The Future of Cardiac CT: Workforce, Technology, and Clinical Outcomes

Sat July 19th, 2025 7am – 7:50 am EST



The Future of Cardiac CT: Workforce, Technology, and Clinical Outcomes

Agenda

Topic	Speaker	Title	
Welcome	Sayali Tarlekar, MBA, MPH	Global Head of Marketing, Arineta	
Scaling a Coronary CTA Program with a Dedicated Small Footprint Cardiac CT	Jonathon A. Leipsic, M.D., F.R.C.P.C. M.S.C.C.T	Past President – SCCT and SCCT Gold Medal Winner	
The State of the CT Tech: Workforce Transformation for Cardiac CT Growth	Jaime Warren Ed.D, MBA, BHS, CNMT, NCT, FACC	Vice President, Care Transformation Services, MedAxiom	
The Eradication of Heart Attack – The Role of Coronary CTA	Jeffrey Boone, MD, MS	Founder and Director, Boone Heart Institute	
Q&A and Ending Comments	Doug Ryan	CEO, Arineta	3

Arineta Vision

Dedicated to growing cardio-thoracic CT as the front-line non-invasive test for diagnosing, therapy planning and monitoring of Cardiovascular and Thoracic disease – the leading causes of death and healthcare costs worldwide.







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Shifting to a CCTA first strategy- The ARINETA Story

Jonathon Leipsic MD FRCPC MSCCT

Professor and Chair Department of Radiology University of British Columbia Professor of Medicine (Division of Cardiology) Canada Research Chair - Advanced Cardiac Imaging Past President Society of Cardiovascular CT





Disclosures

Grant Support- CIHR, NIH, GE Healthcare,

Consultant-Heartflow, Circle CVI, Arineta

Core Lab- NIH, Edwards, Neovasc, Tendyne, Abbott, Medtronic, Boston Scientific, Pl Cardia

Stock options- Circl CVI and Heartflow

ACC/AHA Chest Pain Guidelines



Elevating Coronary CTA: CCTA is the <u>only</u> Class 1 noninvasive test with Level A evidence for **diagnosing** CAD and **guiding** treatment decisions

COR	LOE	RECOMMENDATIONS					
	Index Diagnostic Testing						
Anatomic Testing							
1	А	1. For intermediate-high risk patients with stable chest pain and no known CAD, CCTA is effective for diagnosis of CAD, for risk stratification, and for guiding treatment decisions (1-12).					

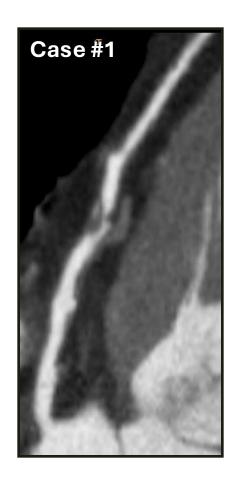
- Diagnose CAD
- Stratify patient risk
- Guide treatment decisions



Coronary CTA enables clinicians to

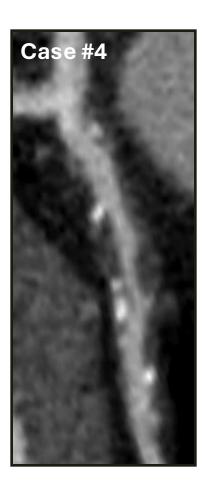
Take Informed Action

What is the Real Story?









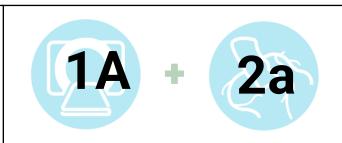
The Role of CTA + FFRct

Stable Chest Pain

Acute Chest Pain

Suspected CAD





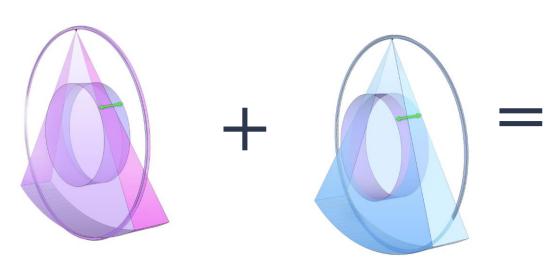
Known CAD

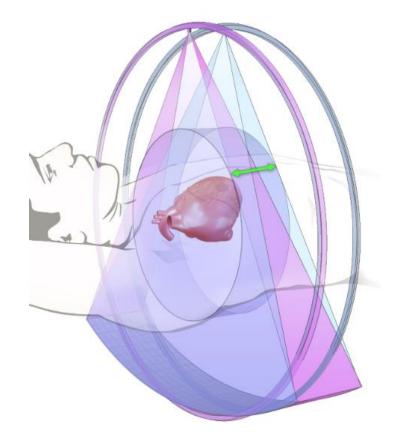




Arineta SpotLight: Stereo CT™ Technology

- Dual overlapping beams from different directions (like human vision)
- Eliminates the cone beam artifacts!
- Superb 3D imaging
- Reduced detector size and cost
- Improves dose utilization







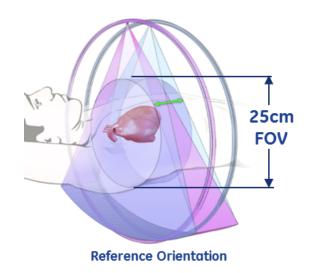
Arineta SpotLight: One-Beat Whole-Heart

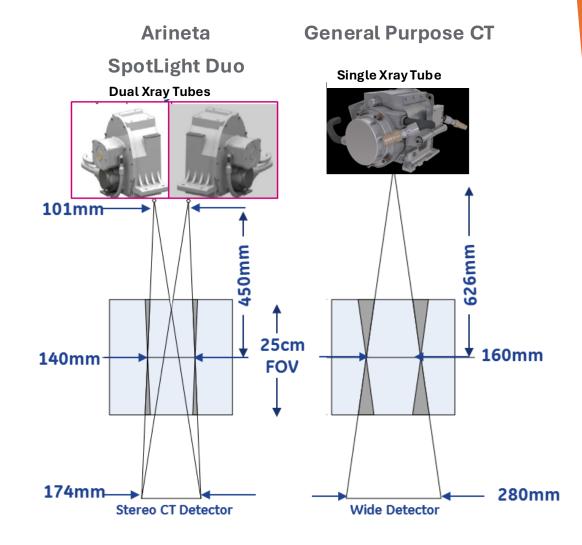
Coverage

Reduced detector size and cost for same coverage

Dual overlapping beams

Reduces cone beam artifacts

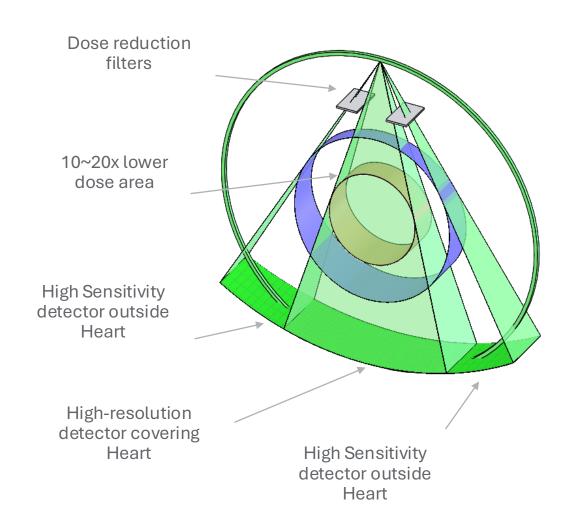






Arineta SpotLight: Focused Field Of View

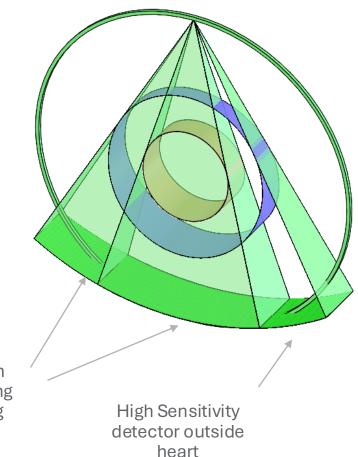
- In CT, body parts outside the FOV affect the image reconstruction inside the FOV.
- SpotLight solution:
 - Radiation outside FOV attenuated by 10~20 x
- High sensitivity peripheral detectors acquire data out of the FOV
- 250mm Focused Field Of View
- Less incidental finding in lungs





Arineta SpotLight Duo: Wide Field Of View

- High resolution detectors out to full 450mm FOV
- Asymmetric detector provides full field of view high resolution coverage and lower cost
- 360-degree acquisition and reconstruction for full thoracic coverage



High-resolution detector covering Heart and Lung



Arineta SpotLight: Room Layout & Siting

Compact design for office, cath lab, ED or mobile

Advantages

- Fits through standard doorways
- Safe for standard elevators
- Sites in a small room: 15m²

Comparisons (vs Rev CT)

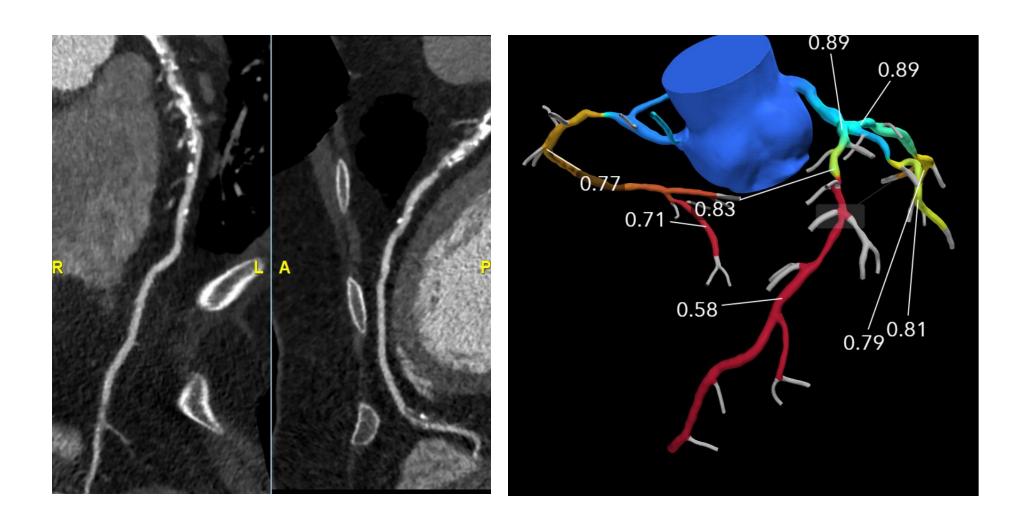
- o 40% smaller room size (23m²)
- 40% lighter weight gantry (6335lb)
- o 50% smaller gantry (6.44m³)







62 yo with chest pain



Comparable image quality to traditional high end scanners at lower cost and higher efficiency

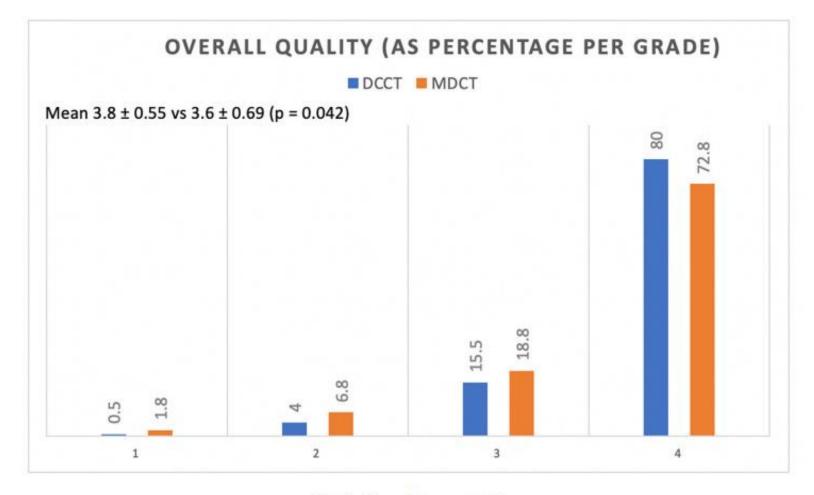


Fig. 1. Overall image quality.

