

Cardiothoracic Surgical Diseases

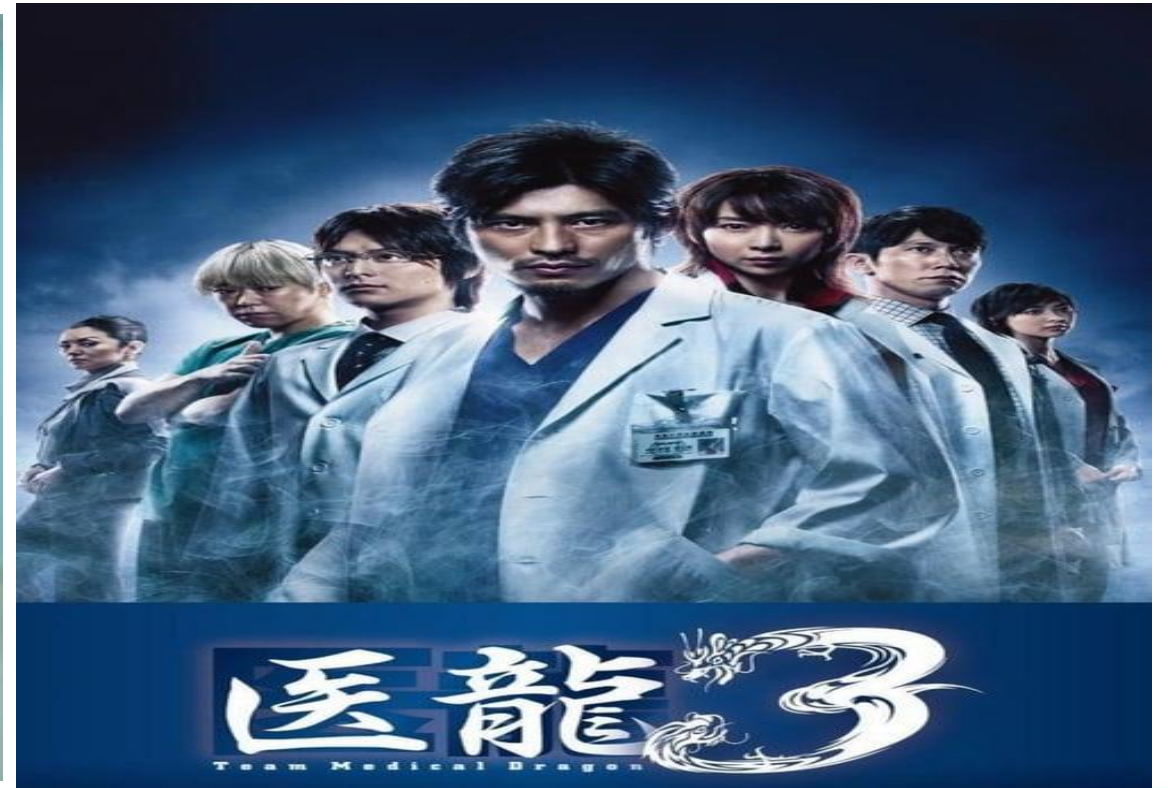
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Mahkota Medical Centre

MBBS(Malaya) MSurg(Malaya) MRCS(Edinburgh) FRCS(C.Th)
MEBCTS(European Board)



Introduction

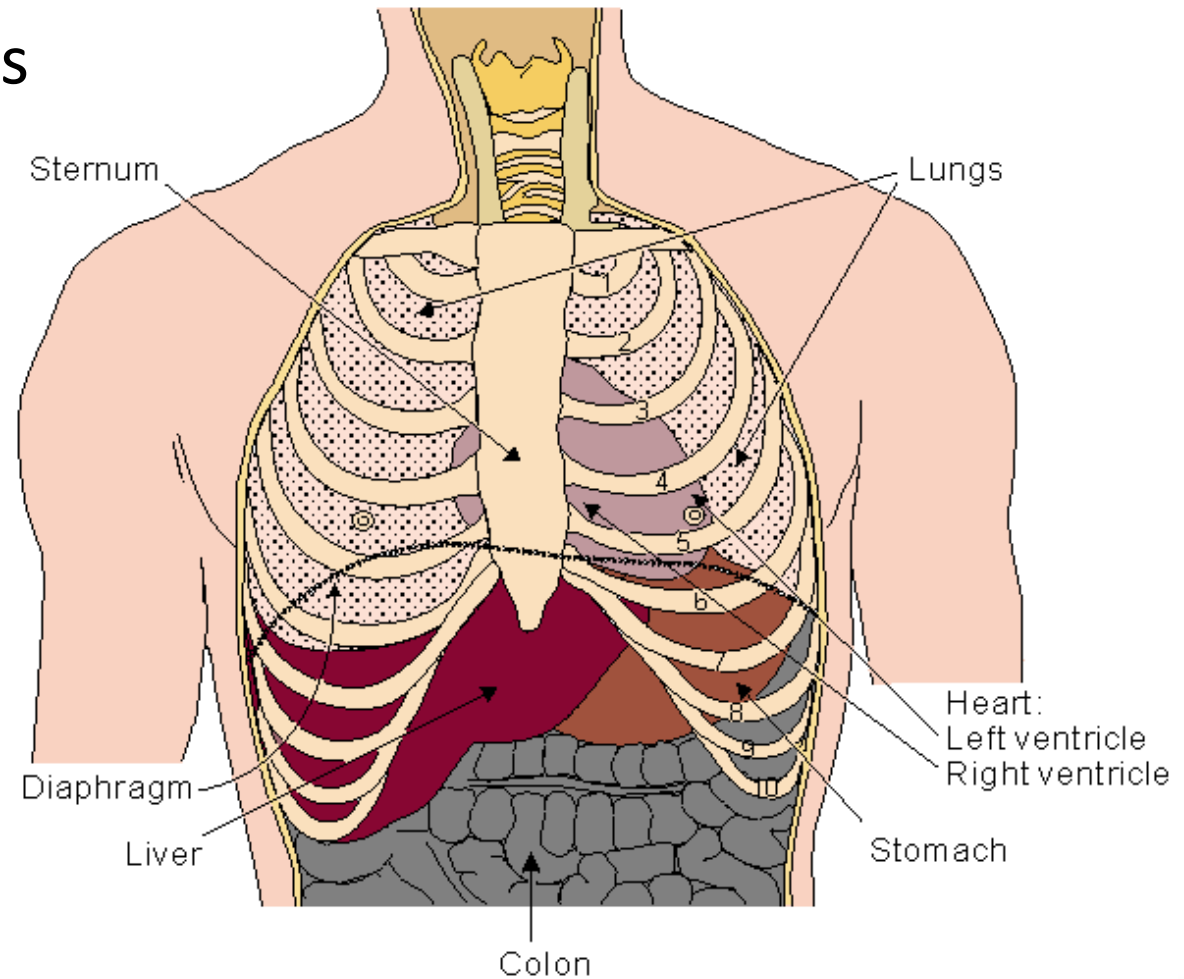
- Cardiothoracic surgery is expensive and labour intensive
- Requires intensive care and well co-ordinated team work
- Team consist of surgeon, anaesthetist, perfusionist, specialized cardiac nurses and support staff.



