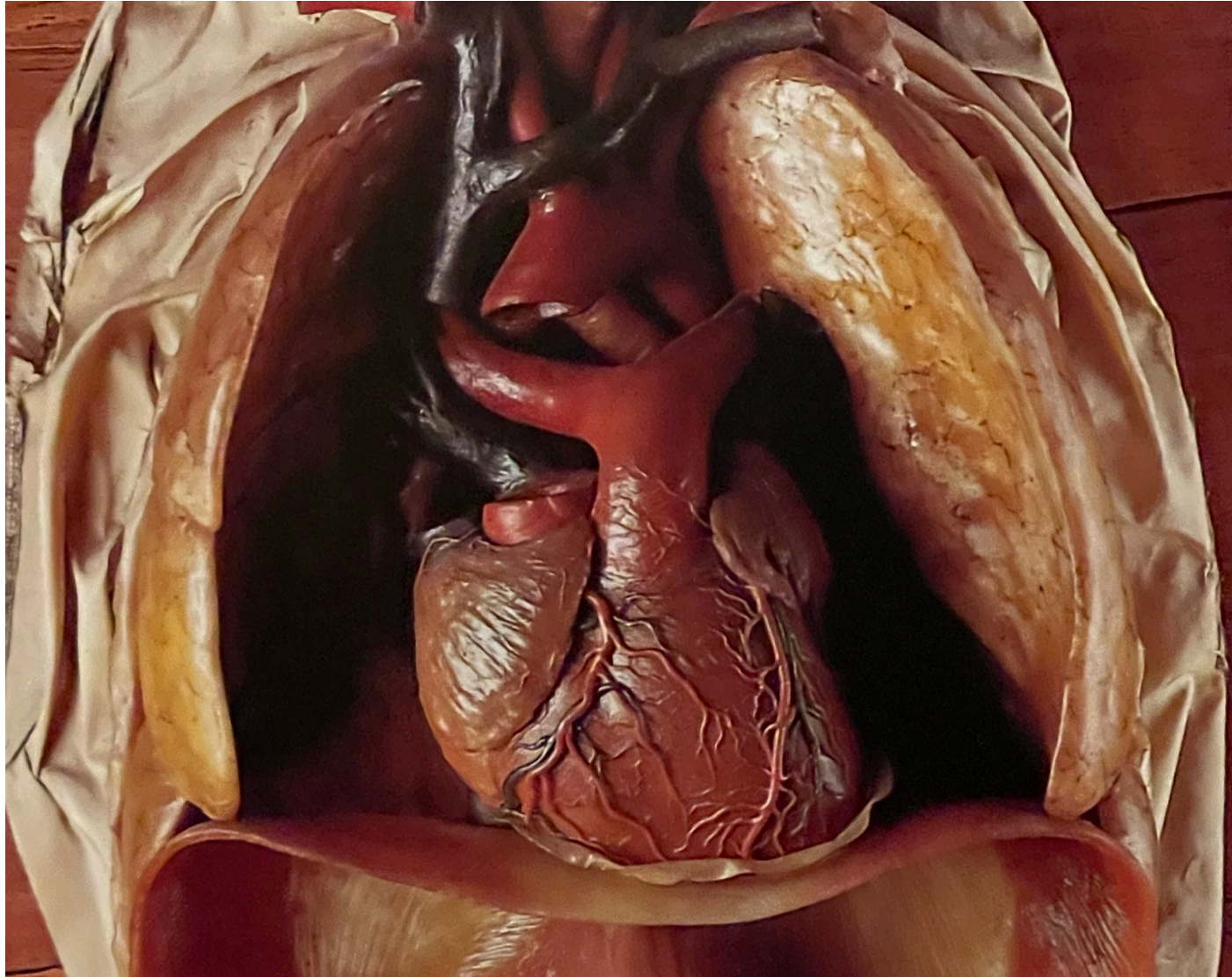


Battling Heart Disease

Nelson Trujillo, MD
Boulder Heart
720-713-3684

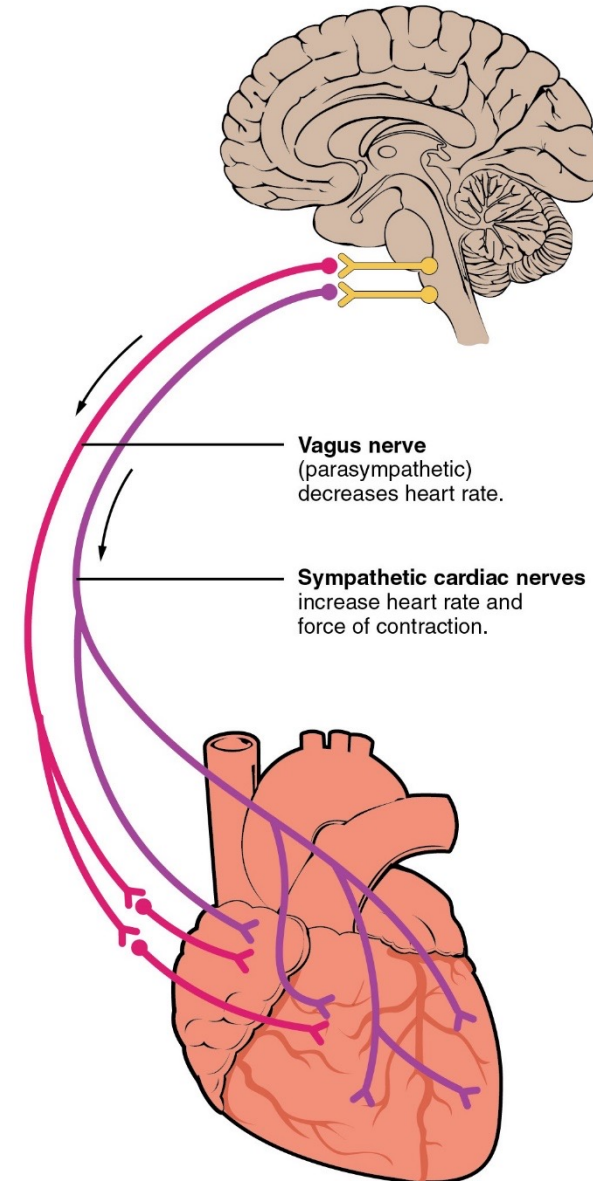
State of the Union

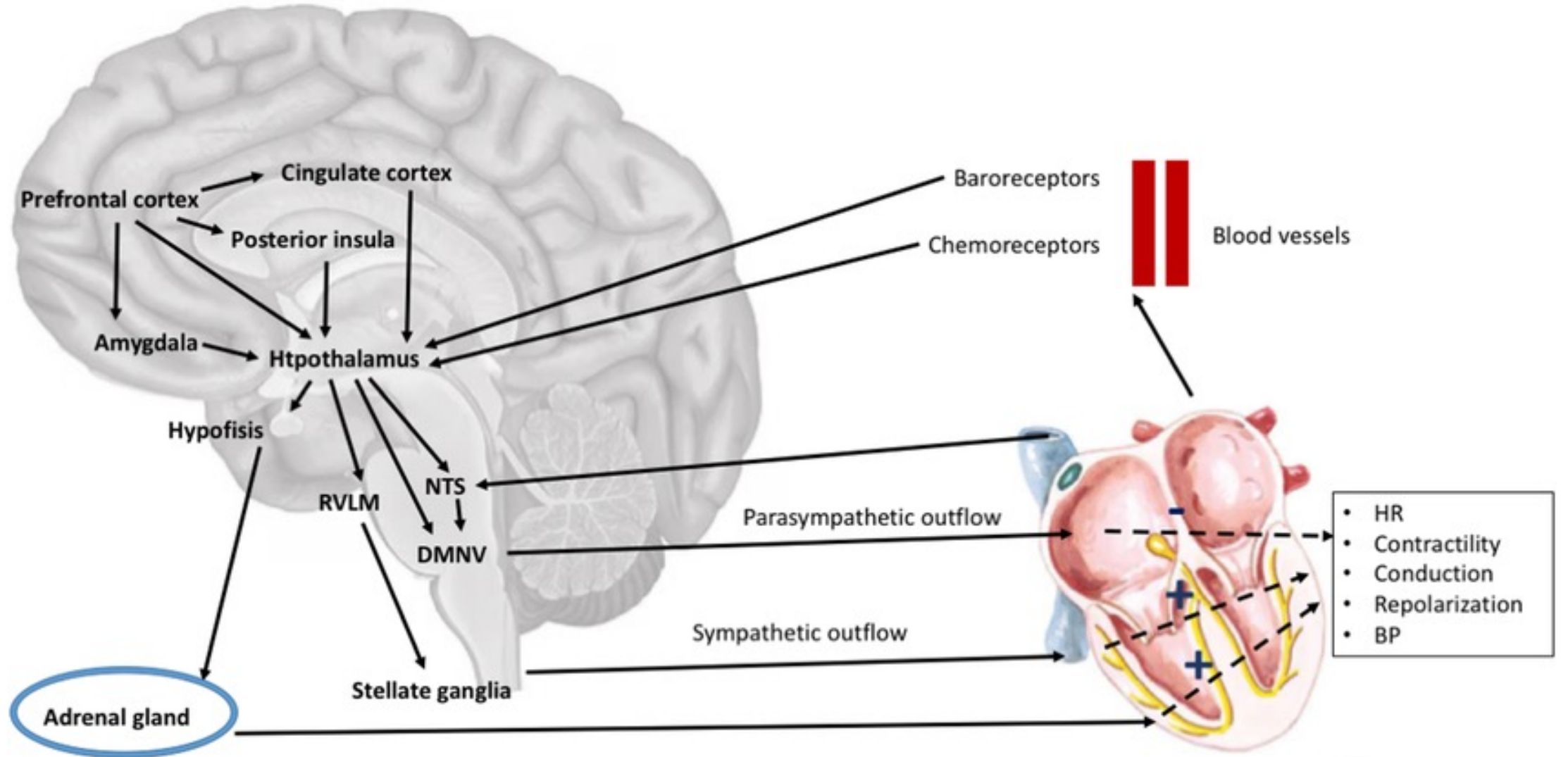
1. Quick reminders of what “heart disease” is.
2. Quick reminder of “standard of care.”
3. What’s new and exciting!
4. Quick reminder of prevention strategies.
