

Cardiac Symptoms in Young people

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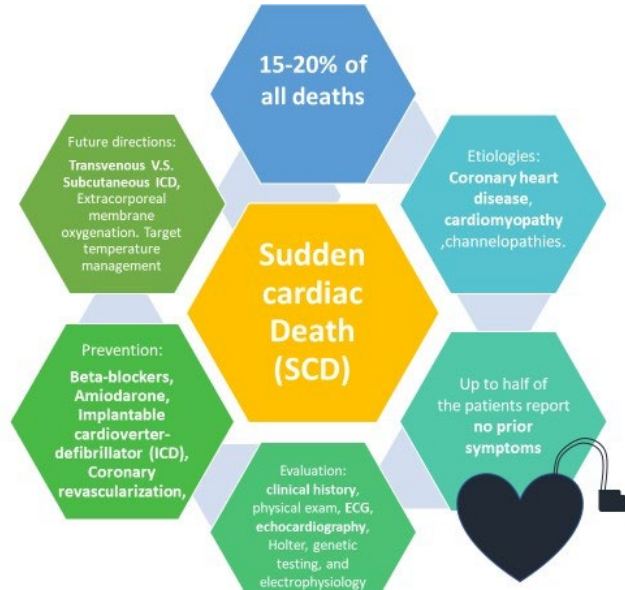
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4 Main Cardiac Symptoms in Young People (10-24 years)

- Chest Pain
- Dizziness/Syncope
- Palpitation
- Dyspnea

Sudden Cardiac Death



- Most likely in males between 66 and 68 yy
- Rare in young athletes
- Mostly undetected cv disease
- Congenital heart defects in children
- Channelopathies, hcm, arvd, coronary anomalies in young people
- Coronary artery disease in 80 % of cases over 35 y
- At post mortem
 - Structural heart disease mostly due to cad, hcm and aortic valve stenosis
 - Structurally normal heart at autopsy likely due to a channelopathy
- Ventricular arrhythmias is the main mechanism

Chest Pain

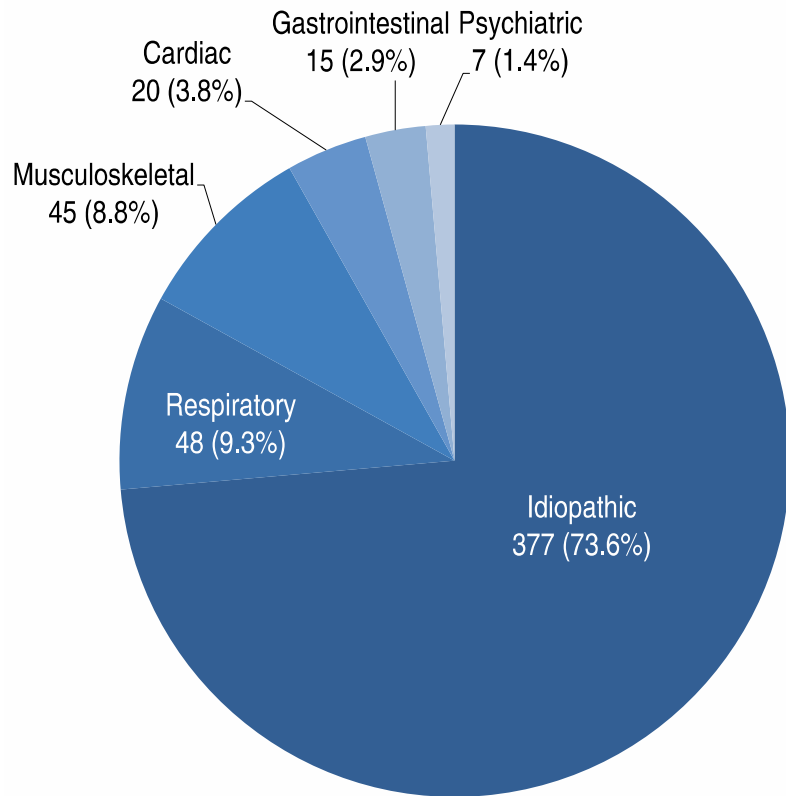


Common precipitating factors in angina pectoris:
Heavy meal, exertion, cold, smoking