Cardiothoracic Diseases

Broadly divided into 2 main areas

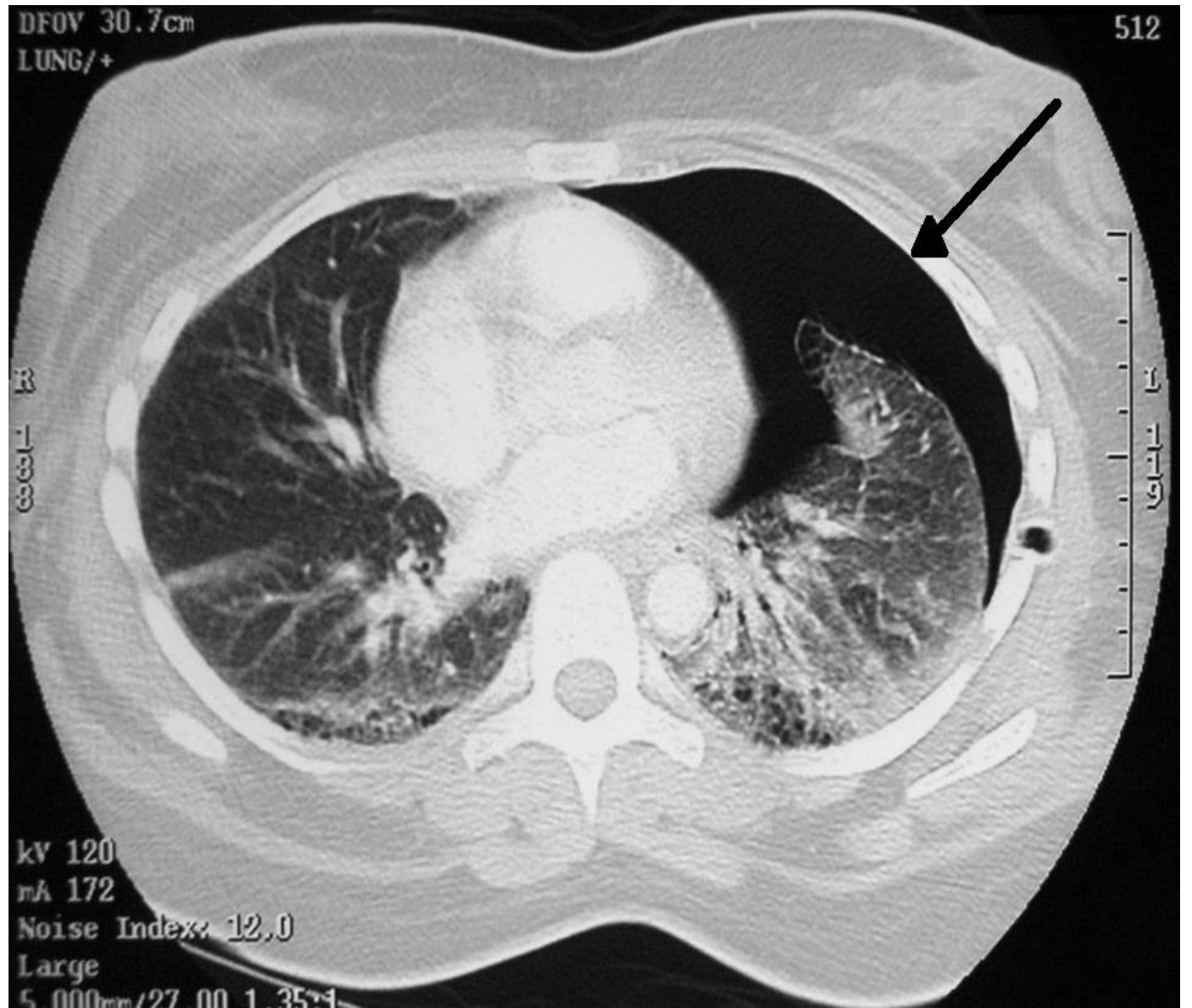
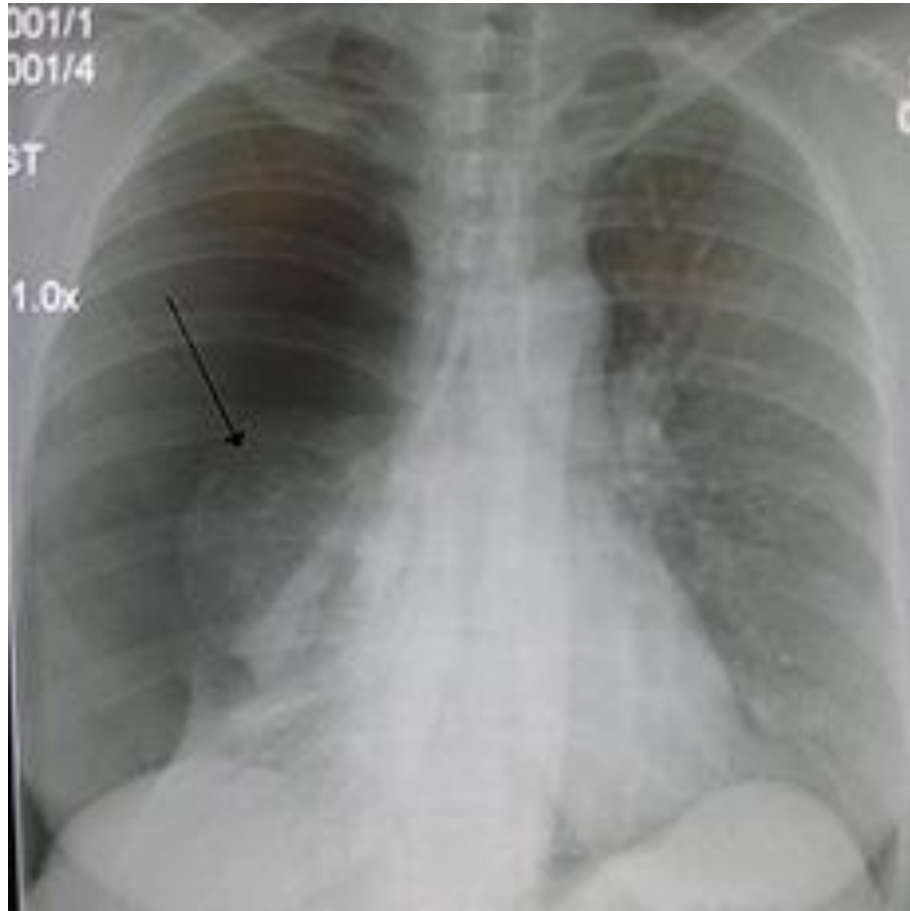
- Cardiac diseases
- Thoracic disease