5. Focus on “micro-stressors.”
6. Focus on “Epidemic of Loneliness.”



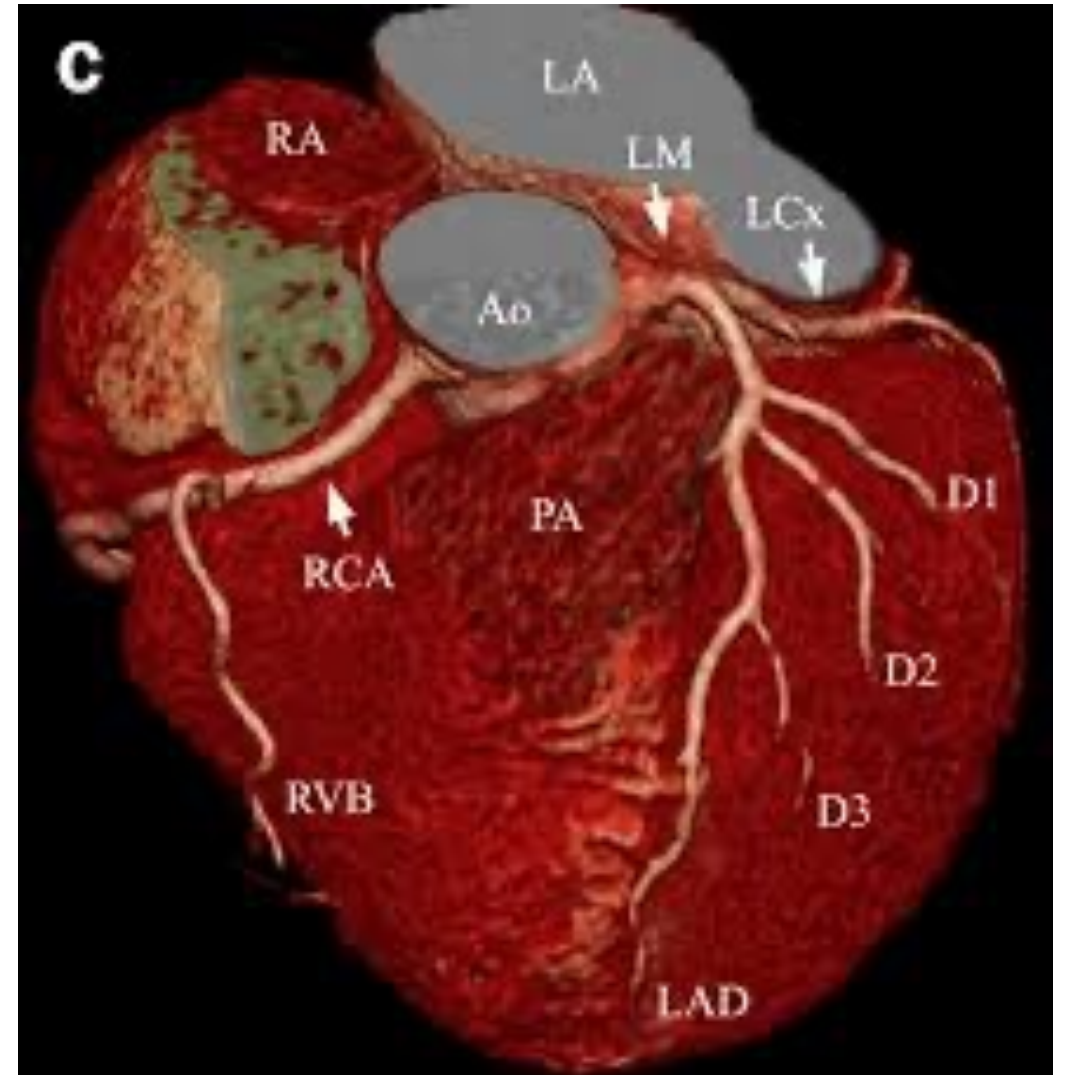


- “No one writes poetry about the elbow.”
- NPT





- Two main Arteries
 - Left Main
 - Right
- Traditionally Four Branches
 - Left anterior descending
 - Circumflex
 - Right
 - Posterior descending



What are the Heart Diseases?