Characteristic distribution of
pain in angina pectoris

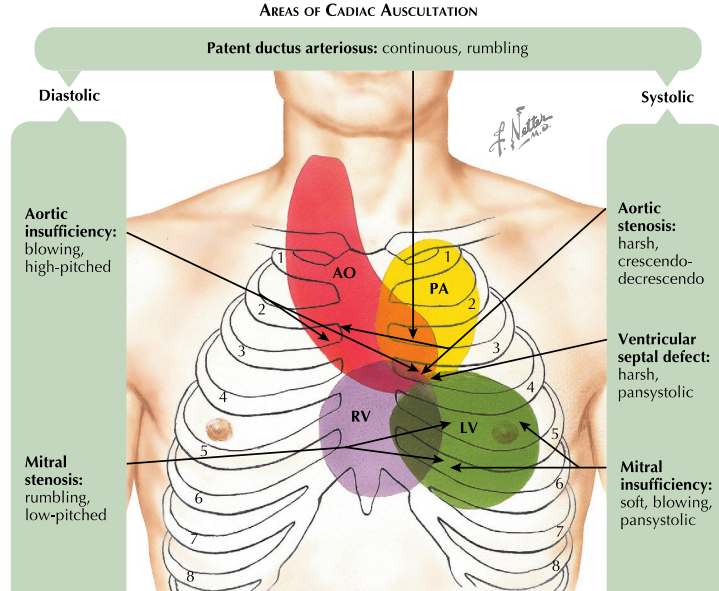
- Non-Cardiac Chest Pain
 - Sharp
 - Localised
 - Brief – seconds
 - Variable
 - At rest and exertion

Causes of Chest Pain in Young People



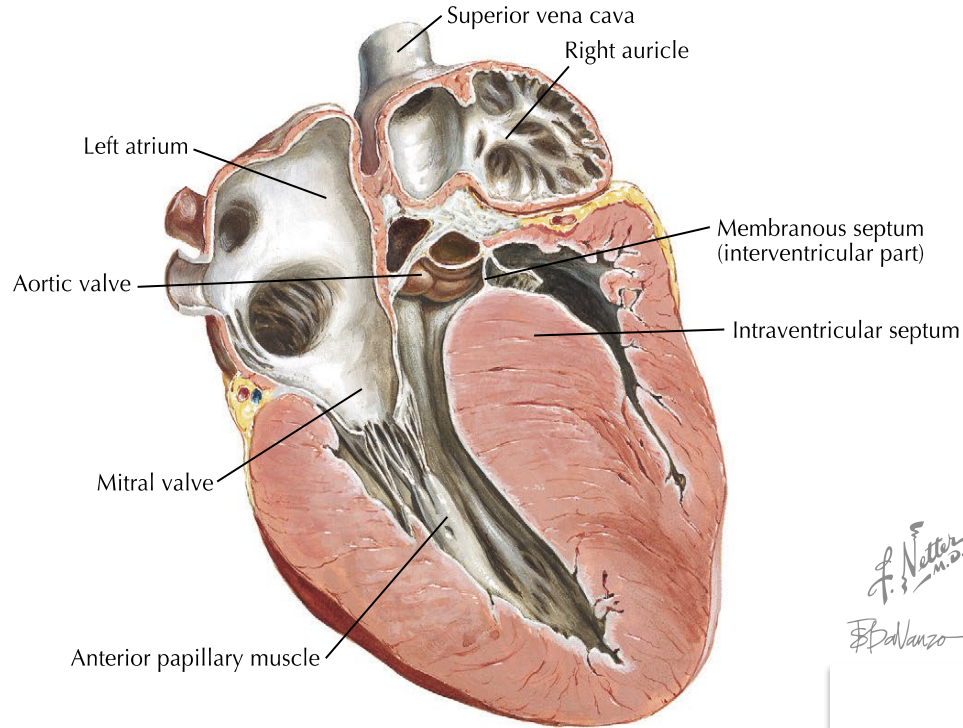
Clinical Approach to Chest Pain in Young People

