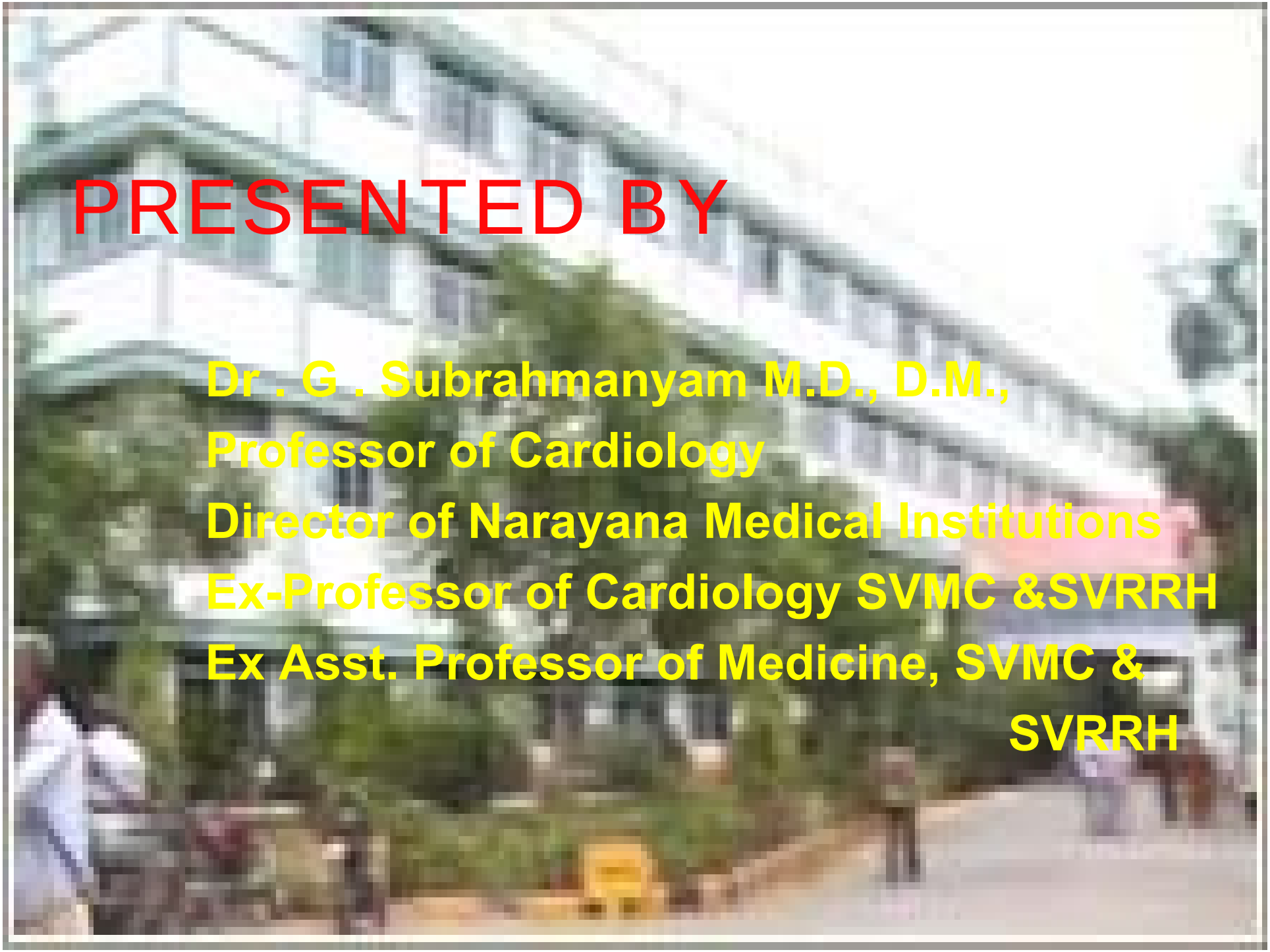

WELCOME


PRESENTED BY
Dr . G . Subrahmanyam M.D., D.M.,
Professor of Cardiology
Director of Narayana Medical Institutions
Ex-Professor of Cardiology SVMC &SVRRH
Ex Asst. Professor of Medicine, SVMC &
SVRRH

S.	CLASS	RANKS BAGGED DURING 2010
1	FIRST M.B.B.S	1ST, 2ND, 3RD & 5TH
2	SECOND M.B.B.S	4TH, 5TH, 6TH & 10TH
3	THIRD PART-I	1ST & 9TH
4	THRID PART-II	5th, 8th, 10TH

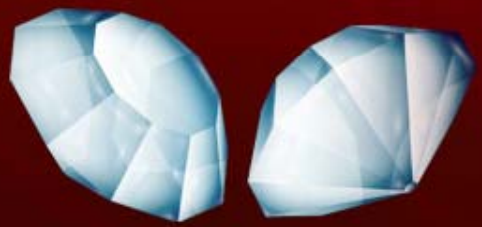
NARAYANA NURSING INSTITUTION

S.NO	RANKS OBTAINED IN M.Sc(Nursing) during 2010
1	1st, 2nd,3rd, 4th,5th, 6th,7th, 8th

NARAYANA PHARMACY COLLEGE

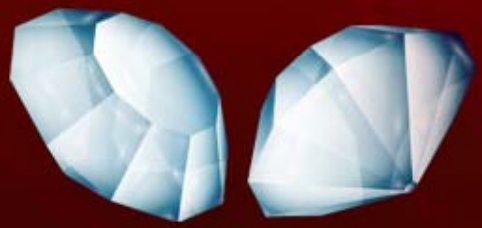
NARAYANA DENTAL COLLEGE

- In MDS results, 27 out of 28 students passed successfully.
- MDS(Prostodontics) is the topper in the University wide during 2010.



- The only centre in AP with all the Superspecialities like M.CH(Surgical gastro enterology).

