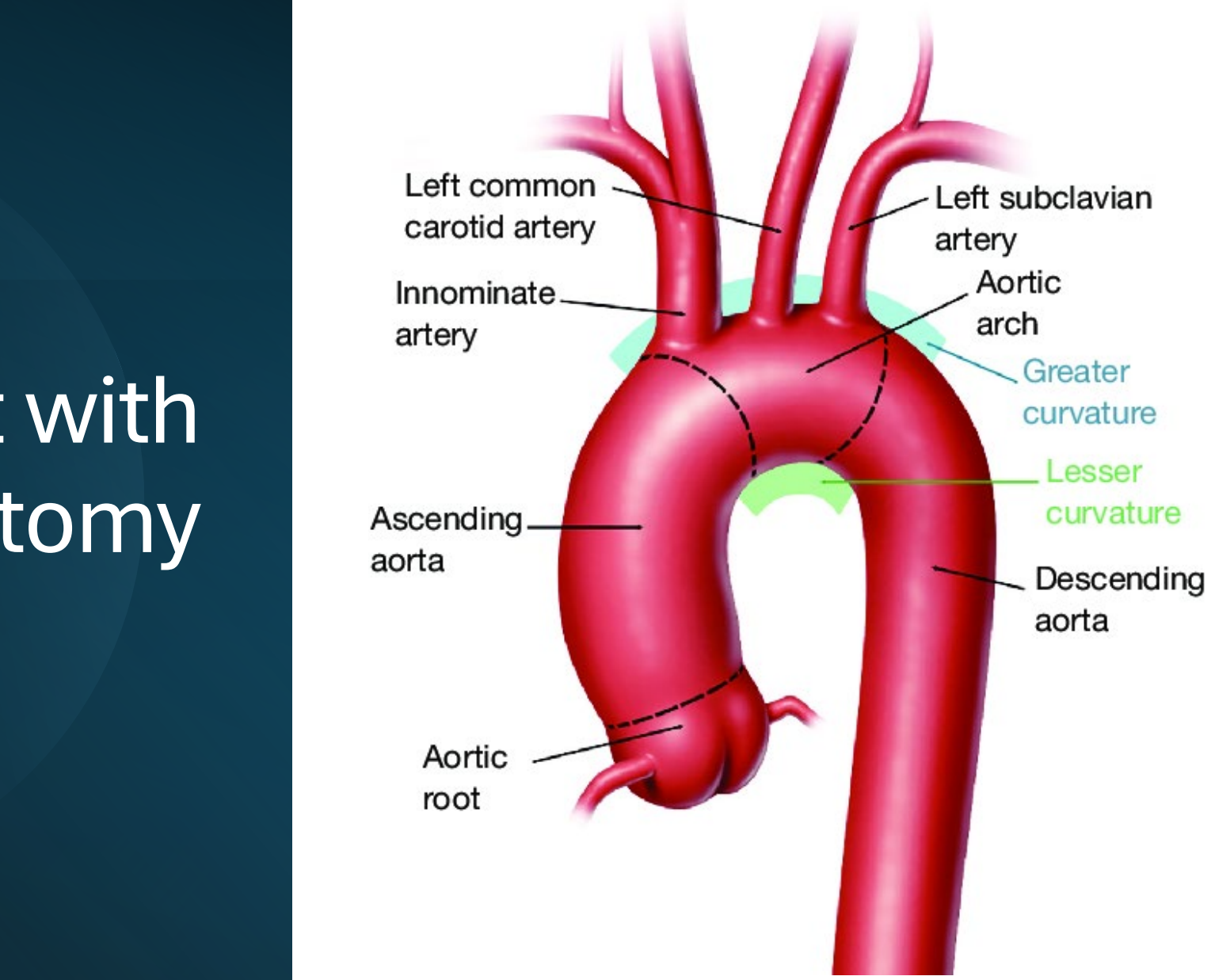
A. Yes, most of the time
B. Yes, some of the time
C. No, it is too long to spend time looking at it
D. What is the Training Manual?

Polling Question

If you aren’t sure about how to answer an aorta question, what do you do?

A. Send in a FAQ Question
B. Ask someone else who does STS to help
C. Ask the surgeon
D. Leave the field blank

Let’s start with Anatomy



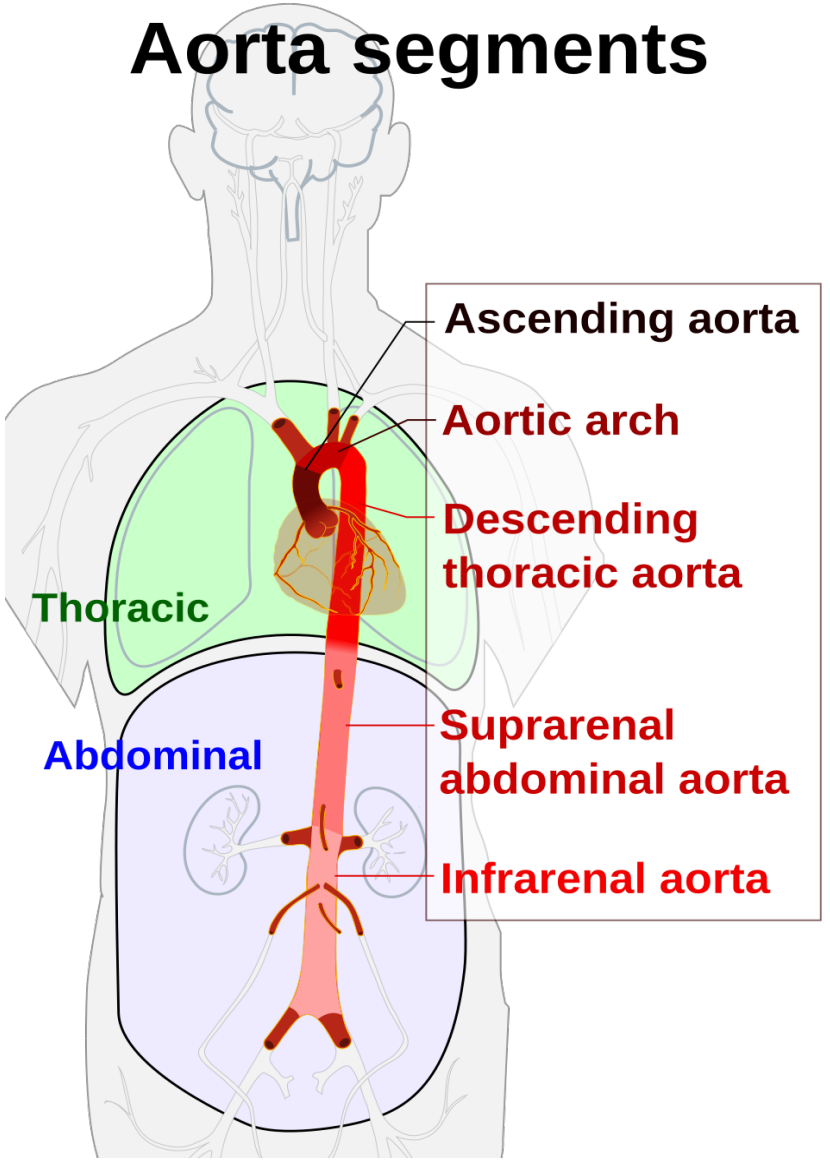
Aorta Fun Facts:

- The aorta is the largest artery in the human body. It's more than 1 foot long and an approximately 2.5 cm (1 inch) in diameter at its widest point. As the aorta makes its way toward your pelvis, its diameter narrows to two centimeters.

- The aorta begins at the opening of AV in the left ventricle of the heart.

- The aorta runs through a common pericardial sheath with the pulmonary trunk. These two blood vessels twist around each other, causing the aorta to start out posterior to the pulmonary trunk, but end by twisting to its right and anterior side.

- Following the arch, the aorta descends through the chest as the thoracic aorta, then passes through the diaphragm into the abdomen, becoming the abdominal aorta.



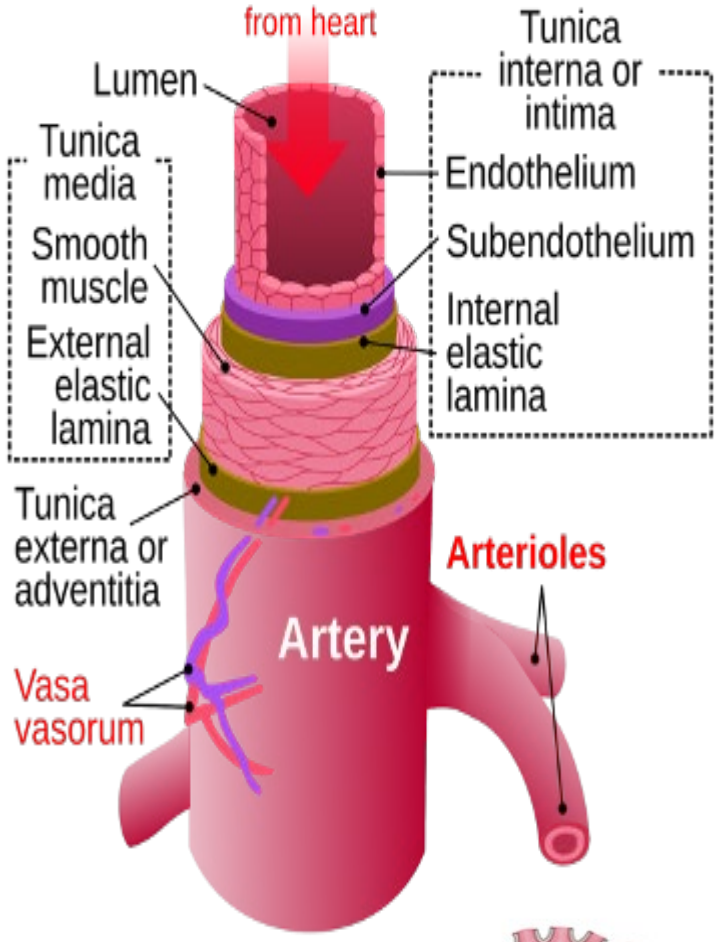
What is the aorta made of?

