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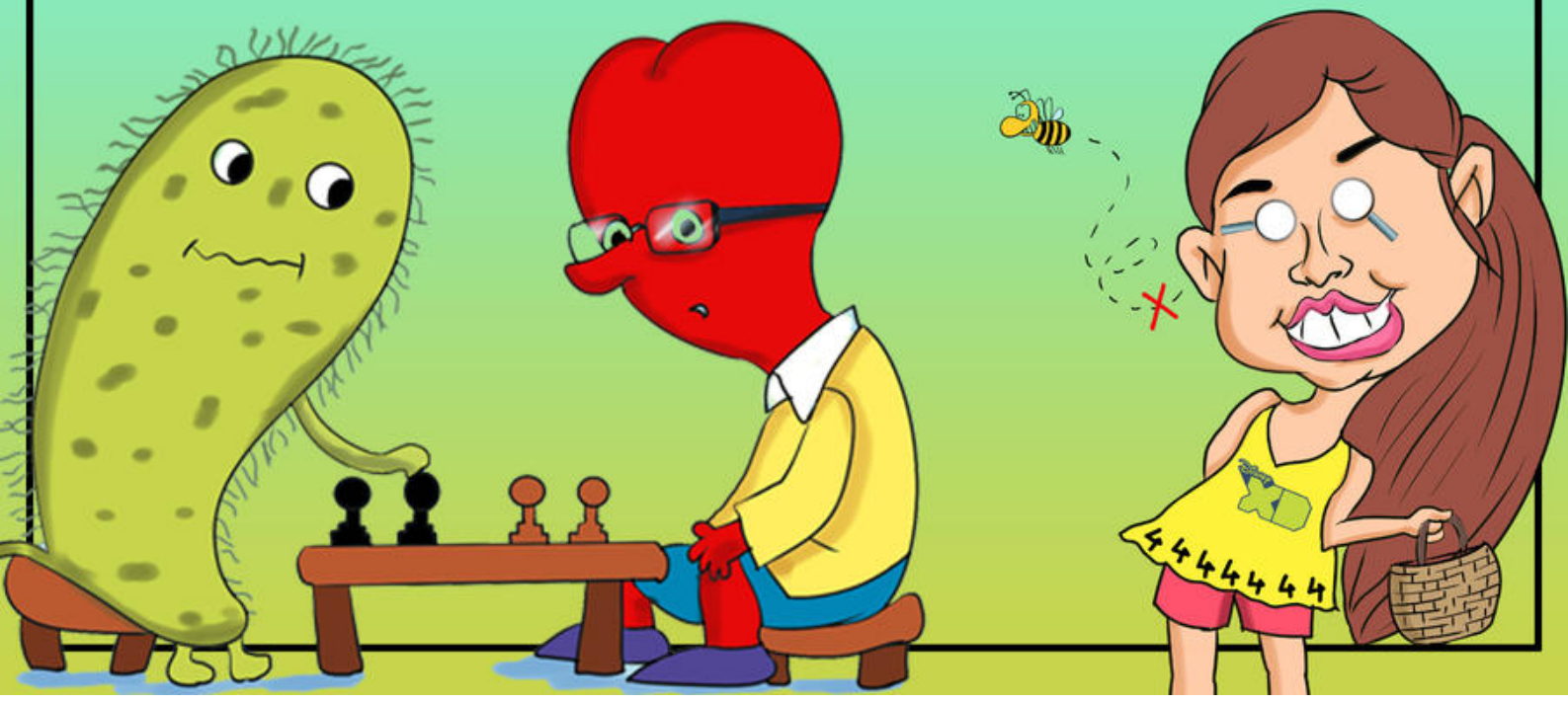
MNEMONICS

SMART
ESSENTIALS

VISUAL MNEMONICS

PATHOLOGY

DR. NAZMUL ALAM



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REVIEWS

susanth09
Me
Today, 10:27 AM

Thank you, Got it. Really appreciate your help Doctor. Your work is commendable. Helps to keep abreast of what one has learned. Thank you and stay blessed.
Show more

Adrish Biswas Today at 9:02 PM
To: Nazmul Alam
AB

Hey , I have been following you for some time now and I must say I am a big fan of your work . Just bought the Pharmacology and Microbiology Mnemonic Combo and it's amazing . Looking forward to more interesting stuff from you! Thanks a bunch!

Top Reviews

Pawan Pilania

★★★★★ **Redefining Imagination of a Medico. Worth It.**
6 March 2019

When those bugs eat your brain and you close that bulky textbook. There you Need Mnemonics to Visualise and remember stuffs.
Great piece of work with awesome illustrations. Thanks a Lot Dr Nazmul 🙌

Helpful | Comment | Report abuse

Jennifer

★★★★★ **Very good**
6 March 2019

Thank you for such an awesome book. Learning micro with the help of this book, is just like a cake walk. Worth it👍

Helpful | Comment | Report abuse

Sohail Zaman Today at 8:32 PM
To: NAZMUL ALAM
Re: link
SZ

Wow Mr Nazmul Alam for ur such an amazing Book of immunology.... special thing about ur content is that u organize them so well that nobody did it before....and through beautifull diagrams and mnemonics make the topic very easy and make the memory sharp....God bless ur brother for providing such a conceptual and Most easyiest book...
I would recommend it to everyone and specially to those who want some extra achievements in his/her medical carrier..... Once again Thanks for ur efforts....Lots of love from Pakistan❤❤❤👌👌👌

See More from NAZMUL ALAM

susanth09
Me
Today, 10:27 AM

Thank you, Got it. Really appreciate your help Doctor. Your work is commendable. Helps to keep abreast of what one has learned. Thank you and stay blessed.
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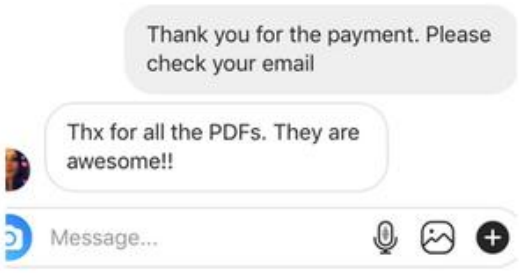
REVIEWS



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CHAPTER 2 INFLAMMATION

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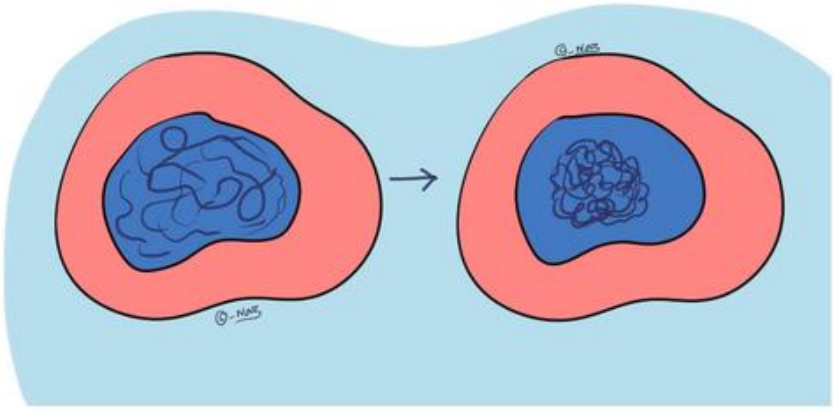
Cell Injury

Apoptosis

Marker of Apoptosis – Annexin V

Most Characteristic feature of apoptosis – Condensation of nuclear Chromatin



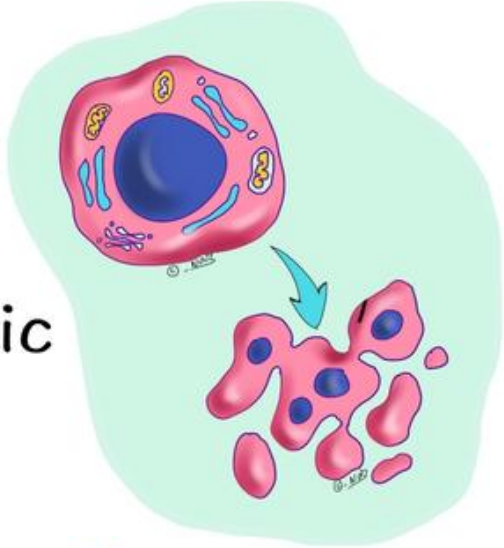
CD 95 is a marker of

Extrinsic pathway of Apoptosis

95

Fifth letter

Extrinsic



Apoptotic genes

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Pro-apoptotic genes – BAX & BAK