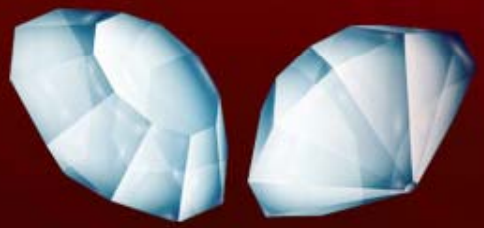
Cardiovascular History Taking



Basics of History taking

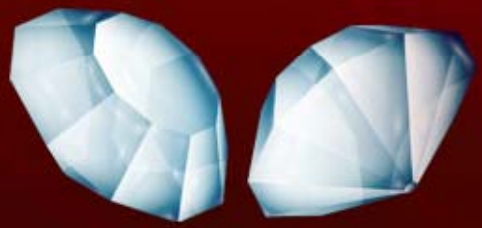
- History will give you likely diagnosis over 75% of the time
- DO NOT SKIP IT in favour of tests
- History will help you immediately –

  Tests will take time to come back and may result in more questions than answers.



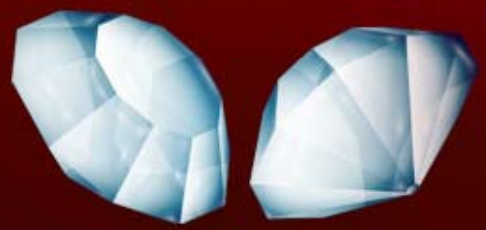
IMPORTANCE OF ELICITING GOOD HISTORY

- Best in the physician's Quer
- History is the richest source of information
- Patient spouse gives good information (Chyne stokes respiration)
- History :
  1. General Medical History
  2. Personal and past history
  3. Occupational history
  4. Nutritional history

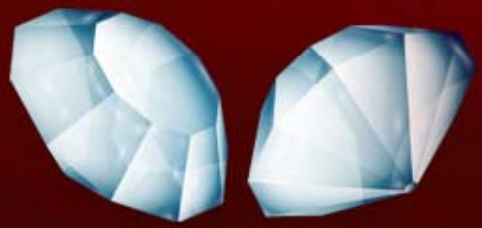


DYSPNOEA

- Dyspnoea on Exercise
- Dyspnoea on deconditioning Normal person. But moderate exercise unaccumastomed causes Dyspnoea
- Interstial and alveolar oedema stretches ‘J’ receptors in the lung (CCF) ↓cardiac output (TOF) without lung congestion.

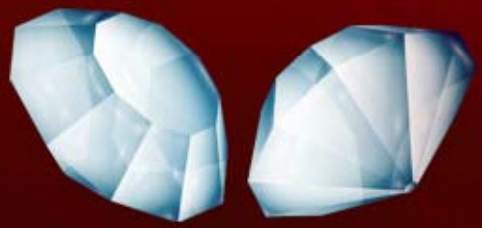


- Inspiratory Dyspnoea : Obstructive airway disease.
- Expiratory Dyspnoea: Obstruction to lower airways
- Exertional Dyspnoea : COPD, Cardiac failure
- Dyspnoea developing at rest Pheumothorax Pul.embolism
- Dyspnoea occuring at rest and absent on exertion : Functional



DYSPNOEA

- Cardiac, Renal, Ovarian, Bronchial, Psychogenic
- Postural – Myxoma
- Squatting ↓ Tof
- Trepopnea : Lateral position occurs eg. CCF
- Platypnea : Standing causes Dyspnoea eg.PFO, ASD
- Orthopnea : Dyspnoea on supine position



A COMPARISON OF THREE METHODS OF ASSESSING CARDIOVASCULAR DISABILITY

CLASS	NEW YORK HEART ASSOCIATION FUNCTIONAL CLASSIFICATION	CANADIAN CARDIOVASCULAR SOCIETY FUNCTIONAL CLASSIFICATION	SPECIFIC ACTIVITY SCALE
I	Patients with cardiac disease but without resulting limitations of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea, or anginal pain.	Ordinary physical activity, such as walking and climbing stairs, does not cause angina. Angina with strenuous or rapid or prolonged exertion at work or recreation.	Patients can perform to completion any activity requiring ≤7 metabolic equivalents (e.g., can carry 24 lb up eight steps; carry objects that weigh 80 lb; do outdoor work [shovel snow, spade soil]; do recreational activities [skiing, basketball, squash, handball, jog/walk 5 mph]).
II	Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea, or anginal pain.	Slight limitation of ordinary activity. Walking or climbing stairs rapidly, walking uphill, walking or stair climbing after meals, in cold, in wind, or when under emotional stress, or only during the few hours after awakening. Walking more than two blocks on the level and climbing more than one flight of ordinary stairs at a normal pace and in normal conditions.	Patients can perform to completion any activity requiring ≤5 metabolic equivalents (e.g., have sexual intercourse without stopping, garden, rake, weed, roller skate, dance fox trot, walk at 4 mph on level ground) but cannot and do not perform to completion activities requiring ≥7 metabolic equivalents.
III	Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary physical activity causes fatigue, palpitation, dyspnea, or anginal pain.	Marked limitation of ordinary physical activity. Walking one to two blocks on the level and climbing more than one flight in normal conditions.	Patients can perform to completion any activity requiring ≤2 metabolic equivalents (e.g., shower without stopping, strip and make bed, clean windows, walk 2.5 mph, bowl, play golf, dress without stopping) but cannot and do not perform to completion any activities requiring ≥5 metabolic equivalents.
IV	Patient with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.	Inability to carry on any physical activity without discomfort—anginal syndrome *may be* present at rest.	Patients cannot or do not perform to completion activities requiring ≥2 metabolic equivalents. *Cannot* carry out activities listed above (Specific Activity Scale, Class III).

CAUSES OF ACUTE AND CHRONIC DYSPNEA*

Acute

- Pulmonary edema
- Asthma
- Injury to chest wall and intrathoracic structures
- Spontaneous pneumothorax
- Pulmonary embolism
- Pneumonia
- Acute respiratory distress syndrome
- Pleural effusion
- Pulmonary hemorrhage

Chronic, Progressive

- Chronic obstructive pulmonary disease
- Left ventricular failure
- Diffuse interstitial fibrosis
- Asthma
- Pleural effusions
- Pulmonary thromboembolic disease
- Pulmonary vascular disease
- Psychogenic dyspnea
- Anemia, severe
- Postintubation tracheal stenosis
- Hypersensitivity disorders

*Asthma and acute left ventricular failure represent chronic causes with paroxysmal exacerbations.