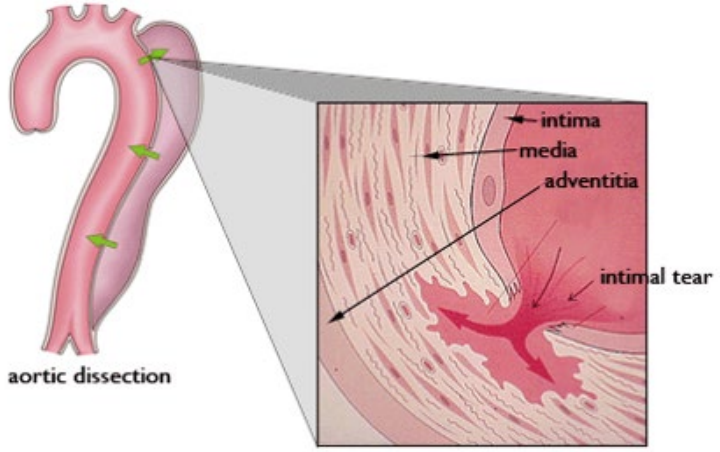
It’s a complex structure that has three layers of tissue. These include:

•**Inner layer (tunica interna or intima):** This is the lumen through which blood passes. It contains smooth muscle tissue, connective tissue and endothelial cells. These special cells enable blood to transport oxygen and nutrients without getting absorbed until it reaches the right spot.

•**Middle layer (tunica media or media):** This layer is made of smooth muscle tissue, elastin and collagen (proteins). These substances enable the aorta to meet your body’s changing blood flow needs. When more blood is necessary, the aorta widens. If less blood is needed, it narrows.

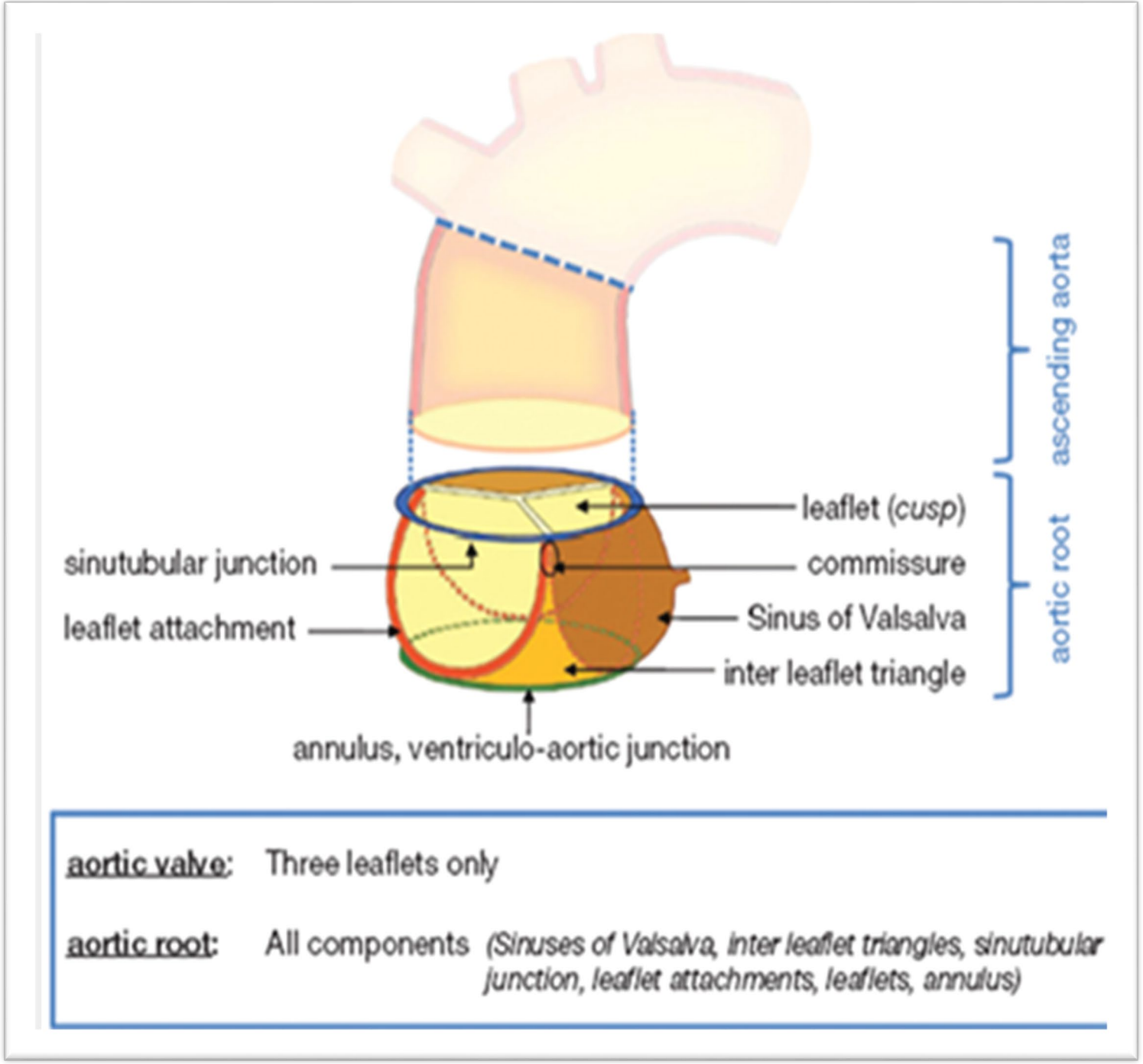
•**Outer layer (tunica externa or adventitia):** The outer layer anchors the aorta in place. It also connects to nearby nerves and tissue.





Aortic Root

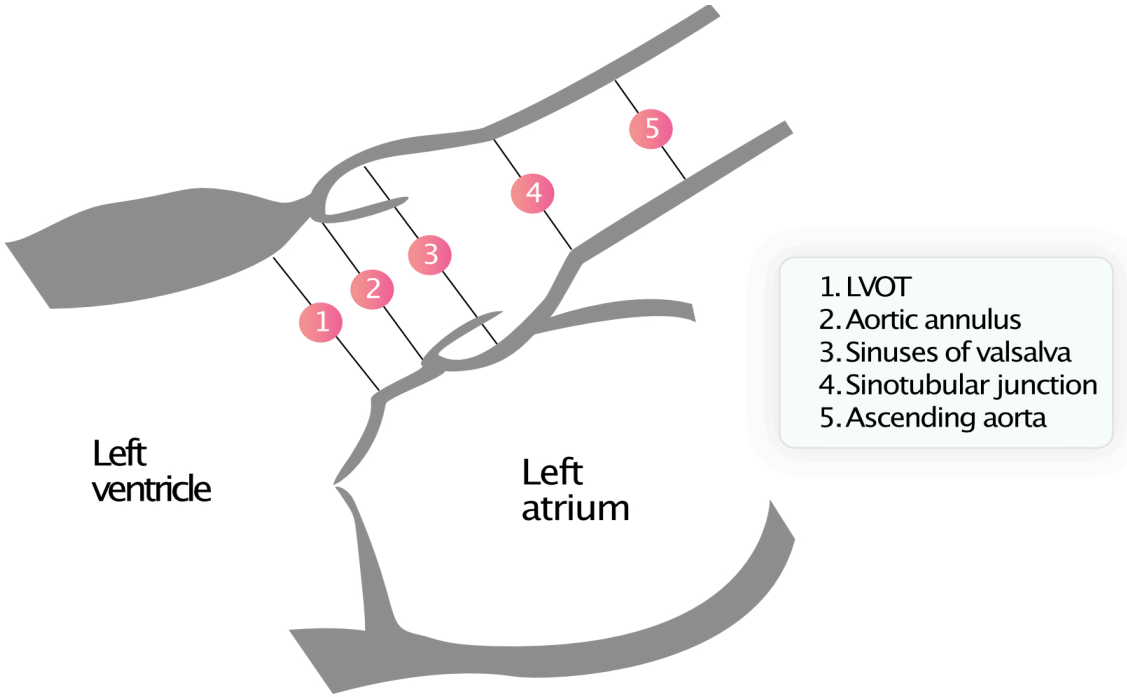
- Section that attaches to the heart at the opening of AV in the left ventricle of the heart
- This is the widest part of the aorta
- This segment is approximately 2 inches long and gives rise to the coronary arteries
- Separated from the ascending aorta by the sinotubular junction (STJ)