Source: Maggiore et al JCCT 2021

High spatial and temporal resolution delivers excellent stent visualization

 BMI
 27.8

 Slice, mm
 0.5

 kV
 120

 mA
 500

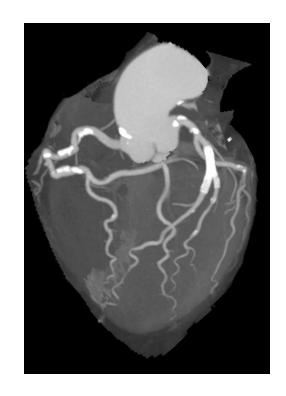
 Contrast ml
 75

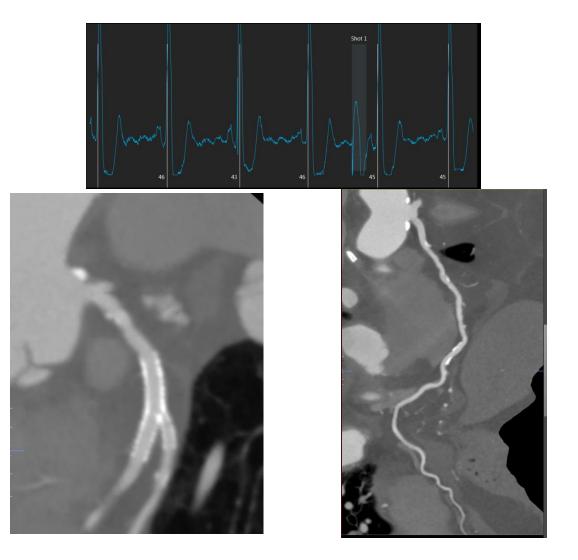
 mgl/ml
 350

 Kernel
 Standard

CTDIvol, mGy 12.2

DLP, mGy-cm 170.9 Effective dose mSv 2.4 k 0.014







Motionless imaging in patient with challenging unstable heartrate

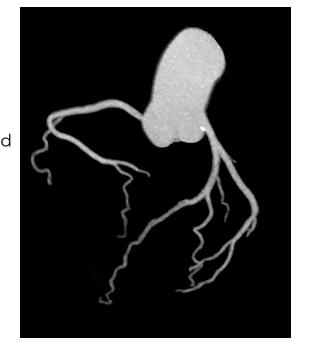
Contrast ml mgl/ml Kernel

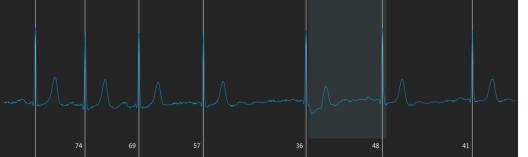
75 350 Standard

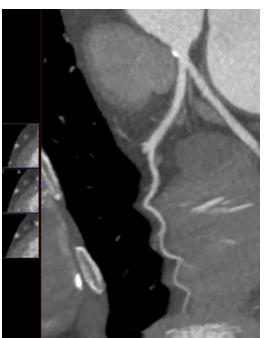
44

CTDIvol, mGy

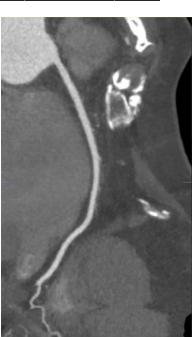
DLP, mGy-cm 616.5 Effective dose mSv 8.6 k 0.014













Images courtesy of: SOUTH TAMPA CARDIOLOGY, USA

55 with good quality and <4 mSv dose

 BMI
 55

 Slice, mm
 0.5

 kV
 120

 mA
 600

 Contrast ml
 90

 mgl/ml
 350

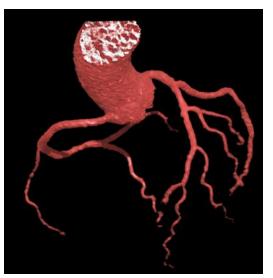
 Kernel
 Standard

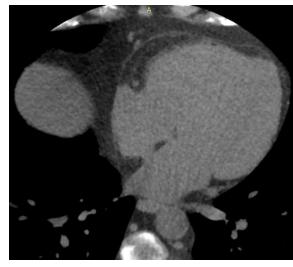
CTDIvol, mGy 20.3

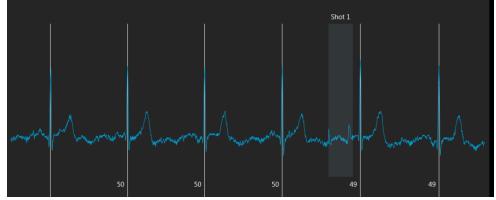
DLP 284.2 Effective dose 3.97

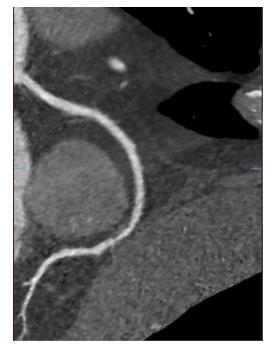
mSv

0.014













Sharp and motionless coronaries

Slice, mm 0.5 Scan length, mm 140 kV 100 mA (mAs) 600 (222)

Contrast

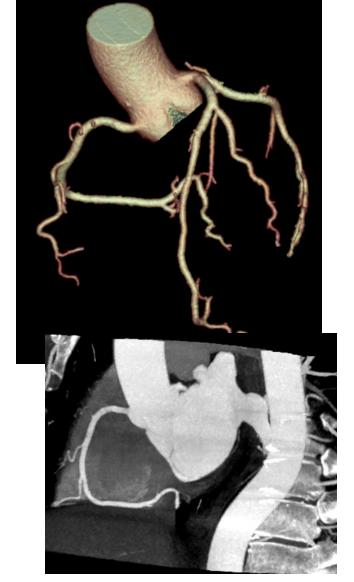
ml 75 mgl/ml 350

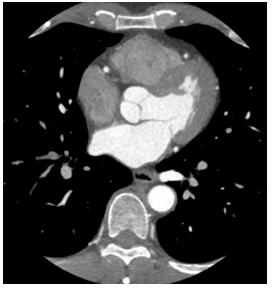
Kernel Standard

CTDIvol, mGy 12.8 DLP, mGy-cm 179.6

Effective dose mSv 2.5 k 0.014 BMI 26.6

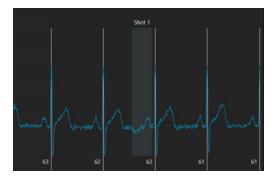
Phase 75%













Images courtesy of: CONNECTED CARDIOVASCULAR CARE, USA. (Dr. Tony Das)

1.9 mSv CCTA

Exceptional quality with Deep Learning Image Reconstruction

Rotation time, s	0.24
Slice, mm	0.5
Scan length, mm	140
(V	100
mA (mAs)	450 (171)

Contrast

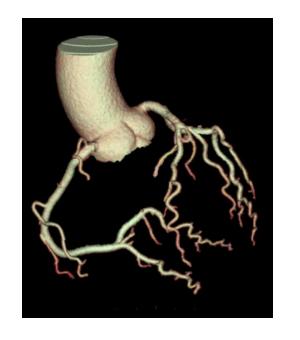
ml 75 mgl/ml 350

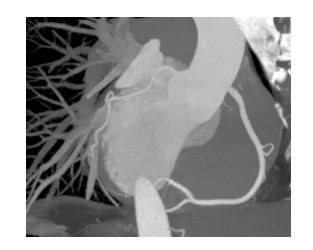
Kernel Standard

CTDIvol, mGy 9.3 DLP, mGy-cm 138.08

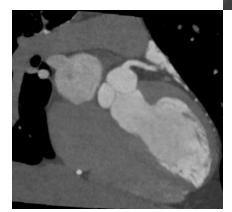
Effective dose mSv	1.9
k	0.014
ВМІ	24

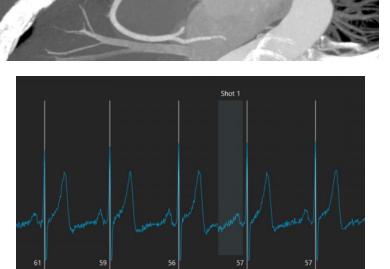
Phase 75%







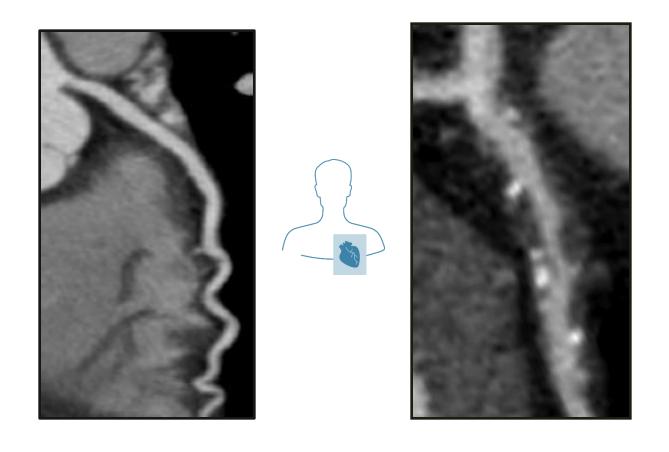






You would not do a TAVR without a non-invasive evaluation of the annulus

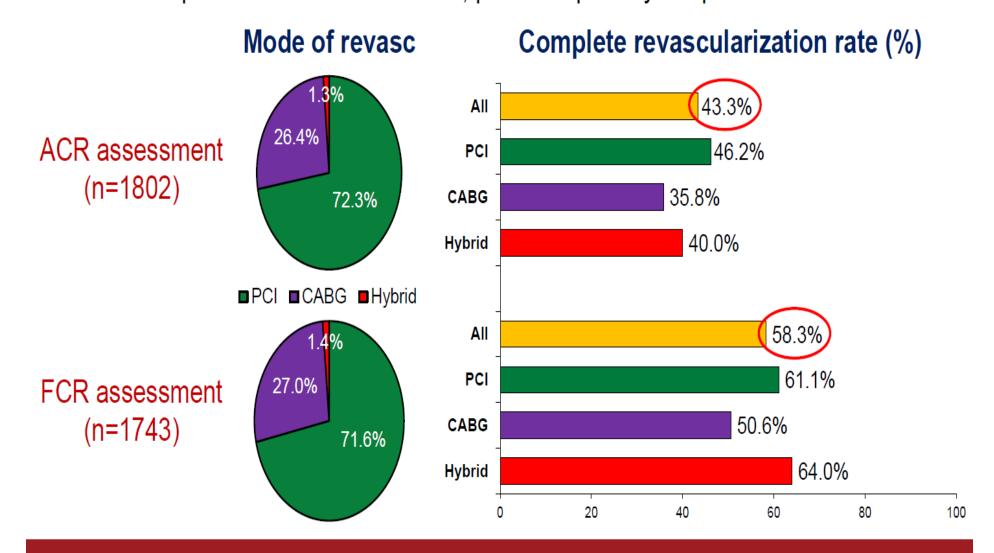
Would you rather make decisions around ICA with this