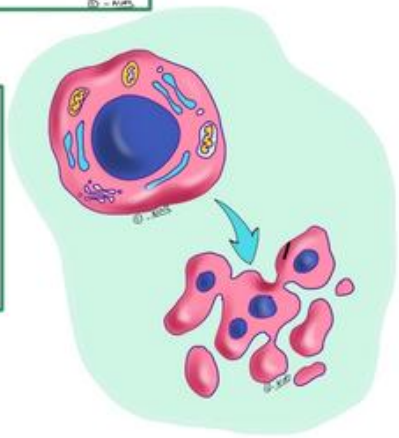
Anti-apoptotic genes – BCL2, BCL-XL, MCL 1

BAX, BAK

Activate apoptosis

BCl2, BCL-XL, MCL1

CLose apoptosis



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Coagulative necrosis

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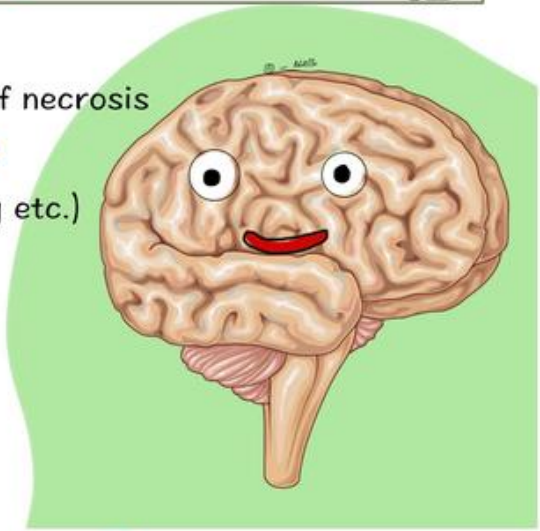
Coagulative necrosis spares CNS

↳ Most common type of necrosis

↳ Seen in most organs (Heart, Liver, Kidney etc.)



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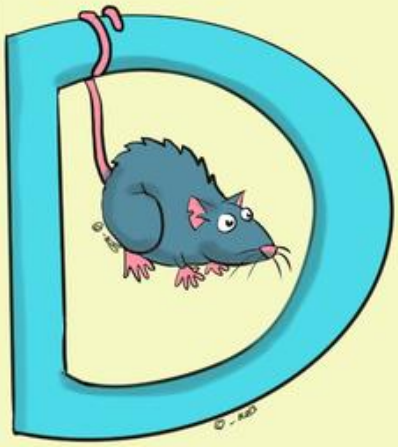
Dystrophic calcification

Dystrophic calcification is seen in **D**ead tissue

"RAT"

Seen in..

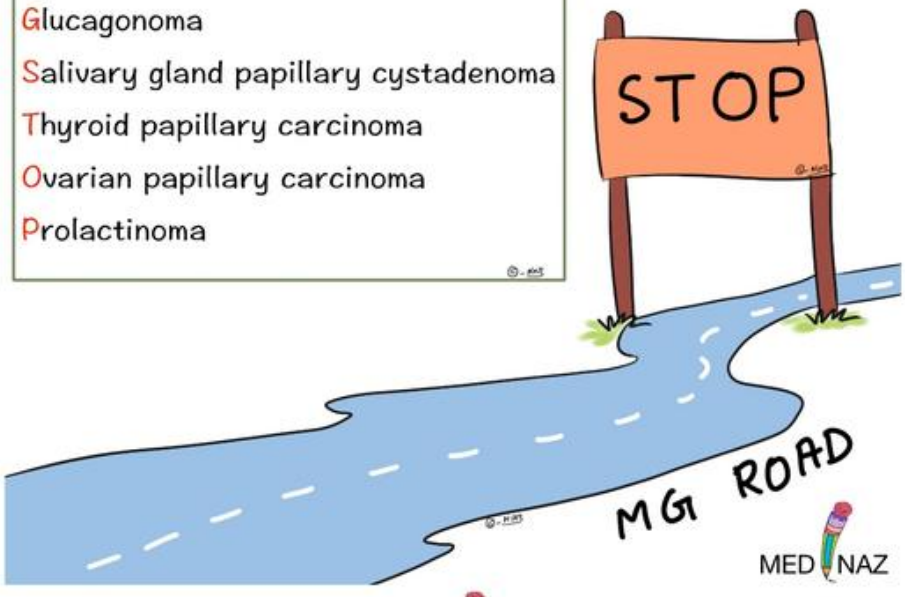
Rheumatic heart disease
(in cardiac valves)
Atheromatous plaque
Tubercular lymph node



Tumors having dystrophic calcification

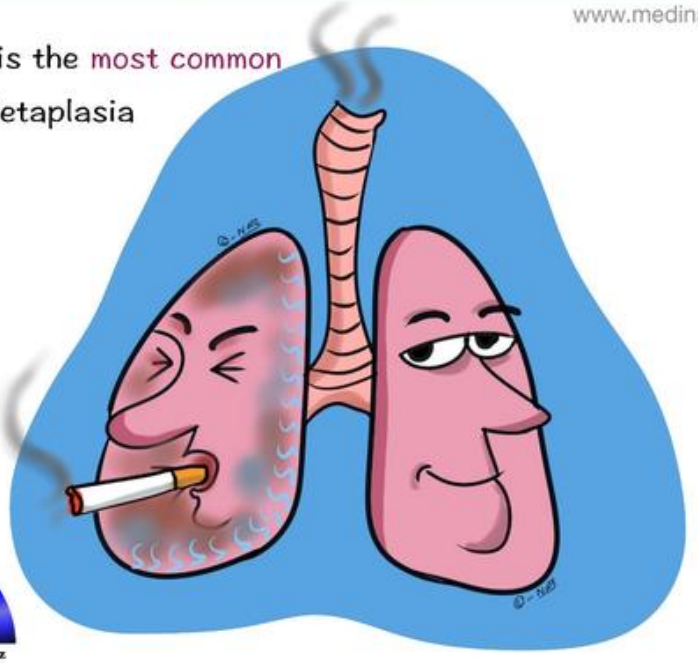
"MG STOP"

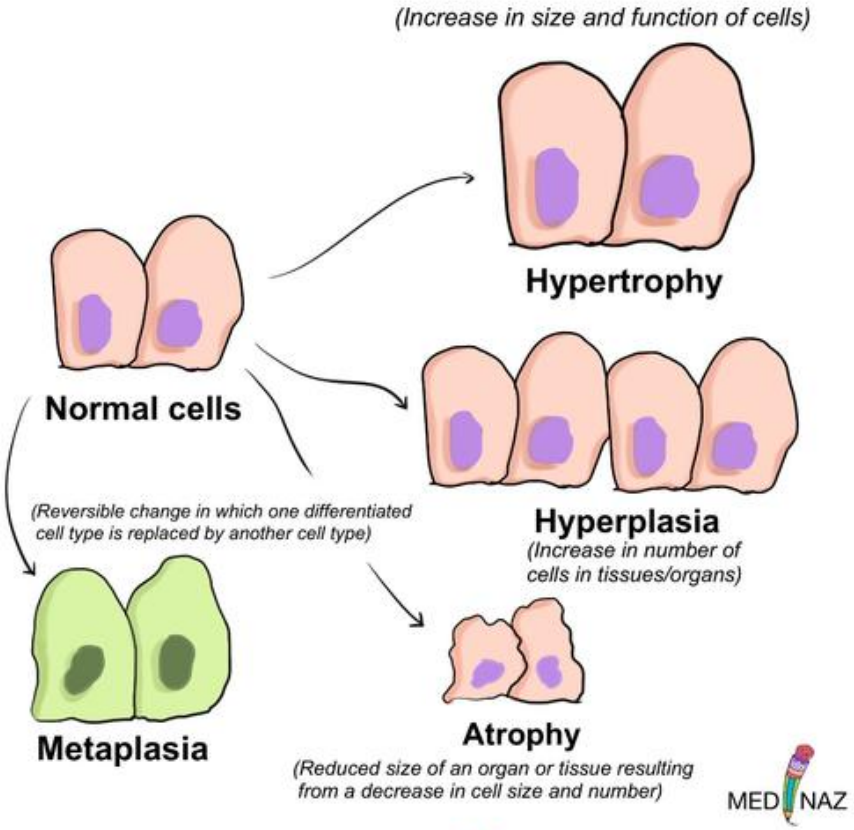
Meningioma, Mesothelioma
Glucagonoma
Salivary gland papillary cystadenoma
Thyroid papillary carcinoma
Ovarian papillary carcinoma
Prolactinoma