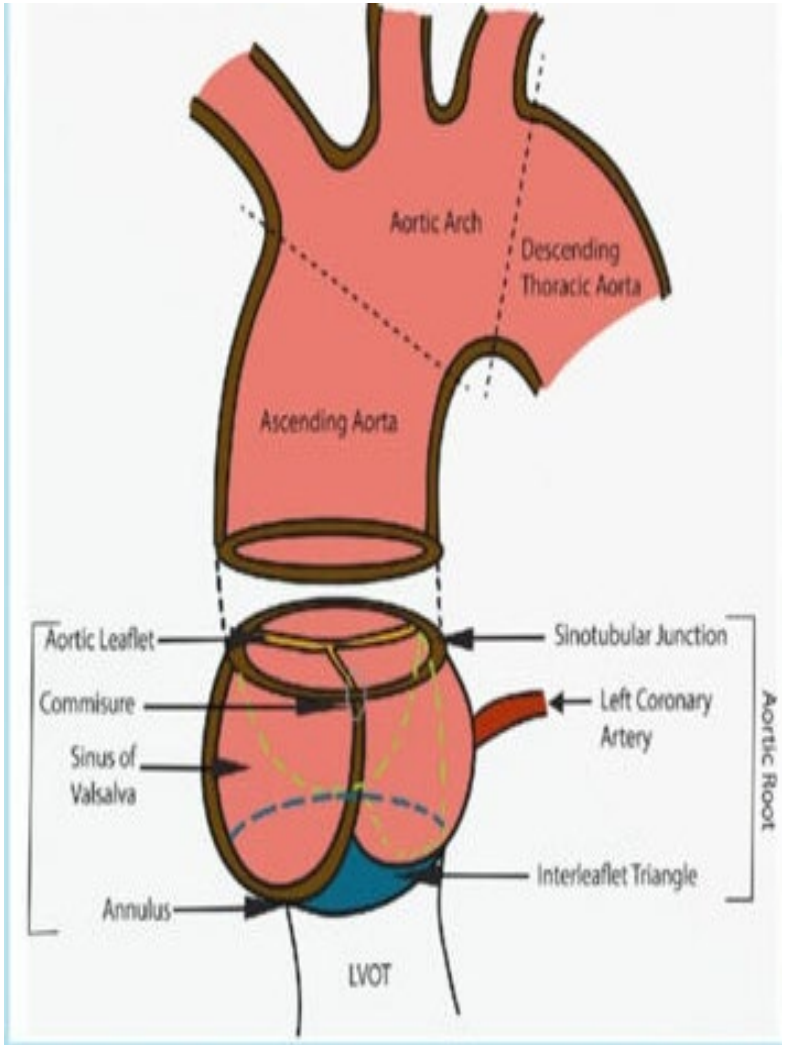


Aortic Root and LVOT

- 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.



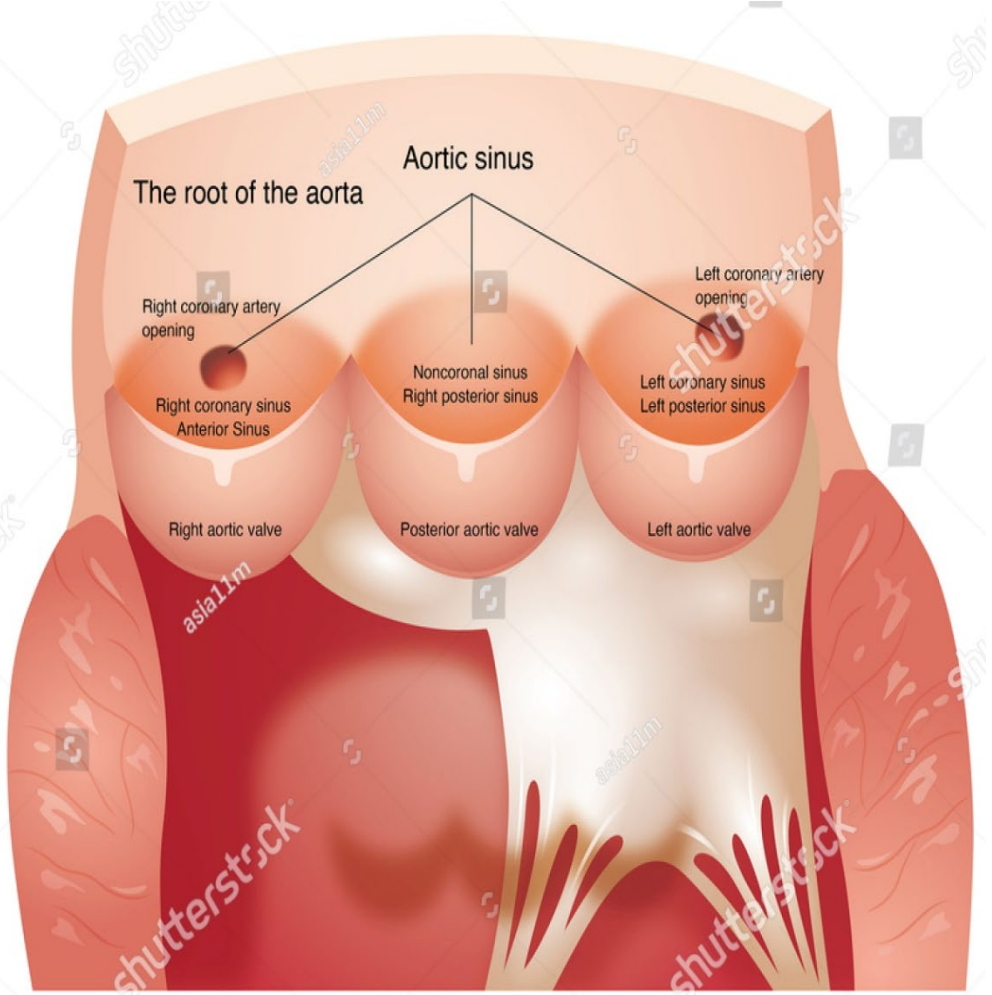


Aortic Root

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.

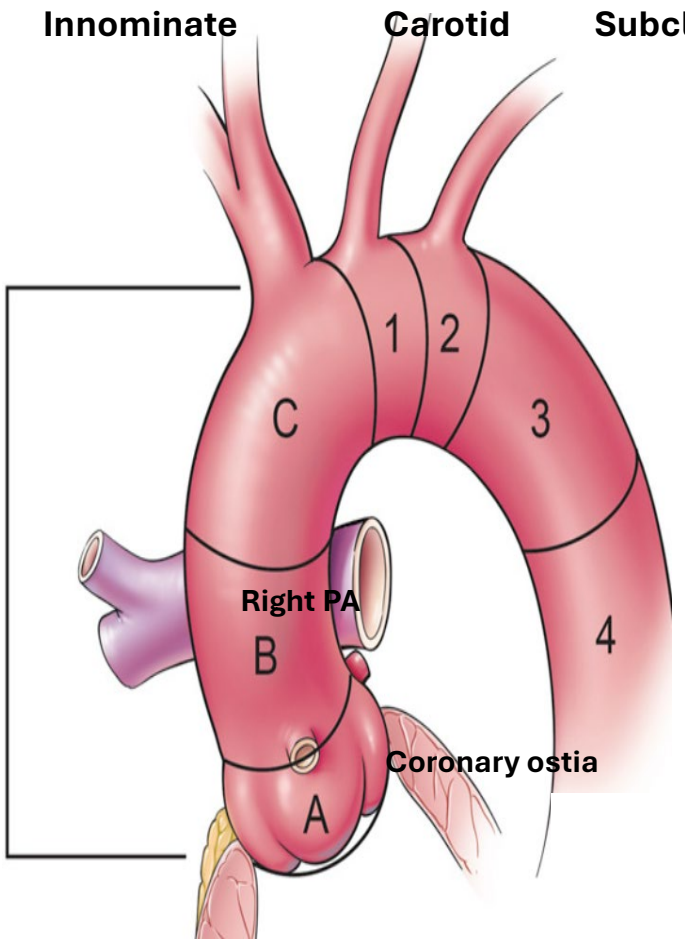
- The left aortic sinus contains the origin of the left coronary artery (Left coronary sinus)
- The right aortic sinus gives rise to the right coronary artery (Right coronary sinus)
- The posterior aortic sinus does not give rise to a coronary artery (Non-coronary sinus)



C: Right PA to origin of innominate

B: Coronary Ostia to Right PA

A: Below the STJ



Zone 0 - Divided into 3 sections – see figure:

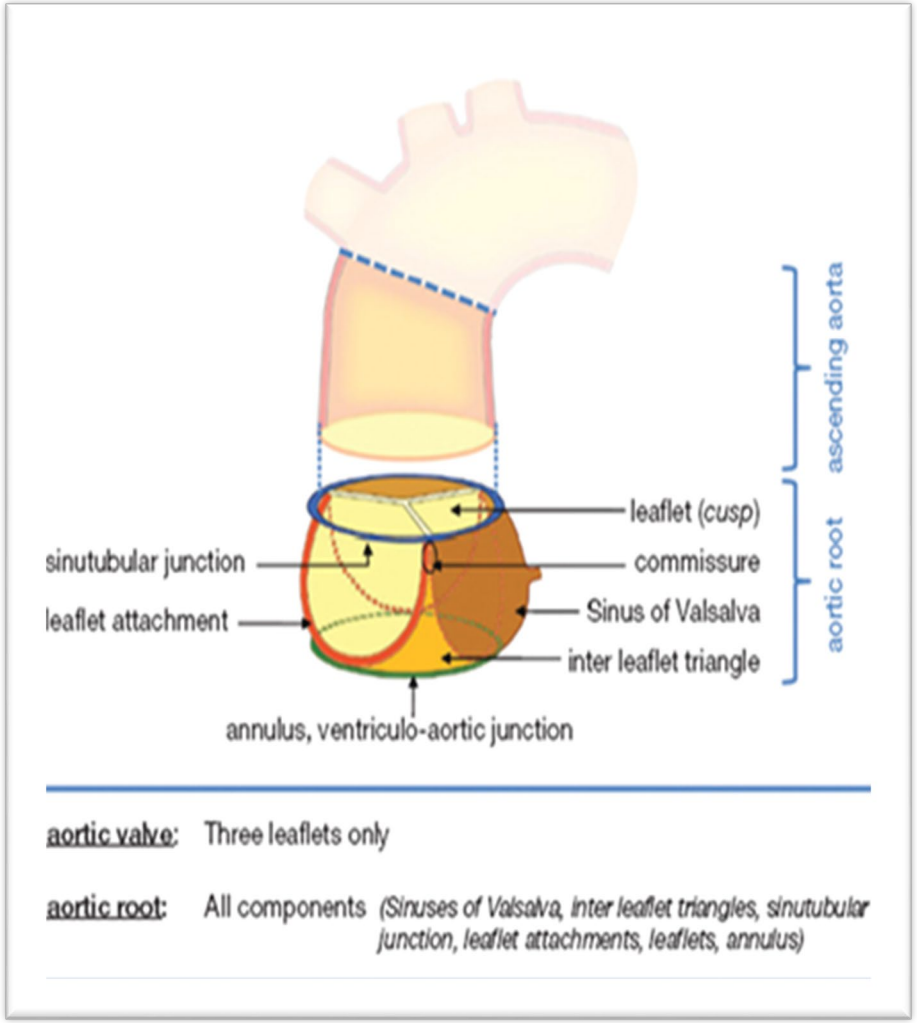
A. **Aortic root** below the sinotubular junction. STJ is the sinotubular junction and identifies the boundary between the aortic root and the ascending aorta. The aortic root, aortic annulus, and the Sinus of Valsalva are below the STJ.

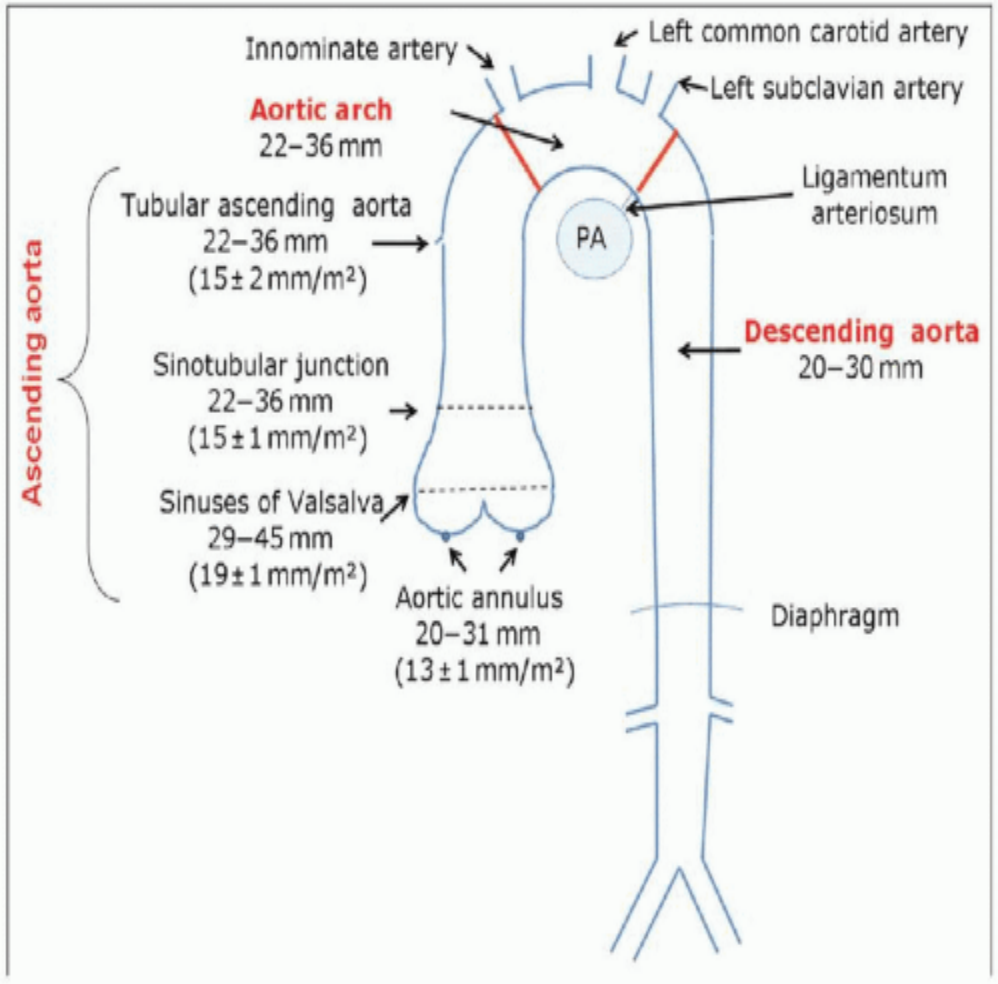
B. **Sinotubular junction to mid ascending** - STJ-mid ascending - The segment of the ascending aorta between the sinotubular junction and the mid-point of the ascending aorta (i.e., proximal tubular ascending aorta) from the coronary ostia to the distal margin of the right pulmonary artery.

C. **Mid ascending to distal ascending** - The segment of the ascending aorta between the mid-point of the ascending aorta from the right pulmonary artery to the origin of the innominate artery or first branch vessel off the aortic arch.

Zone 0

Section A - Aortic root below the sinotubular junction. STJ is the sinotubular junction and identifies the boundary between the aortic root and the ascending aorta. The aortic root, aortic annulus, and the Sinus of Valsalva are below the STJ.





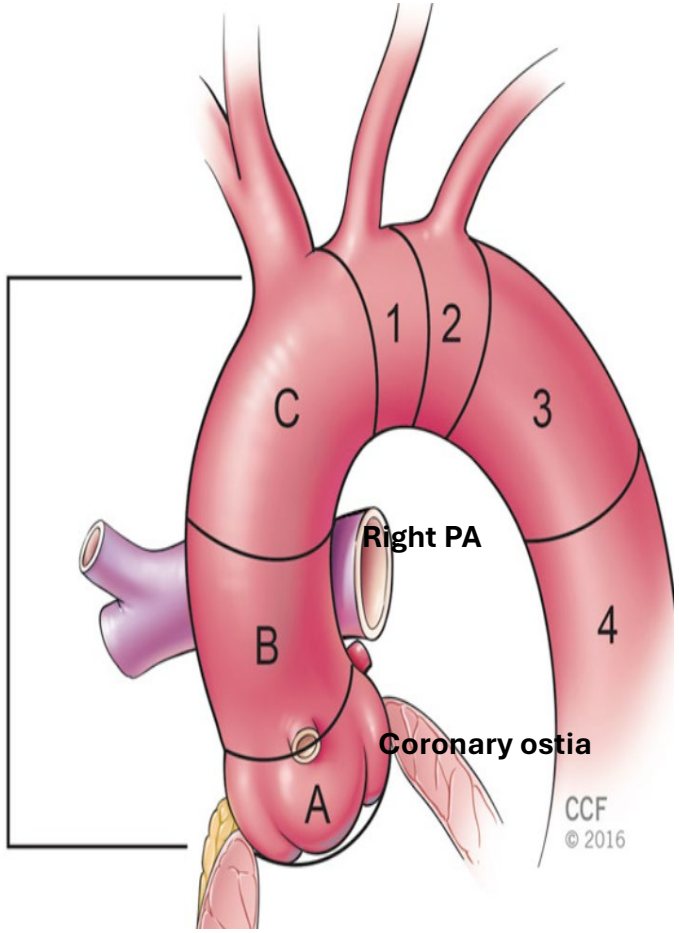
Zone 0

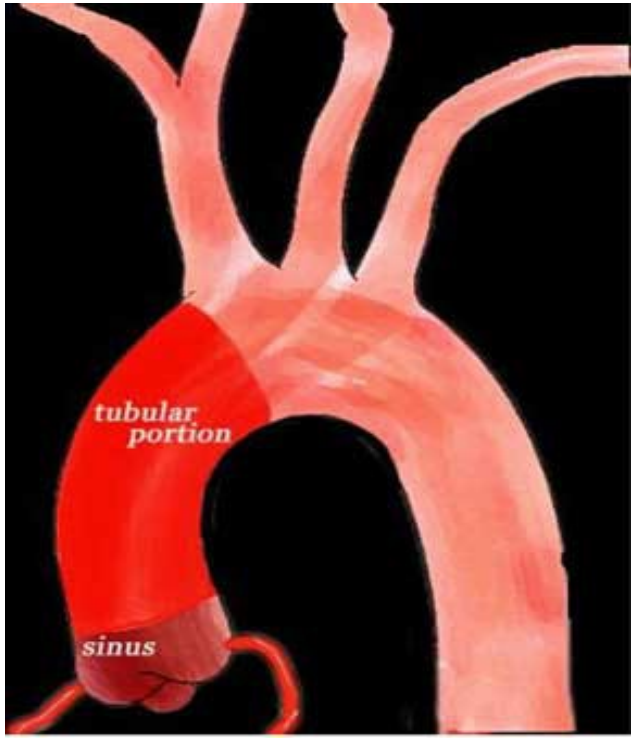
Section B - Sinotubular junction to mid ascending - STJ-mid ascending - The segment of the ascending aorta between the sinotubular junction and the mid-point of the ascending aorta (i.e., proximal tubular ascending aorta) from the coronary ostia to the distal margin of the right pulmonary artery.