Objective 1: Completeness of Revascularization (INV)

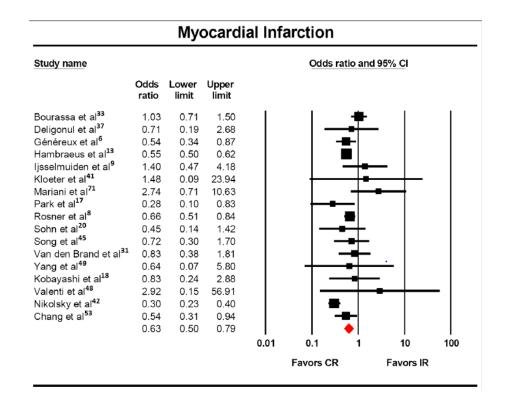


Among 1825 pts randomized to INV in whom a revasc procedure was performed within 6 months, prior to a primary endpoint event



Consistent event reduction with complete revascularization

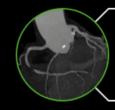
Study name					Odds ratio a	nd 95% CI	
	Odds ratio	Lower limit	Upper limit				
Bourassa et al ³³	1.31	1.02	1.69	- 1		B	Т
Deligonul et al ³⁷	0.64	0.38	1.08	- 1	- ■+		- 1
Généreux et al⁵	0.64	0.50	0.82	- 1	_■		
Hambraeus et al ¹³	0.33	0.31	0.36	- 1			
ljsselmuiden et al ⁹	0.76	0.42	1.37	- 1	 	·	
Kip et al⁴º	0.84	0.65	1.09	- 1			
Kloeter et al ⁴¹	0.60	0.27	1.33	- 1	│ │■ ┼		- 1
Mariani et al ⁷¹	0.45	0.05	3.77	- 1	╅	-	- 1
Park et al ¹⁷	0.49	0.38	0.64	- 1			- 1
Rosner et al ^s	0.63	0.50	0.79	- 1	■		- 1
Sohn et al²º	1.04	0.52	2.09	- 1	_ − +	- 1	- 1
Song et al⁴⁵	0.48	0.33	0.69	- 1	=		- 1
Tamburino et al⁴²	0.41	0.26	0.63	- 1	🖶		- 1
Van den Brand et al³¹	0.16	0.10	0.26	- 1	■-		
Yang et al⁴⁵	0.59	0.19	1.80	- 1	= +	-	
Kobayashi et al¹8	1.13	0.37	3.41	- 1	-	─	
Chang et al⁵³	0.87	0.71	1.07				- 1
	0.60	0.45	0.80		•	ı	
				0.01	0.1 1	10	100
					Favors CR	Favors IR	



CR- (OR: 0.60, 95%CI: 0.45–0.80) CR- OR: 0.64, 95% CI:0.50–0.81)

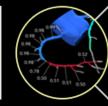
Source: Nagaraja et al. JAHA 2016

Rich pre-procedural data now available prior to PCI



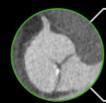
MIP = **M**aximal Intensity Projection

- Coronary anatomy and case complexity based on calcium burden and lesion type & location
- · Vessel course and tortuosity
- Optimal angles for angiography and PCI



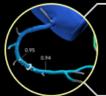
FFR_{CT} = Fractional Flow Reserve derived from CCTA

- Functional significance
- Delta FFR_{CT}
- FFR_{CT} pullback for CAD pattern assessment (focal vs. diffuse



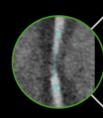
Axial images

- · Coronary ostium position and guide selection
- Normal RCA position ~11 o'clock and LCA 4 o'clock
- · Aortic dimension for LCA guide catheter curve selection



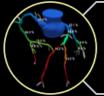
Virtual PCI

- FFR_{CT} based virtual PCI to inform stent length based on predicted post-PCI FFR_{CT}
- · Vessel course and tortuosity
- · Optimal angles for angiography and PCI



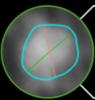
MPR = Multi-Planar Reconstruction

- Lesion location
- Plaque & calcium distribution and composition
- · Disease length and estimated stent length



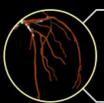
Myocardial mass

- · Vessel-specific myocardial mass at risk
- Side-branch protection, 2-stent techniques
- Risk for myocardial injury based on jeopardized mass



Cross-sections

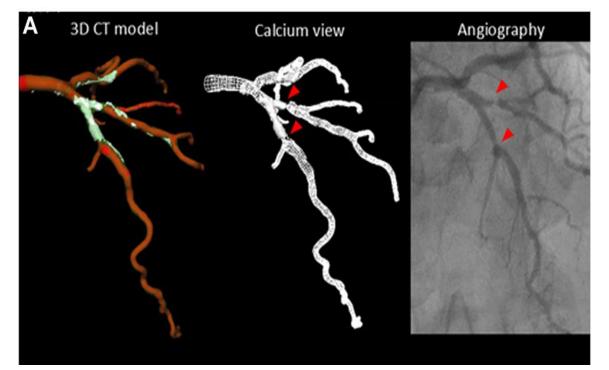
- · Lesion morphology, calcium arc
- Plaque burden
- · Proximal and distal reference lumen diameters

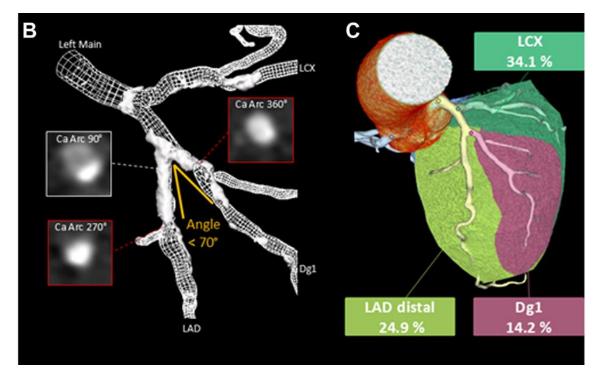


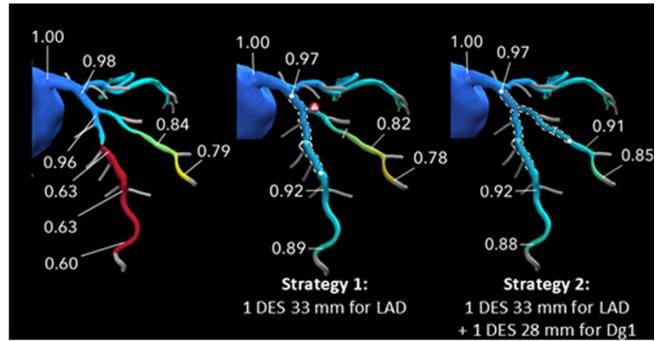
Live guidance from C-arm & CT co-registration

- Optimal angles for angiography and PCI
- Live interaction with CCTA data during case
- Stent length and positioning

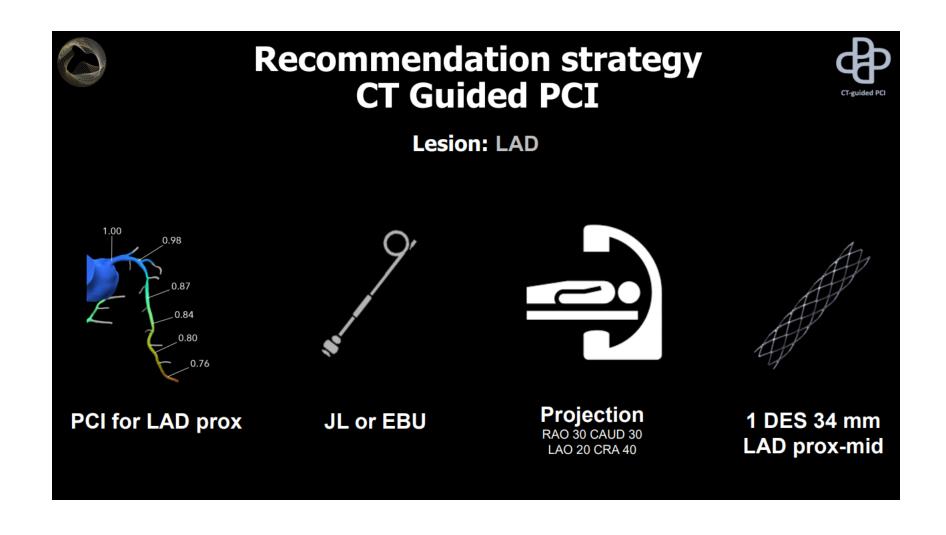
Source: Sandoval and Leipsic et al JSCAI 2025







The way forward??



Conclusions

 CCTA has established itself as the dominant first line strategy for suspected but not confirmed CAD

 Shifting practice patterns will require significant improvements in access in an efficient fashion

 Dedicated small foot print Cardiac CT scanners will play a growing role in delivering high quality care cost effectively

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THE STATE OF THE CT **TECHNOLOGIST**

Workforce Transformation for Cardiac CT Growth

Jaime Warren, Ed.D, MBA, BHS, CNMT, NCT, FACC

VP, Care Transformation

MedAxiom





DISCLOSURES

None

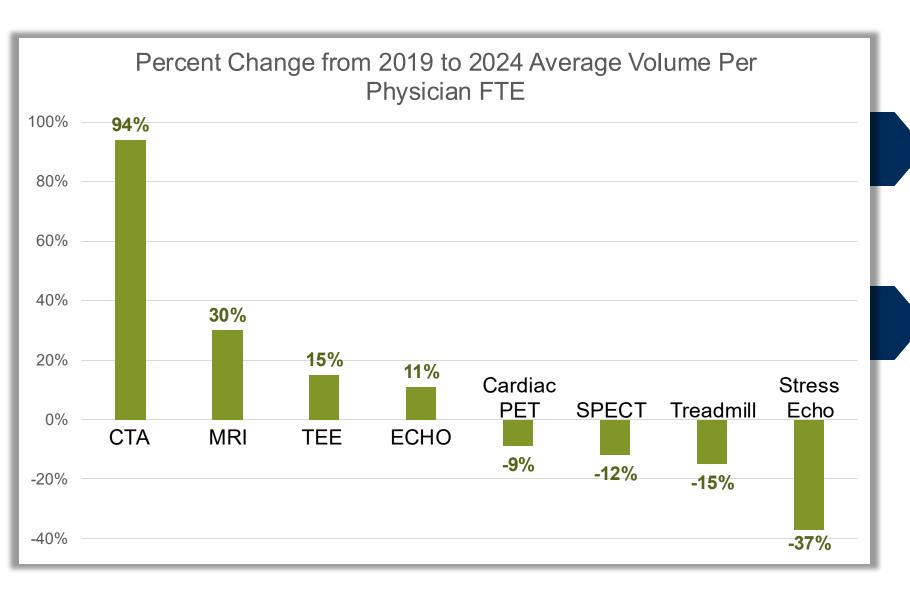


WE DON'T HAVE A TECHNOLOGY PROBLEM. WE HAVE A A PEOPLE PROBLEM.