Common Thoracic Diseases

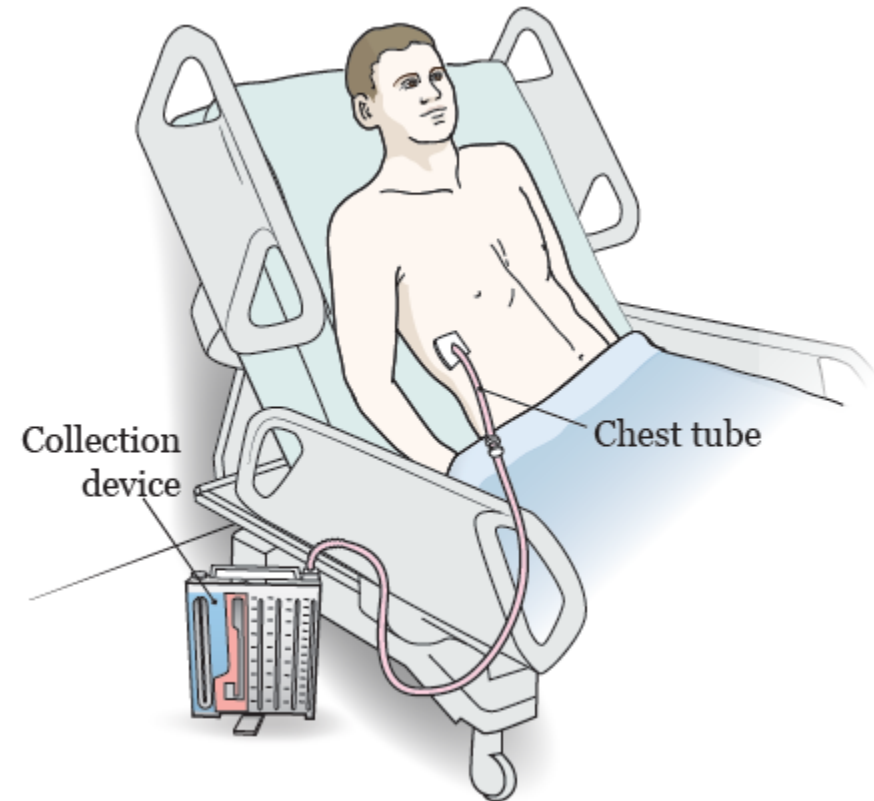
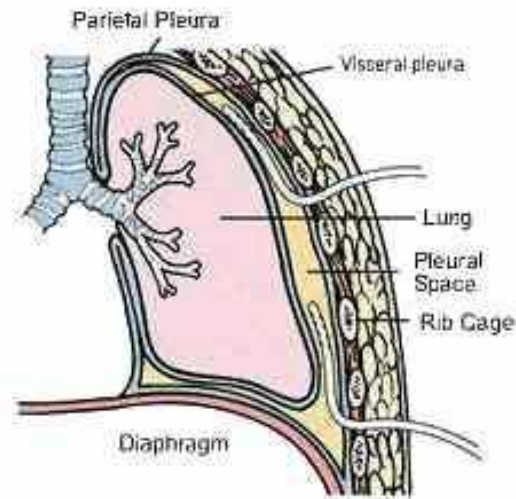
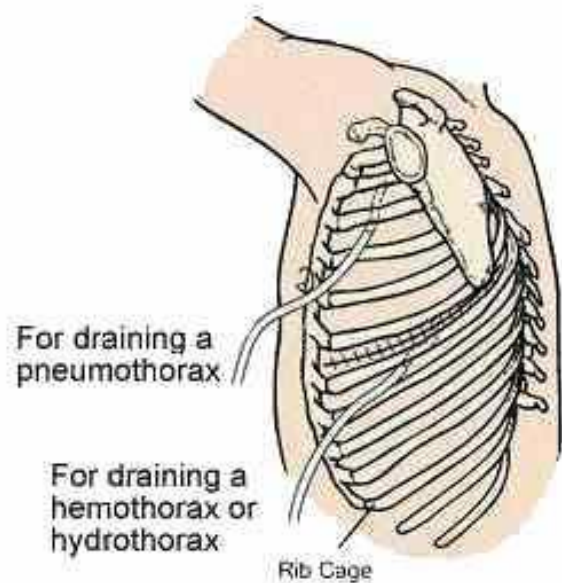
- Pneumothorax
- Empyema
- Lung Cancer
- Hyperhidrosis

Pneumothorax

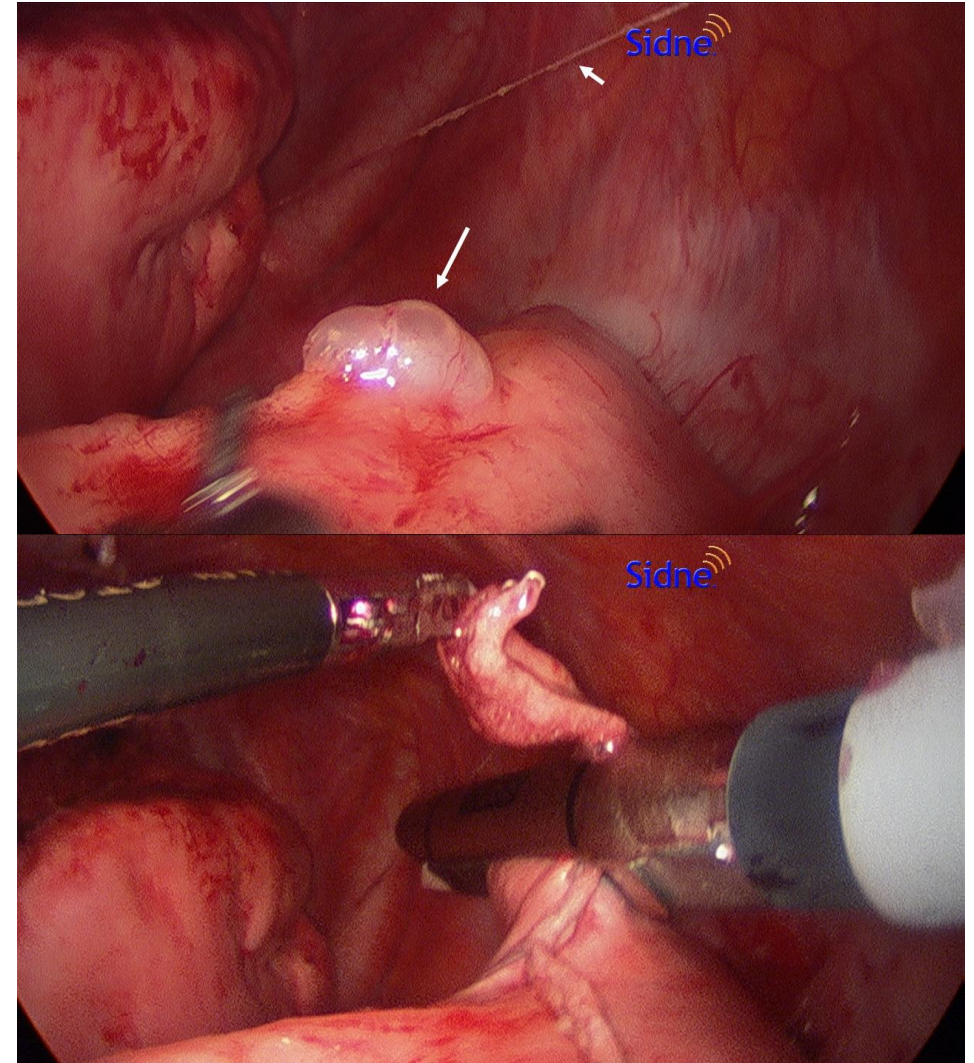
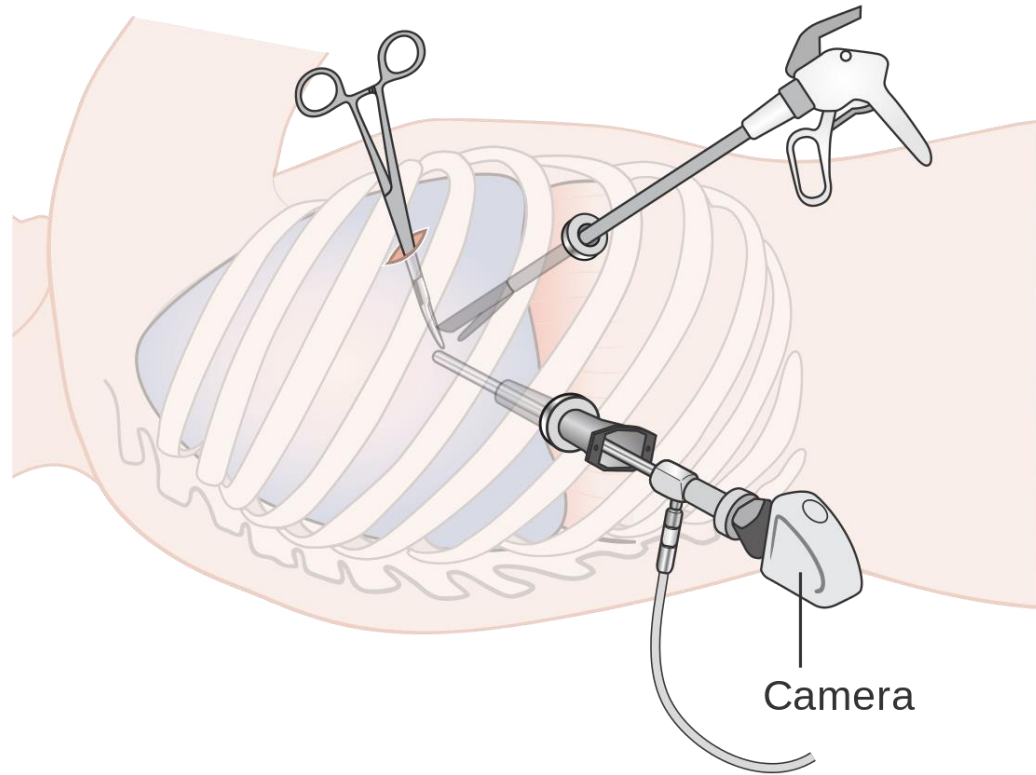