From Fishman AP: Approach to the patient with respiratory symptoms. *In* Fishman's Pulmonary Diseases and Disorders, 3rd ed. New York, McGraw-Hill, 1998, pp 361–393.

AMERICAN THORACIC SOCIETY SCALE OF DYSPNEA

DESCRIPTIONS	GRADE	DEGREE
Not troubled by shortness of breath when hurrying on the level or walking up a slight hill	0	None
Troubled by shortness of breath when hurrying on the level or walking up a slight hill	1	Mild
Walks more slowly than people of the same age on the level because of breathlessness or has to stop for breath when walking at own pace on the level	2	Moderate
Stops for breath after walking about 100 yards or after a few minutes on the level	3	Severe
Too breathless to leave the house; breathless on dressing or undressing	4	Very severe

DISORDERS CAUSING DYSPNEA AND LIMITING EXERCISE PERFORMANCE; PATHOPHYSIOLOGY; AND DISCRIMINATING MEASUREMENTS

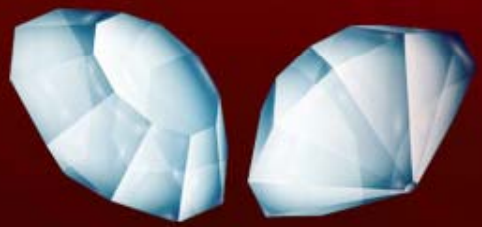
DISORDERS	PATHOPHYSIOLOGY	MEASUREMENTS THAT DEVIATE FROM NORMAL
Pulmonary		
Air flow limitation	Mechanical limitation to ventilation, mismatching of $\dot{V}_A/\dot{Q}$, hypoxic stimulation to breathing	$\dot{V}_E$ max/MVV, expiratory flow pattern, V_D, V_T; $\dot{V}O_2$ max, $\dot{V}_E/\dot{V}O_2$, $\dot{V}_E$ response to hyperoxia, $(A - a)PO_2$
Restrictive	Mismatching $\dot{V}_A/\dot{Q}$, hypoxic stimulation to breathing	
Chest wall	Mechanical limitation to ventilation	$\dot{V}_E$ max/MVV, $PACO_2$, $\dot{V}O_2$ max
Pulmonary circulation	Rise in physiological dead space as fraction of V_T, exercise hypoxemia	V_D/V_T, work-rate-related hypoxemia, $\dot{V}O_2$ max, $\dot{V}_E/\dot{V}O_2$, $(a - ET)PCO_2$, O_2-pulse
Cardiac		
Coronary	Coronary insufficiency	ECG, $\dot{V}O_2$ max, anaerobic threshold $\dot{V}O_2$, $\dot{V}_E/\dot{V}O_2$, O_2-pulse, BP (systolic, diastolic, pulse)
Valvular	Cardiac output limitation (decreased effective stroke volume)	
Myocardial	Cardiac output limitation (decreased ejection fraction and stroke volume)	
Anemia	Reduced O_2-carrying capacity	O_2-pulse, anaerobic threshold $\dot{V}O_2$, $\dot{V}O_2$ max, $\dot{V}_E/\dot{V}O_2$
Peripheral circulation	Inadequate O_2 flow to metabolically active muscle	Anaerobic threshold $\dot{V}O_2$, $\dot{V}O_2$ max
Obesity	Increased work to move body; if severe, respiratory restriction and pulmonary insufficiency	$\dot{V}O_2$-work-rate relationship, PAO_2, $PACO_2$ $\dot{V}O_2$ max
Psychogenic	Hyperventilation with precisely regular respiratory rate	Breathing pattern, PCO_2
Malingering	Hyperventilation and hypoventilation with irregular respiratory rate	Breathing pattern, PCO_2
Deconditioning	Inactivity or prolonged bed rest; loss of capability for effective redistribution of systemic blood flow	O_2-pulse, anaerobic threshold $\dot{V}O_2$, $\dot{V}O_2$ max

- **Orthopnea :**

  - **Heart failure**

    Emphysema

    Ascites



PAROXYSMAL NOCTURNAL DYSPNOEA

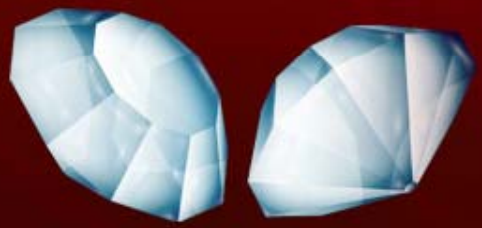
- Occurs in sleep 2 to 3 hours after going to Bed
- Relieved on up right position
- Increased venous return
- Diaphragm Elevated (Ascites)
- Gravitational force
- Sleep depresses Resp centre
- Anoxia

PLATYPNEA ORTHODEOXIA SYNDROME

- **Dyspnoea and arterial desaturation in the upright position which improves**

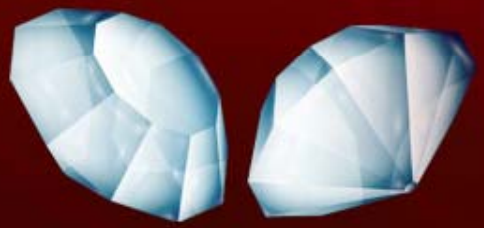
  on standing ORTHODEOXIA occurs in PFO, ASD

  On lying down decreases



CHEYNE STOKES RESPIRATION

- Heart failure
- CNS disorders
- During sleep without awareness
- Cheyne strokes respiration is a form of periodic breathing characterised by Hyperpnoea and apnoea
- Apnoea may lossed for 15 seconds are longer