C: Right PA to origin of innominate

B: Coronary Ostia to Right PA

A: Below the STJ





Note : The tubular portion of the ascending aorta extends from the sinotubular junction to the brachiocephalic (innominate) artery. It has no branches.

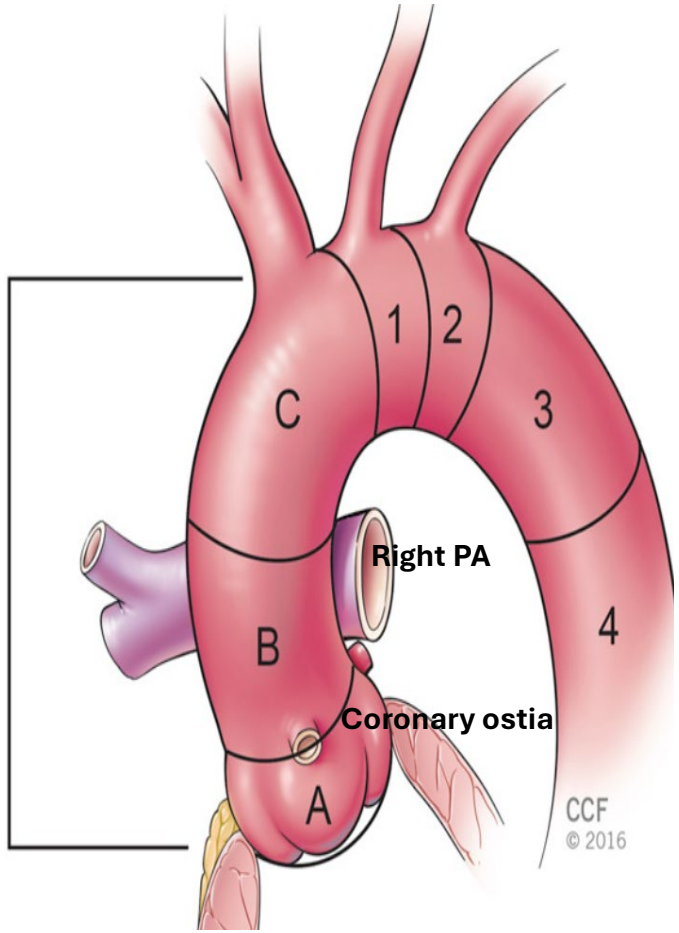
Zone 0

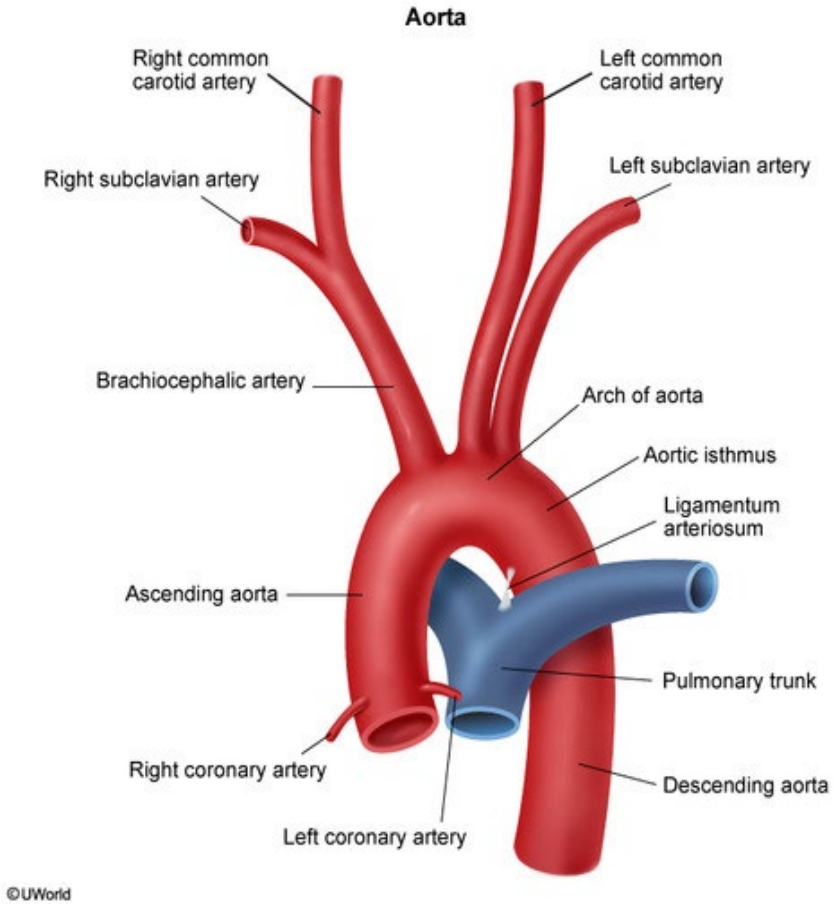
Section C- Mid ascending to distal ascending - The segment of the ascending aorta between the mid-point of the ascending aorta from the right pulmonary artery to the origin of the innominate artery or first branch vessel off the aortic arch

C: Right PA to origin of innominate

B: Coronary Ostia to Right PA

A: Below the STJ





Innominate artery (also called the Brachiocephalic artery)

Before moving on with the remainder of the zones, we need to understand the Aortic Arch anatomy and terminology

The aortic arch can be divided into 3 regions.

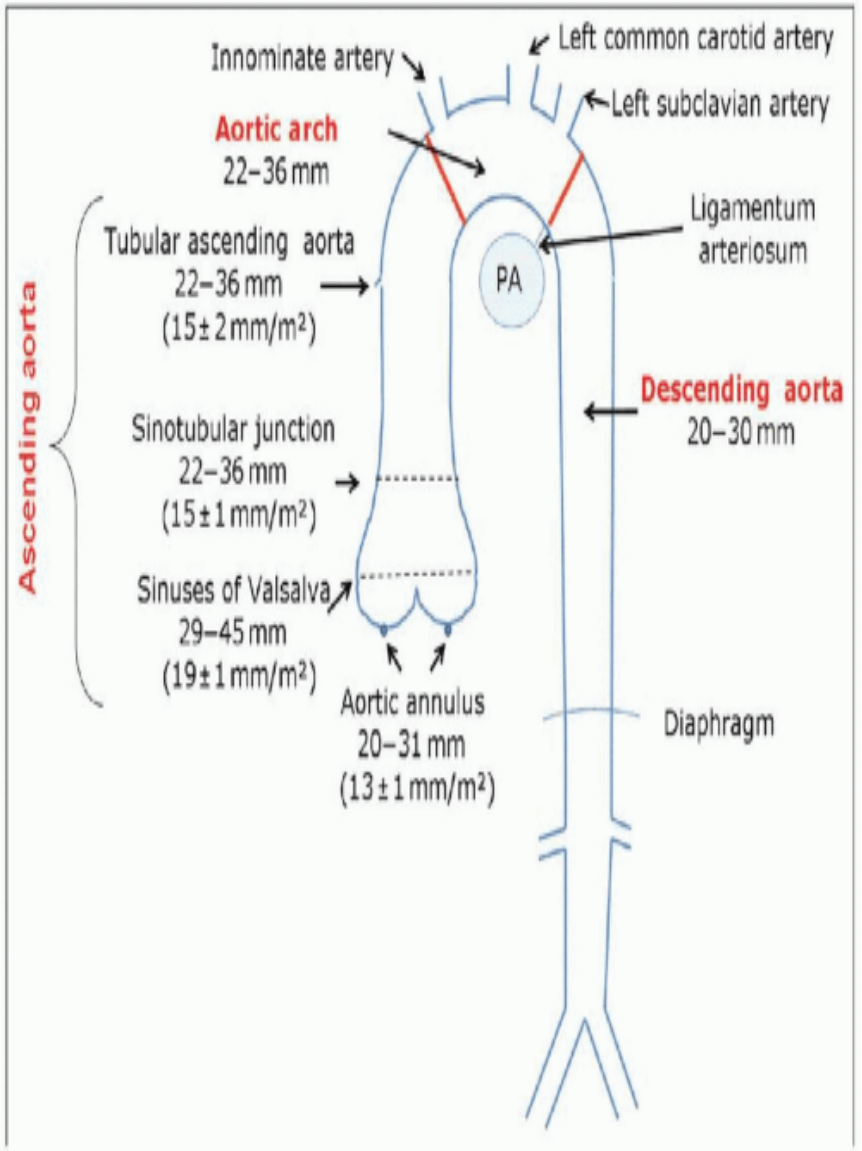
The aortic arch, also called the transverse aortic arch, is continuous with the upper border of the ascending aorta and begins at the level of the upper border of the second sternocostal articulation of the right side.