Pneumothorax Treatment

- Chest tube drainage via the safe triangle of chest



Persistent Pneumothorax

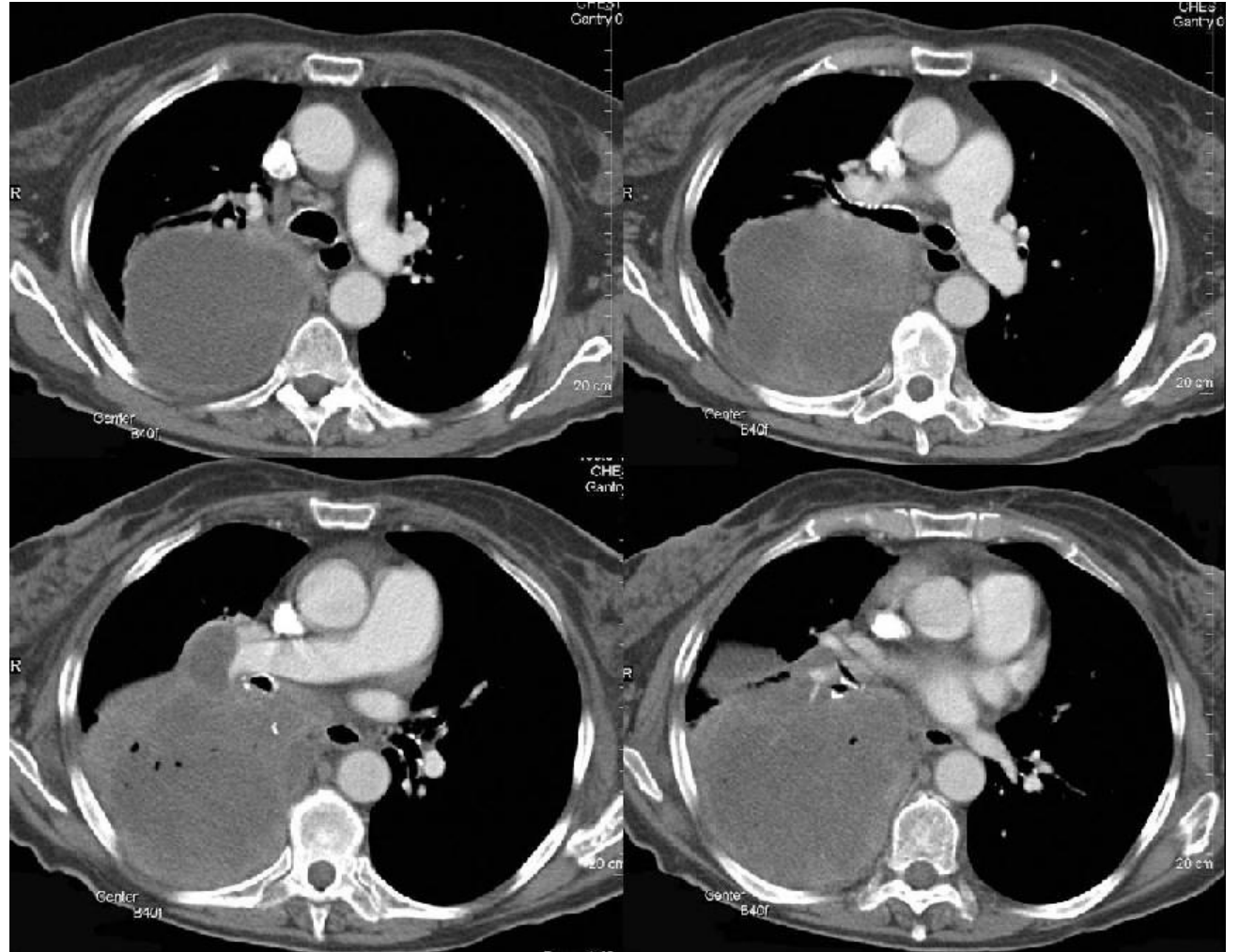


Empyema

- Collection of pus in the pleural cavity
- Divided into 3 stages
 - Parapneumonic effusion
 - Fibrinoexudative phase
 - Mature empyema