ITEMS TO BE COVERED IN HISTORY OF PATIENT WITH PALPITATION

DOES THE PALPITATION OCCUR:	IF SO, SUSPECT:
As isolated "jumps" or "skips"?	Extrasystoles
In attacks, known to be of abrupt beginning, with a heart rate of 120 beats/min or over, with regular or irregular rhythm?	Paroxysmal rapid heart action
Independent of exercise or excitement adequate to account for the symptom?	Atrial fibrillation, atrial flutter, thyrotoxicosis, anemia, febrile states, hypoglycemia, anxiety state
In attacks developing rapidly though not absolutely abruptly, unrelated to exertion or excitement?	Hemorrhage, hypoglycemia, tumor of the adrenal medulla
In conjunction with the taking of drugs?	Tobacco, coffee, tea, alcohol, epinephrine, ephedrine, aminophylline, atropine, thyroid extract, monoamine oxidase inhibitors
On standing?	Postural hypotension
In middle-aged women, in conjunction with flushes and sweats?	Menopausal syndrome
When the rate is known to be normal and the rhythm regular?	Anxiety state

From Goldman L, Braunwald E: Chest discomfort and palpitation. *In* Isselbacher KJ, Braunwald E, et al (eds): Harrison's Principles of Internal Medicine, 13th ed. New York, McGraw-Hill, 1994.

PRINCIPAL CAUSES OF GENERALIZED EDEMA: HISTORY, PHYSICAL EXAMINATION, AND LABORATORY FINDINGS

ORGAN SYSTEM	HISTORY	PHYSICAL EXAMINATION	LABORATORY FINDINGS
Cardiac	Dyspnea with exertion prominent—often associated with orthopnea—or paroxysmal nocturnal dyspnea	Elevated jugular venous pressure, ventricular (S_3) gallop; occasionally with displaced or dyskinetic apical pulse; peripheral cyanosis, cool extremities, small pulse pressure when severe	Elevated urea nitrogen-to-creatinine ratio common; elevated uric acid; serum sodium often diminished; liver enzymes occasionally elevated with hepatic congestion
Hepatic	Dyspnea infrequent, except if associated with significant degree of ascites; most often a history of ethanol abuse	Frequently associated with ascites; jugular venous pressure usually normal or low; blood pressure typically lower than in renal or cardiac disease; one or more additional signs of chronic liver disease (jaundice, palmar erythema, Dupuytren contracture, spider angiomata, male gynecomastia or testicular atrophy, caput medusa); asterixis and other signs of encephalopathy may be present	If severe, reductions in serum albumin, cholesterol, other hepatic proteins (transferrin, fibrinogen); liver enzymes may or may not be elevated, depending on the cause and acuity of liver injury; tendency toward hypokalemia, respiratory alkalosis; magnesium and phosphorus often markedly reduced if associated with ongoing ethanol intake; uric acid typically low; macrocytosis from folate deficiency
Renal	Usually chronic; associated with uremic signs and symptoms, including decreased appetite, altered (metallic or fishy) taste, altered sleep pattern, difficulty concentrating, restless legs or myoclonus; dyspnea can be present, but generally less prominent than in heart failure	Blood pressure often high; hypertensive or diabetic retinopathy in selected cases; nitrogenous fetor; periorbital edema may predominate; pericardial friction rub in advanced cases with uremia	Elevation of serum creatinine and urea nitrogen most prominent; also frequent hyperkalemia, metabolic acidosis, hyperphosphatemia, hypocalcemia, anemia (usually normocytic)

From Chertow GM, Thibault GE: Approach to the patient with edema. *In* Goldman L, Braunwald E (eds): Primary Cardiology. Philadelphia, W. B. Saunders, 1998, pp 112–121.

CARDIOVASCULAR MANIFESTATIONS OF ADVERSE REACTIONS TO DRUGS

Acute chest pain (nonischemic)
- Bleomycin

Angina exacerbation
- Alpha blockers
- Beta-blocker withdrawal
- Ergotamine
- Excessive thyroxine
- Hydralazine
- Methysergide
- Minoxidil
- Nifedipine
- Oxytocin
- Sumatriptan
- Vasopressin

Arrhythmias
- Adriamycin
- Antiarrhythmic drugs
- Astemizole
- Atropine
- Anticholinesterases
- Beta blockers
- Cisapride
- Daunorubicin
- Digitalis
- Emetine
- Erythromycin
- Guanethidine

Arrhythmias (*cont.*)
- Ketanserin
- Lithium
- Papaverine
- Pentamidine
- Phenothiazines, particularly thioridazine
- Probucol
- Sympathomimetics
- Terfenadine
- Theophylline
- Thyroid hormone
- Tricyclic antidepressants
- Verapamil

Atrioventricular block
- Beta blockers
- Clonidine
- Methyldopa
- Verapamil

Cardiomyopathy
- Daunorubicin
- Doxorubicin
- Emetine
- Lithium
- Phenothiazines
- Sulfonamides
- Sympathomimetics

Fluid retention/congestive heart failure/edema
- Beta blockers
- Calcium blockers
- Carbenoxolone
- Diazoxide
- Estrogens
- Indomethacin
- Mannitol
- Minoxidil
- Phenylbutazone
- Steroids
- Verapamil

Hypotension (see also arrhythmias)
- Amiodarone (perioperative)
- Calcium channel blockers (e.g., nifedipine)
- Citrated blood
- Diuretics
- Interleukin-2
- Levodopa
- Morphine
- Nitroglycerin
- Phenothiazines
- Protamine
- Quinidine

Hypertension
- Clonidine withdrawal
- Corticotropin
- Cyclosporine
- Glucocorticoids
- Monoamine oxidase inhibitors with sympathomimetics
- NSAIDs (some)
- Oral contraceptives
- Sympathomimetics
- Tricyclic antidepressants with sympathomimetics

Pericarditis
- Emetine
- Hydralazine
- Methysergide
- Procainamide

Pericardial effusion
- Minoxidil

Thromboembolism
- Oral contraceptives

NSAIDs = nonsteroidal antiinflammatory drugs.

From Wood A: Adverse reactions to drugs. *In* Fauci A, Braunwald E, et al (eds): Harrison's Principles of Internal Medicine, 14th ed. New York, McGraw-Hill, 1998.

