

## Introduction into clinical medicine

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## Selection of your profession

### In many respects, doctors have it good.

- They are highly regarded by society,
- well compensated for their work,
- have the opportunity to have a positive influence on the lives of many people.
- Most doctors enjoy seeing patients,
- have excellent job security,
- work alongside talented and accomplished colleagues.

### There are parts of a doctor's work that are frustrating, undesirable, and even repetitive or boring.

- Doctors work far more hours than the average U.S. professional
- cope with large amounts of stress and pressure.
- On top of that, the business of health care has become increasingly contentious, with a variety of industries and interest groups clamoring to support their disparate needs and interests.

### Stay in Touch with the Trends

- Pay attention to what's happening in the media.
- Familiarize yourself with medical journals and magazines.
- realize that the current events in health care have a direct influence on your future career.
- Medical schools will expect you to understand the health-care industry and will interview you for opinions on the current situation.
- What do you know about today's health-care issues? Are you ready to enter the battleground?

### Mirror Mirror on the Wall: Should You Be a Doctor?

- Talk to as many doctors as you can.
- Find out how they spend their days, and what they love and don't love about their profession. Think about whether you could fill their shoes, and whether you would thrive in doing so.
- TV shows with exciting plots and attractive actors glamorize medicine,
- newspapers sometimes do the opposite by highlighting negative trends and emphasizing scandal.

## Patient-doctor relationship

## How do you evaluate the appearance of a patient?

- Your patient is in stress
- Your patient shows normal, conventional behaviour?
- Is your patient educated?
- Is your patient keen about himself?
- How does your patient evaluate himself? Realistic , or very anxious?

## How your patient evaluate You?

- Are you stressed?
- Are you concentrating on him?
- Can you understand his problem? Are you showing empathy?
- Are you clean and tidy?
- Are you trendy?

## Inspection

- An assessment of the patient's general appearance is usually begun with a detailed inspection at the time when the history is being obtained

## Examination of the face

- *myxedema* is characterized by a dull, expressionless face; periorbital puffiness; loss of the lateral eyebrows; a large tongue; and dry, sparse hair.
- *earlobe crease* occurs more frequently in patients with coronary artery disease than in those without this condition



Hyperthyroidism, shown here as left-sided exophthalmos and lid lag, is a common cause



Blue sclerae in a patient with osteogenesis imperfecta and severe mitral regurgitation



Cutaneous stigmata of hypercholesterolemia. Xanthelasma are clearly visible around the eyes but are not specific for hypercholesterolemia.

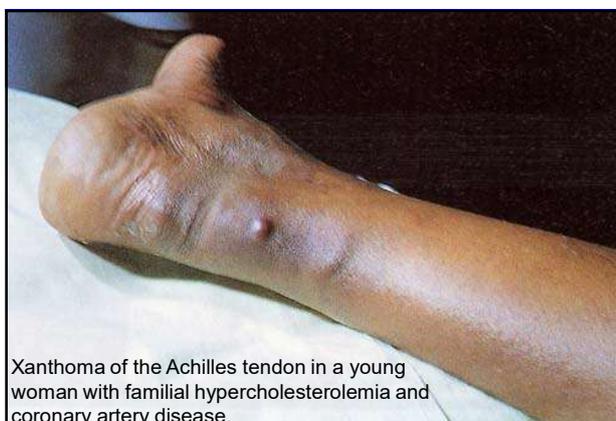
Much more specific are tendon xanthelasma, which, in this example, are visible on the knuckles of the hand.



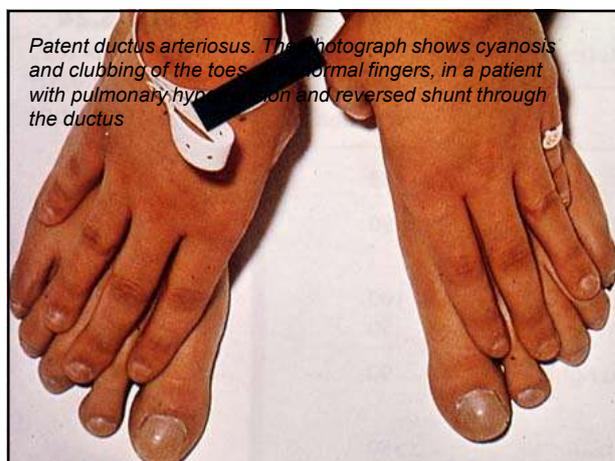
Corneal arcus.

This can be regarded as a normal part of the aging process and is a nonspecific finding. However, in young patients the presence of a corneal arcus is more predictive of hypercholesterolemia, particularly when it is eccentric.