- History
 - Characteristics of the pain
 - Family history of Sudden Cardiac Death in the Young
- Examination
 - BP
 - Murmurs
- ECG
- Reassurance/Referral



Cardiologist's Approach to Non-Cardiac Chest Pain

- Same as GPs
- ECG
- Echo

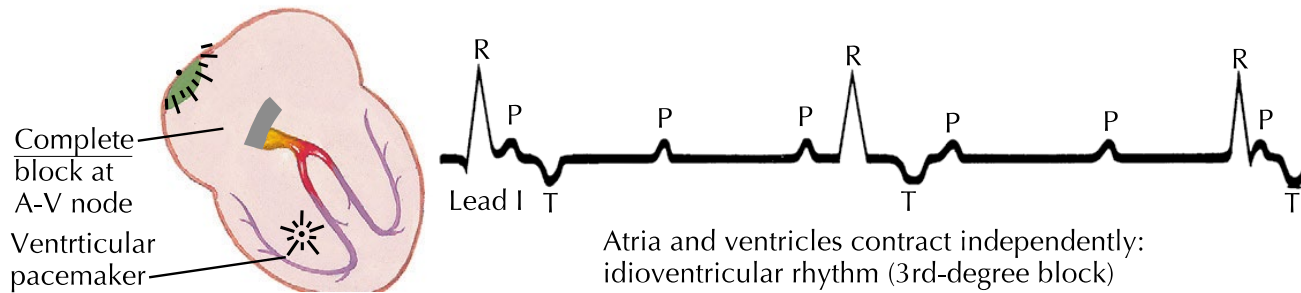


Post-Sternotomy Chest Pain

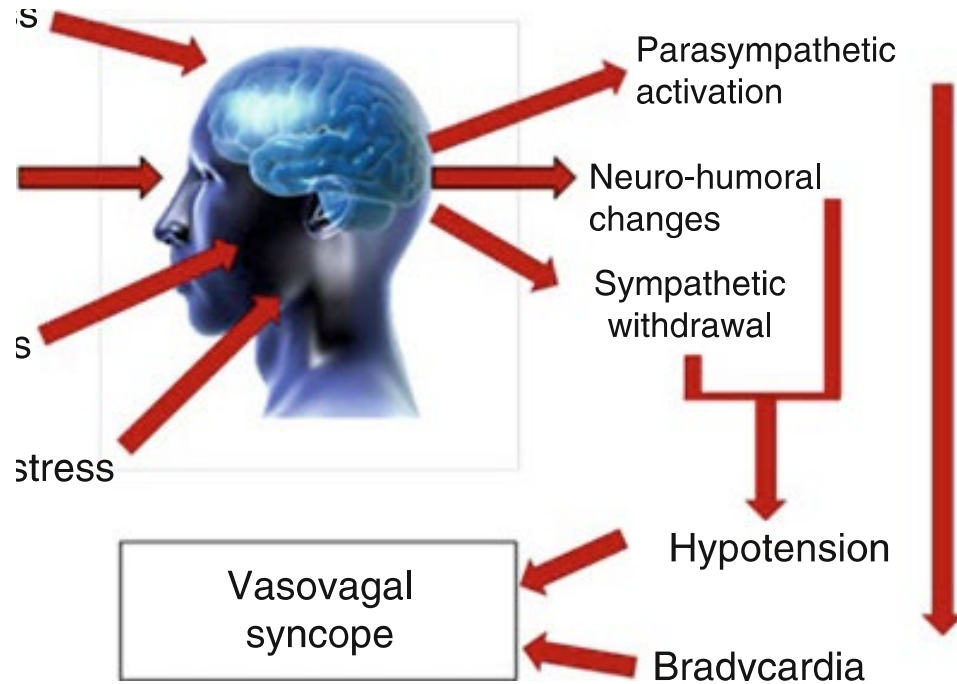
- Years later after open-heart surgery
- Often prompts re-referral/earlier appointments/ED attendance
- No good pathophysiologic explanation
- Non-cardiac characteristics
- R/O Sternal Instability/Protruding sternal wires
- Cardiac re-evaluation performed for reassurance