- Heart sack or pericardium
- Heart muscle
- Heart valves
- Heart electrical system
- Heart arteries
- Great vessels
- Brain/Heart connection abnormalities

Common Symptoms

- None
- Chest pain/pressure
- Shortness of breath
- Palpitations/Dizziness
- Inability to perform life
- Swelling/edema
- Fatigue

- History
- Physical
- EKG
- Labs

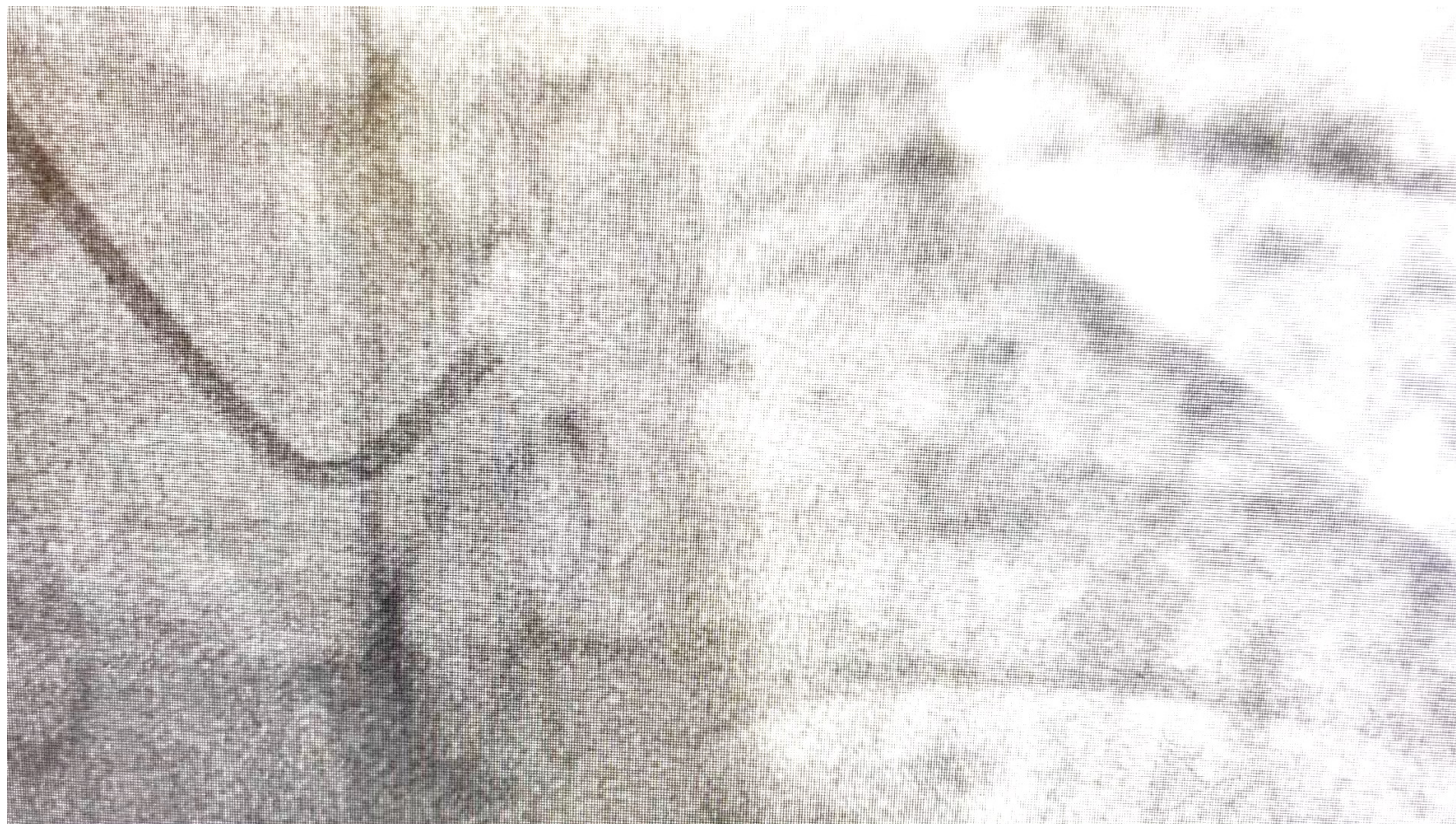
Coronary Artery Disease

- Injury to the blood vessel lining
- Inflammation
- LDL cholesterol deposit is in the injured blood vessels forming a plaque.
- Plaques rupture and or calcify over time.
- Blood clot forms on or in the plaque.



- Intervention
 - Angioplasty
 - Surgery
- Medical therapy

- Medications:
 - Aspirin
 - Statins
 - ACE
 - Beta blockers
 - Nitrates
 - Zetia
 - PCSK-9 inhibitors
 - GLP1 Agonists