Three vessels come out of the aortic arch: the brachiocephalic artery, the left common carotid artery, and the left subclavian artery arch of the aorta

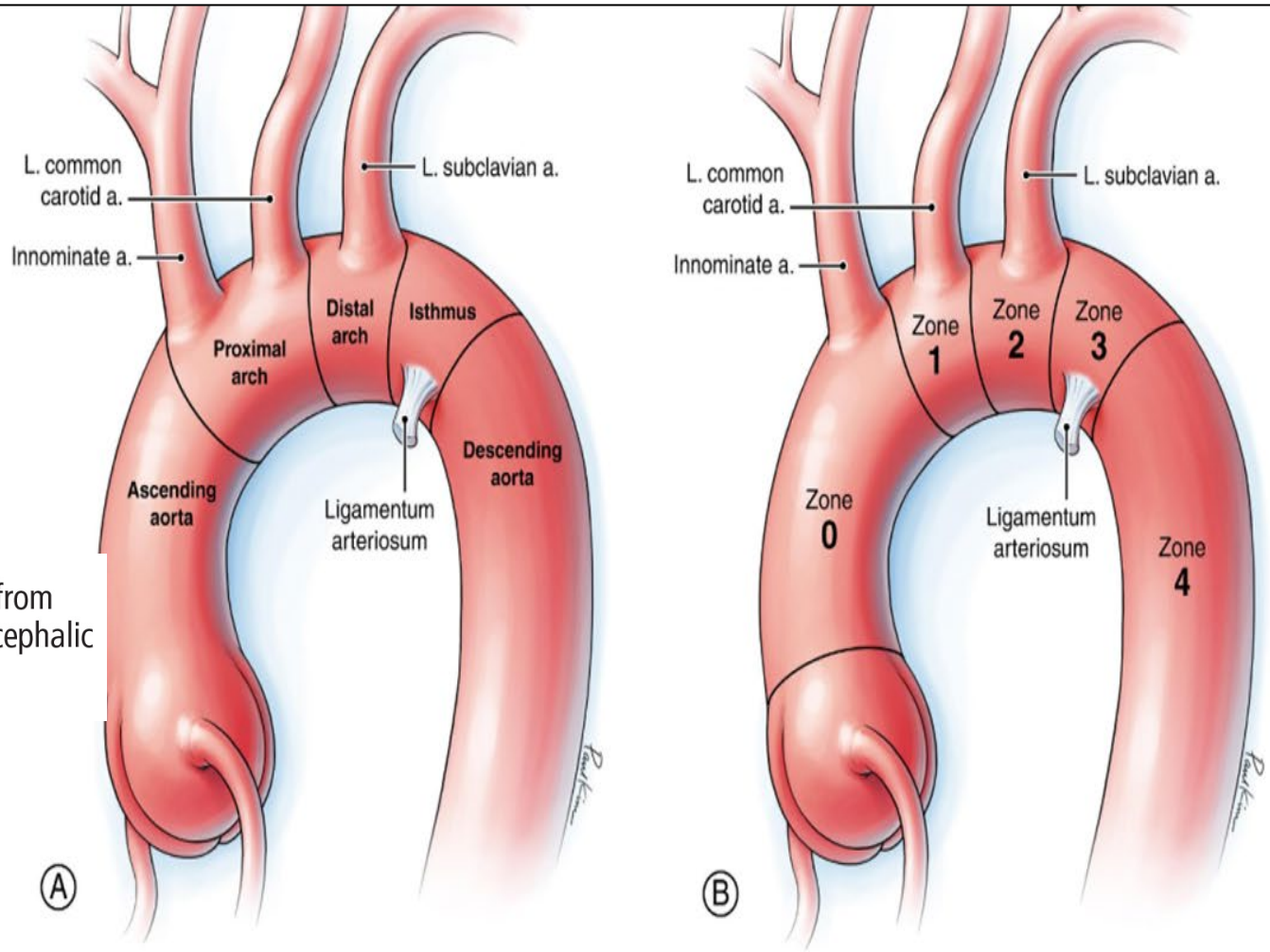
The proximal transverse arch is between the innominate and left carotid artery

The distal transverse arch is between the left carotid and left subclavian

The aortic isthmus is between the left subclavian and insertion of ligamentum arteriosum



- **The aortic arch** extends from the ostium of the brachiocephalic artery to the isthmus.



https://ebook-sts-org.proxy.lib.umich.edu/sts/view/Cardiac-and-Congenital/1864004/all/Aortic_Arch_Aneurysms

The aortic arch can be also be identified by the Greater or Lesser curvature.

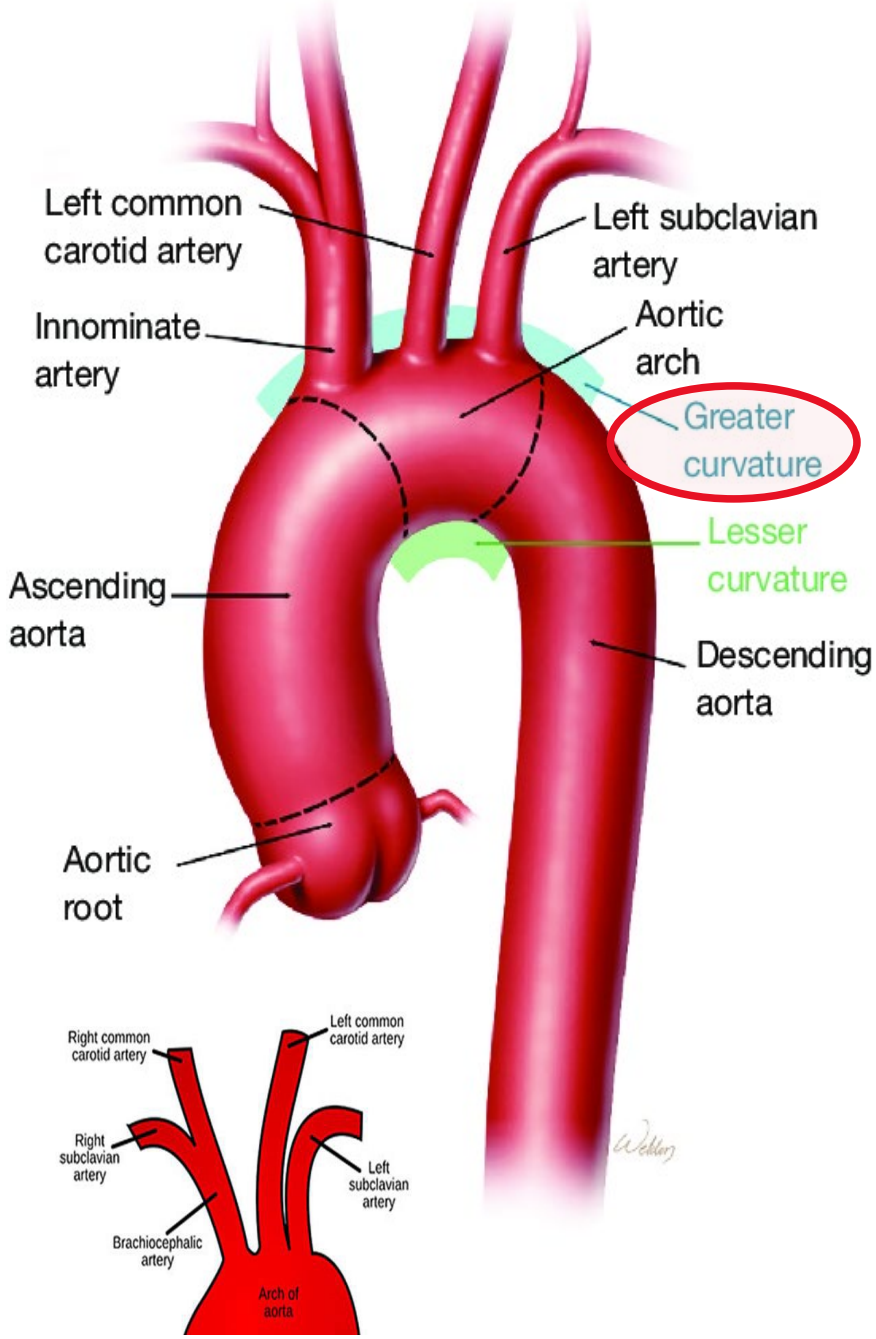
The Aortic Arch features a Greater Curvature (the outer curvature) and a Lesser Curvature (the inner curvature).