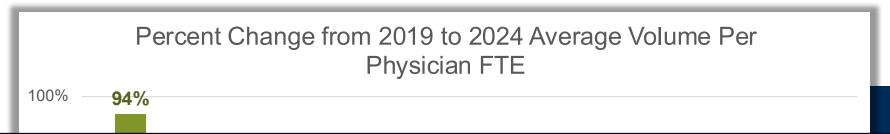
CARDIAC CT IS BOOMING – BUT ARE WE READY?



CTA volumes are up 94% in just 5 years

This shift is happening in real time, but workforce planning isn't keeping pace.

CARDIAC CT IS BOOMING – BUT ARE WE READY?



CTA volumes are up

You can't scale Cardiac CT on yesterday's staffing model..



-40% -3**7**%



THE CURRENT TECHNOLOGIST LANDSCAPE



AGING OUT

25% of imaging techs are 55+, with retirements accelerating

Source: ASRT 2023



BURNED OUT & BAILING

44% report burnout, with turnover up to 17.5%

Source: ASRT 2023



CREDENTIALING CONFUSION

Licensing + credentialing varies wildly across states

Source: ARRT



RURAL STAFFING GAPS

25%+ vacancy rates in underserverd areas

Source: HRSA 2023

"Cardiac CT demand is climbing—but scanner time is being cut to protect the techs who are left." Cardiovascular Business, 2024

CT STAFFING REALITIES: VOICES FROM THE FIELD

Top Challenges:

Recruitment & Retention:

- ✓ Competing with sign-on bonuses and outpatient facilities.
- ✓ Struggles with 3rd shift, weekends, call—techs often job-hop for better pay.
- ✓ Some hospitals enjoy stable teams but that's the exception.

VARIETY

BONUSES

DEDICATED TEAMS



- ✓ Scan schedules cut; techs cover multiple roles (e.g., chest x-rays).
- ✓ Workforce stretched thin—ratios may look good on paper, but real-life downtime and unpredictable demand add stress.

Credentialing & Burnout:

- ✓ Varying credentialing timelines; some allow a year before board certification.
- ✓ Burnout is real—weekends, holidays, high ER volume.
- ✓ Clear roles and supportive teams help prevent burnout.

What's Actually Working:

- Variety: Cross-training in PET/nuclear or other departments keeps techs engaged.
- Incentives: Quarterly bonuses based on volume or performance.
- Structure: Dedicated teams under cardiology feel more valued and focused.



IT'S TIME TO INVEST IN OUR TECHS



WHY IT MATTERS: CT Techs = Strategic Leverage

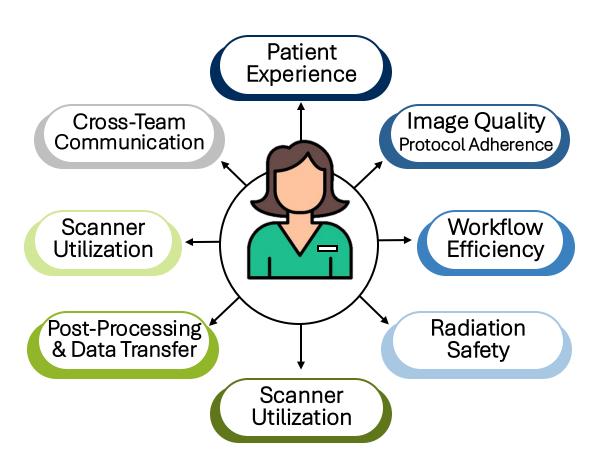


Image Quality → Drives diagnostic accuracy + provider trust

Workflow Efficiency → Enables higher throughput + better patient flow

Post-Processing → Accelerates turnaround + reporting

Patient Experience → Boosts satisfaction + retention

Protocol Expertise → Reduces variability + elevates care standards

BECOMING A CT TECHNOLOGIST



NAVIGATING STATE LICENSURE

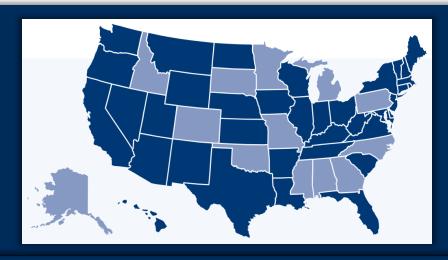
Why it matters:

State licensure requirements define who can legally perform CT procedures

Not every technologist who is ARRT(CT) or NMTCB(CT) certified can automatically work in your state.

Licensure and regulations vary by state

ARRT.org



What you need to know:

- State-by-State Rules
 - ✓ Some states require a specific CT license or add-on credential (ARRT-CT and/or NMTCB-CT)
- Employer Responsibility
 - ✓ Health systems/physician offices must verify state licensure before assigning technologist
 - ✓ Failure to comply can risk fines and penalties

CT CERTIFICATION PATHWAYS

Category	Radiologic Technologist (RT)	Nuclear Medicine Technologist (NMT)		
Starting Point	ARRT Radiography Certification	ARRT(N) or NMTCB Certification		
Pathway to CT	ARRT (CT) or NMTCB (CT)			
Structured Education	Education Hour Requirement covering physics, protocols, safety, etc.			
Clinical Experience	Documented CT procedures/hours			
State Licensure	Varies based on state requirements			

CT certification ≠ state licensure. Some states require a separate CT license or accept only ARRT cert + state application. Eligibility varies—check local regulations



SCOPE OF PRACTICE



Varies widely across states



Credentialing is not always aligned with scope (e.g., NMT may need additional approvals depending on state)



Admins and MDs need to understand the limits and advocate for standardization

(Support national licensing models or collaborate with state societies)



Discussion Point: How does your organization handle scope-of-practice challenges?

Hello my name is

RETENTION STARTS WITH CULTURE



BECOMING THE EMPLOYER OF CHOICE

Top Strategies to Attract and Retain Talent:



Cross-Training Opportunities - Offer training across other imaging modalities to broaden skills and reduce burnout.



Credentialing Support - Pay for licensing, certification, and continuing education to show investment in staff.



Flexible Scheduling - Provide shift options like split shifts or 4x10s to support work-life balance.



Tech Input - Involve technologists in department decisions



Technician vs. Technologist - Recognize the difference in training, responsibilities, and pay. Ensure titles align w/ scope of practice & expectations.



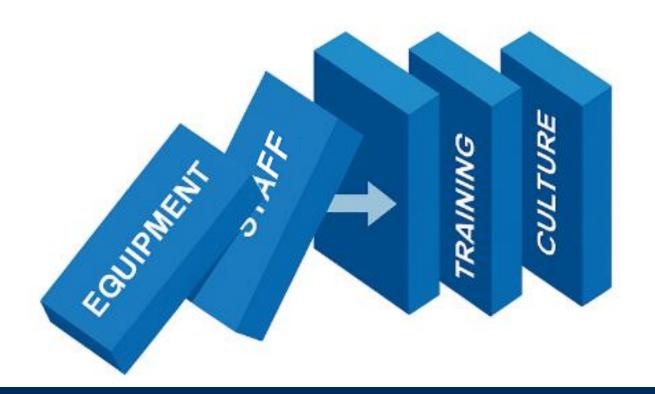
Use Real-World Language - Communicate clearly: avoid corporate jargon—connect with techs through authentic conversations.

WHY IT MATTERS:

The best techs do have options. If you're not flexible, someone else is.



FORECASTING STAFFING AS YOU SCALE



- 1 scanner ≠ 1 tech
- Include: prep, postprocessing, QA, downtime coverage

Don't just scale equipment. Scale people, training, and culture.



You can buy a scanner. But if no one's there to run it? It's just an expensive paperweight.

Advocate. Invest. Ask Your Techs What They Need



Jaime Warren, Ed.D, MBA, BHS, CNMT, NCT, FACC VP, Care Transformation MedAxiom (an ACC company) jwarren@medaxiom.com

The Future of Cardiac CT: Workforce, Technology, and Clinical Outcomes Agenda

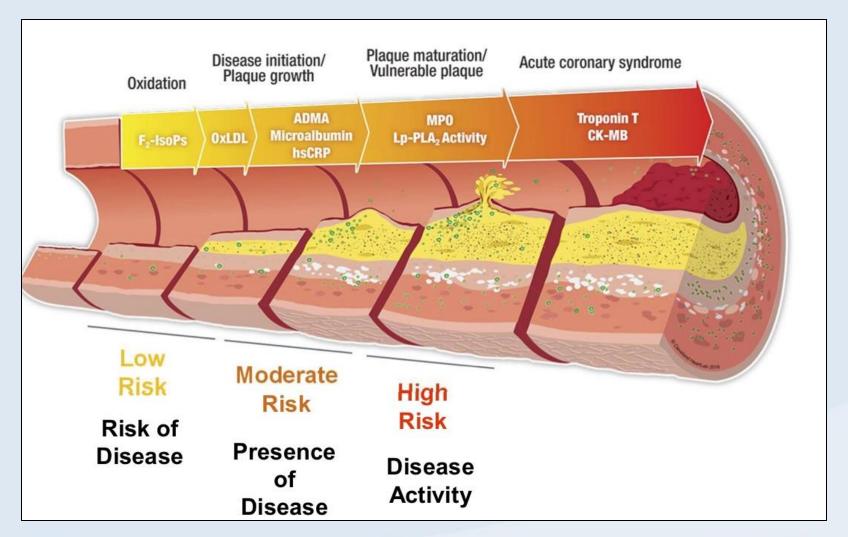
Topic	Speaker	Title	
Welcome	Sayali Tarlekar, MBA, MPH	Global Head of Marketing, Arineta	
Scaling a Coronary CTA Program with a Dedicated Small Footprint Cardiac CT	Jonathon A. Leipsic, M.D., F.R.C.P.C. M.S.C.C.T	Past President – SCCT and SCCT Gold Medal Winner	
The State of the CT Tech: Workforce Transformation for Cardiac CT Growth	Jaime Warren Ed.D, MBA, BHS, CNMT, NCT, FACC	Vice President, Care Transformation Services, MedAxiom	
The Eradication of Heart Attack – The Role of Coronary CTA	Jeffrey Boone, MD, MS	Founder and Director, Boone Heart Institute	
Q&A and Ending Comments	Doug Ryan	CEO, Arineta	