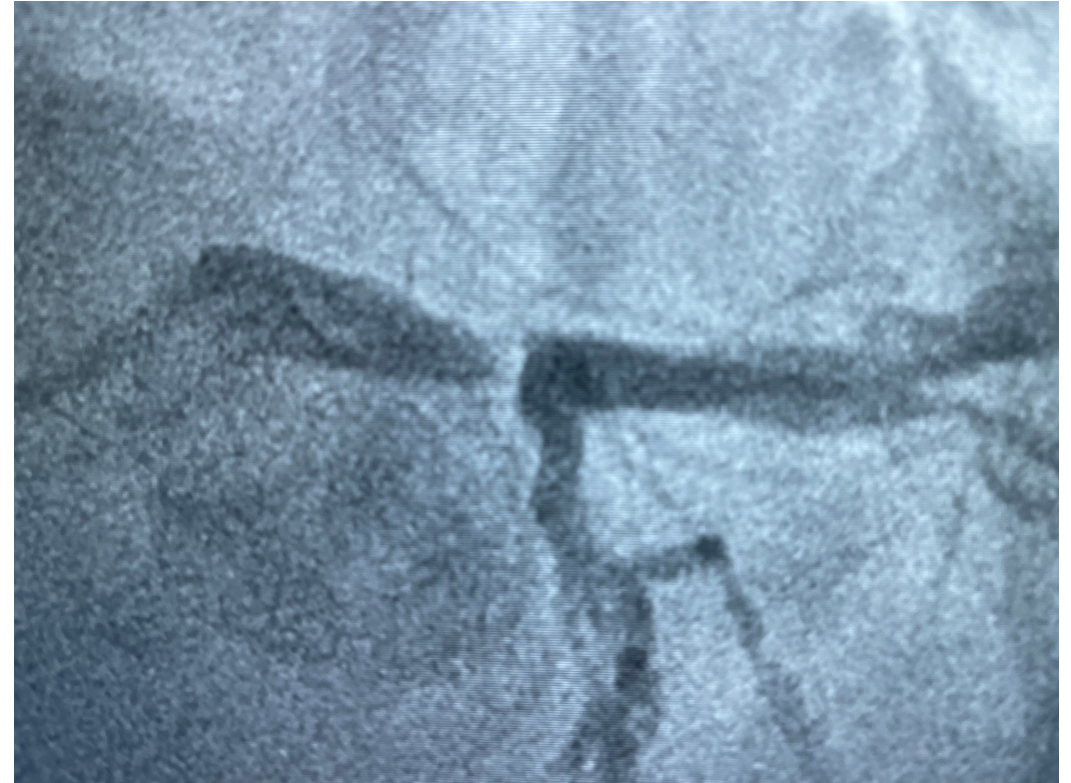


- Colchicine
 - LODOCO2 Trial
- Stop Niacin
- GLP-1 Agonists
- PCSK-9 Inhibitors

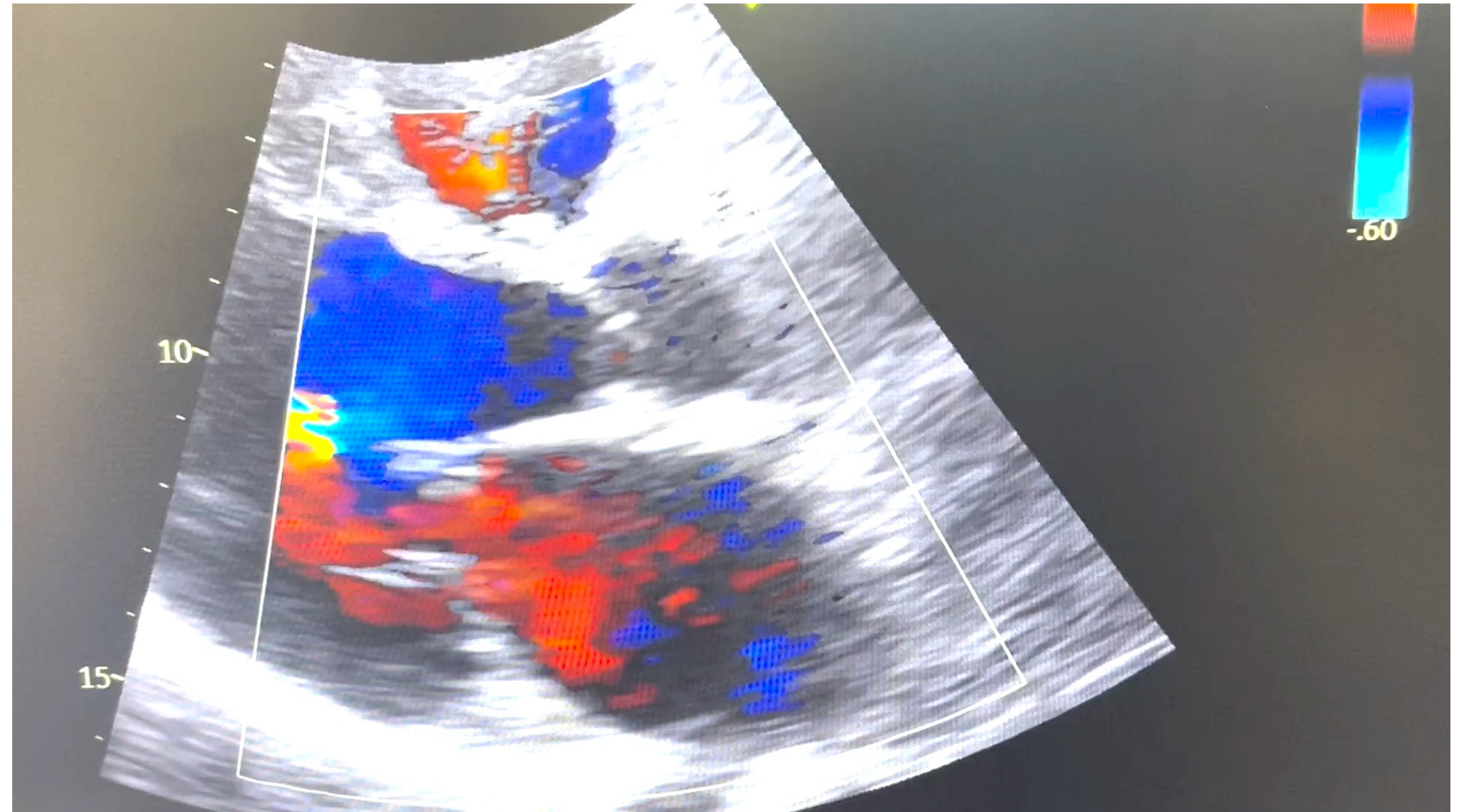
- Unstable syndromes favor intervention.
- Stable syndromes have many options.

Oculi-Stenotic Reflex (True?)

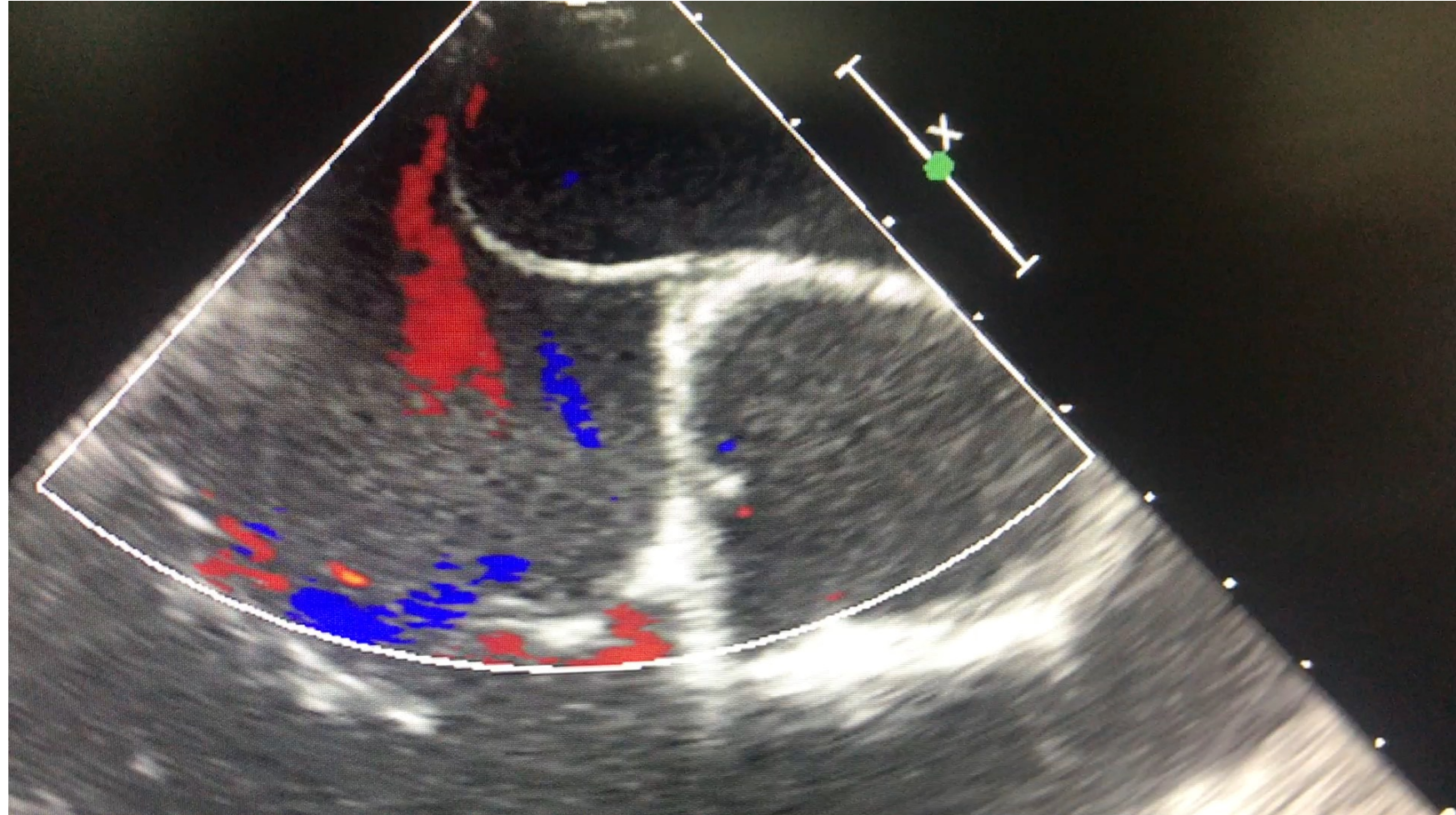
- You see stenosis. Needs to be feared and fixed.
- This improves outcomes.