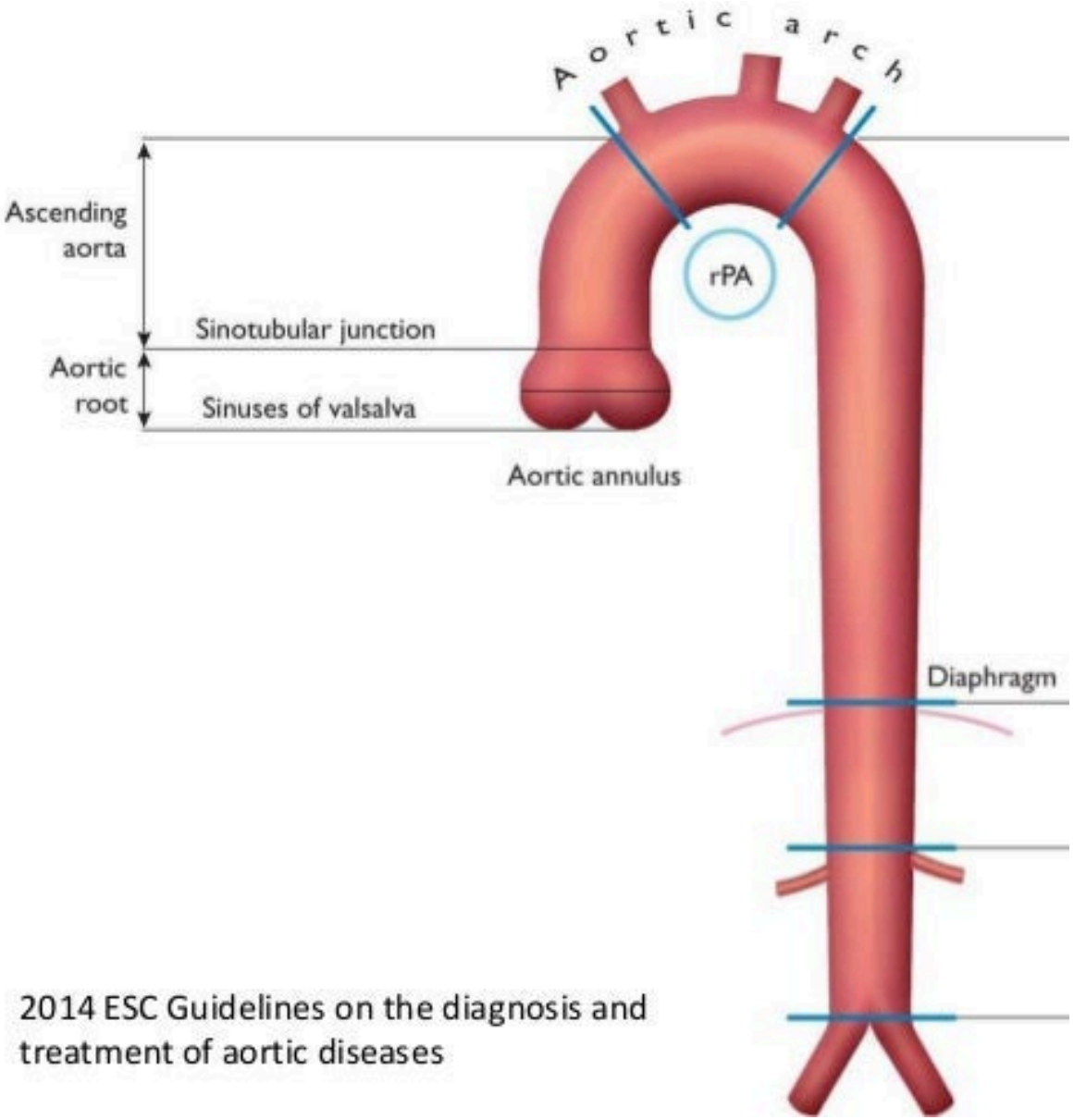
Its most important feature is the 3 blood vessels the branch off from the Greater Curvature- the **Innominate or Brachiocephalic Artery**, **Left Common Carotid Artery**, **and Left Subclavian Artery**.

- **Innominate or Brachiocephalic Artery:** This is the first vessel to branch off of the arch.
  - It quickly divides into 2 arteries, the Right Subclavian Artery and the Right Common Carotid Artery. The Right Subclavian artery mainly supplies the blood to the right arm, while the Right Carotid artery mainly supplies blood to the head.

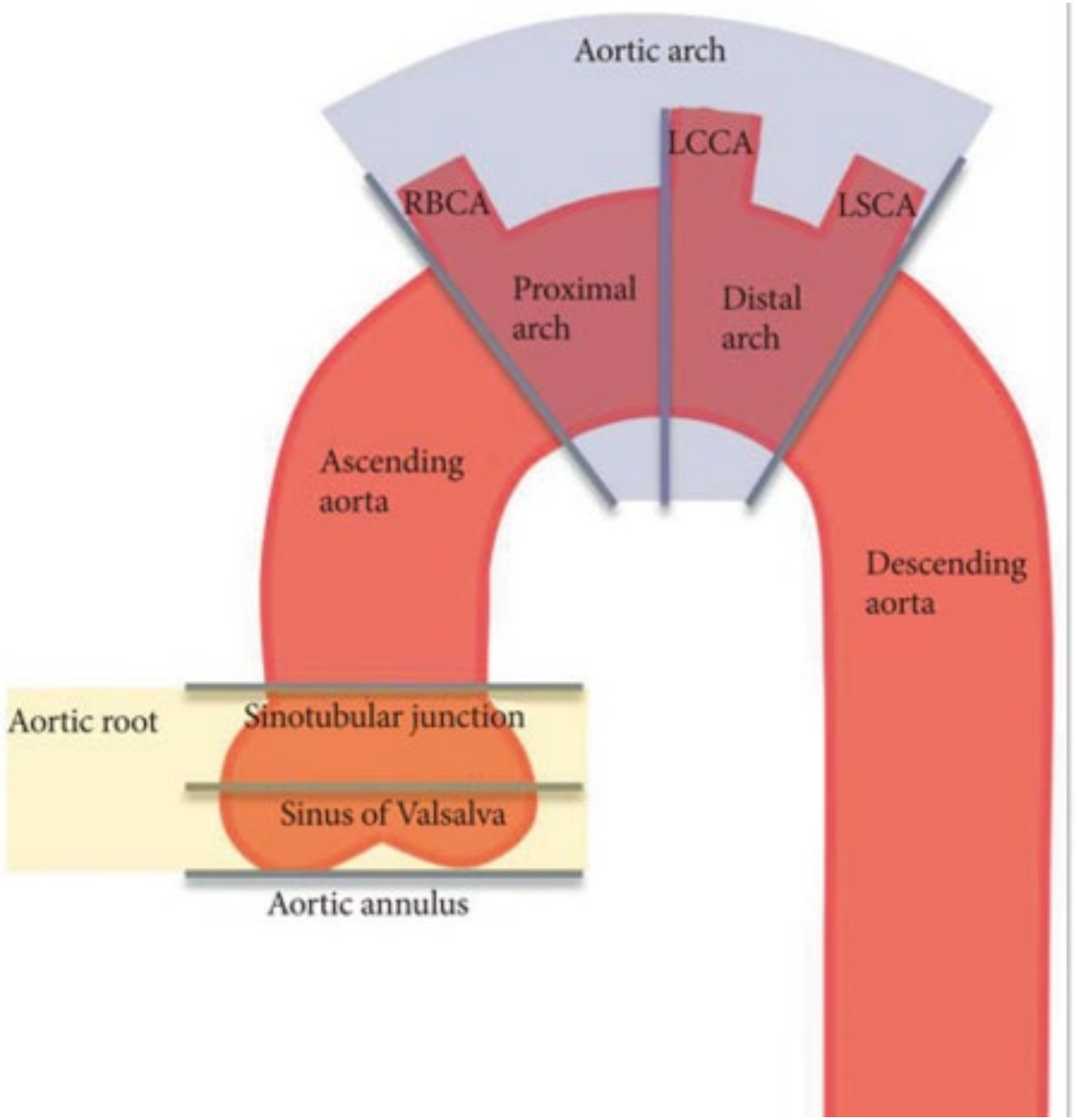
- **Left Common Carotid Artery:** This artery is the second of the 3 branches off of the arch and also supplies the head.

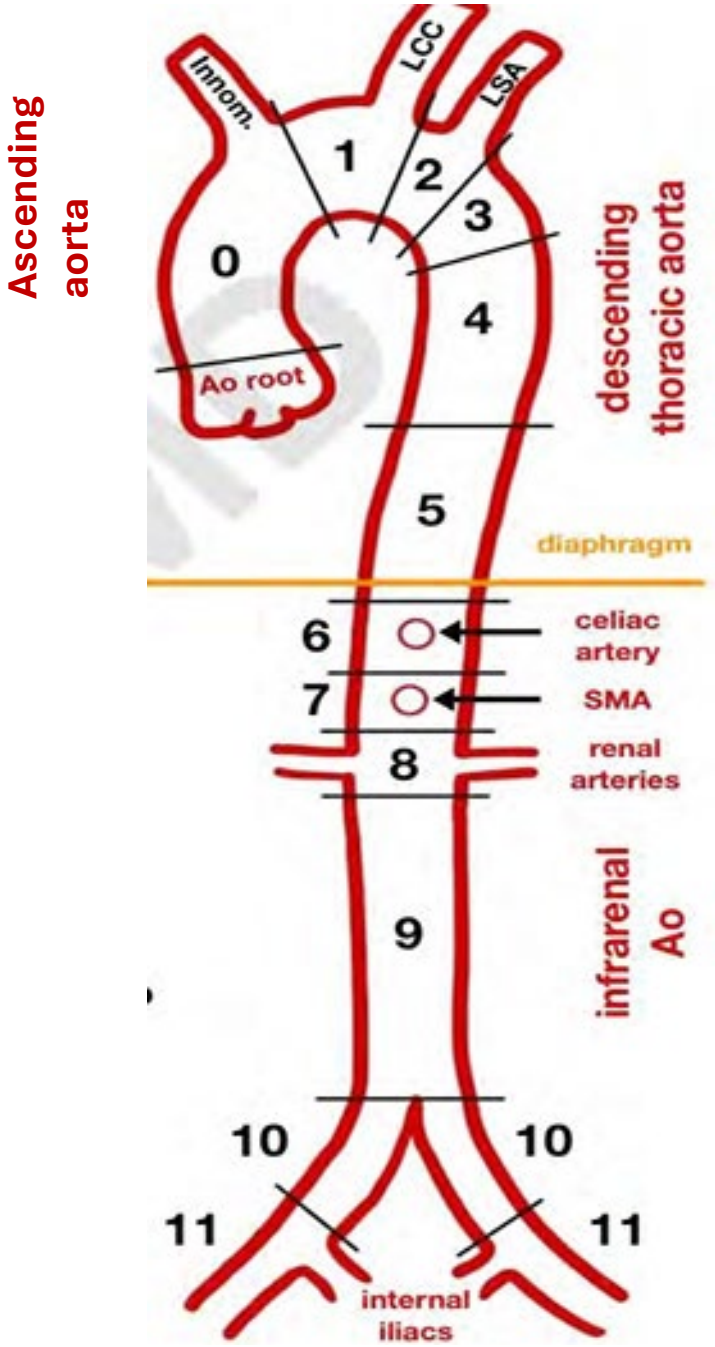
- **Left Subclavian Artery:** The last branch off of the arch, this artery supplies the blood to the left arm.





