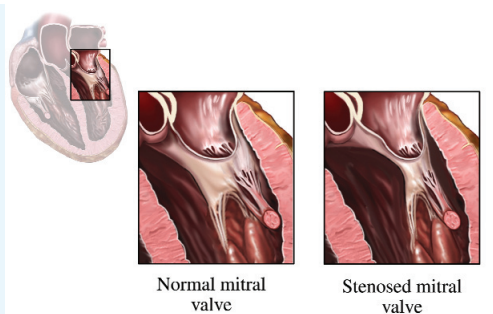


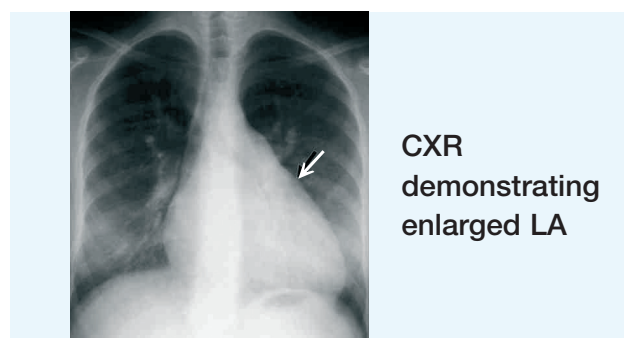
Common Cases

Valvular Heart Disease				
	Causes	Clinical	ECG/CXR	Points to note
Aortic stenosis	Rheumatic fever Congenital bicuspid valve Calcific (aka aortic 'sclerosis')	Angina Syncope SOB Slow rising pulse Narrow pulse pressure Heaving apex Ejection systolic murmur, radiates to carotids and no slow rising pulse	LVH on ECG and CXR	Warn patient and family about risk of sudden death Echo: pressure gradient, LVH Rx: valve replacement
Aortic regurgitation	Rheumatic fever Marfan's AS, RA, SLE Dissecting aortic aneurysm Syphilis	Angina LVF Palpitations Collapsing pulse Wide pulse pressure Displaced, 'hyperdynamic' apex Diastolic murmur at LSE		Rx: Manage LVF, valve replacement
Mitral stenosis	Rheumatic fever	Pulmonary venous hypertension → dyspnoea, PND, orthopnoea, haemoptysis; Malar flush, AF, 'Tapping' apex beat Loud S1 with 'opening snap' Mid-diastolic murmur at apex RVF	Large left atrium on CXR Bifid p wave RVH, RAD	Manage heart failure, AF (digoxin, anticoagulation) Surgery: valvotomy or replacement May lead to TR through pulmonary hypertension
Mitral regurgitation	Senile degeneration Rheumatic fever Mitral valve prolapse LV dilatation Ruptured chordae e.g. post MI Infective endocarditis Connective tissue disorders (e.g. Marfan's)	Palpitations SOB IE AF Displaced 'hyperdynamic' apex Pansystolic murmur at apex radiating to axilla	AF; Large LA and LV on CXR; Doppler for LV function	Rx: Manage AF, Valve replacement

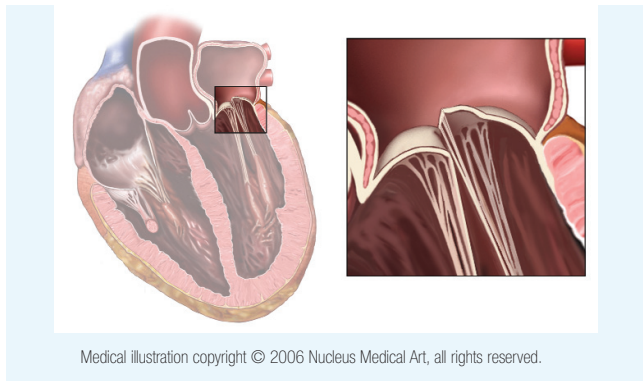
Mitral Stenosis



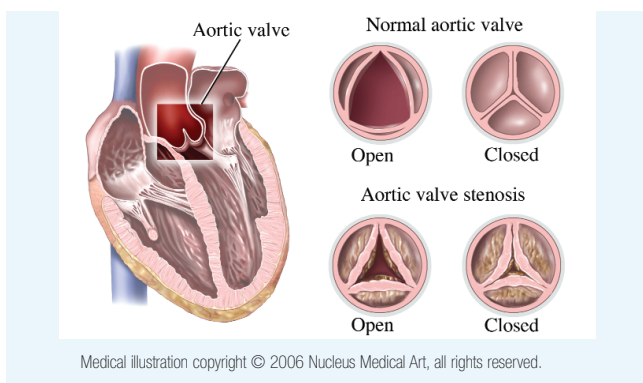
Medical illustration copyright © 2006 Nucleus Medical Art, all rights reserved.



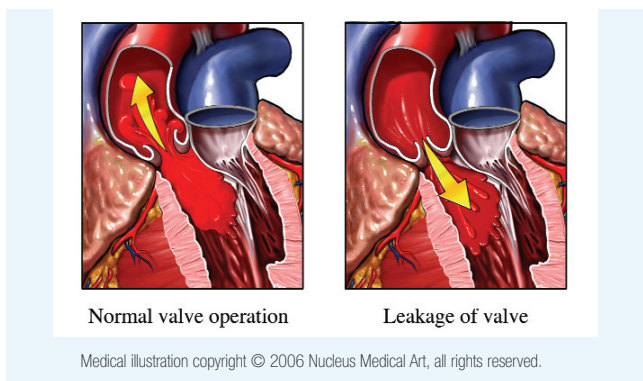
Mitral Regurgitation



Aortic Stenosis



Aortic Regurgitation



Prosthetic Valves

Most commonly aortic and mitral

Types

- **Metal** – audible clicks
- **Biological** – human or porcine – louder heart sounds

Symptoms and Signs



- Median sternotomy scar
- Loudest click is on valve closure
- Aortic loud S2, mitral loud S1
- Prosthetic valves have flow murmurs
- Regurgitation is pathological in valve replacements

Management



- Warfarin for metal valves
- Antibiotic prophylaxis before dental and most surgical procedures is no longer recommended by NICE as studies have shown no benefit

Rheumatic fever

- Common in developing countries, rare in the West

Causes



- Group A beta-haemolytic Streptococcal infection
- Occurs in children age 5 – 15

Symptoms and Signs



- Fever, arthralgia
- Carditis (new or changing murmurs)
- Erythema marginatum rash
- Sydenham's chorea

Investigation



- Throat swab
- ASO titre
- ESR/CRP
- Treat with penicillin, NSAIDs and bed rest
- 50-60% of those with carditis will develop chronic rheumatic valvular disease (predominantly aortic and mitral valves)

Infective endocarditis

Infection of endocardium / vascular endothelium

Acute or sub-acute (more common, less destructive)