- Surgery
 - Robotic
 - Standard
- Percutaneous
 - TAVR
 - TMVR
 - Mitral Clip



- Surgery
- Percutaneous
 - WATCHMAN



- Tricuspid Valve Repair/Replacement





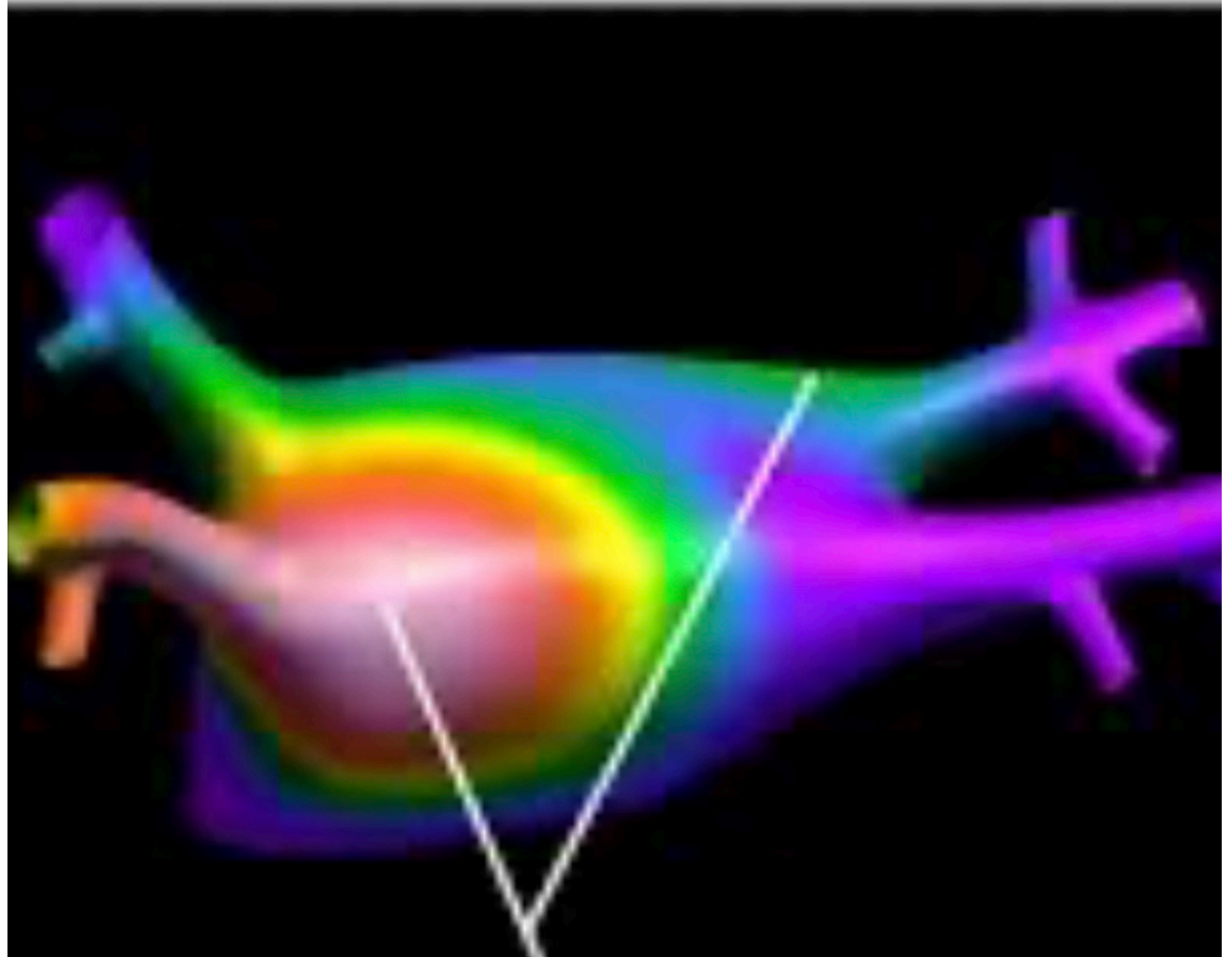
BCH IN THE NEWS

BOULDER HEART'S DANIEL O'HAIR, MD - DIRECTOR OF CARDIOVASCULAR SURGERY - IS THE LEAD AUTHOR OF A GROUNDBREAKING NEW WORLDWIDE STUDY, ANALYZING THE LONGEVITY OF STRUCTURAL HEART VALVES.

- WATCHMAN

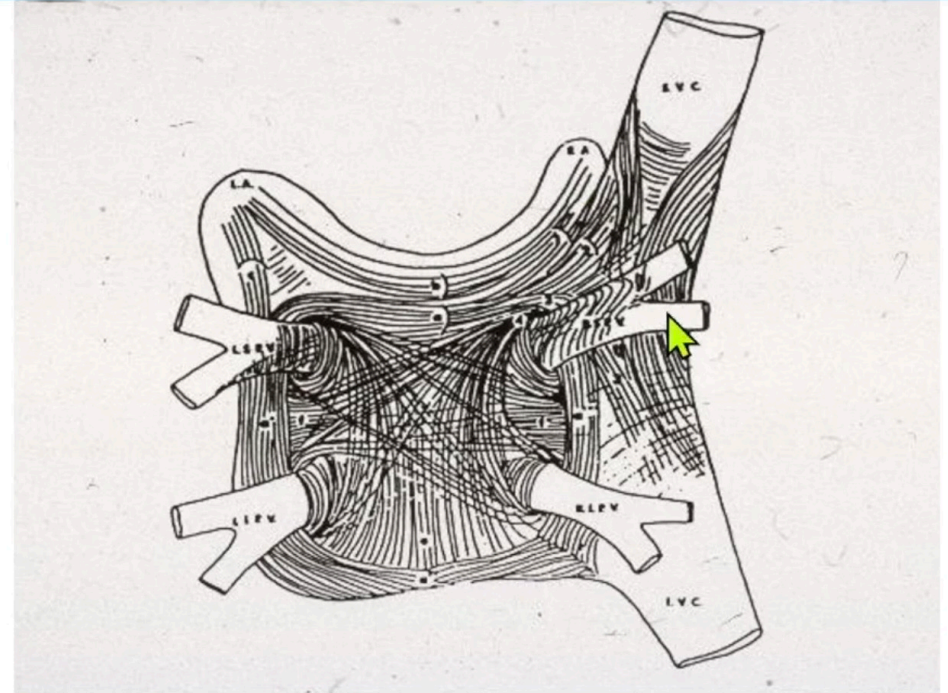


- Medications
- Ablation
- Surgery



- New energy source for AFIB Ablation.