Dizziness / Syncope

- Orthostatic hypotension
- Vasovagal
 - Pro-drome/Post drome
- Postural Orthostatic Tachycardia Syndrome

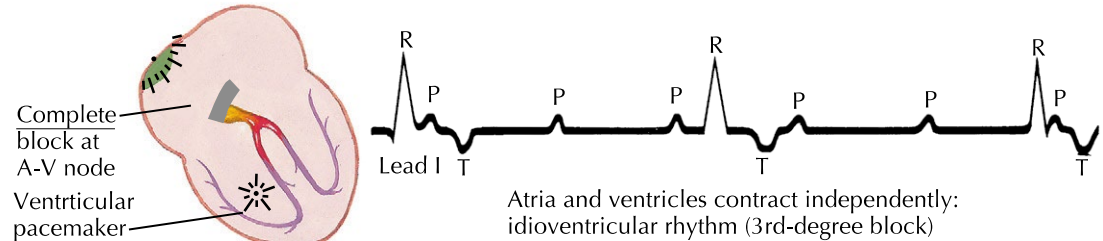


Vasovagal Response



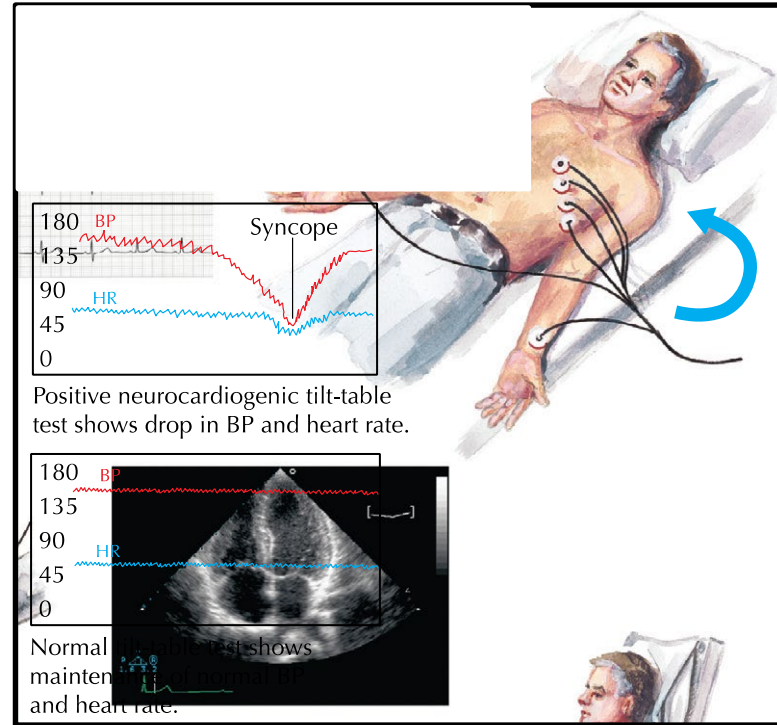
Clinical Approach to Syncope/Near Syncope in Young People

- History
 - Circumstances and detailed account of the episodes
 - Family history of Sudden Cardiac Death in the Young
- Examination
 - BP
 - Murmurs
- ECG
- Reassurance/Referral