Smokers have
Squamous metaplasia in lungs

- It is the most common Metaplasia





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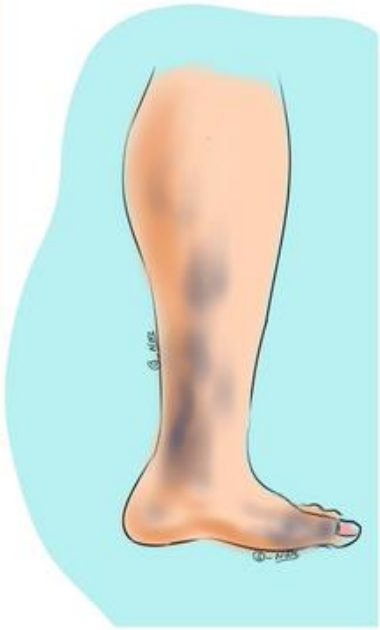
Inflammation

Acute ischemia Signs

(Especially limbs)

Pain
Pallor
Pulselessness
Paralysis
Paresthesia
Perishingly cold

"6P's"



Acute phase reactants

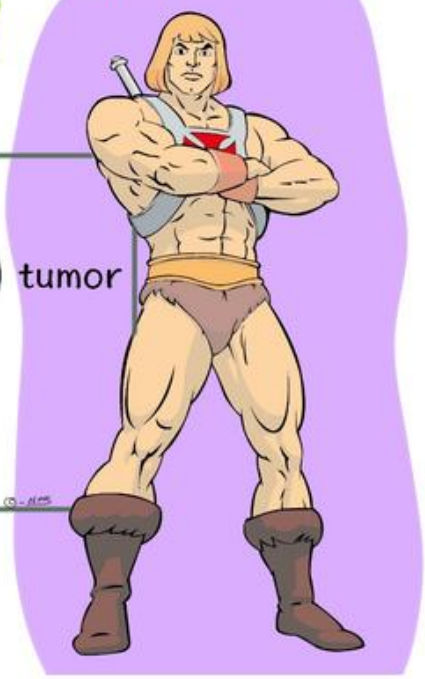
C-reactive protein
Albumin
Transferrin
Ferritin
Fibrinogen
Serum amyloid A
Hepcidin

"CAT FFiSH"

Alpha-fetoprotein associated with

"HE-MAN is the alpha male"

HE-MAN



Hepatocellularcarcinoma
Endodermalsinus (yolk sac) tumor
Mixed germ cell tumor
Ataxia-telangiectasia
Neural tube defects

Common conditions resulting in granuloma formation:

"Total BILSS"

Tuberculosis
Brucellosis
Lymphogranuloma inguinale
Leprosy
Inflammatory bowel disease
Syphilis (Gumma)
Sarcoidosis (Non caseating granuloma)

Eosinophilia DDX

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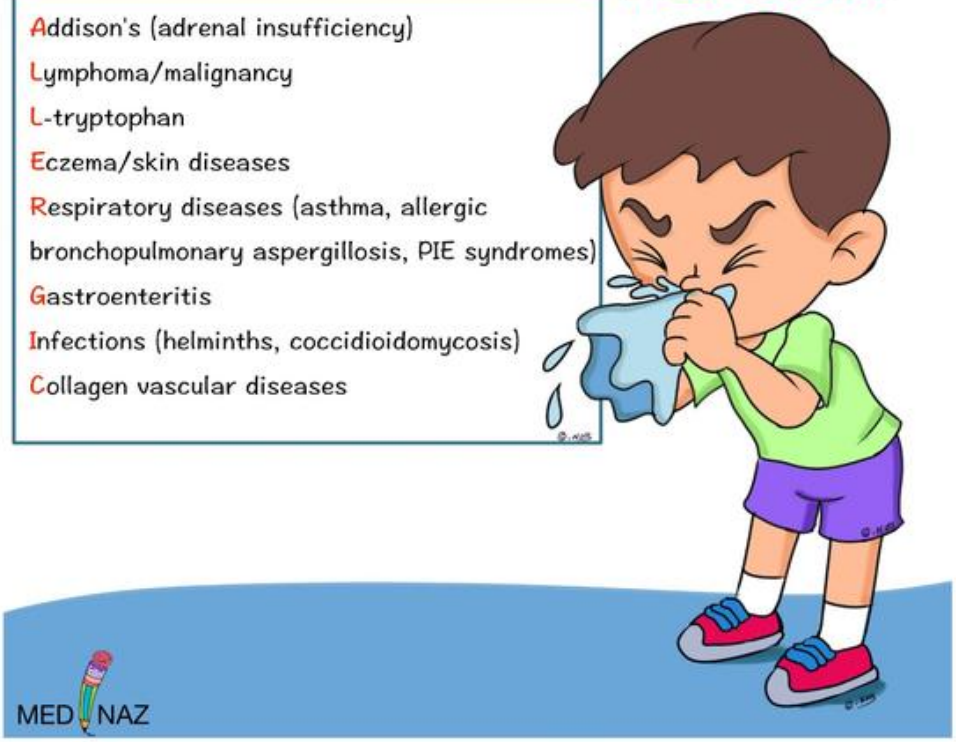
"ALLERGIC"

Addison's (adrenal insufficiency)
Lymphoma/malignancy
L-tryptophan
Eczema/skin diseases
Respiratory diseases (asthma, allergic bronchopulmonary aspergillosis, PIE syndromes)
Gastroenteritis
Infections (helminths, coccidioidomycosis)
Collagen vascular diseases



How to identify deep wound infections

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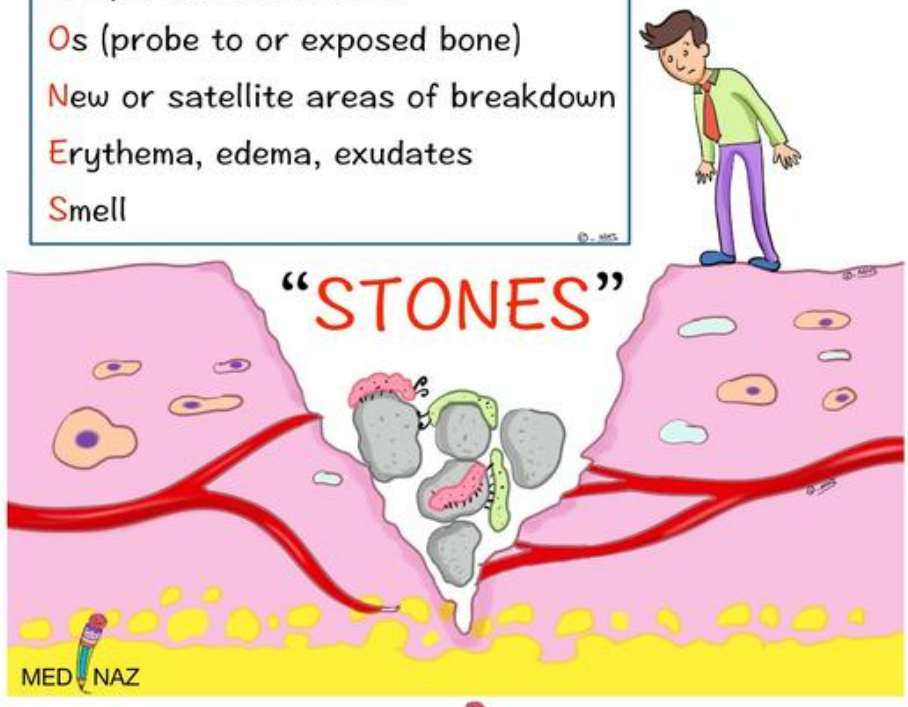
Size bigger
Temperature increased
Os (probe to or exposed bone)
New or satellite areas of breakdown
Erythema, edema, exudates
Smell



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How to identify superficial wound infections

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Non-healing wound
Exudating wounds
Red and bleeding granulation tissue
Debris on wound surface (yellow/black)
Smell

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PGI_2 Vs THA_2

PGI_2 Inhibits platelet aggregation

TXA_2 is a potent platelet Aggregator

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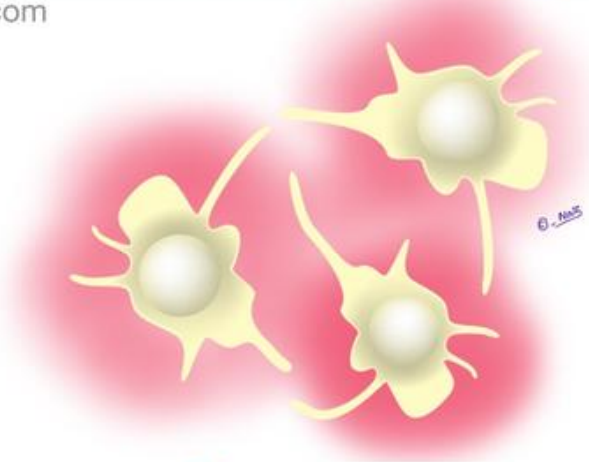