ANGINA

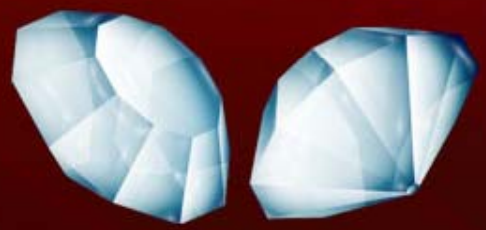
1. Stable Angina (william Heberden 1772)

2. Walk through phenomenon: Angina will dissipate despite continued exercise.

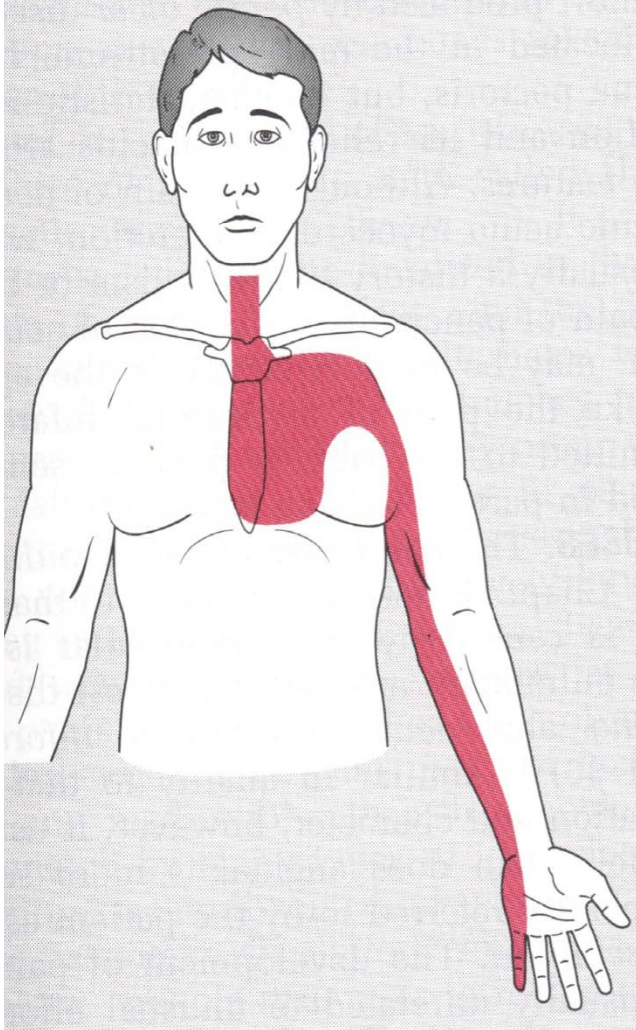
3. Warm up phenomenon: Angina will not occur when a second exercise effort is under taken that previously produced discomfort No.2 & 3 are due to opening of functioning collaterals.

4. Levine sign.

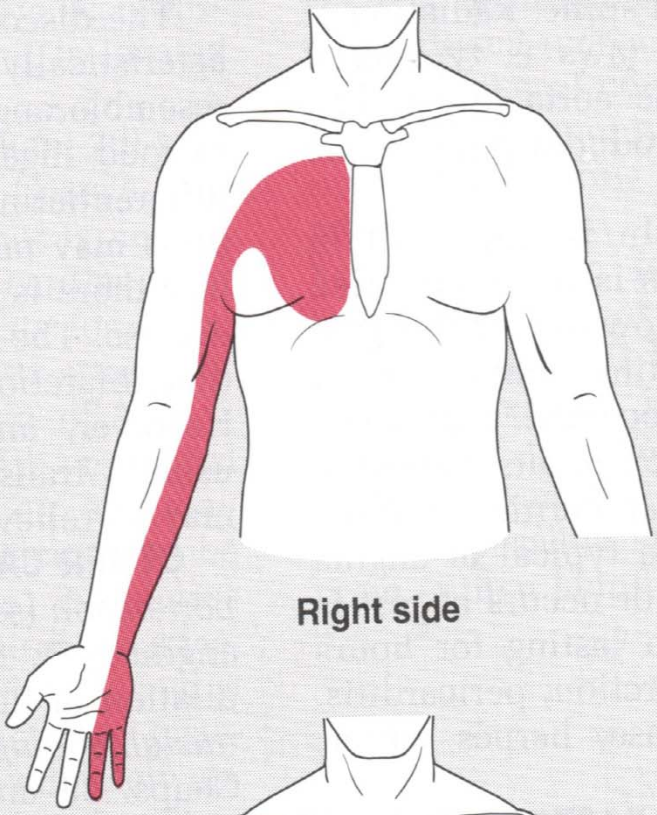
   Stable Angina : Characters are un changes in the last 60 days.