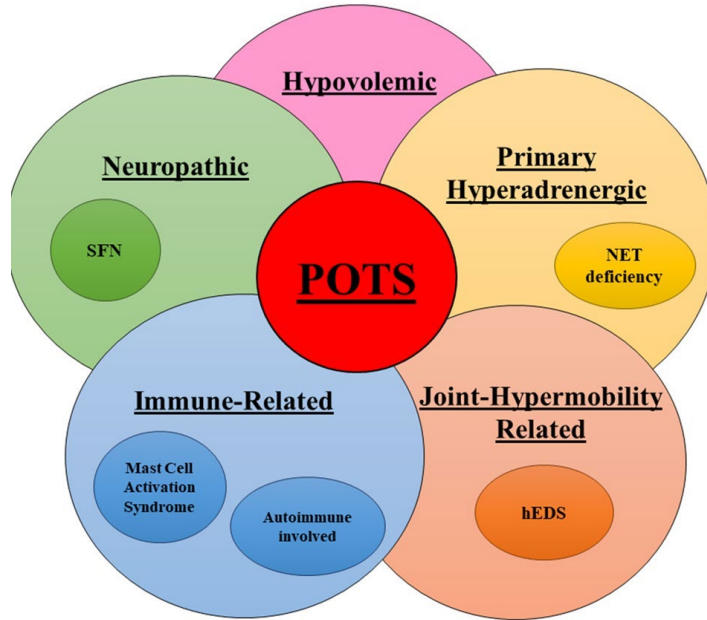
Cardiologist's Approach to Syncope

- Same as GPs
- ECG
- Echo
- Tilt - test



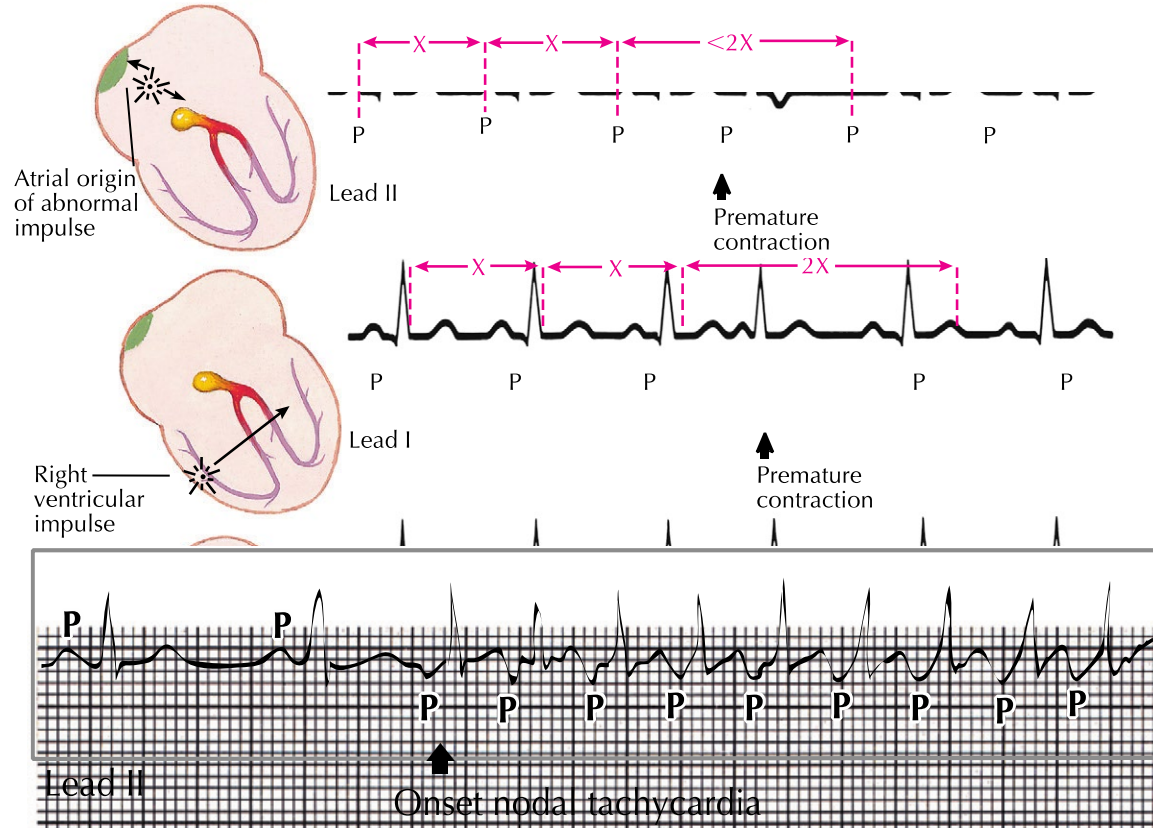
Postural Orthostatic Tachycardia Syndrome (POTS)