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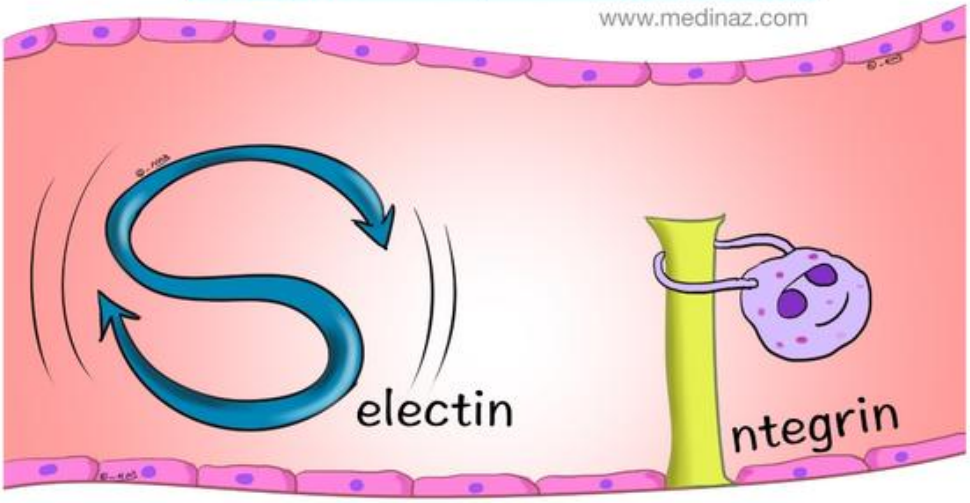
Selectins Vs Integrins

Selectins are responsible for Rolling

Integrins are required for Adhesion



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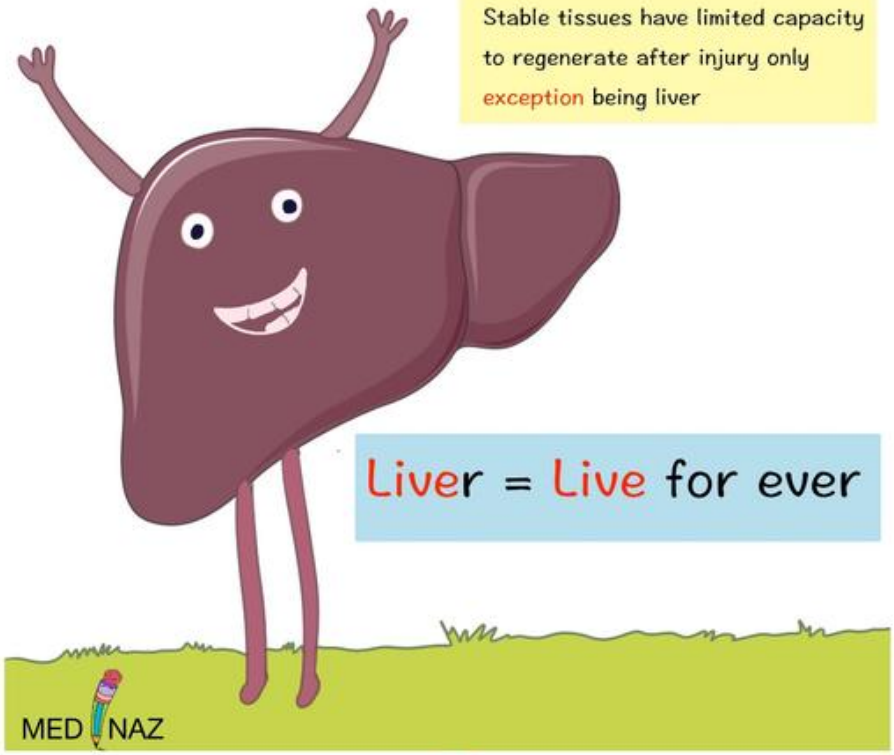
Stable tissue Regeneration

Stable tissues have limited capacity to regenerate after injury only exception being liver



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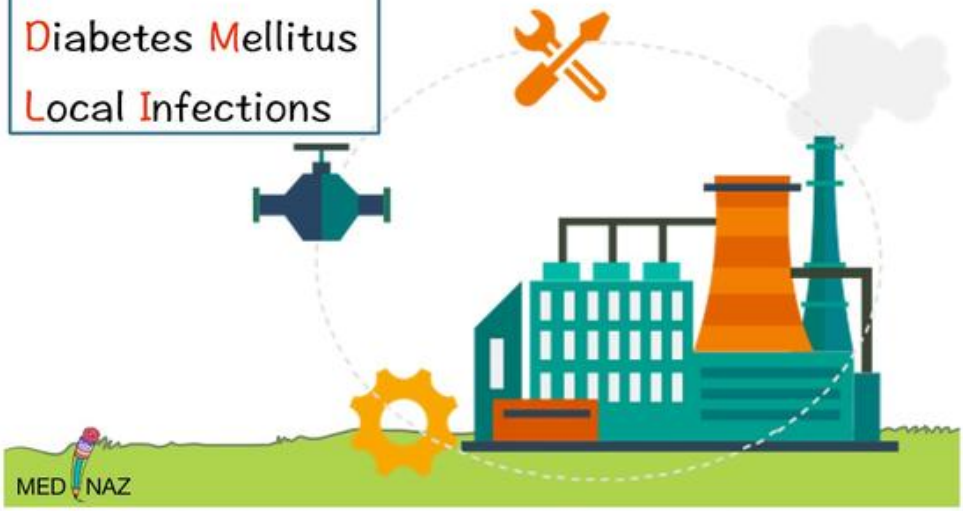
Wound healing causes of delay

Foreign Bodies
Immunodeficiency
Malnutrition
Hypoxia
Trauma
Diabetes Mellitus
Local Infections

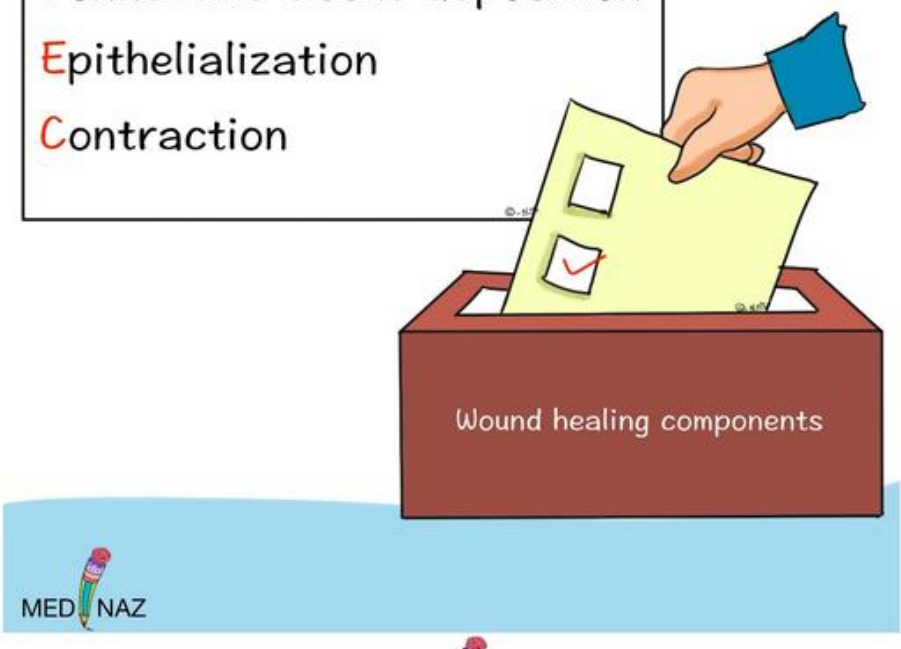
"Foreign Business Investments
May Help To Destroy Many
Local Industries"



Wound healing: components required

"Chief Election Commissioner"

Connective tissue deposition
Epithelialization
Contraction



Hematopathology

Causes of Eosinophilia

C = Connective tissue disease
H = Helminth infections
I = Idiopathic
N = Neoplasia (CML, Hodgkins)
A = Allergies

Conditions associated with Basophilic Stippling

Basophilic Stippling

M Monkey = Myelodysplastic Syndrome
T = Thalassemia
A = Arsenic Poisoning
I = Iron def. Anemia
L = Lead Poisoning

Citric Acid Cycle Compounds

Of Course = Oxaloacetate
Citrate = Citrate
Is = Isocitrate
A = Alpha-ketoglutarate
Silly = Succinyl-CoA
Stupid = Succinate
Funny = Fumarate
Molecule = Malate

Causes of high ESR

Neoplasia
Anemia, Autoimmune
Pregnancy
Kidney disease
Infection, Inflamation
Neoplasm