The Eradication of Heart Attack: The Role of Coronary CTA



Inflammation Testing







MISSION & OBJECTIVES

Atherosclerosis: Redefining Significant and Aggressive

1. Imaging

3. Vulnerability

2. Causation

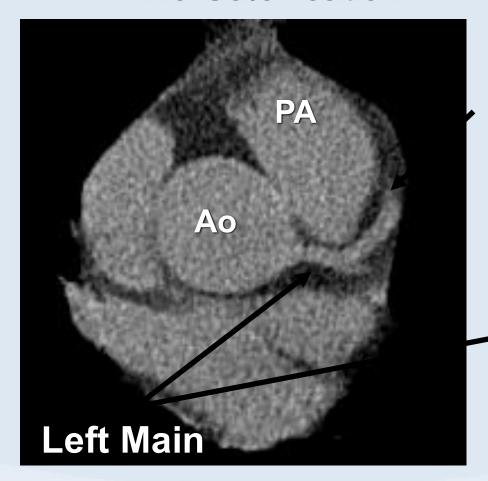
4. Treatment

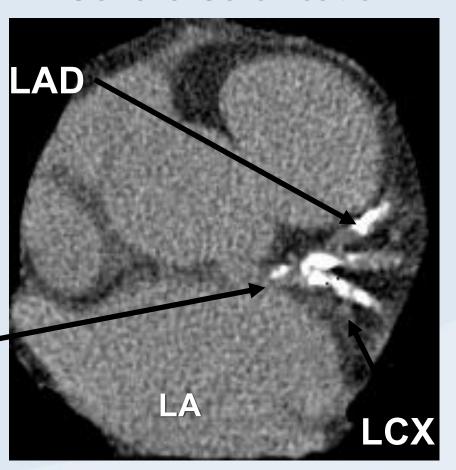


Electron Beam Tomography

No Calcification

Severe Calcification







Carotid Plaque Assessment





Boone Arterial Risk (BAR Score)

JOURNAL OF THE AMERICAN COLLEGE OF CARBOOLOGY

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VOL. 84, NO. 13, 2024

Influence of Subclinical Atherosclerosis Burden and Progression on Mortality



Valentin Fuster, MD, PhD, NA Ana Garcia-Álvarez, MD, PhD, NGA Ana Devesa, MD, PhD, Na Virginia Mass, RN, Ruth Owen, PhD, Antonio Quesada, PhD, José J. Fuster, PhD, Samantha Garcia-Lunar, MD, PhD, Na Javier Sánchez-González, PhD, Samantha Sartori, PhD, Carlos Peyra, MBA, Vicente Andres, PhD, Peter Muntendam, PhD, Borja Ibanez, MD, PhD, Na Javier Sánchez-González, PhD, Na Javier Sánchez-González

ABSTRACT

BACKGROUND Atherosclerosis is a dynamic process. There is little evidence regarding whether quantification of atherosclerosis extent and progression, particularly in the carotid artery, in asymptomatic individuals predicts all-cause mortality.

OBJECTIVES This study sought to evaluate the independent predictive value (beyond cardiovascular risk factors) of subclinical atheroscierosis burden and progression and all-cause mortality.

METHODS A population of 5,716 asymptomatic U.S. adults (mean age 68.9 years, 56.7% female) enrolled between 2008 and 2009 in the Biolmage (A Clinical Study of Burden of Atherosclerotic Disease in an At Risk Population) study underwent examination by vascular ultrasound to quantify carotid plaque burden (cP8) (the sum of right and left carotid plaque areas) and by computed tomography for coronary artery calcium (CAC). Follow-up carotid vascular ultrasound was performed on 732 participants a median of 8.9 years after the baseline exam. All participants were followed up for all-cause mortality, the primary outcome. Trend HRs are the per-tertile increase in each variable.

RESULTS Over a median 12.4 years' follow-up, 901 (16%) participants died. After adjustment for cardiovascular risk factors and background medication, baseline cP8 and CAC score were both significantly associated with all-cause mortality (fully adjusted trend HR: 1.23, 95% CI: 1.16-1.32; and HR: 1.15; 95% CI: 1.08-1.23), respectively (both P < 0.001), thus providing additional prognostic value. cP8 performed better than CAC score. In participants with a second vascular ultrasound evaluation, median cP8 progressed from 29.2 to 91.3 mm³. cP8 progression was significantly associated with all-cause mortality after adjusting for cardiovascular risk factors and baseline cP8 (HR: 1.03; 95% CI: 1.01-1.04 per absolute 10-mm² change, P = 0.01).

conclusions Subclinical atherosclerosis burden (cPB and CAC) in asymptomatic individuals was independently associated with all-cause mortality. Moreover, atherosclerosis progression was independently associated with all-cause mortality. (JACC, 2024;84:1391-1403) © 2024 The Authors. Published by Elsevier on behalf of the American College of Cardiology Foundation. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenset/by-nc-nd/4.0/).

"Subclinical atherosclerosis (carotid plaque burden) was independently associated with all-cause mortality (death)."

Valentin Fuster, MD, Ph.D.
 Mt. Sinai Fuster Heart Hospital
 New York, NY

"Moreover, atherosclerosis progression (plaque growth) was independently associated with all-cause mortality."

JACC. 2024 Oct, 84 (15) 1391–1403

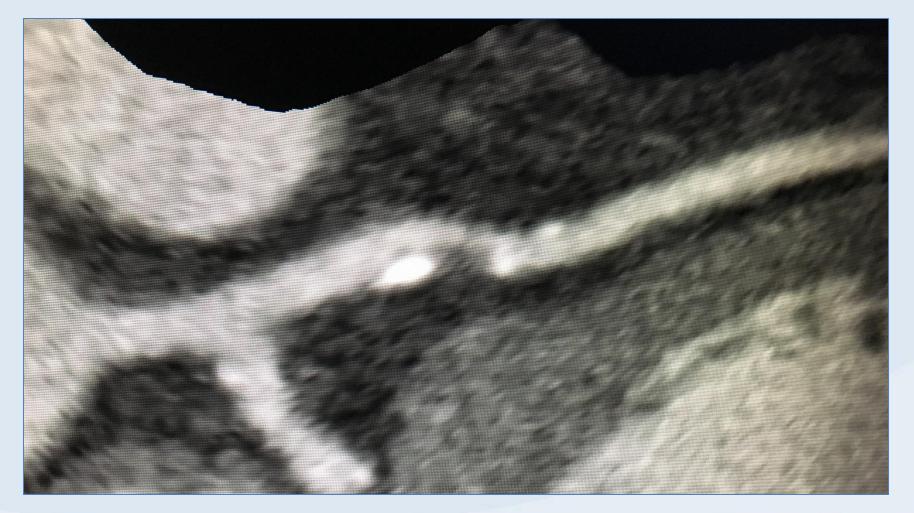




Boone Arterial Risk (BAR Score)

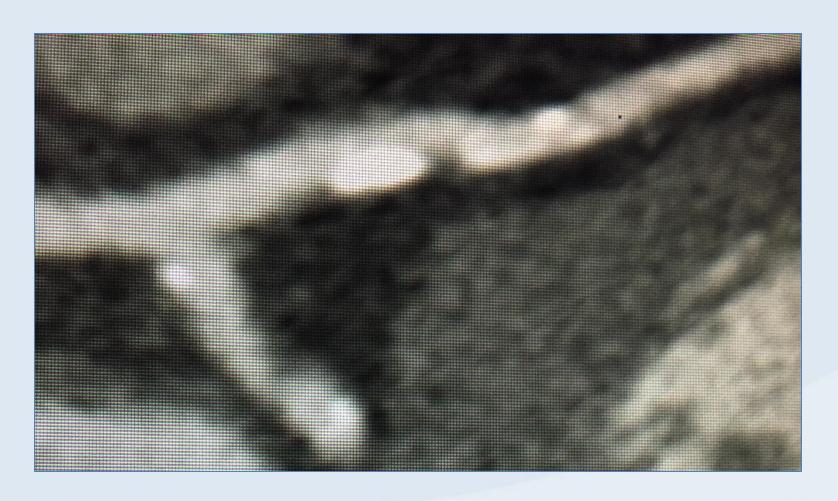


CT Angiography (2007) – 71% LAD Lesion with 20 – 40 HU and CAC of 260





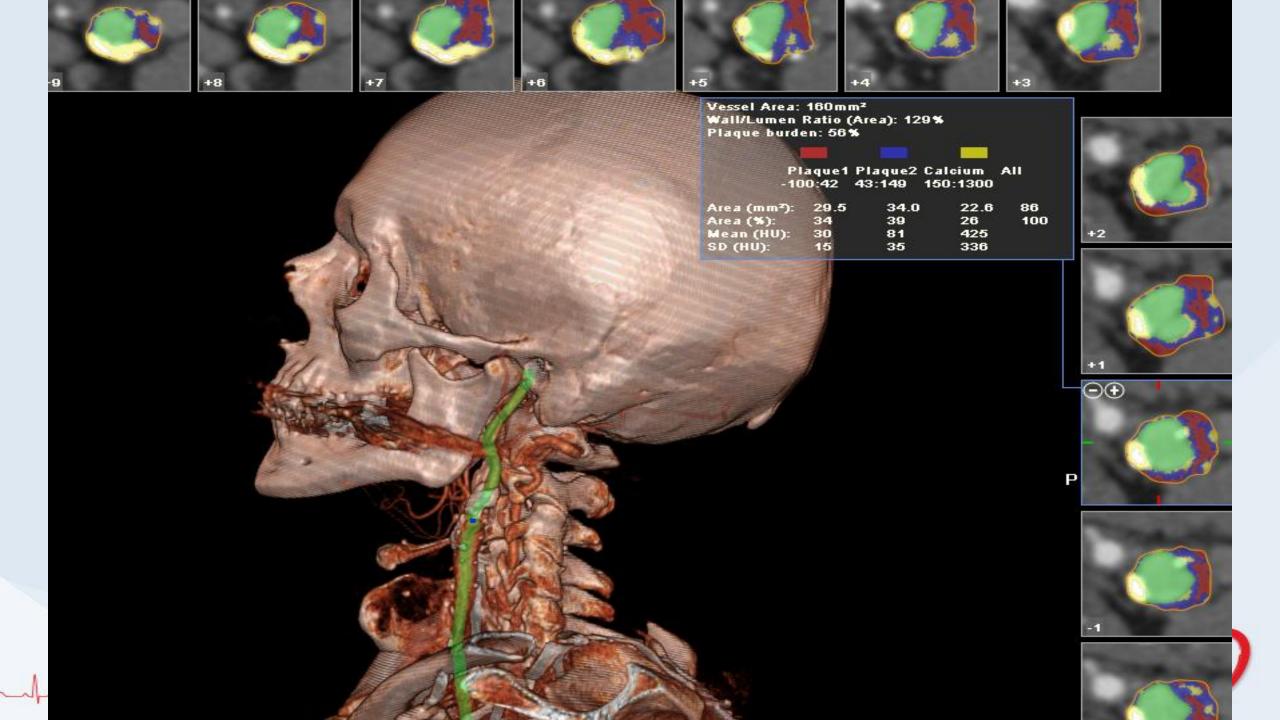
CT Angiography (2016) – 28% LAD Lesion with 90 – 110 HU and CAC of 973