## The extremities



Xanthoma of the Achilles tendon in a young woman with familial hypercholesterolemia and coronary artery disease.



Patent ductus arteriosus. This photograph shows cyanosis and clubbing of the toes, as well as normal fingers, in a patient with pulmonary hypertension and reversed shunt through the ductus



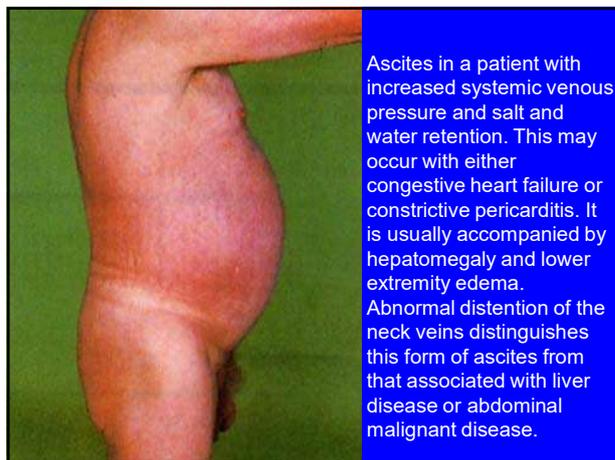
Peripheral edema is a cardinal sign feature of congestive heart failure, though it may occur in other conditions. Typically, edema pits on pressure.



Congestive heart failure may be associated with a reduction in bulk and with histological and biochemical changes in skeletal muscle. The presence of edema may mask the gross loss of muscle mass due to cardiac cachexia.



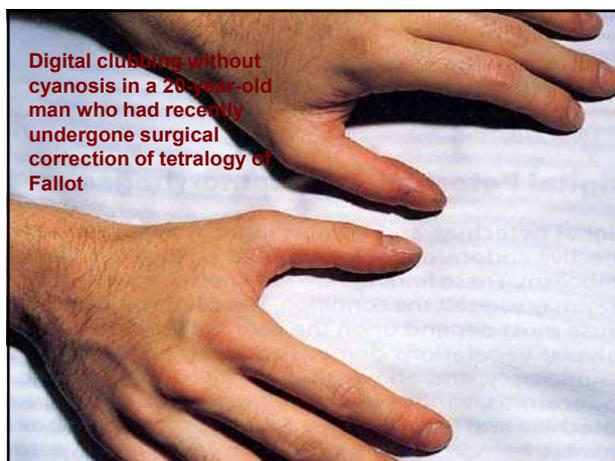
**Pectus excavatum.** Severe funnel breast produced "pancake heart," a variety of pseudo-heart disease, in this patient.



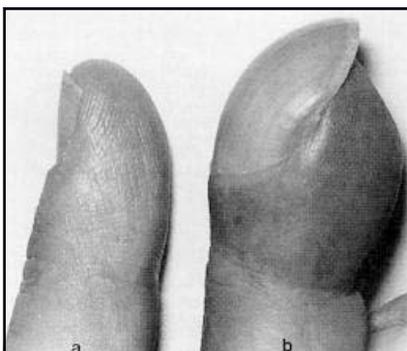
Ascites in a patient with increased systemic venous pressure and salt and water retention. This may occur with either congestive heart failure or constrictive pericarditis. It is usually accompanied by hepatomegaly and lower extremity edema. Abnormal distention of the neck veins distinguishes this form of ascites from that associated with liver disease or abdominal malignant disease.

### The skin color, behaviour

- The presence of pallor or cyanosis should be noted,
- as well as the presence of shortness of breath, orthopnea, periodic (Cheyne-Stokes) respiration
- distention of the neck veins.



Digital clubbing without cyanosis in a 26-year-old man who had recently undergone surgical correction of tetralogy of Fallot



A, Normal finger. B, Advanced clubbing in a young cyanotic adult.

Your patient is having pain

### If the patient is in pain

- If sitting quietly (typical of angina pectoris); moving about, trying to find a more comfortable position (characteristic of acute myocardial infarction);
- or most comfortable sitting upright (heart failure) or
- leaning forward (pericarditis)?