Also Remember
L
Giant cell arteritis // Macroglobulinemia // Allergic Vasculitis
Hyperfibrinogenemia // Necrotizing vasculitis

Acute Intermittent Porphyria

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5 Ps

Pain in abdomen
Polyneuropathy
Psychological abnormalities
Pink urine
Precipitated by medicines
(sulphur containing drugs)

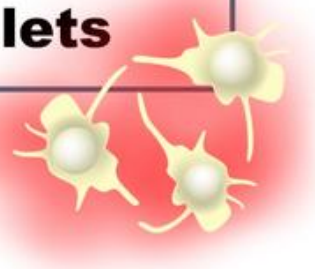
naz_artonomy

Big platelets are seen in Bernard Soulier syndrome

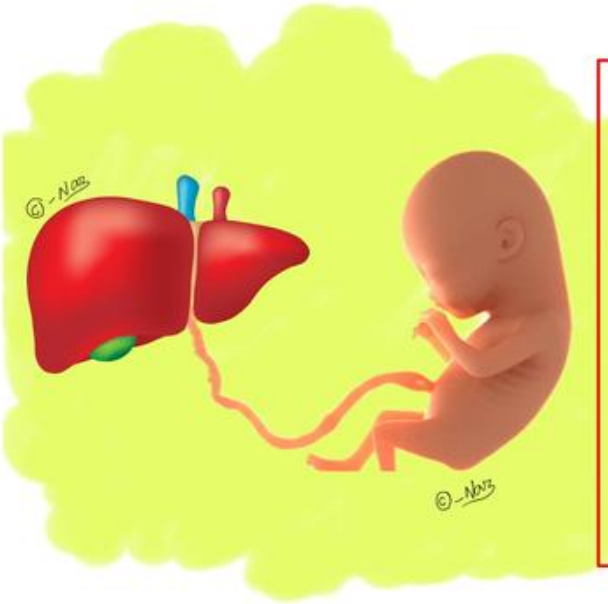
Small platelets are seen in Wiskott Aldrich syndrome

Bernard Soulier = **B**ig platelets

Wisko**TT** = **T**iny platelets



FATAL ERYTHROPOIESIS



Young ⟶ **Y**olk sac

Liver ⟶ **L**iver

Synthesizes → **S**pleen

Blood ⟶ **B**one marrow

Folate deficiency causes

Alcoholism
Folic acid antagonists
Oral contraceptives
Low dietary intake
Infection with Giardia
Celiac sprue
Dilantin
Relative folate deficiency
Old age
Pregnant

First detection of haemoglobin:

By **E**lectron microscope – Pro**E**rythroblast

By g**i**emsa (routine) stain – **i**ntermediate normoblast

High reticulocyte count

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seen in..

Sickle cell anemia
Hereditary spherocytosis
Autoimmune haemolytic anemia
Paroxysmal nocturnal haemoglobinuria
Enzyme deficiency (G-6PD deficiency)

"SHAPE"

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Leukaemia signs & symptoms

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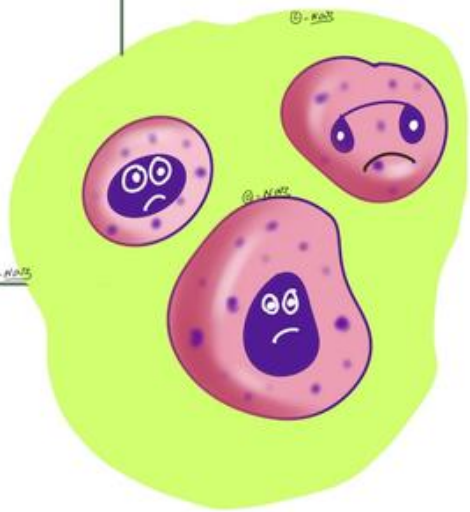
Light skin (pallor)
Enlarged spleen, liver lymph nodes
Underweight
Kidney failure
Excess heat (fever)
Mottled skin (haemorrhage)
Infections
Anaemia

"LEUKEMIA"



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Kawasaki Disease

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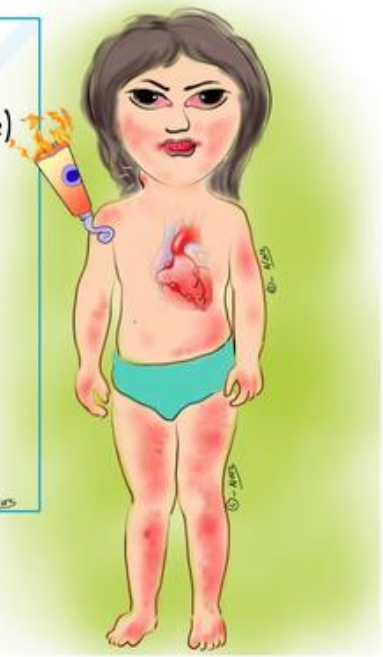
Apply "Warm CREAM" in Kawasaki disease

Warm = Fever >5 days
C = Conjunctivitis (non-exudate)
R = Rash
E = Edema / Erythema of hands & feet
A = Adenopathy cervical
M = Mucositis, strawberry tongue



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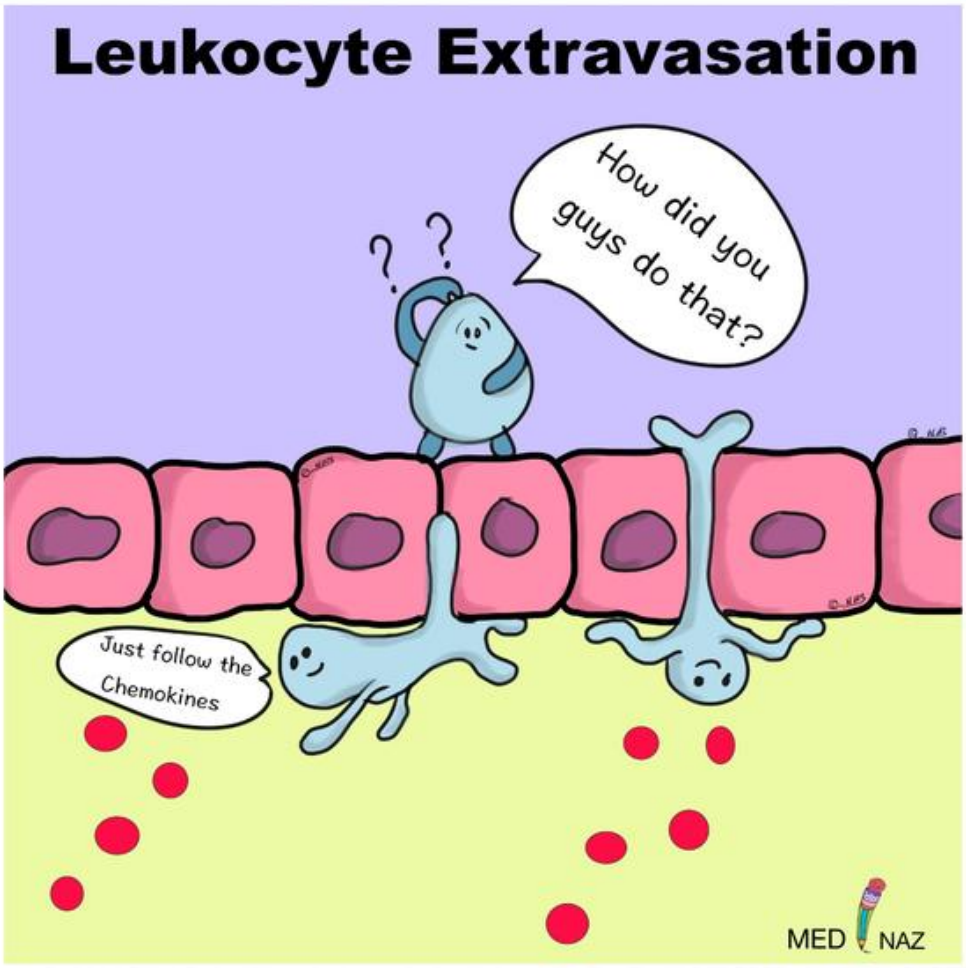
Leukocyte Extravasation



Low reticulocyte count

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Seen in..