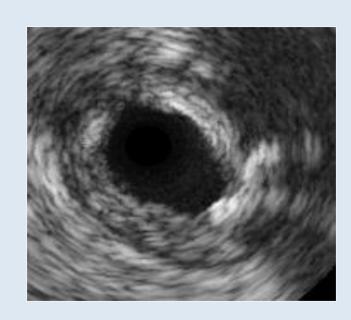


	2007	2016	
Age	52	61	
Arterial Age	63	41	
C-IMT	0.773 mm	0.671 mm	
CT Angiography	71% LAD	28% LAD	
Houndsfield Units	20 – 40 HU	90 – 110 HU	
Coronary Calcium	260	973	
Total Cholesterol	268	128	
LDL-Cholesterol	158	69	
HDL-Cholesterol	41	37	
Triglycerides	345	95	
Аро В	114	70	
hs-CRP	3.5	0.3	
Lp-PLA2	175	150	
11-dehydro-TXB2	998	574	
Blood Pressure (sitting)	161/92	118/86	

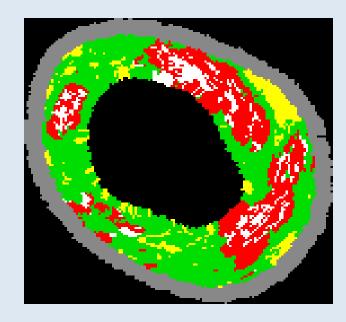




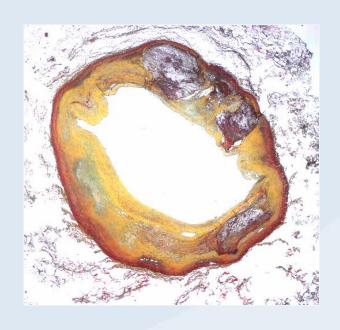
Virtual Histology IVUS vs. Grayscale IVUS



Grayscale IVUS



Virtual Histology



Death (Autopsy)





Founded in 2008, the Boone Heart Institute is driven by a steadfast commitment: eradicating heart disease and stroke within a generation. For over fifteen years, we have led the charge in preventive cardiology, guided by the pioneering spirit of our founder, Dr. Jeffrey Boone. His three-decade journey in preventive medicine, coupled with international lecturing, has shaped our institute into a national leader.

Did you know 70 percent of heart attack victims are considered "low-risk' by conventional standards? At Boone Heart Institute, we aim to rewrite this statistic. Through advanced testing, early detection methods, and innovative treatments, we transform potential risks into tales of success. Whether you carry a family history of heart disease, have experienced a heart attack, or seek reassurance about your cardiovascular future, Boone Heart stands ready as your ally.

The Boone Heart Executive Physical is a cornerstone of our approach, combining ground-breaking genetic blood tests, advanced full-body imaging, and thorough mental and physical stress assessments. This hollistic evaluation identifies your unique cardiovascular risk profile and crafts a personalized plan to optimize your heart health. But our commitment to your health extends beyond the heart. Our growing team of experts in CT imaging, hormone optimization, and high-performance longevity ensure that we stay at the forefront of disease prevention.

At Boone Heart, our physicians take the time to know you, understand your health goals, and empower you to take control of your well-being. To learn more about our Executive Physical or to schedule a free consultation, please visit our website or give us a call. INTERNAL MEDICINE

BOONE HEART INSTITUTE

JEFFREY L. BOONE, M.D.

63 5280 Top Doctor 2025

M.D. University of lowa Ray J. and Lucille A. Carver College of Medicine; Diplomat of the American Board of Internal Medicine; Member of the NFL Cardiovascular Committee from 2010-2013; Preventive Cardiology Consultant for the Deriver Broncos of the National Football League

YAZID FADL, MD, MPH, FACC JAMALUDDIN MOLOO, MD, MPH, FSCCT BARRY MOLK, MD, FACC SHERI FOX, PA-C, MMSC, IFMCP SHANNON TANKERSLEY, PA-C KARLIE BOONE, PA-C



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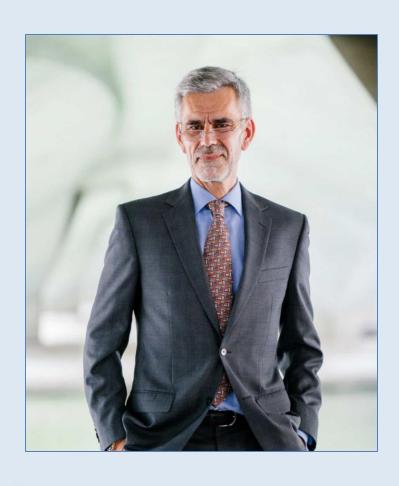
Arineta SpotLight Duo







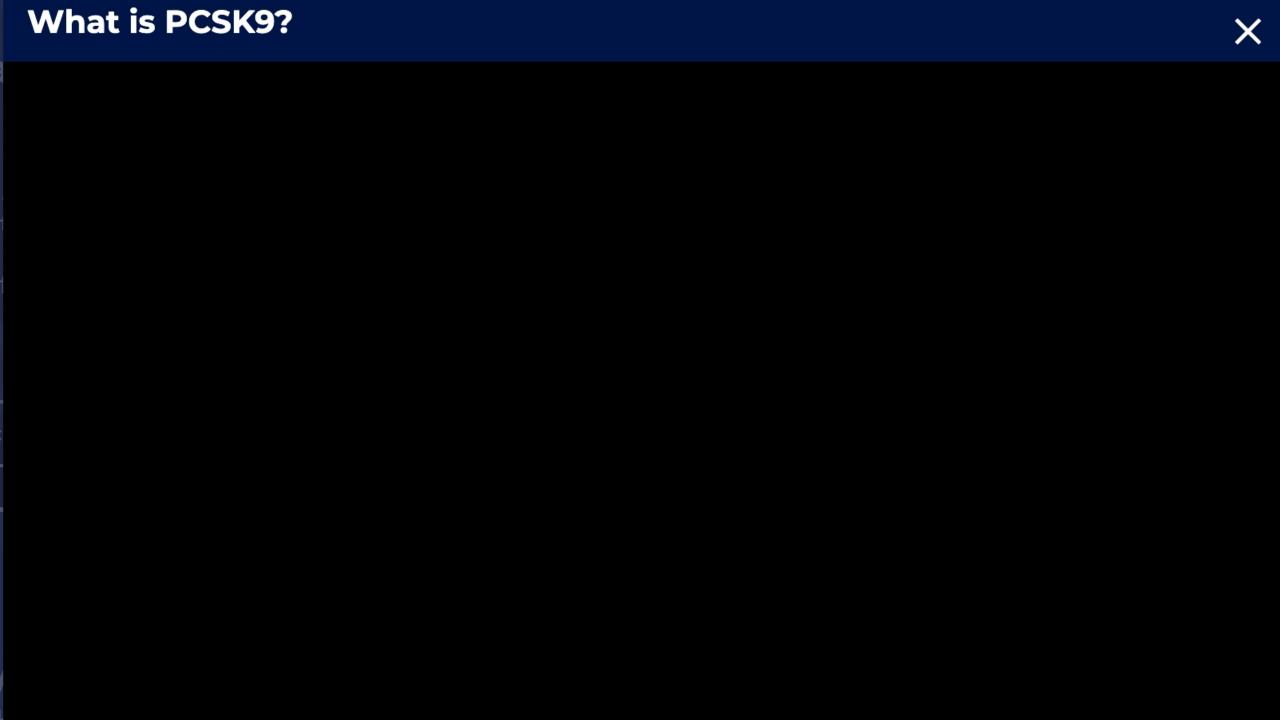
Atherosclerosis Case Study: 53 Year Old Male CEO



Boone Heart Protocol plus PCSK9i

	Initial
Right Carotid Plaque	42%
Left Carotid Plaque	40%
Carotid-IMT (C-IMT)	0.568 mm
Carotid Artery Age	35
Left Femoral Plaque	48%
LDL-Cholesterol	106
Lp-PLA2	224
LAD Stenosis – CLEERLY CTA	61%





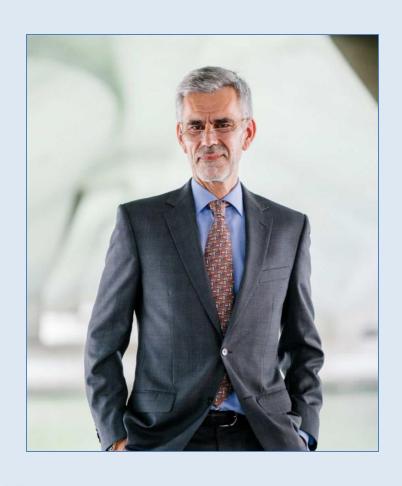
		Car	aiometai	bolic Repo	ort	
	Current		Reference Range/Relative Risk Categories			
est Name	Result & Optimal	Relative Risk Non-Optimal	Optimal	Moderate	High	Units
INFLAMMATION		The second				
Myeloperoxidase ⁽⁷⁾	158		<470	470-539	≥540	pmol/L
Lp-PLA ₂ Activity ⁽⁶⁾	39		≤123	N/A	>123	nmol/min/ml
hs-CRP	0.4		<1.0	1.0-3.0	>3.0	mg/L
Microalbumin/Creatinine	UND		<3.9	N/A	≥3.9	mg/g
Microalbumin		<3.0)	100 300-		mg/L
Creatinine, Urine, Random	24.9			20.0-300.0		mg/dL
ADMA (Asymmetric dimethylarginine) ⁽¹⁾	96		<100	100-123	>123	ng/mL
SDMA (Symmetric dimethylarginine)	91			73-135		ng/mL
F ₂ -Isoprostane/Creatinine ⁽⁵⁾	<0.80		<0.86	N/A	≥0.86	ng/mg
F ₂ -Isoprostane	<	0.20				ng/mL
Creatinine, Urine, Random	24.9			20.0-300.0		mg/dL
LIPIDS						
Lipid Panel		17 20	1			100
Cholesterol, Total	88		<200	N/A	≥200	mg/dL
HDL Cholesterol	56		≥40	N/A	<40	mg/dL
Triglycerides			<150	150-199	≥200	mg/dL
LDL Cholesterol, Calculated	7		<100	100-129	≥130	mg/dL (calc
Chol/HDL-C	1.6		≤3.5	3.6-5.0	>5.0	calc
Non-HDL Cholesterol	32		<130	130-189	≥190	mg/dL (calc