Treatment varies according to stage

Decortication



Decortication

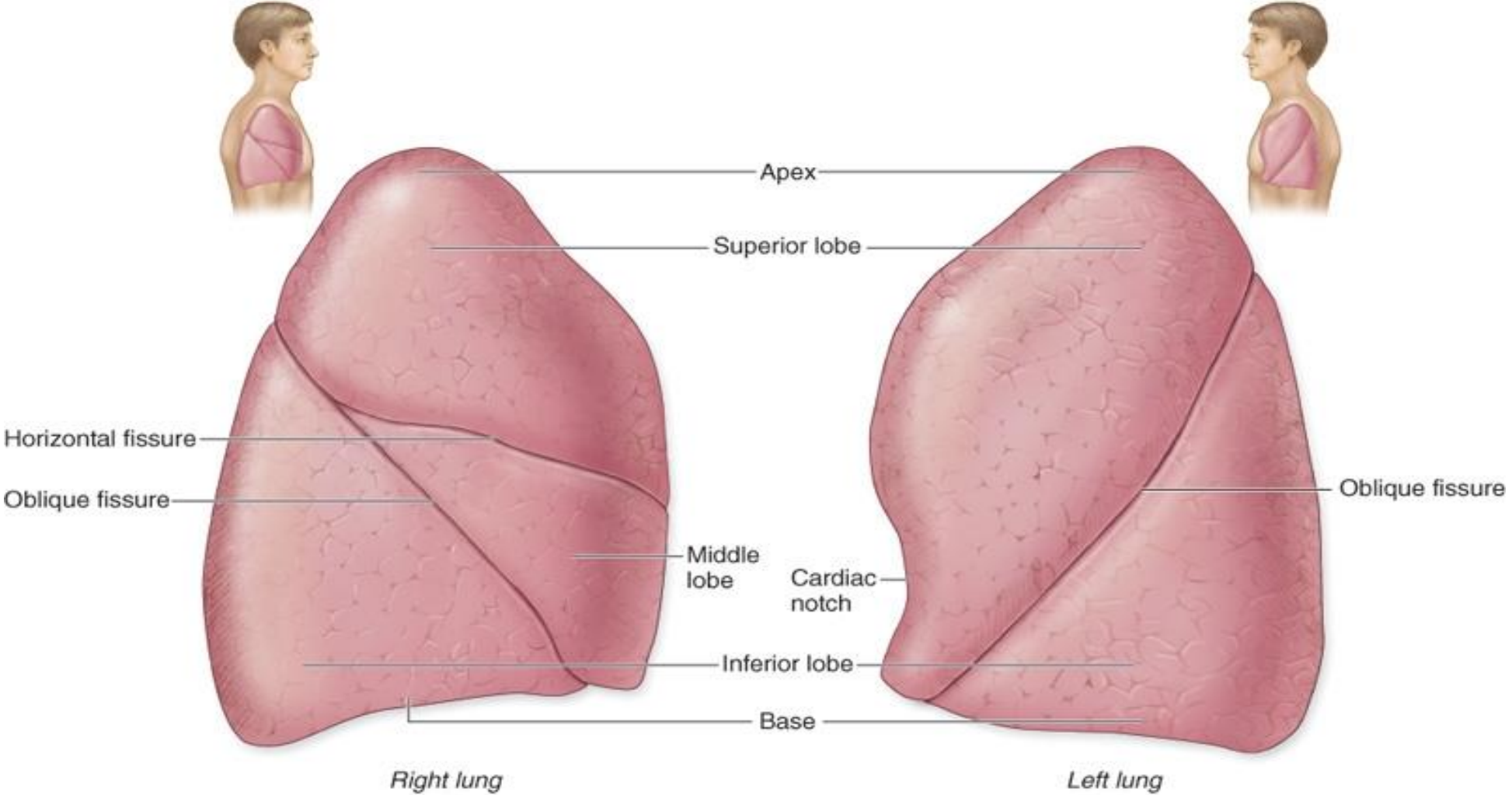


Lung cancer

- Commonest cancer
- Huge proportion asymptomatic
- Others have symptoms of pain, hemoptysis, persistent cough and shortness of breath
- Adenocarcinoma of the lung the commonest type
- Staged according to the TNM classification
- Surgery usually offers to stage 1 and 2 tumours

Lung cancer treatment

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(a) Lateral views

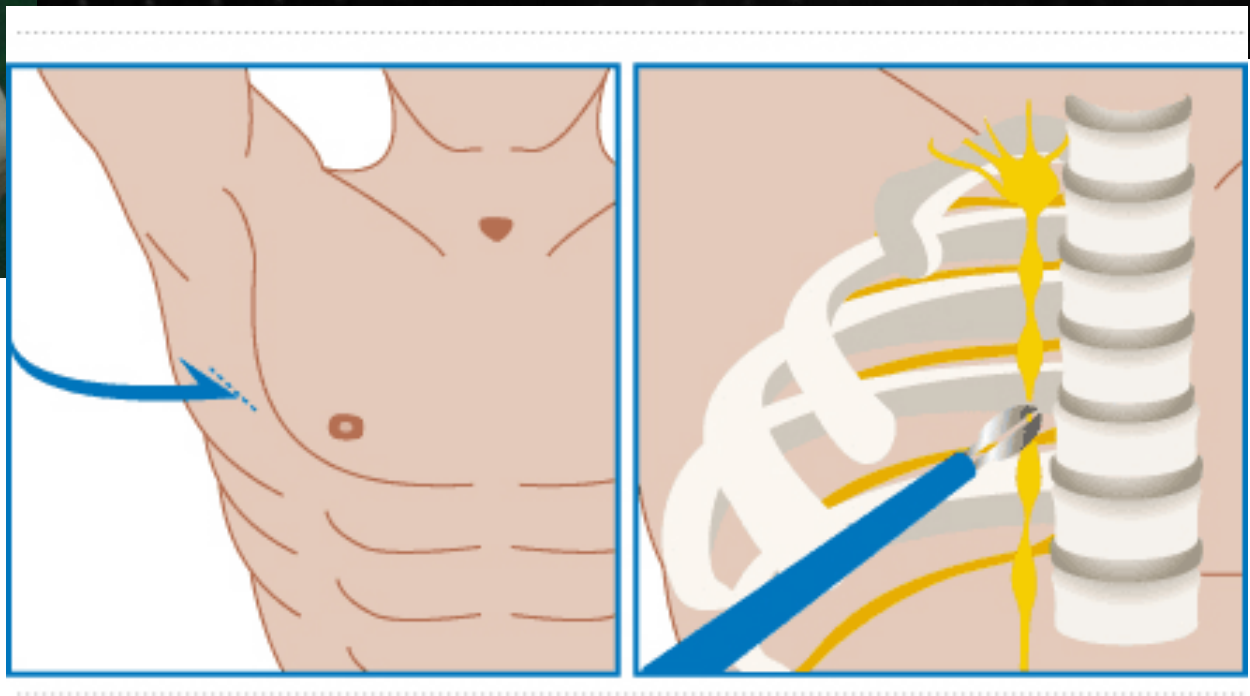
Lung Cancer CT Scan (LDCT for screening?)



■ CT scan of small lung tumor, left upper lobe.