- Myelofibrosis
- Cancers (metastasis or leukemias)
- Anemia of chronic disease
- Renal failure

"My CAR"

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Lymphocyte is the **L**ongest living white blood cell

Neutrophil is the most **N**umerous white blood cell

Macrocytic anemia causes

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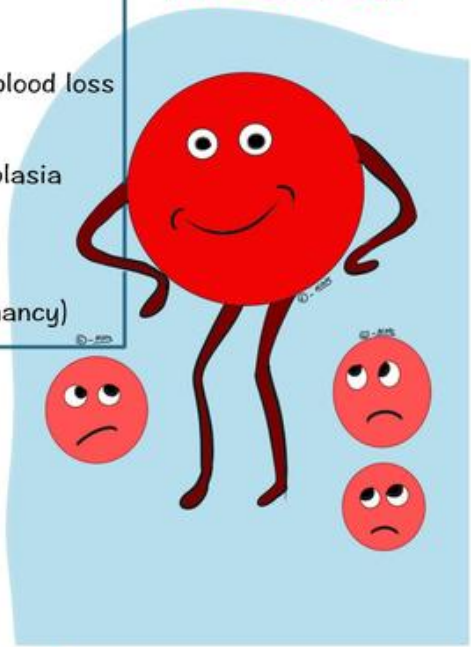
"ABCDEF"

Alcohol (liver disease)
B12 deficiency
Compensatory reticulocytosis (blood loss and hemolysis)
Drugs (cytotoxic and AZT) Dysplasia (marrow disorders)
Endocrine (hypothyroidism)
Folate deficiency / fetus (pregnancy)



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Megaloblastic Anemia causing Drugs

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Methotrexate
AZT = zidovudine
Phenytoin
Liver disease
Ethanol

"MAPLE"

PT vs aPTT

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Defect in the Extrinsic pathway causes elevation of PT
Defect in the Intrinsic pathway cause elevation of aPTT
Defect in Common pathway cause elevation of both PT and aPTT

PTT = Play Table Tennis
= Indoor game = Intrinsic pathway

PT = Play Tennis
= Outdoor game = Extrinsic pathway

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Thrombocytopenia Causes

Platelet disorders
(TTP,ITP,DIC)
Leukemia
Anaemia
Trauma
Enlarged spleen
Liver disease
Ethanol
Toxins
(Benzene,Heparin,Aspirin)
Sepsis

Microcytic Anemias

microcytic
Anemia → **ACD**
L → **L**ead poisoning
I → **I**ron deficiency
S → **S**ideroblastic
T → **T**halassemia

* ACD - Anemia of Chronic Disease

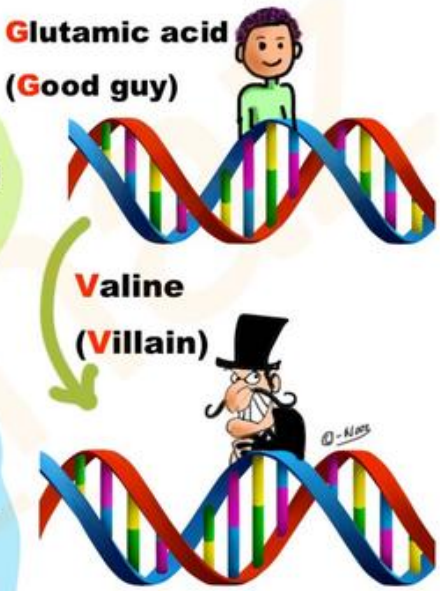
Sickle Cell Anemia

signs..

Splenomegaly,
Sludging
Infection
Cholelithiasis
Kidney - heamaturia
Liver congestion,
Leg ulcer
Eye changes

Sickle cell anaemia

In Sickle cell anaemia
Glutamic acid is replaced
by **V**aline



Sickle cell anaemia is
a disease (bad condition).

So **V**illain replaces
Good guy.

TARGET CELL

HbC disease
Asplenia
Liver disease
Thalassemia

"HALT" said the hunter to his Target

Sideroblastic anemia causes

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Lead
Isoniazid
Alcohol
Ringed Sideroblasts
Six (Vitamin B6 deficiency)

"LIARS"

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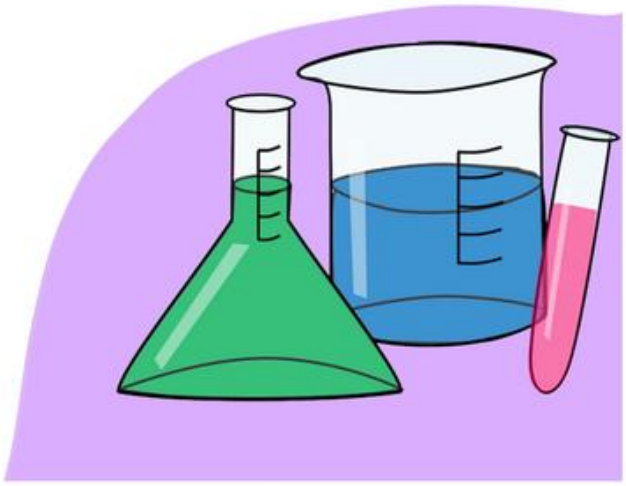
Total Iron Binding Capacity (TIBC)

TIBC is **I**ncreased in **I**ron deficiency anemia

TIBC **C**ut down in **C**hronic disease



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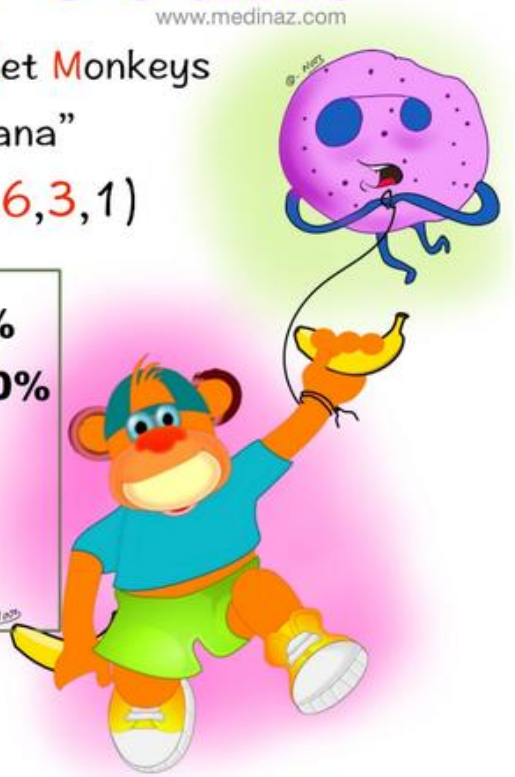
Thrombotic Thrombocytopenic Purpura

"PARTNERS"

Platelet count low
Anemia (microangiopathic hemolytic)
Renal failure
Temperature rise
Neurologic deficits
ER admission (emergency)
Schistocytes

WBC Count

"Never Let Monkeys
Eat Banana"
(60,30,6,3,1)



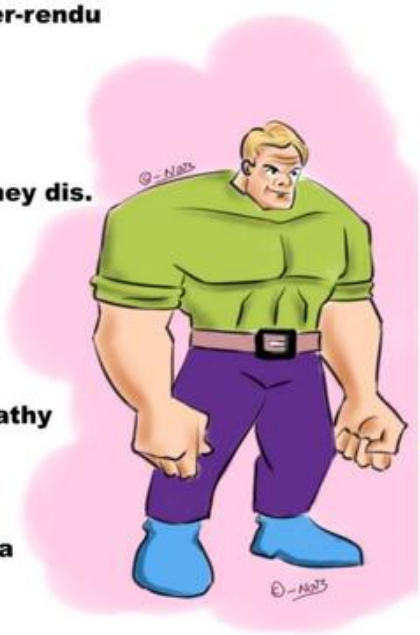
Neutrophils - 60%
Lymphocytes - 30%
Monocytes - 6%
Eosinophils - 3%
Basophils - 1%

Genetics

Autosomal Dominant Disorders

Mnemonic → "Very Powerful DOMINANT Human"

Von willebrand disease / **V**on hippel-lindau
Pseudo-hypoparathyroidism
Dystrophia myotonica
Osteogenesis imperfectif / **O**sler-weber-rendu
Marfan syndrome
Intermittent porphyria
Neurofibromatosis
Achondroplasia / **A**dult polycystic kidney dis.
Noonan syndrome
Tuberous sclerosis
Hypercholesterolemia
Huntington's disease
Hypertrophic obstructive cardiomyopathy
Hereditary spherocytosis
Hereditary non polyposis coli
Hereditary hemorrhagic telangiectasia