Boone Heart Protocol Plus PCSK9i Therapy for 9 Months





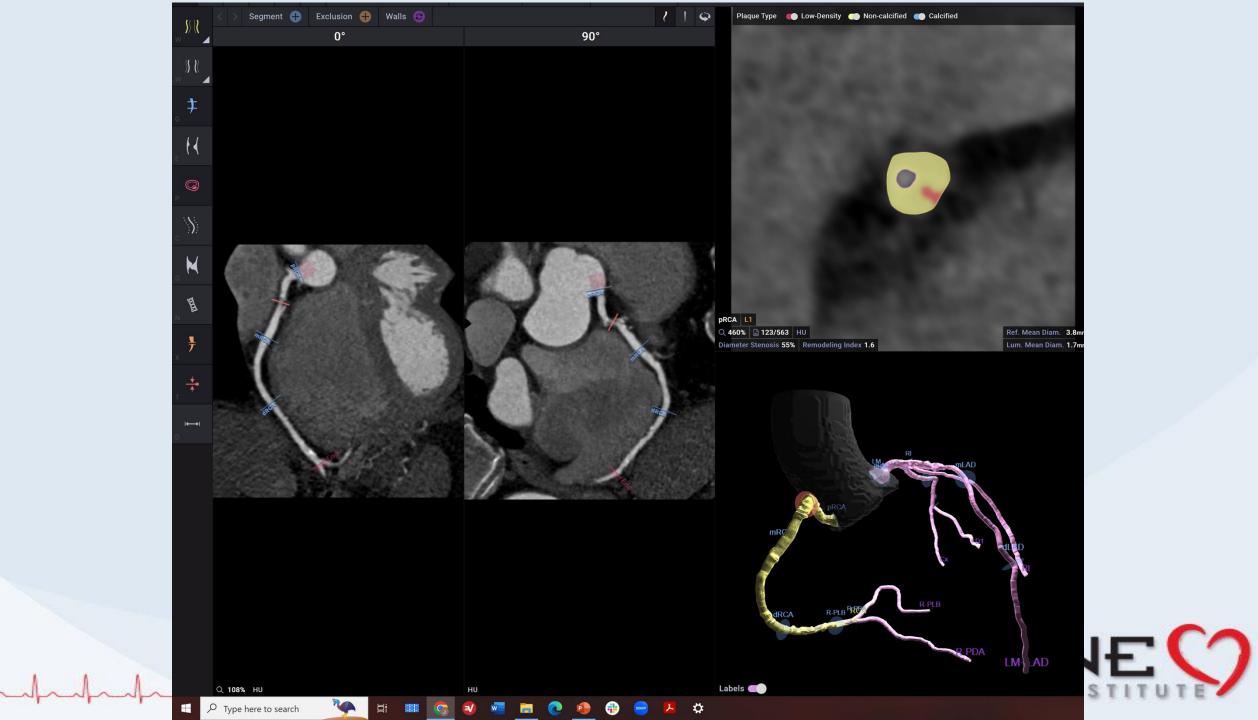
Atherosclerosis Case Study: 53 Year Old Male CEO

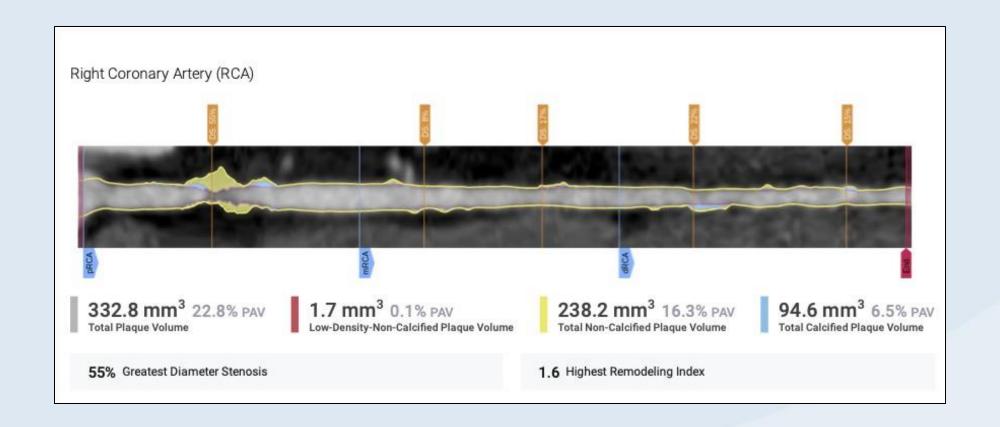


Boone Heart Protocol plus PCSK9i

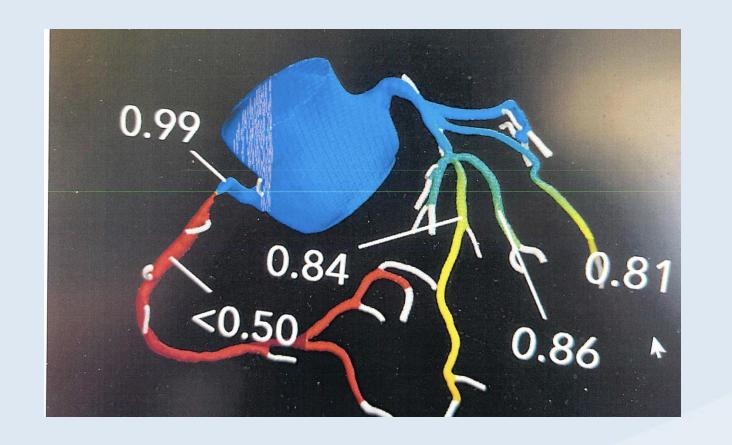
	Initial	Follow Up
Right Carotid Plaque	42%	28%
Left Carotid Plaque	40%	28%
Carotid-IMT (C-IMT)	0.568 mm	0.442 mm
Carotid Artery Age	35	13
Left Femoral Plaque	48%	30%
LDL-Cholesterol	106	7
Lp-PLA2	224	39
LAD Stenosis – CLEERLY CTA	61%	34%















79 Year Old Retired Veterinarian

Coronary Angiography before Stent.

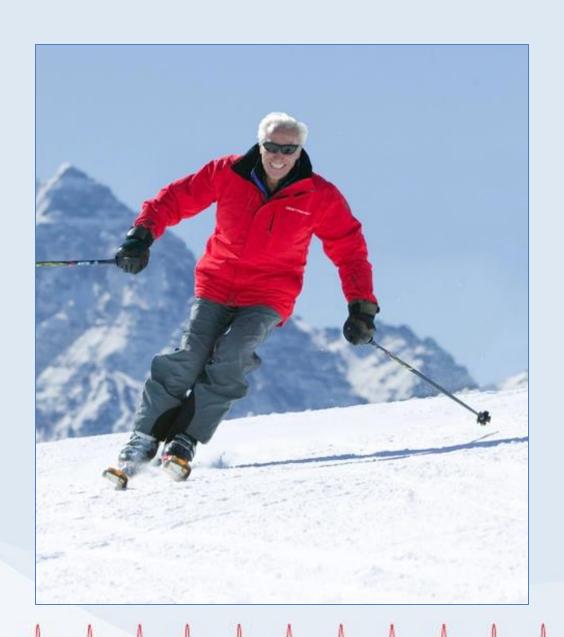




79 Year Old Retired Veterinarian

Coronary Angiography after Stent.



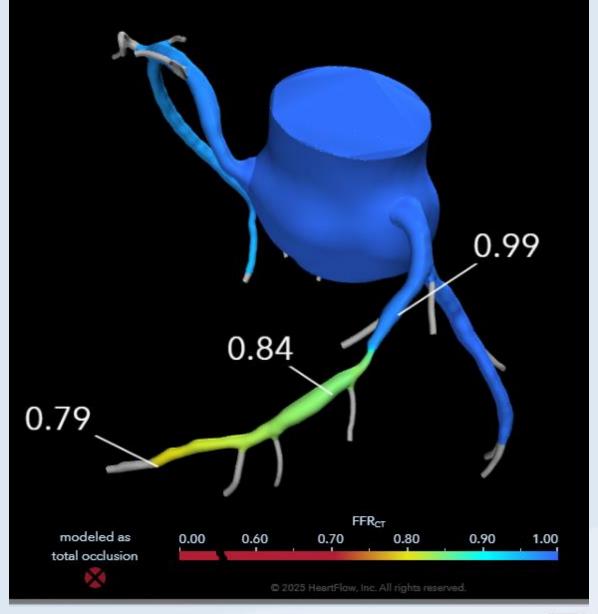


65 y/o Male Former Professional Skiier

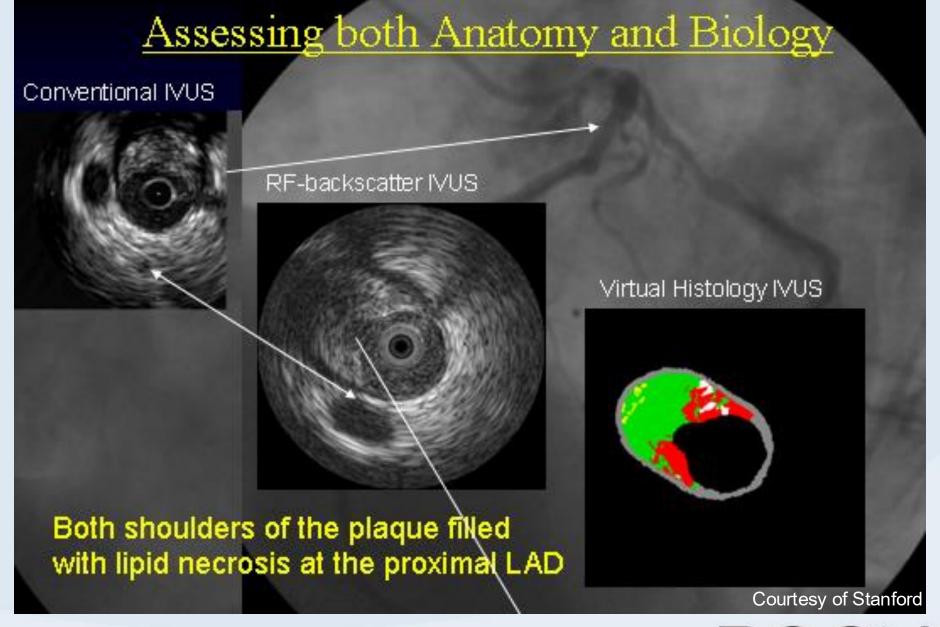
- Calcium Score of 0 at age 60
- Scanned with Arineta Spotlight Duo 360
 CCTA January 2025 at Boone Heart
 Imaging
- Cleerly, HeartFlow, Elucid AI Plaque and FFR Analysis
- 68% proximal lumenal LAD stenosis (Cleerly)
- 0.79 Initial FFR-CT (HeartFlow)
- 23.6 mm³ of Lipid-Rich Necrotic Core in atherosclerotic lesion (Elucid)