Myocardial Extension into the Pulmonary Veins



- Standard Hypertension
 - Smoking
 - Dyslipidemia
 - ApoB
 - LP(a)
 - Diabetes
- Age
- Gender
- ASCVD RISK SCORE
- Risk

Top Hit

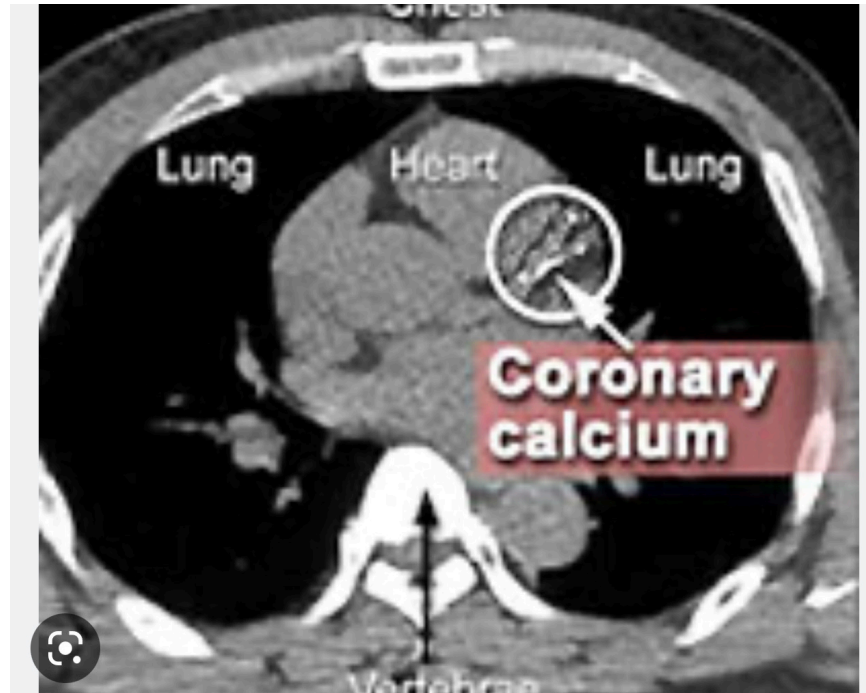


ASCVD Plus

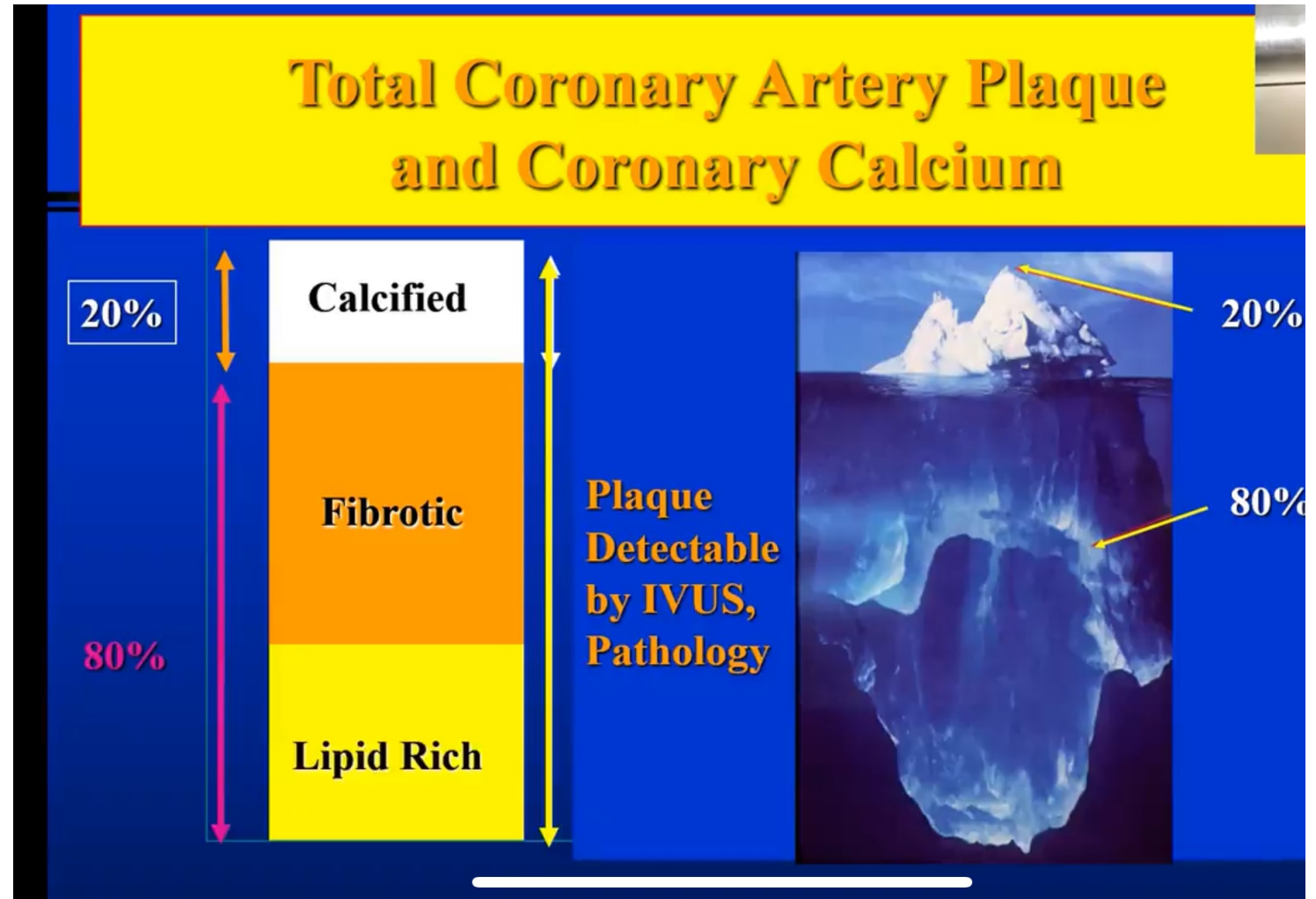
- Social Determinants
 - Mental Health
 - Depression
 - Anxiety
 - Isolation
 - Neglect
 - Addiction
 - Employment/insurance
 - Education

- Access to care
- Nutrition
- Environment

Calcium score



- 0 score
- 0-100
- >100



Coronary Artery Disease

- CT Based angiography



Screening



- Cleerly
- HeartFlow



What Can Be Done? InterHeart/Stroke Trials

- Tobacco cessation
- Manage blood pressure
- Lower cholesterol
- Treat diabetes
- Exercise
- Fruits and vegetables
- Alcohol
- Address obesity
- Stress