Autosomal recessive Diseases

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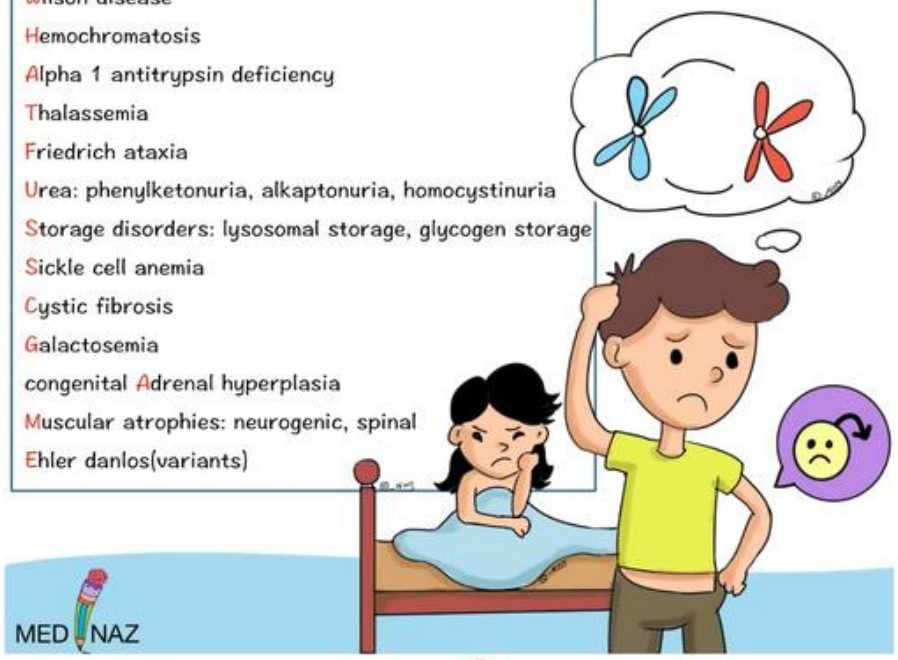
"WHAT FUSSC(fussy) GAME"

Wilson disease
Hemochromatosis
Alpha 1 antitrypsin deficiency
Thalassemia
Friedrich ataxia
Urea: phenylketonuria, alkaptonuria, homocystinuria
Storage disorders: lysosomal storage, glycogen storage
Sickle cell anemia
Cystic fibrosis
Galactosemia
congenital Adrenal hyperplasia
Muscular atrophies: neurogenic, spinal
Ehler danlos(variants)



X-linked Recessive Disorders

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"Oblivious Female Will
Give Her Boys Her
X-Linked Disorders"

Ocular albinism
Fabry disease
Wiskott-Aldrich syndrome
G6PD deficiency
Hunter syndrome
Bruton agammaglobulinemia
Haemophilia A/B
Lesch-Nyhan syndrome
Duchenne muscular dystrophy

Chromosome 15 Diseases

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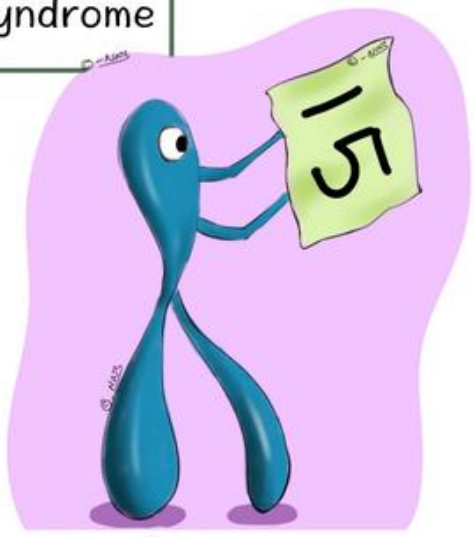
Marfan syndrome
Angelman syndrome
Prader-Willi syndrome

"MAP"



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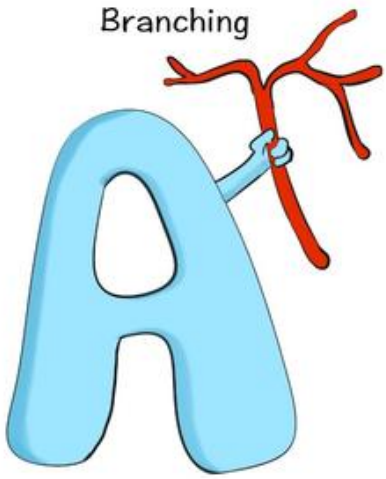
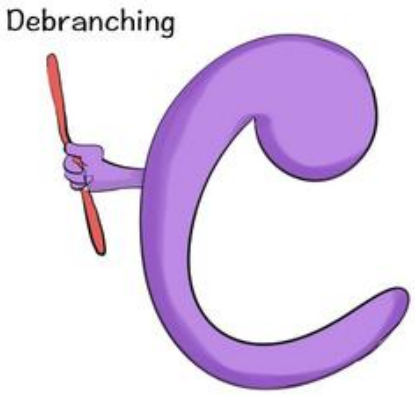
Anderson Vs Cori's disease





Anderson

A → B

Cori

C → D

Anderson - Deficiency of Branching enzyme

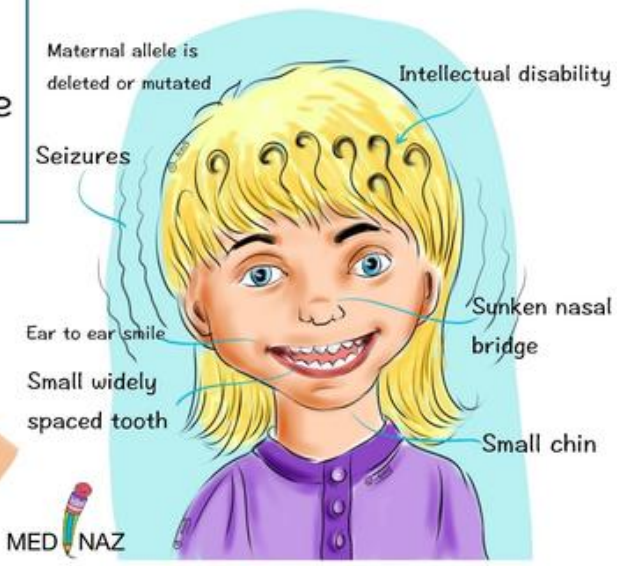
Cori - Deficiency of Debranching enzyme

MED NAZ

Angelman Syndrome

Seizures
Ataxia
Retardation
Inappropriate
laughter

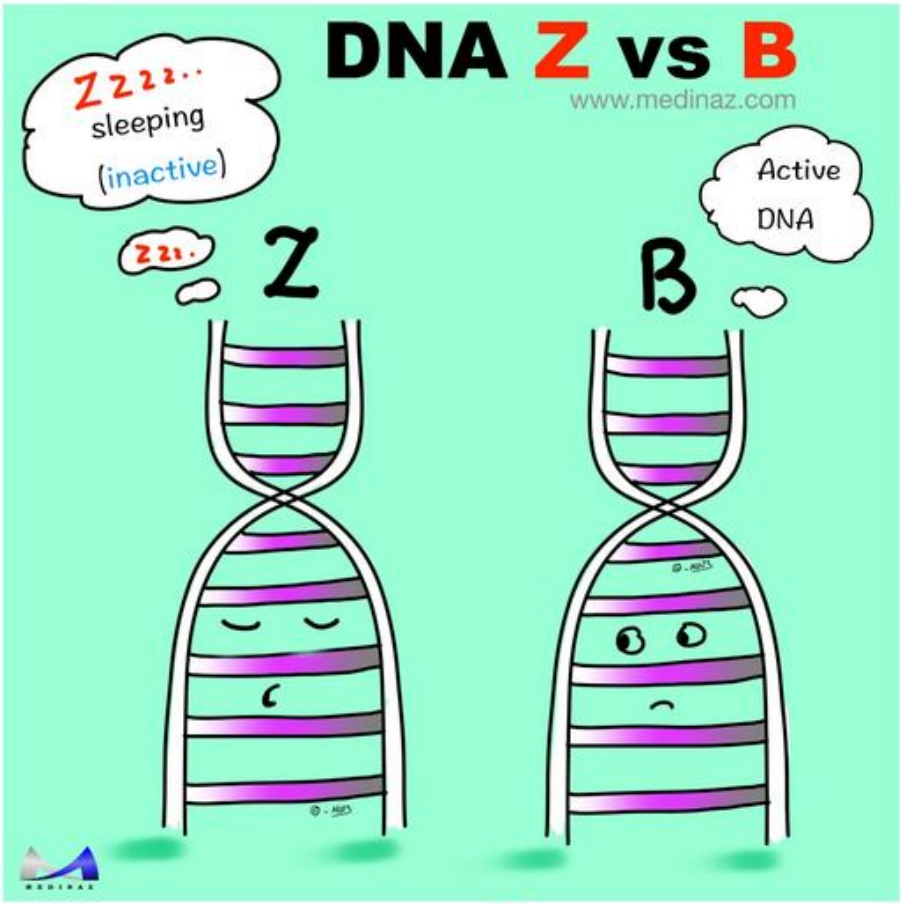
"mom wears SARI"