- A syndrome in which an increase in heart rate upon standing in the absence of orthostatic hypotension



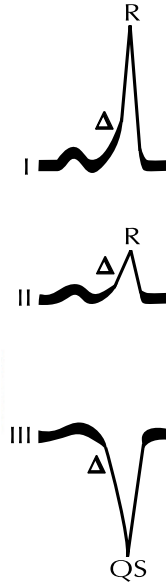
Palpitation

- Skips, jumps and bumps
- Racing
- Sudden onset/offset
- Duration
- Precipitants



Clinical Approach to Palpitation

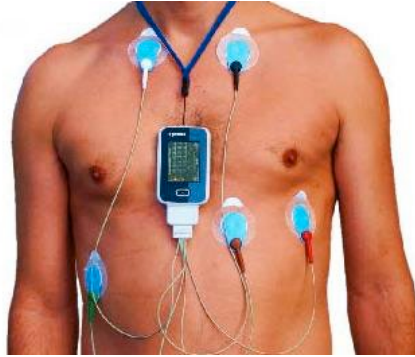
- History
 - Characteristics – extras/runs
 - Family History of Sudden Cardiac Death in the Young
- Examination
 - BP/HR
 - Murmurs
- ECG



Cardiologists Approach to Palpitation

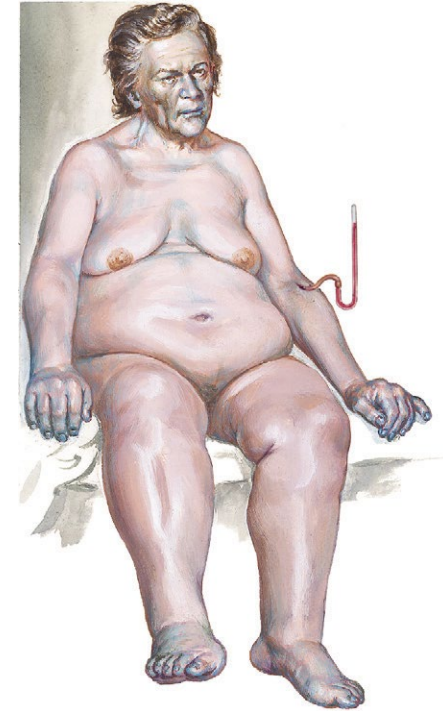
- Same as GPs
- ECG
- Echo
- Symptom – ECG correlation
- Exercise Stress Test

Tools for Symptom-ECG correlation



Dyspnoea

- Most likely deconditioning
- Respiratory causes more common
- Genuine cardiac dyspnea usually a symptom of advanced heart disease



Clinical Approach to Dyspnoea

- History: Duration, Exertional/Non-Exertional, Chest tightness, Wheeze, Cough
- Examination: Wheeze/Crepitations, Pulse, BP, Murmur
- Spirometry
- Therapeutic trial of Inhalers/Montelukast

Cardiologists Approach to Dyspnoea

- History: Duration, Exertional/Non-Exertional, Chest tightness, Wheeze, Cough
- Examination: Wheeze/Crepitations, Pulse, BP, Murmur
- ECG
- ECHO
- ? Exercise Stress Test

Medical Gaslighting

- Cardiac symptoms in young people most likely benign
- Most can be evaluated in General Practice without need for referral
- Concern for the very rare occurrence of sudden cardiac death in the young may result in referral



Thank you