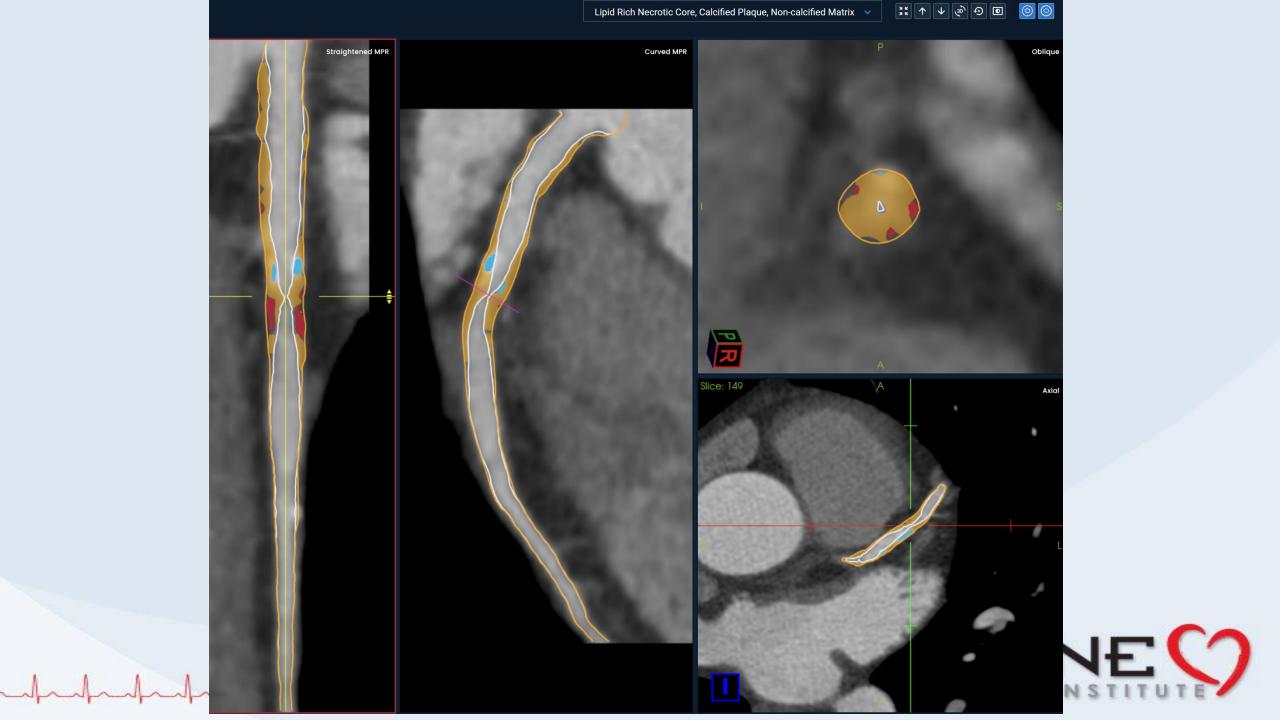


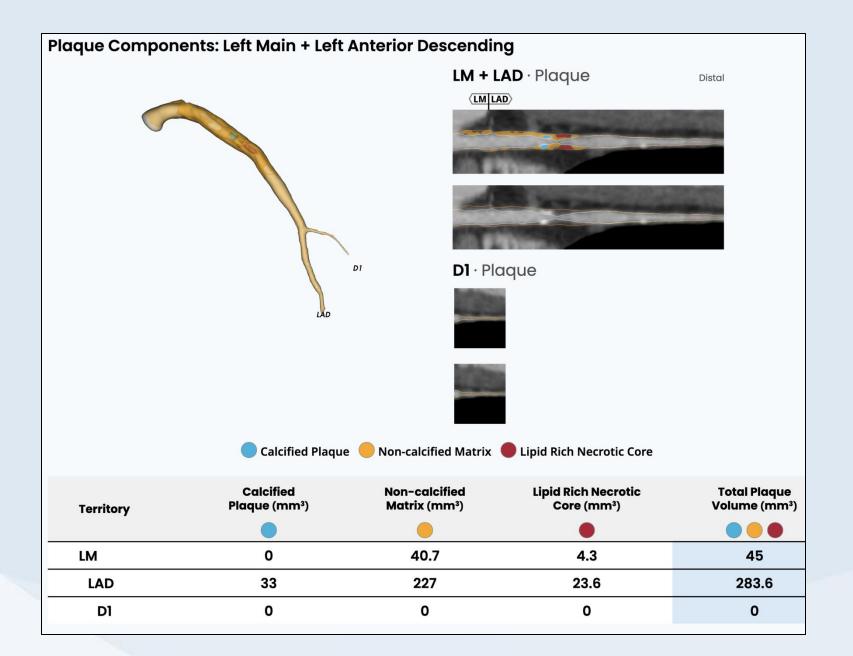




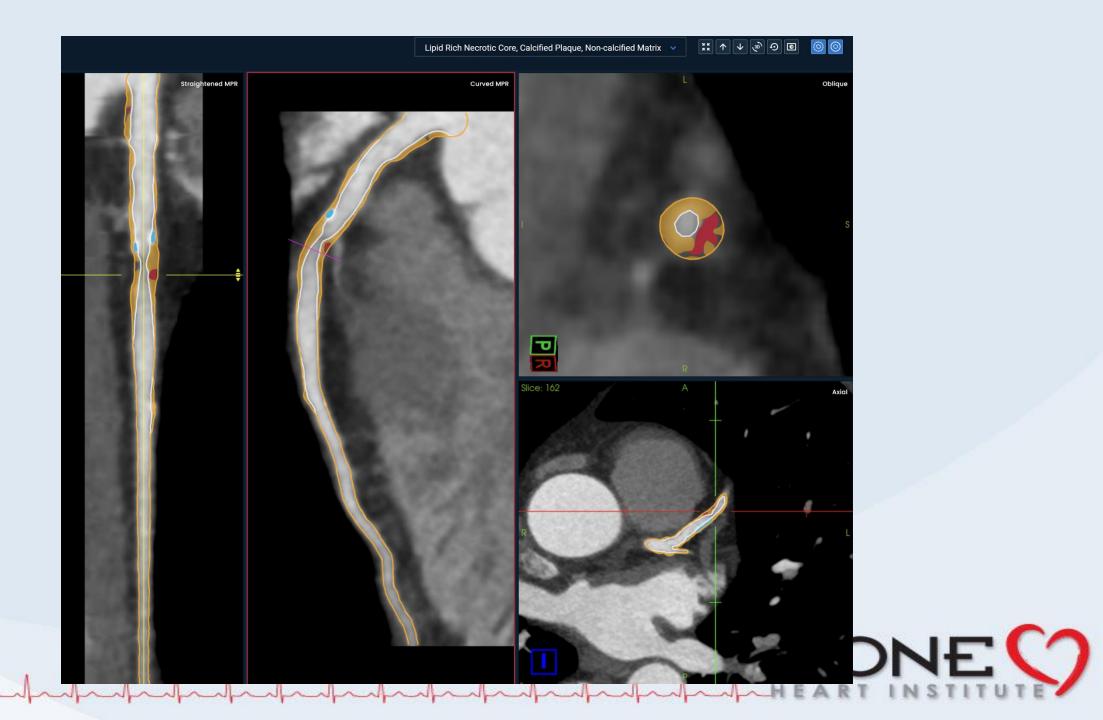


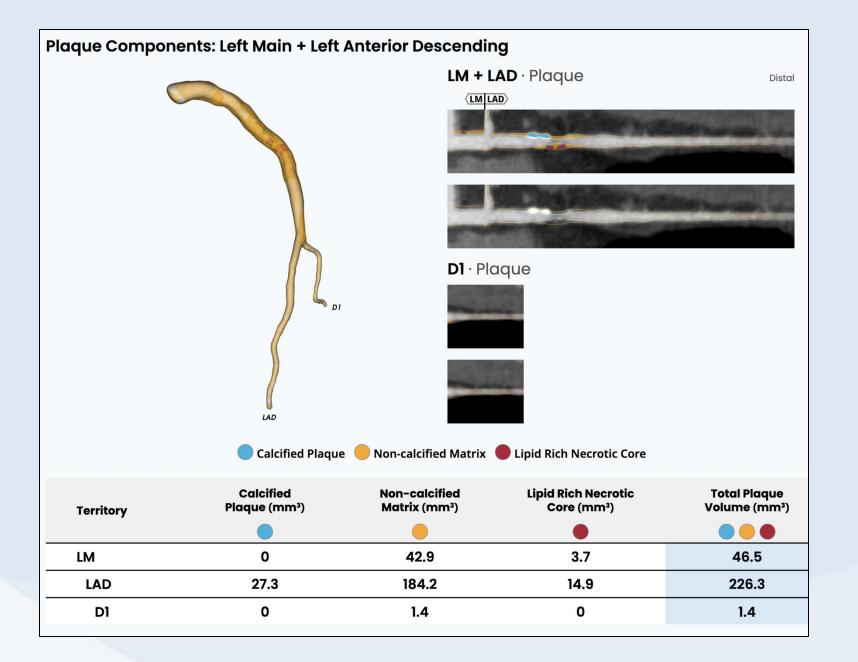




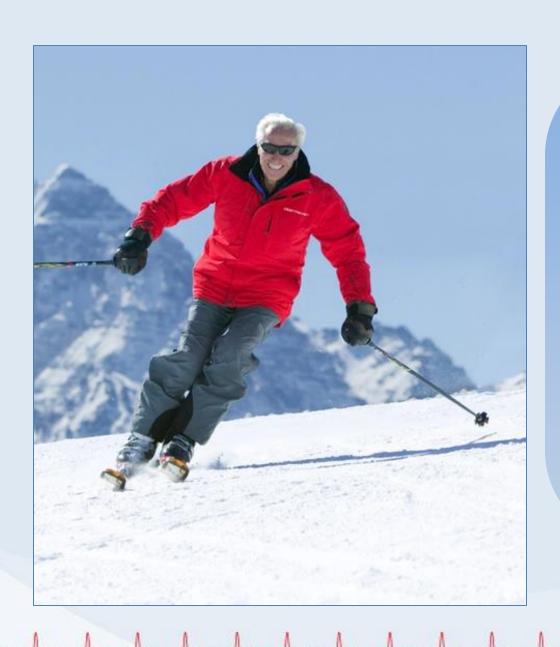












- Boone Heart PCSK9i treatment 1/06/25
- Initial CCTA 1/06/25
- Repeat CCTA 6/12/25
- LDL Cholesterol: 129 → 1
- Apo B Atherogenic Particles: 91 → 9
- Cleerly Lumenal Stenosis: 68% → 68%
- Heartflow FFR: **0.79** → **0.74**
- Elucid Total Plaque Volume (LAD):
 283.6 mm³ → 226.3 mm³
- Elucid Lipid-Rich Necrotic Core (LAD):
 23.6 mm³ → 14.9 mm³





The Eradication of Heart Attack: The Role of Coronary CTA



The Future of Cardiac CT: Workforce, Technology, and Clinical Outcomes Agenda

Topic	Speaker	Title	
Welcome	Sayali Tarlekar, MBA, MPH	Global Head of Marketing, Arineta	
Scaling a Coronary CTA Program with a Dedicated Small Footprint Cardiac CT	Jonathon A. Leipsic, M.D., F.R.C.P.C. M.S.C.C.T	Past President – SCCT and SCCT Gold Medal Winner	
The State of the CT Tech: Workforce Transformation for Cardiac CT Growth	Jaime Warren Ed.D, MBA, BHS, CNMT, NCT, FACC	Vice President, Care Transformation Services, MedAxiom	
The Eradication of Heart Attack – The Role of Coronary CTA	Jeffrey Boone, MD, MS	Founder and Director, Boone Heart Institute	
Q&A and Ending Comments	Doug Ryan	CEO, Arineta	(3)

Q&A

- Contact info: marketing@arineta.com
- Visit www.arineta.com