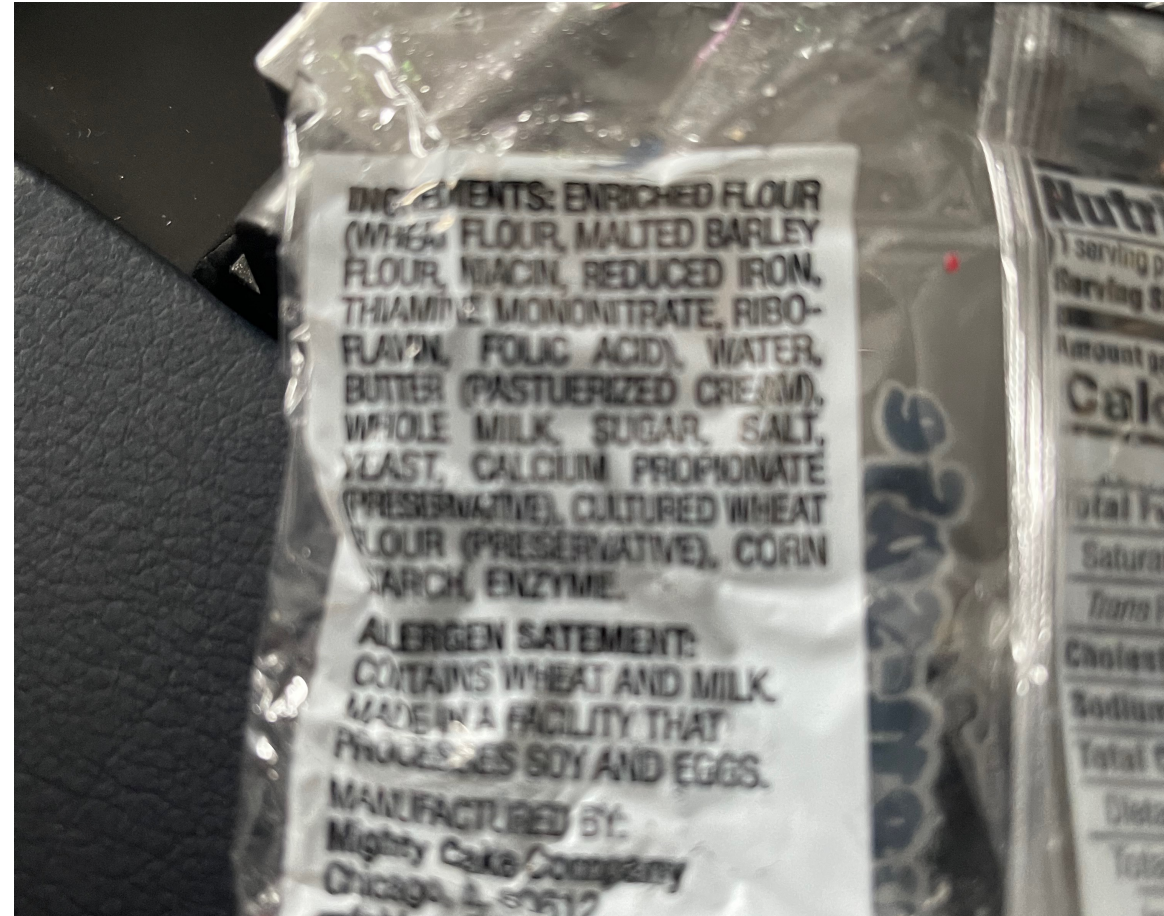
- Small moments of stress that are manageable on their own, but overtime, add up.
- Origin
 - Deplete emotional reserves
 - Keep us from getting things done
 - Challenge our identity
- Take a toll on our health with real physiologic effects.

- Real food
- Mostly plants
- Not too much

- Read the ingredients



- Butter
- Flour
- Water



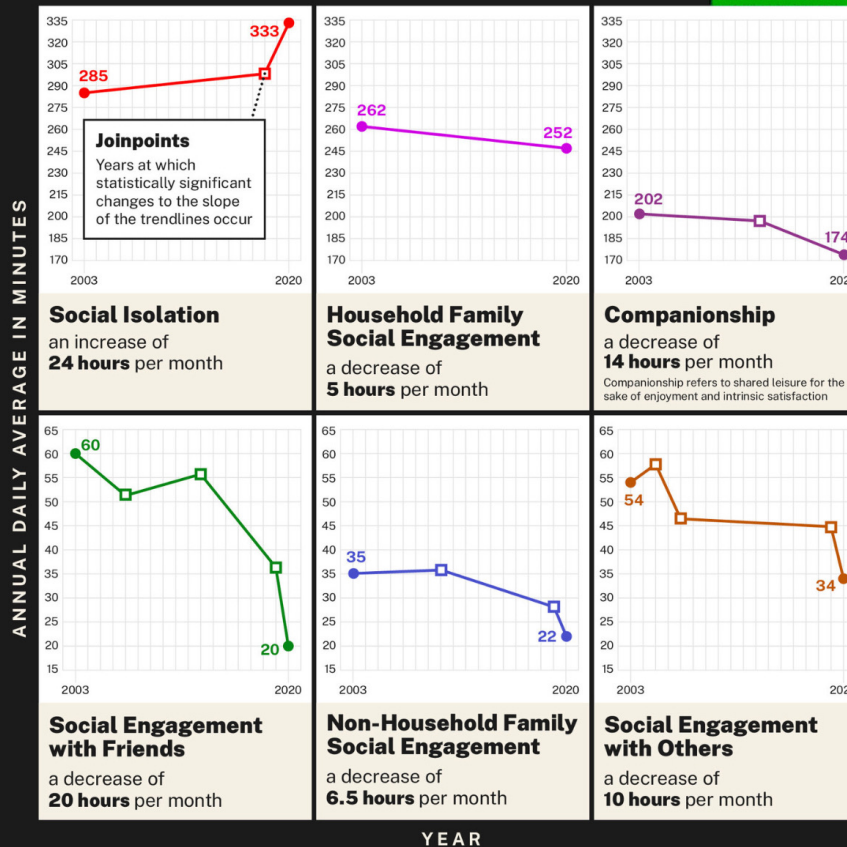
Loneliness and Isolation

US Surgeon General

- Epidemic
- Risk for premature death increases by 26-29%
 - 29% increased risk of heart disease
 - 32% increased risk of stroke
- 6.7 billion dollars in excess Medicare spending
- 50% increased risk of dementia

National Trends for Social Connection

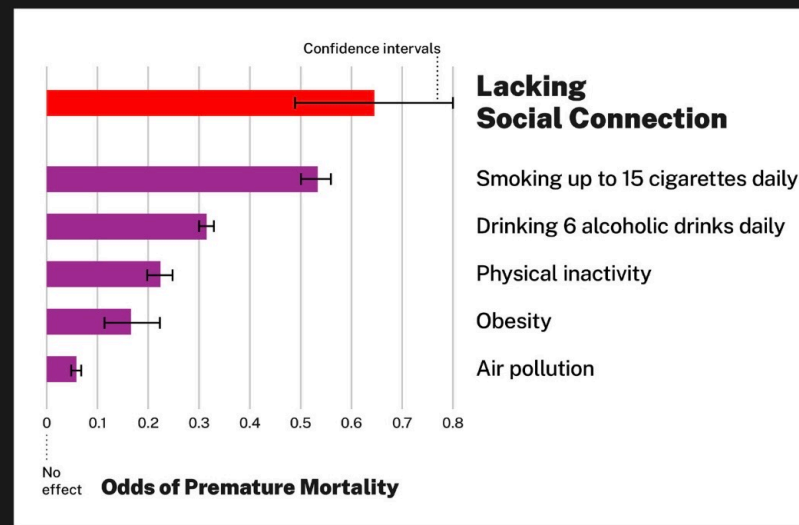
From 2003 to 2020, time spent alone increased, while time spent on in-person social engagement decreased.