### Musset sign

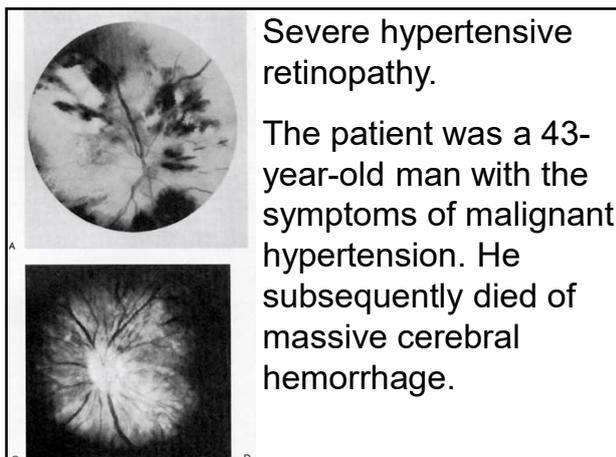
- Bobbing of the head coincident with each heartbeat is characteristic of severe aortic regurgitation.
- Facial edema may be present in patients with *tricuspid valve disease* or *constrictive pericarditis*.

### Aortic regurgitation

- Systolic flushing of the nail beds, which can be readily detected by pressing a flashlight against the terminal digits (Quincke sign), is a sign of aortic regurgitation and of other conditions characterized by a greatly widened pulse pressure.
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### Eyes (fundi ?)

- External ophthalmoplegia and ptosis due to muscular dystrophy of the extraocular muscles occur in the *Kearns-Sayre syndrome*, which may be associated with complete heart block.
- Exophthalmos and stare occur in hyperthyroidism, an important cause of high-output cardiac failure.
- Severe tricuspid regurgitation can also cause pulsation of the eyeballs (pulsatile exophthalmos), as well as of the earlobes



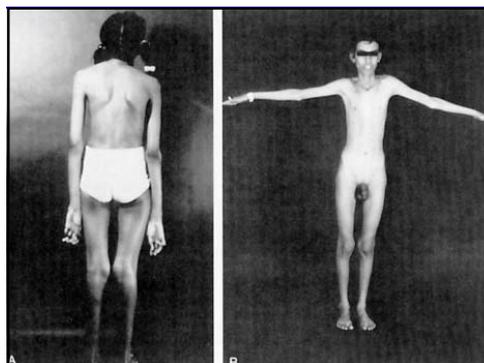
**Severe hypertensive retinopathy.**  
The patient was a 43-year-old man with the symptoms of malignant hypertension. He subsequently died of massive cerebral hemorrhage.



**Tendinous xanthomas** of the knees in a patient with familial hypercholesterolemia. The patient was a 10-year-old girl with a serum cholesterol level of 665 mg/dl. Several other members of her family had a similar syndrome.



Hemorrhagic telangiectasia on the lips of a 25-year-old woman with pulmonary arteriovenous fistulas.



External phenotype of a patient with Marfan syndrome, showing long extremities and digits, tall stature, and pectus carinatum

### Marfan syndrome

- Arachnodactyly is characteristic of Marfan syndrome.
- Normally, when a fist is made over a clenched thumb the latter does not extend beyond the ulnar side of the hand, but it usually does so in Marfan syndrome

### Where do you see your patient?

- At home
- In the office
- In an emergency at a public place
- In the hospital
- In the emergency department

## Etiology of chest pain in different locations

Äthiologie	Hausärztliche Praxis	Telefonische Bereitschaft	Notarzt	Notaufnahme Krankenhaus
Herz	20	60	69	45
Muskulo-Skeletal	43	6	5	14
Lunge	4	4	4	5
Magen/Darm	5	6	3	6
Psychisch	11	5	5	8
Weitere	16	19	18	26

## Differential diagnosis of chest pain

Disease	Location	Quality	Duration	Factors	Symptoms
Ischemic	Retrosternal	Pressure	Different	Cold,NG	S4, sweating
Pericarditis	Localized	Sharp	Days	Breath	Friction
Dissection	Chest	Tearing	Sudden	Marfan	AR
PE	Regional	Pleuritic	Sudden	Breath	Dyspnea
PHT	Substernal	Oppressive	Different	Effort	Dyspnea

## The Oath

By Hippocrates

Written 400 B.C.E

Translated by Francis Adams

## I SWEAR by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses

That, according to my ability and judgment, I will keep this Oath and this stipulation- to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others.

## I will follow that system of regimen which, according to my ability and judgment,

- I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous.
- I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion.
- With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work.

## Into whatever houses I enter

- I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further from the seduction of females or males, of freemen and slaves.
- Whatever, in connection with my professional practice or not, in connection with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret.

**While I continue to keep this  
Oath unviolated**

- may it be granted to me to enjoy life and the practice of the art, respected by all men, in all times!
- But should I trespass and violate this Oath, may the reverse be my lot!

**My words to You all:  
Let it be!**