2014 ESC Guidelines on the diagnosis and treatment of aortic diseases





Zone 1 - includes the segment of aorta between the innominate artery and left carotid artery as well as the segment of aorta from which the left carotid artery arises (see figure)

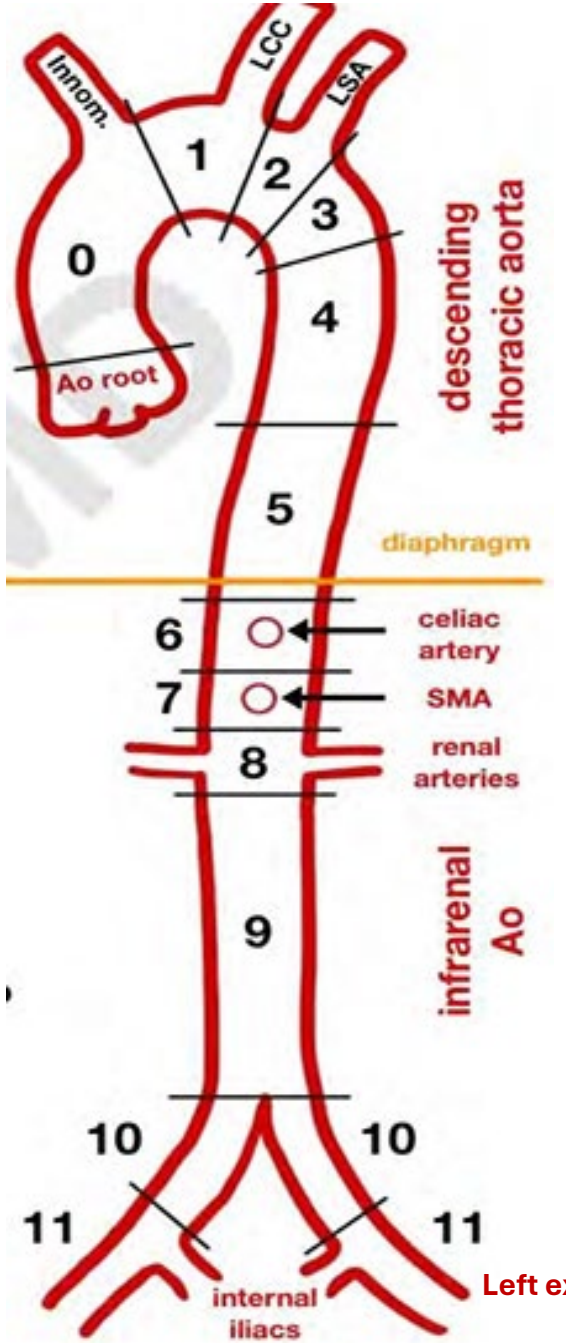
Zone 2 - includes the segment of aorta between the left carotid artery and left subclavian artery as well as the segment of aorta from which the left subclavian artery arises (see figure).

Zone 3 - is the 2 cm segment of aorta just beyond the left subclavian artery (see figure).

Zone 4 - end of zone 3 to mid descending aorta from 2 cm beyond the left subclavian artery to the mid descending thoracic aorta, which is usually defined by the T6-T7 vertebral bodies (see figure).

Zone 5 - mid descending aorta to celiac extends from the mid descending thoracic aorta (at T6-T7) to the origin of the celiac artery but does not include the origin of the celiac artery (see figure).

Zone 6 - Suprarenal Abdominal zone - celiac to superior mesenteric is **the segment of aorta beginning at the level of the diaphragm** from the celiac artery to the origin of the superior mesenteric artery but does not include the origin of the superior mesenteric artery (see figure).



Zone 7 - Suprarenal Abdominal zone superior mesenteric to renal arteries - extends from the superior mesenteric artery to the origin of the first renal artery but does not include the origin of the first renal artery (see figure).

Zone 8 - Infrarenal Abdominal zone - renal to infra-renal abdominal aorta of the aorta is the segment of aorta from which all the renal arteries arise (usually two but maybe more) (see figure).

Zone 9 - Infrarenal Abdominal zone - infrarenal abdominal aorta of the aorta is the segment of aorta between the last renal artery take-off and the aortic bifurcation (see figure).

Zone 10 - Infrarenal Abdominal zone is defined as the area where the aorta bifurcates into the right and left common iliac arteries (see figure)

Zone 11 – Infrarenal Abdominal zone – begins at the external iliac arteries (see figure)

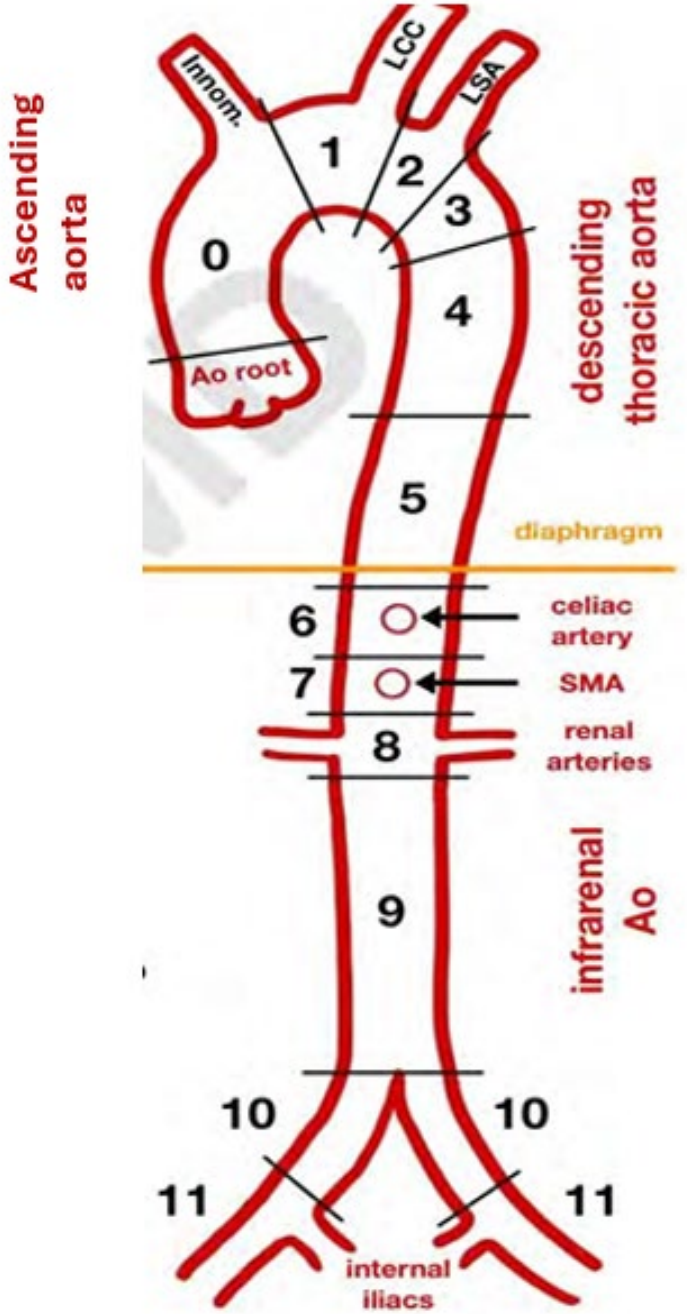
Additional Notes Aorta Surgery

- Do not include isolated abdominal aortic aneurysm/dissections. This is identified as procedures where the most proximal portion of the procedure involves the celiac artery.

- TEVAR are included as endovascular aorta cases if a CT surgeon on the Participant Agreement participated in the TEVAR.

- TEVAR with any portion above the level of the diaphragm is to be entered into the database.

- EVARs are not included in the STS Database.



Thank you

Any question? 

Open Discussion

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 or someone at your site have been successful in implementing a QI project to decrease postoperative renal failure, please reach out to Nancy Honeycutt @ nhoneycutt@sts.org.

Thank You for Joining!

Reminder: Our next ACSD QI Series Webinar will be held on Wednesday, February 18, 2026 at 3pm ET/2pm CT.