Usual distribution of pain with myocardial ischemia

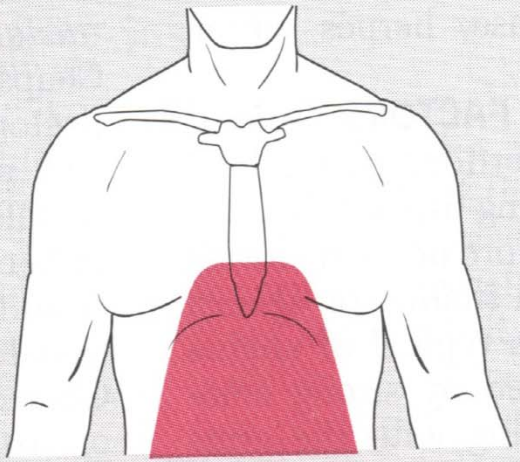


Less common sites of pain with myocardial ischemia

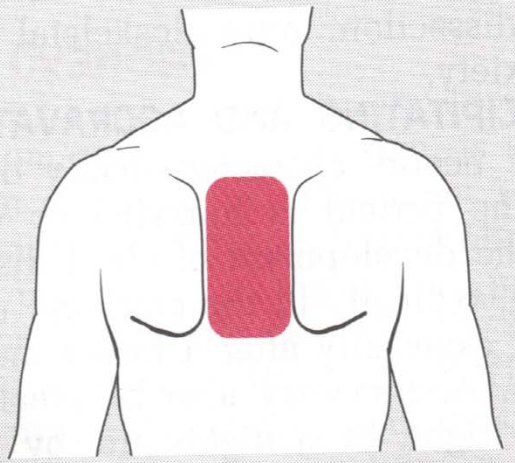


Right side

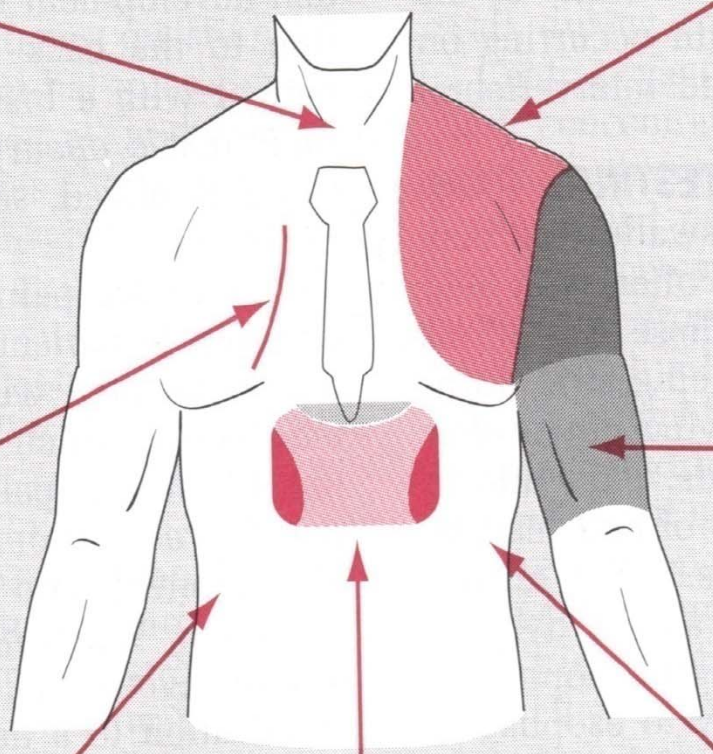
Jaw



Epigastrium



Back



RETROSTERNAL
Myocardial ischemic pain
Pericardial pain
Esophageal pain
Aortic dissection
Mediastinal lesions
Pulmonary embolization

SHOULDER
Myocardial ischemic pain
Pericarditis
Subdiaphragmatic abscess
Diaphragmatic pleurisy
Cervical spine disease
Acute musculoskeletal pain
Thoracic outlet syndrome

INTERSCAPULAR
Myocardial ischemic pain
Musculoskeletal pain
Gallbladder pain
Pancreatic pain

ARMS
Myocardial ischemic pain
Cervical/dorsal spine pain
Thoracic outlet syndrome

RIGHT LOWER ANTERIOR CHEST
Gallbladder pain
Distention of the liver
Subdiaphragmatic abscess
Pneumonia/pleurisy
Gastric or duodenal penetrating ulcer
Pulmonary embolization
Acute myositis
Injuries

EPIGASTRIC
Myocardial ischemic pain
Pericardial pain
Esophageal pain
Duodenal/gastric pain
Pancreatic pain
Gallbladder pain
Distention of the liver
Diaphragmatic pleurisy
Pneumonia

LEFT LOWER ANTERIOR CHEST
Intercostal neuralgia
Pulmonary embolization
Myositis
Pneumonia/pleurisy
Splenic infarction
Splenic flexure syndrome
Subdiaphragmatic abscess
Precordial catch syndrome
Injuries

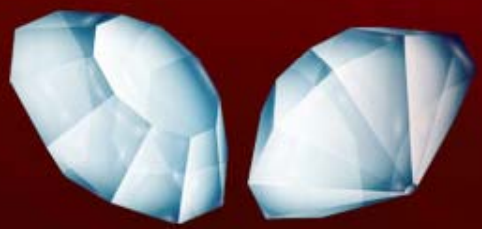
Canadian CVS functional classification of Angina

Class – I - Cordinary physical activity does not cause angina

Class – II - Slight limitation of ordinary activity

Class – III - Marked limitation of ordinary activity

Class –IV - Inability to carry on physical activity without discomfort



TYPES OF ANGINA

- **Unstable Angina / Rest Angina**

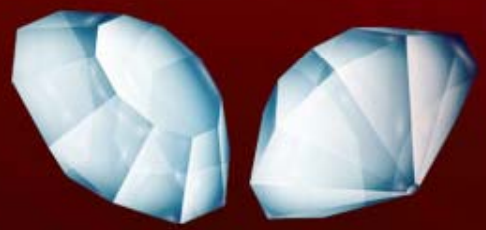
- **Nocturnal angina / Decubitus Angina,Hypercapnia, Acidosis, Rapid Eye movements sympathetic discharge vasoconstriction.**

Inverse Angina

Status Anginosis

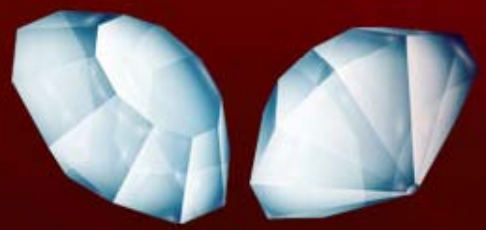
Un stable Angina:

1. **Rest Angina**
2. **Severe new onset of Angina**
3. **Prior angina increasing in severity**



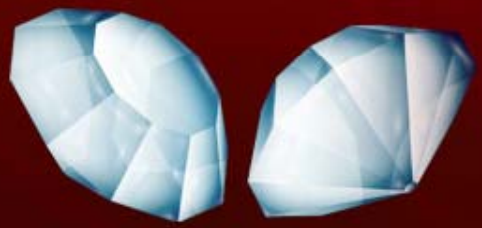
- Angina equivalent :Dyspnoea, Fatigue

- Linked up Angina : Associated with GI factors not related to an increased in cardiac work, occurs after eating, mimicked by esophageal acid stimulation which can reduce coronary blood flow
- Microvascular Angina (Syndrome X) : Normal coronary Heart disease and vascular & smooth muscle hypersensitive constrictor response
- Linked up Angina : Eosphageal acid stimulation after eating reduces the coronary flow
- Post Prandial Angina
- Prinz metal Angina