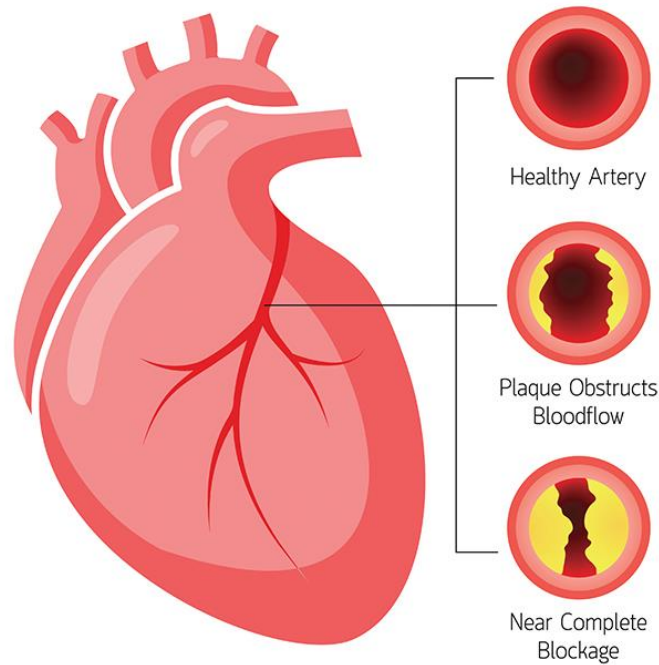


Hyperhidrosis

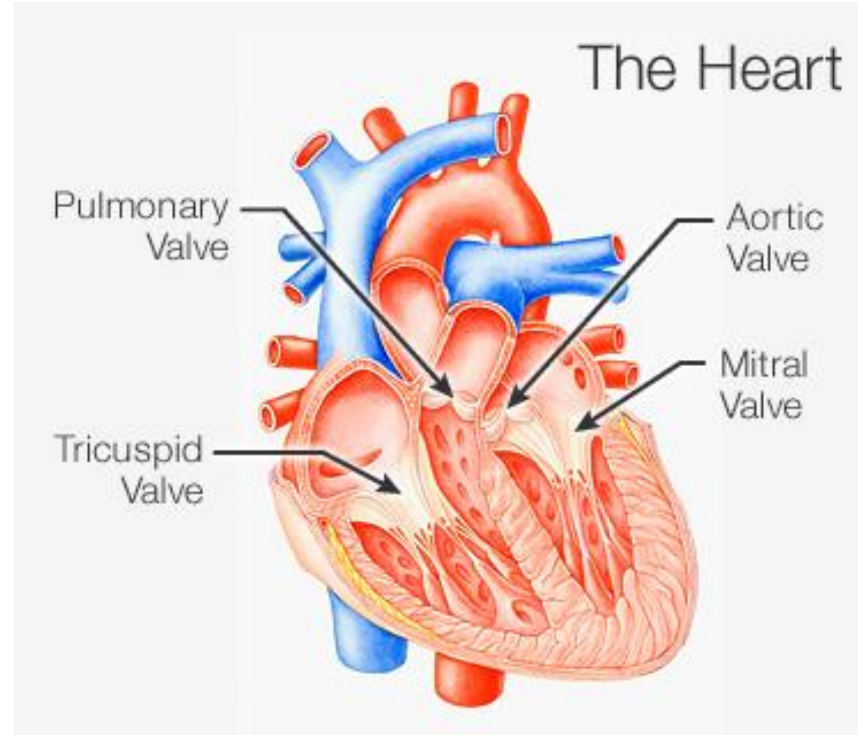


Common Cardiac Diseases

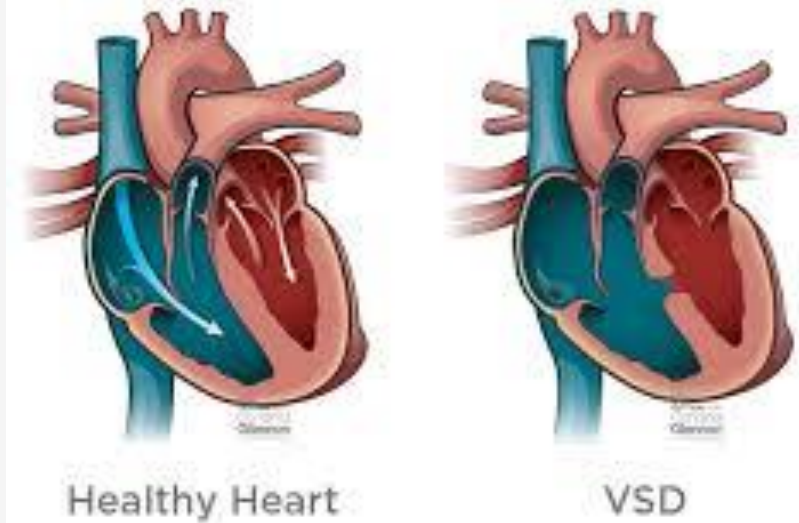
Coronary Artery Disease



Valve Disease



Congenital Paeds



Coronary Artery Disease

- Due to blockage to the coronary arteries

- Risk factors include

- Diabetes

- Hypertension

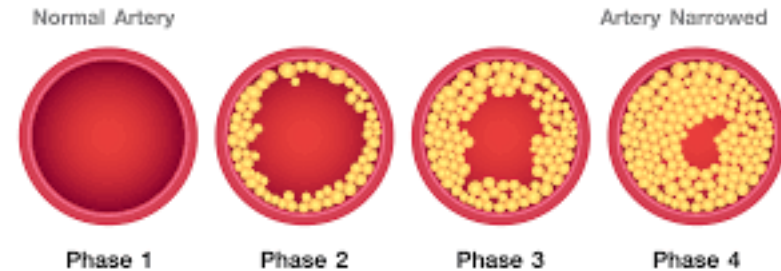
- Smoking

- Cholesterol

- Old Age



Cholesterol



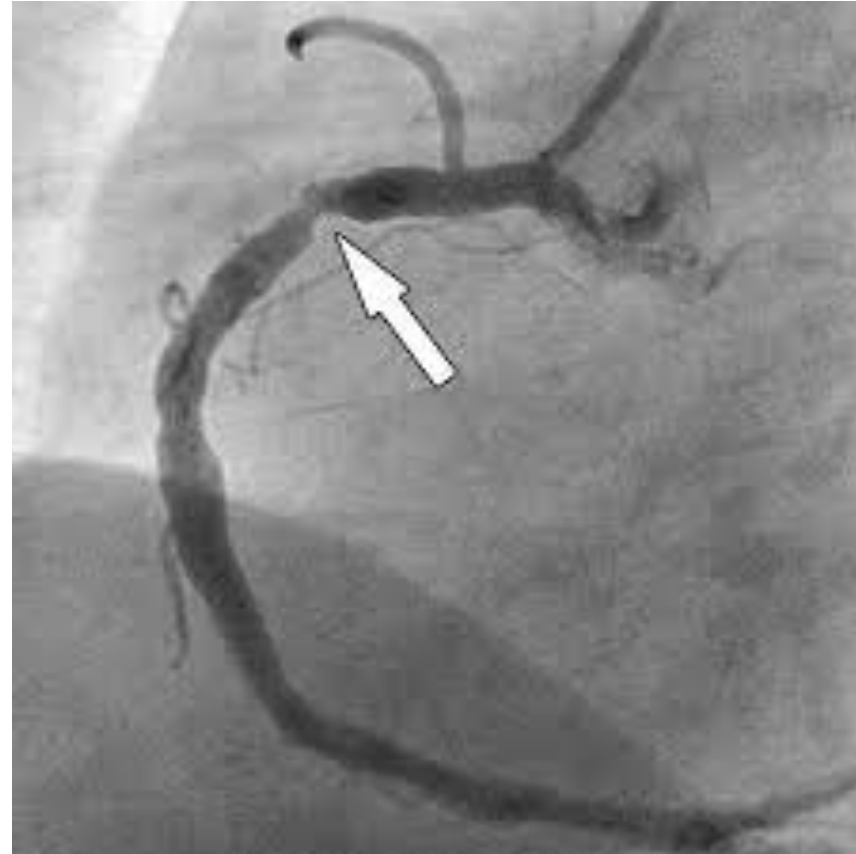
Coronary Artery Disease Presentation

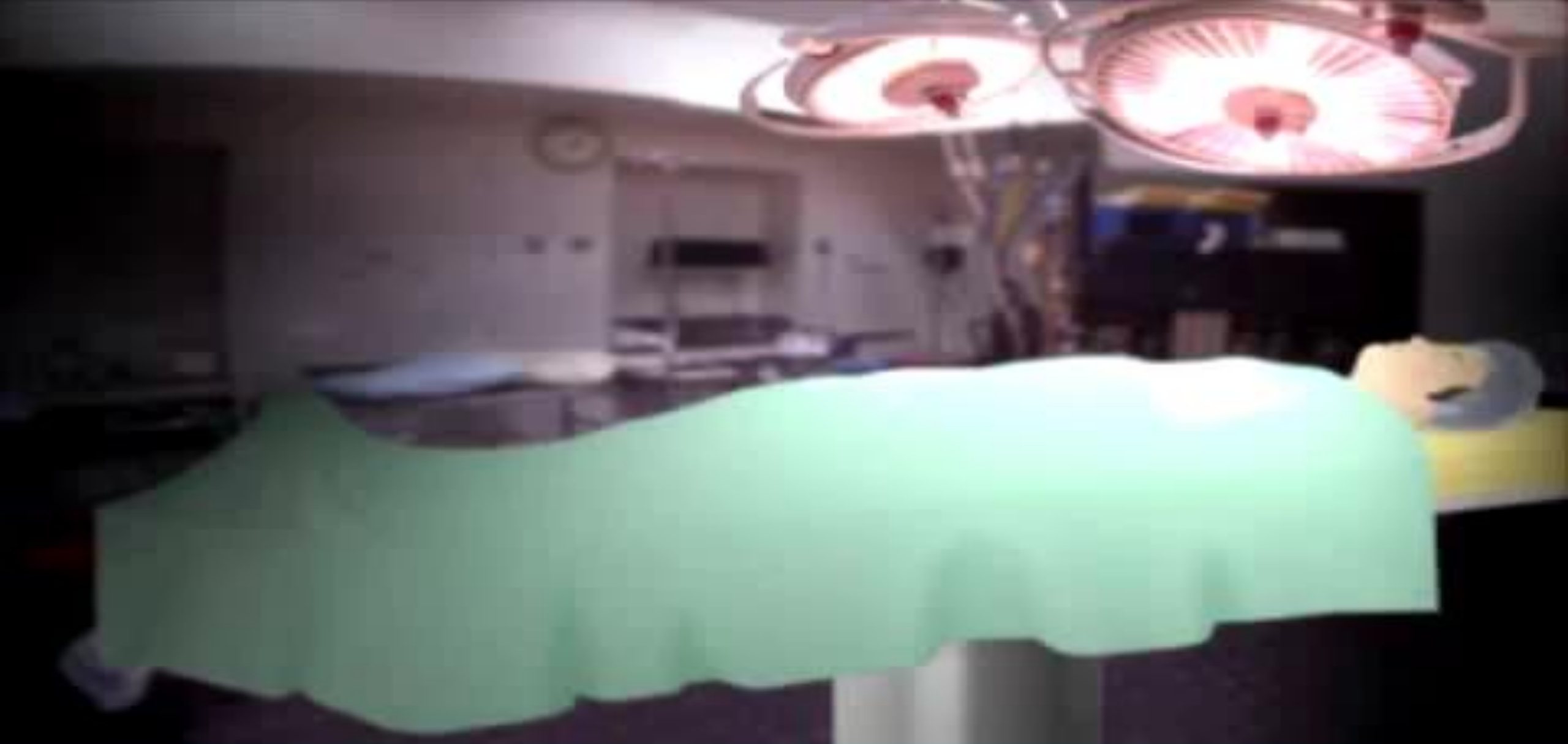
- Spectrum of disease from asymptomatic to sudden cardiac death
- Chest pain and reduced effort tolerance are common symptoms



Diagnosis