Source: Adapted from Viji Diane Kannan, Peter J. Veazie, US Trends in Social Isolation, Social Engagement, and Companionship: Nationally and by Age, Sex, Race/ethnicity, Family Income, and Work Hours, 2003-2020, SSM - Population Health, Volume 21, 2023. The joinpoints are visual approximations.

Office of the U.S. Surgeon General

Lacking social connection is as dangerous as smoking up to 15 cigarettes a day.



Source: Holt-Lunstad J, Robles TF, Sbarra DA. Advancing Social Connection as a Public Health Priority in the United States. *American Psychology*. 2017;72(6):517-530. doi:10.1037/amp0000103. This graph is a visual approximation.

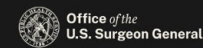


FIGURE 4: Lacking social connection is as dangerous as smoking up to 15 cigarettes a day.

Factors That Can Shape Social Connection



Individual

- Chronic disease
- Sensory and functional impairments
- Mental health
- Physical health
- Personality
- Race
- Gender
- Socioeconomic status
- Life stage

Relationships

- Structure, function, and quality
- Household size
- Characteristics and behaviors of others
- Empathy

Community

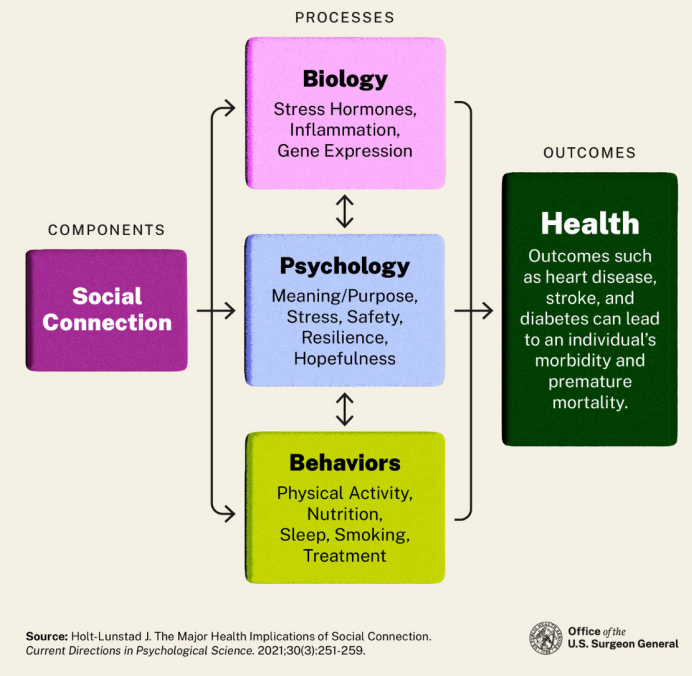
- Outdoor space
- Housing
- Schools
- Workplace
- Local government
- Local business
- Community organizations
- Health care
- Transportation

Society

- Norms and values
- Public policies
- Tech environment and use
- Civic engagement
- Democratic norms
- Historical inequities

How Does Social Connection Influence Health?

Social connection influences health through **three principal pathways**: biology, psychology, and behavior.



Source: Holt-Lunstad J. The Major Health Implications of Social Connection. *Current Directions in Psychological Science*. 2021;30(3):251-259.

Office of the U.S. Surgeon General

FIGURE 4: How Does Social Connection Influence Health?



FIGURE 6: The Six Pillars to Advance Social Connection

Community

- Church
- Rotary
- Senior center
- Book group
- Sports
- Exercise





Heart Healthy Nutrition and Lifestyle Classes



Nutrition Workshops: Eat Your Way to Better Health

Individual online sessions via Zoom, the last Monday of each month

4:30-5:45 p.m.

\$40 per class | Max: 25 participants

Join Registered Dietitian Nutritionist (RDN) Michelle MacDonald for candid, insightful and interactive conversations about food and nutrition.

Register at: bch.org/nutrition-workshop

Sign up individually for one or more workshops!

New Year, New You: What Really Works for Weight Loss | Monday, Jan. 29

Take on some of the most common culprits that contribute to excess body weight. Michelle will provide insight, inspiration and winning strategies to help you shed extra pounds and reach your goal weight. Yes, you can. Recipes included.

Nutrition Masterclass: Lower Your Cholesterol with Diet | Monday, Feb. 26

Many experts agree that the lower the LDL, the better. Let food be one of your best medicines. Recent guidelines state that diet may lower LDL by up to 30%! Michelle will guide you through a roadmap to help you lower your cholesterol with diet. Recipes included.

How to Add More Plants to Your Diet | Monday, March 25

Virtually all experts agree that getting more plants into your diet is good for your health. What they don't necessarily explain is how. An accomplished cook (as well as clinical dietitian), Michelle invites you to a creative brainstorming session on [delicious ways to add plants to your diet](https://bch.org/nutrition-workshop).

Lifestyle Medicine Series

5-week in person series
Thursdays, March 7, 14, 21, 28 and April 4
12:00-1:30 p.m.

Della Cava Family Medical Pavilion
2nd floor, 4801 Riverbend Road in Boulder

\$199 for the series | Max: 15 participants

Register at: bch.org/lifestyle-medicine

Lifestyle medicine is a medical specialty that uses therapeutic lifestyle interventions as a modality to treat chronic conditions like cardiovascular disease. How we eat, move, cope with stress and connect with others is a big contributor to how we feel, age and manage chronic disease.

Learn how to make positive lifestyle changes in the areas of nutrition, movement and mindfulness. Time will be allotted each session for group discussion and Q & A.

Class Facilitators and Instructors

Gina DeNucci, RN, BSN, CHWC, Cardiac Nurse Navigator, Boulder Heart

Inge McClory, PA-C, MS, Physician Assistant, Boulder Heart

Michelle MacDonald, MS, RDN, CDCES, Registered Dietitian Nutritionist | Certified Diabetes Care + Education Specialist

Nicole Irlbeck, MS, ATC, NBC-HWC, Wellness Coach and Athletic Trainer | Movement Instructor

Amanda Taylor, LCSW, Licensed Clinical Social Worker | Mindfulness Instructor



Boulder Parks & Recreation and Boulder Community Health





CARDIAC & PULMONARY REHAB MAINTENANCE

ACCESS BOULDER REC CENTERS, PURCHASE A MEMBERSHIP OR HAVE A MEDICAL PLAN THAT INCLUDES SILVERNEAKERS®, SILVER&FIT® OR RENEW ACTIVE® AND ONE PASS™ MEMBERSHIPS. CHECK ELIGIBILITY AT ANY OF BOULDER'S REC CENTERS.

ENROLL TODAY




DROP-IN TO A FACILITY OR CLASS

- Weight and Cardio Room
- Lap pool
- Drop-in fitness classes including: Yoga, strength, cardio and aqua-fitness

ACCELERATE RESULTS WITH A SMALL

- Don't give up!

WHY PEOPLE GIVE UP

@agrassoblog



Breathe!

Thank You!

Questions?

Battling Heart Disease

Nelson Trujillo, MD
Boulder Heart
720-713-3684