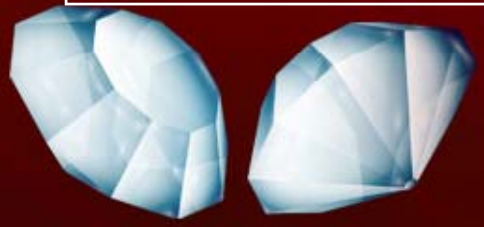
AORTIC DISSECTION

- Pain is excruciating
- Tearing Quality
- Commonly localised to inter scapular area radiates to Neck, Back, Abdomen and Flanks



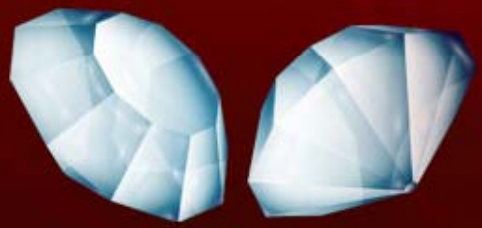
RELIEF OF CHEST PAIN

• Nitrates	-	Angina
• Placebo	-	Dacosta's syndrome
• Changing Position in bed	-	Congenital absence of pericardium
• Leaning for ward	-	Pericarditis
• Food and antacids	-	peptic ulcer syndrome



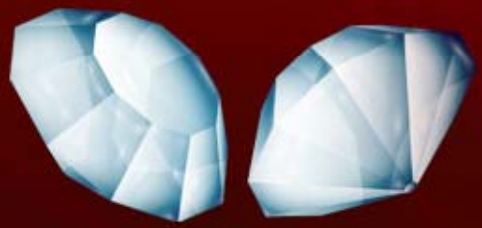
PSYCHOGENIC

- Dacosta's Syndrome (Neuro Circulatory Asthenia)
- Sharp, Stabbling left inframammay area multiple complaints, Breathlessness, Palpitation, Giddiness



FATIGUE & WEAKNESS

- Non specific for heart disease
- Anxiety, depression, Anaemia, Thyrotoxicosis
- Heart failure – Low Co
- Hypotension, Hypokalemia = Diureties
- Hypovolemia : A.C inhibitors
- Angina Equivalent : fatigue

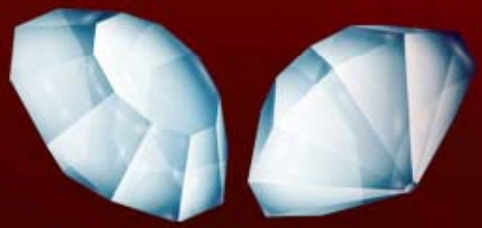


SYNCOPE

- Near Syncope patient dizzy & weak tends loose postunal tone but does not loose consciousness

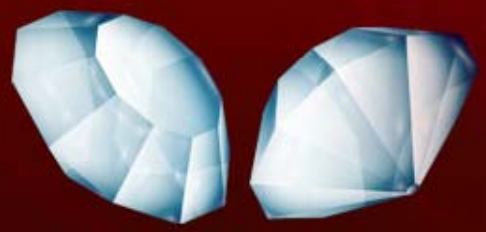
- Causes Vasovagal, Hypersensitive carotid, Miturition, Cough Syncope, postural syncope.

- Classification : 1. Non Cardiac
  2. Cardiac
  3. Underterminated cause



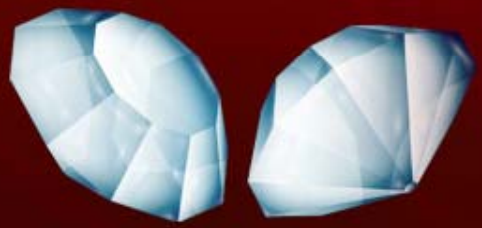
NON CARDIAC SYNCOPE

- Neuro Cardiogenic
- Orthostatic
- Cerebrovascular
- Seizure disorders
- Cartoid sinus hypersensitivity
- Situational
  - Cough
  - Swallowing
  - Valsalva
  - Micturition
  - Defecation
  - Diver's
  - Postpradial
- Metabolic, drugs
  - Hypoxia
  - Hypoglycemia
  - Hyperventilation, Panic attacks
  - Ethanol, other drugs
- Otherfomrs of syncope or conditions mimicking syncope
  - Vertigo
  - Migraine
  - Psychiatric



FEVER

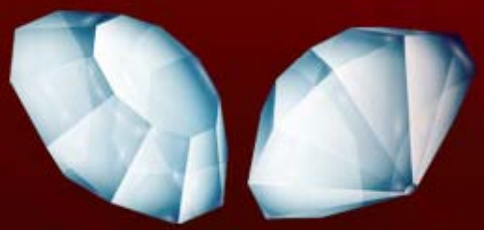
- Chills and sweating : SBE
- Fever. (Immunuological : MI)
- Fever. Intracardiac tumour
- Low grade fever. Pulmonory embolism



CHANGE IN VOICE

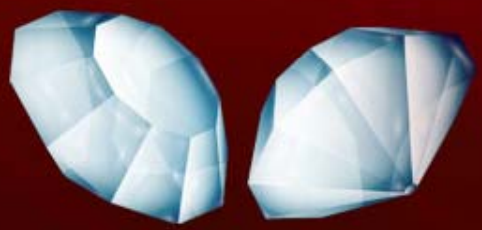
- **Aortic aneurysm**
- **M.S, PAH**
- **Pericardial Effusion (Myxodema)**
- **DYSPHAGIA**

Mitral Stenosis
Coarctation of Aorta
Rt Suberavian Origin
Distal to Coarctation and
press behind Esophagus



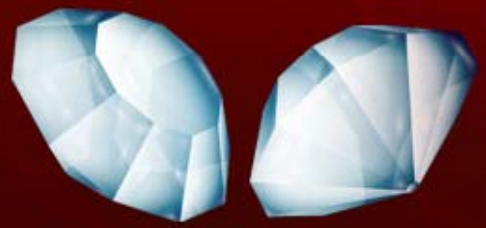
HISTORY CONTINUED

- Past History
- Family History
- Personal History
- Occupational History
- Neutritional History