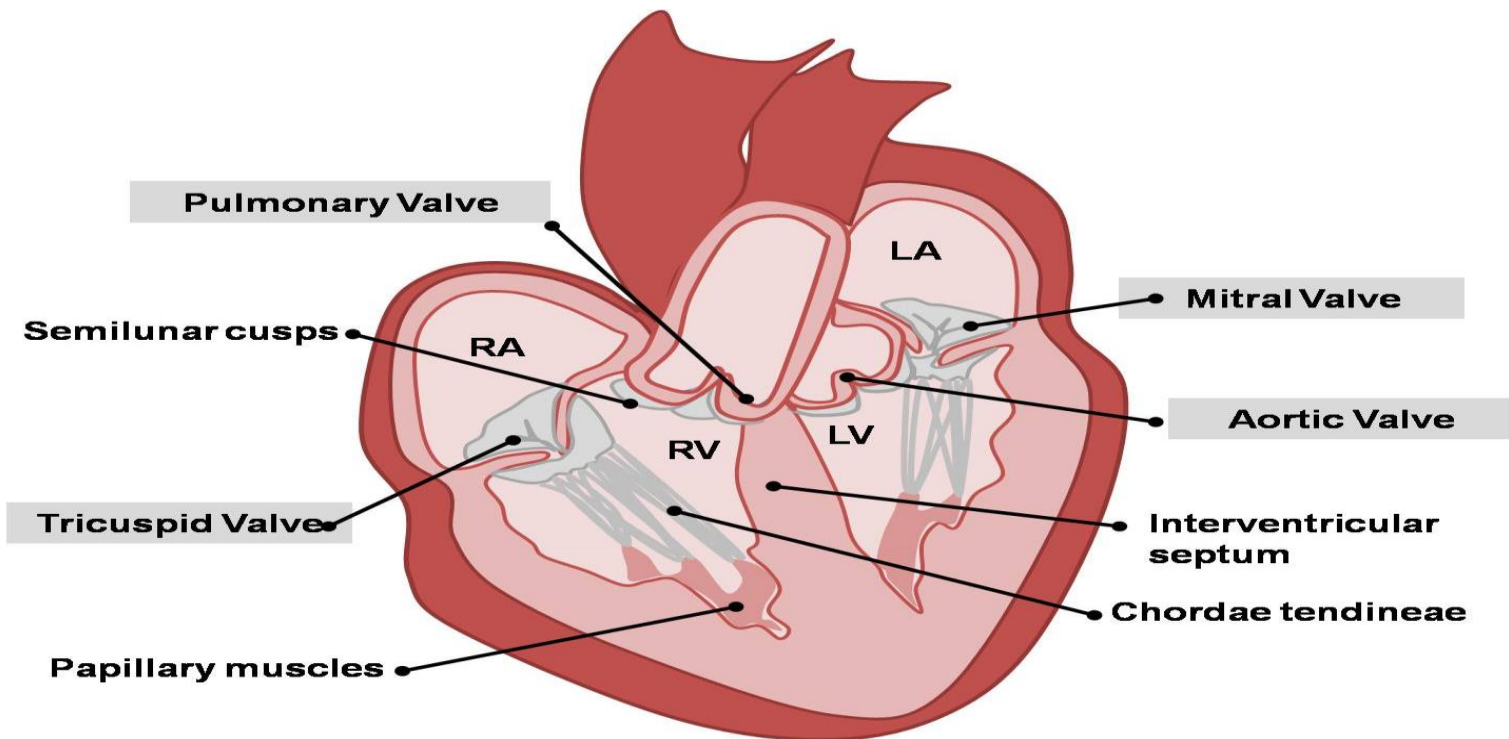
- Require coronary angiogram to identify blockage





Valvular Heart Disease

- 4 valves in the heart
- Tricuspid, Pulmonary, Mitral, Aortic
- Either Stenotic or Regurgitant



Treatment

- Either repaired or replaced
- Valves can be mechanical or tissue valves
- Selection depending on the age of patients and pre-existing conditions to warfarin



Animal tissue valve



Mechanical valve

Paeds Congenital Surgery

- ASD
- VSD
- Tetralogy Of Fallot`s
- PDA ligation
- Complex congenital operations



Tech an uneasy fit for women

A Woman's Worth

By Faridah Hameed



NEXT time you are at the gym, check out how many women are using the standard weight training machines. My guess: not very many.

Like most female gym goers, I have given up on using most weight training machines. When I sit on these machines, no matter how much I wriggle to fit within the frame as depicted in the instructions, either my legs are left dangling off the floor, or I pull a muscle in my arms trying to work a machine not designed for my 5'1" petite frame.

Weight training machines are not designed for the average woman's frame — and, as it turns out, design technology in general may be slow to catch on to women's needs.

One such pioneering technology that epitomises this dilemma is the Carmat artificial heart. While it is designed for those with end-stage heart failure, it fits 86 per cent of men, but only 20 per cent of women.

Asked about this discrepancy by online

magazine *Motherboard*, a company spokesperson said the device fits the thoracic cavity of a man, which has more space than that of a woman. The distance from spine (back) to sternum (front) — which is critical to fit the device — is 2.3cm less in women.

The device was in development for 15 years and is undergoing human testing, though it is unclear if a female-friendly version will be out anytime soon.

While there is a worldwide movement to increase the number of female graduates in technology to help accelerate the development of products for women's needs, there remains an underlying bias across a broad spectrum — the dismal numbers of women CEOs in technology and women entrepreneurs gaining venture capital attest to this.

Last month, tech entrepreneur and Stanford University scholar Vivek Wadhwa spoke out about the disconnect between the movement to get more women in tech, and the reality within many companies.

Pointing out that the boards of most technology companies are male, Wadhwa says most CEOs will give the reason that there simply aren't enough women engineers.

"But a significant proportion of the male board members of technology companies aren't engineers either," he counters.

"They have degrees in fields such physiology, English, marketing, finance — or no degrees at all. Women are held to a different standard."

The venture capital community is equally male-dominated all over the world. A recent Reuters report *Women Entrepreneurs 2014: Bridging the Gap* in Venture Capital which highlights the declining percentages of female venture capitals — 6% now compared to 10% in 1999 — and the fact that many top firms have no female partners at all.

But there are silver linings.

Last year, Duke University in the US brought together its biomedical engineering and global health experts together to create the Global Women's Health Technologies Centre.

Led by Dr Nimmi Ramanujam, a professor of biomedical engineering and global health, the centre has a two-pronged mission: to increase research, training and education in women's diseases, and to increase retention of women and underrepresented minorities in Science, Technology, Engineering, and Mathematics (STEM) educational disciplines locally and globally.

The effort is driven by the urgent need to find solutions for the 800 women who

die every day due to complications during pregnancy and childbirth.

On a lighter note, there are some technologies that are addressing what may be cosmetic (but real nonetheless) issues for women when it comes to mobile phones.

Nano Nails is a fingernail that doubles up as a stylus. It is the brainchild of dermatologist Sri Vellanki whose couldn't accurately text on her iPhone because of her nails.

"I wanted the Nano Nails brand to be a solution for the female consumer without significantly changing her usual nail care routine," she has said in interviews.

Nano Nails takes the technology of a stylus, which produces an electrical conductor that touch screens detect, and merges it with fake fingernails.

Though this is not something I would buy, the point is that much of technology — be it gym machines, artificial body parts, or investment — remains out of touch with the needs of women, displaying a lack of understanding of the multi-billion dollar women's consumer market.

Faridah Hameed is an international speaker and coach for career women and women business owners. Connect with her at www.faridahhameed.com, Facebook or LinkedIn.

Thank You

www.mahkotamedical.com

Thank you from the bottom of my heart



HAMZAH OSMAN

I GIVE thanks to God Almighty for his mercy, compassion and understanding. It has been seven months since I underwent a bypass surgery at the Universiti Malaya Medical Centre (UMMC) in Petaling Jaya.

My heartfelt thanks to the 'angels' sent from above in the likes of Prof Dr Imran Zainal Abidin, Associate Prof Dr Shahrul Amri, Dr Kenny Cheng Keng Peng, and a host of other doctors in his team. Not forgetting also the physiotherapists, nurses and all those good people at Ward 6U in UMMC.

It was a midnight on the second week of February when I was rushed to the Sungai Buloh Hospital after a heart attack.

The following day, my cardiologist Prof Imran was reading the ECG report and he said to me: "Hamzah, you had a massive attack but somehow it self-aborted."

Prof Imran himself was puzzled and he advised me to go for an angiogram. After the diagnosis it was recommended that I had to do a bypass surgery and the date was fixed for February 26.

Family members arranged a *doa selawat* (prayers) for me and for my wife who was leaving for Mecca to perform the *umrah* on March 7. Can you imagine the state of mind I was at that moment? My wife was in a dilemma but I insisted she go for *umrah* no matter what happens.

Two days before the operation, I informed my colleagues at *Malay Mail* about the surgery and wished them goodbye. Many of my colleagues were shocked but calmly wished me good luck and offered me comforting words. My colleague, Hareesh Deol, gave me some words of confidence, which really helped.

Another colleague, Ian Pereira, who I thought never liked me at all gave the best words of comfort I will never forget. He said: "I will remember you in my prayers." I felt very happy.

Special thanks to my childhood friend, Randhir Singh, who was always there when I needed him. Thanks also to my former colleagues at *theStar*, friends and relatives for their prayers and get-well wishes.

The operation went on without any hitches under the good care of Dr Kenny Cheng and his team of nurses at Unit 6A. My sincere thanks to all of them.

Dr Kenny asked me whether I want to go home. I looked into his eyes to see if he was trying to pull a joke on me. It was only five days after surgery. So I was discharged and told to recuperate at home.



Hamzah at the UMMC ward after the surgery. On the left is Dr Kenny.

With my wife, Halimah, still in Mecca, my two sons Hafiz Khan and Haslam, daughter Halizah and daughters-in-law Jamarriah and Syafiqah took leave from work to take care of me. I was deeply touched by their show of concern and care.

Life was back to normal after my wife returned from Mecca on March 18.

Recuperating at home gave me a lot of time to think and recollect. A lot of changes have taken place in the way I think. I'm

grateful to God for his mercy. I feel very gifted and happy.

I'm going to share all good things with the people around me. They have shown me kindness and love and there is nothing to stop me doing the same.

On Thursday, my colleagues at *Malay Mail* gave a small party for my 57th birthday. Thank you Frankie D'Cruz and Hareesh for the kind thoughts. It was a simple yet memorable occasion for me.