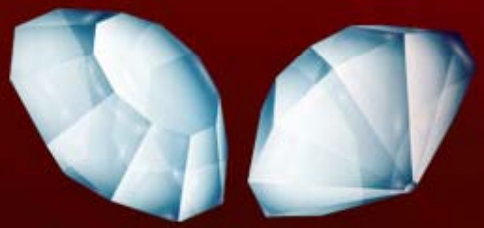
OCCUPATIONAL HISTORY

- Radiation : Pericarditis, Cardiomyopathy
- Lead Industry: 1: Hypertension
  2: Conduction Disturbances
- Tobacco industry : CVS, Lung Disorders
- Carbon Monoxide Exposure: CAD
- Carbon monoxide reduces oxygen transport by Haemoglobin and inhibits mitochondrial metabolism and aggrevates CAD
- Methylene chloride nickel paints is converted to carbonmonoxide.
- Exposure to Carbon di-sulfide used in Ryon production accelerates Arheroselerosis Plaque.



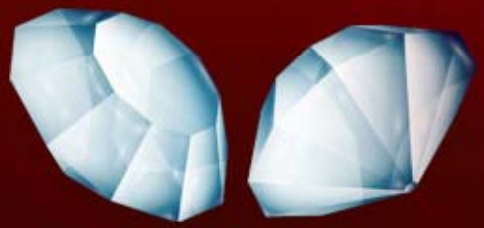
NUTRITIONAL HISTORY

- Thiamine Deficiency : High output Cardiac failure
- Extreme underweight, infection : CAD
- Overweight : Obesity, CAD, Hypertension
- Low level of folate, B 12 : Homocystine, CAD
- Antioxidants, Vitamin E ,C, Selenium : CAD



HISTORY OF CONGENITAL HEART DISEASES

- Con: together
- Genitus : Born
- Pain on right side of chest (Angina) : Dextro cardia situs inversus
- Left handedness : Dextro cardia situs inversus.
- Recurrent Respiratory Infection : L to R stunt Kartageners Syndrome
- Syncope : RV(O) obstruction

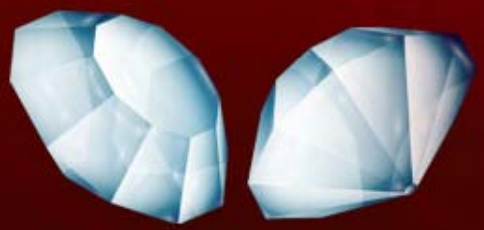


IMPORTANCE OF SEX (MALE OR FEMALE) IN THE HISTORY

FEMALES COMMON	MALES COMMON
Congenital Complete Heart break	Aoritic Valvular Stenosis
Mitral Stenosis	AR
ASD - 2:1	Coarctation of Aorta
PPH	TGA
PDA	Hypertension
Lutembachers Syndrome	Coronary Artery Disease

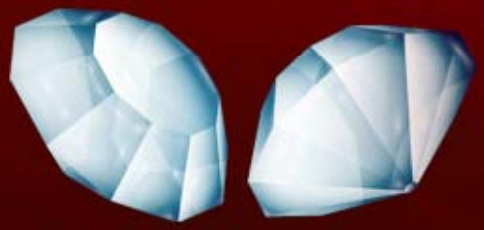
FAMILY HISTORY OF HEART DISEASES

1. HOCM
2. Long QT Syndrome
3. Complete Heart Block (CHB)
4. Maternal Lupus – CHB
5. ASD = Holt Oram Syndrome
   Scimitar Syndrome
6. VSD = 3.3 % of relatives
   twins 30%
7. Rheumatic fever = Genetic predisposition
   1. Specific B cell allo antigen 99:14
   2. High incidence of Class II HLA antigen 1,2,3,4



RURAL & URBAN

- RHD in west is less
- Hypertension I HD – Urban population increase incidence
- High altitude : PDA



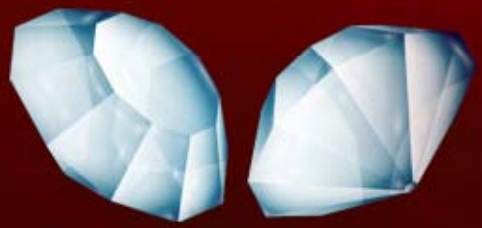
PAST HISTORY OF MURMURS

Congenital : AS

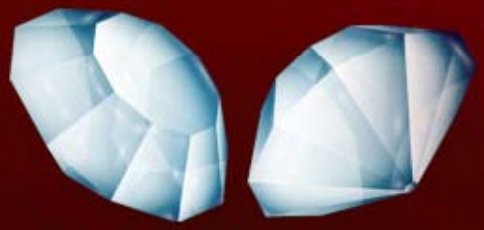
PDA

ASD

VSD



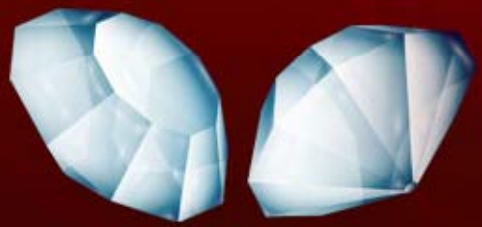
LOW BIRTH WEIGHT	LARGE BIRTH WEIGHT
VSD	TGA
TOG	



Conclusions

If in doubt take the history !

If still in doubt take it again !



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3. DR.HARRISON: 17TH EDITION
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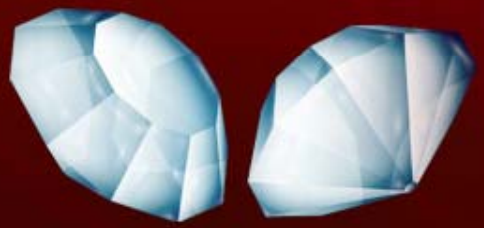


Thank You
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