MED NAZ

Angelman Syndrome

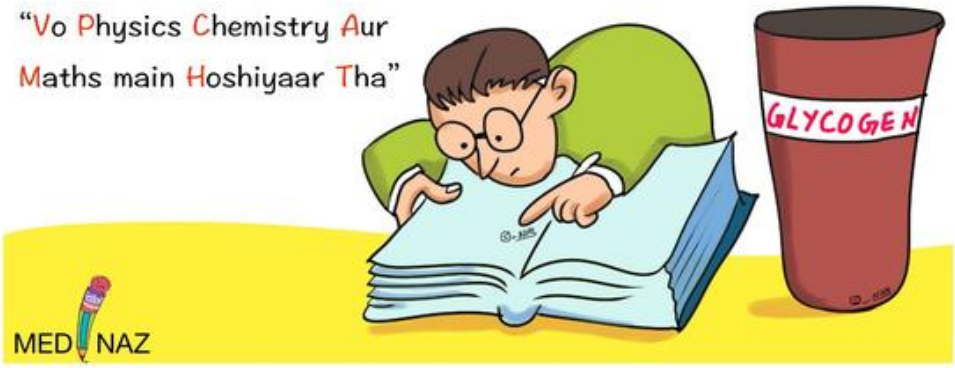
DNA Z vs B



Glycogen Storage Diseases

- Type I (Von Gierke disease)
- Type II (Pompe's disease, acid maltase deficiency)
- Type III (Cori's disease)
- Type IV (Andersen's disease)
- Type V (McArdle's disease)
- Type VI (Hers' disease)
- Type VII (Tarui's disease)

"Vo Physics Chemistry Aur Maths main Hoshiyaar Tha"



Hunter Syndrome

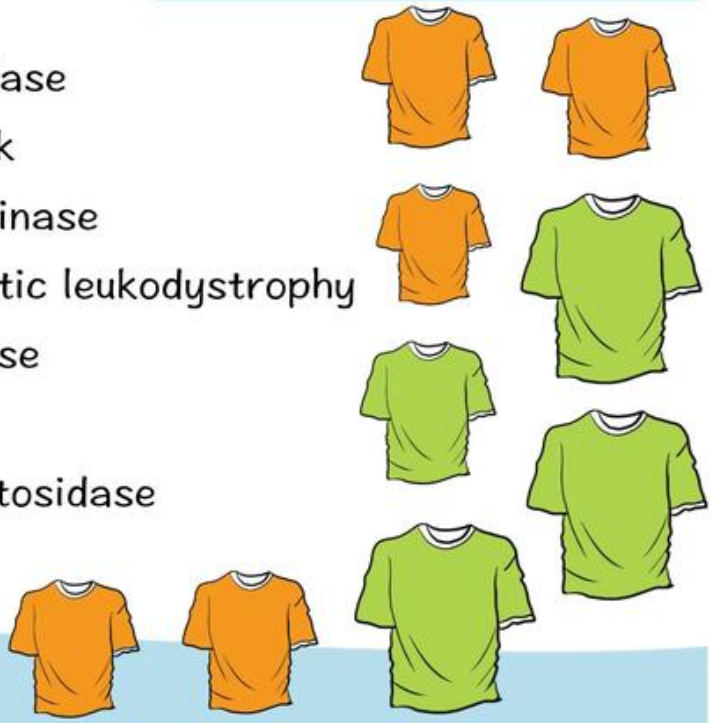
"Hunter has an aXe / X"

(X-linked recessive)

Lysosomal storage disease

"Tony Has Nine Shirts, Most Are Saffron, Few Are Green"

Tay Sachs
Hexosaminidase
Neimann pick
Sphingomyelinase
Metachromatic leukodystrophy
Aryl Sulfatase
Fabry
Alpha Galactosidase



MED NAZ

Mitochondrial inheritance diseases

"Mitochondria eating MEALS N PiCKLe"

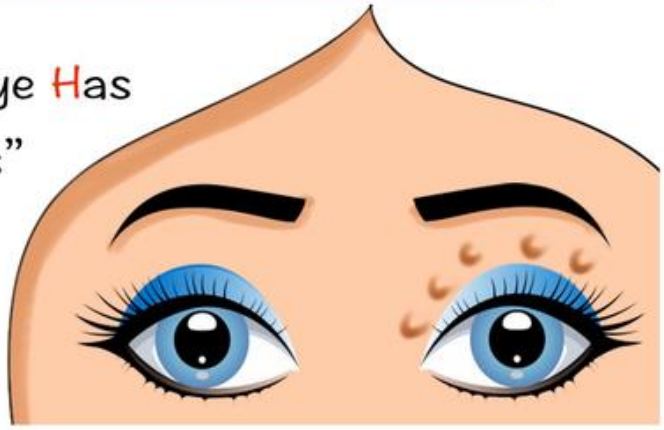
Mitochondrial Encephalopathy
Acidosis Lactic
Stroke like syndrome
NARP syndrome (Neuropathy, Ataxia, Retinitis Pigmentosa)
Pearson syndrome
Chronic progressive external ophthalmoplegia
Kearns-Sayre syndrome
Leber's optic neuropathy
Leigh's disease

MED NAZ

Most of the metabolic disorders have autosomal recessive inheritance except:

Hunter syndrome (X-linked recessive)
Lesch Nyhan syndrome (X-linked recessive)
Ocular albinism (X-linked recessive)
Hypercholesterolemia (familial) (AD)
Fabry's disease (X-linked recessive)
Porphyria (Acute intermittent) (AD)

"Her Left Eye Has Five Pimples"



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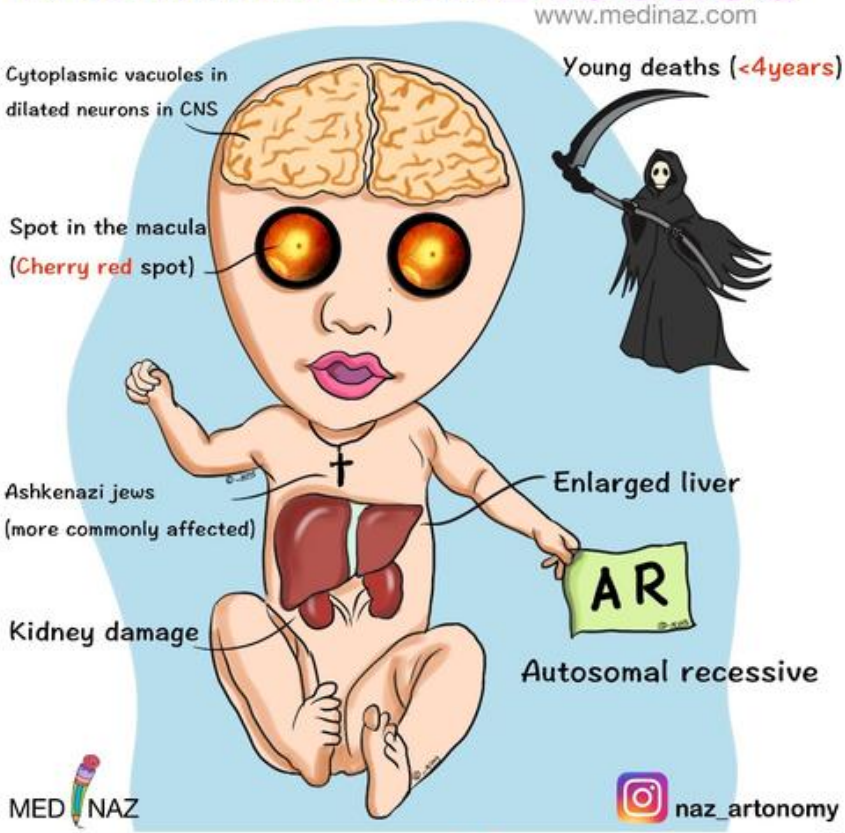
Niemann-Pick Disease



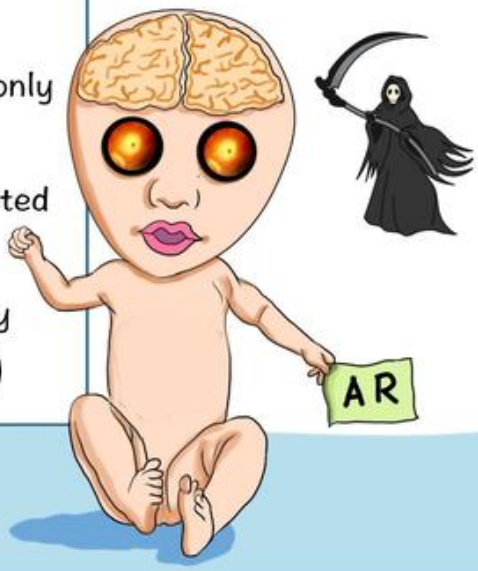
MED NAZ

Tay-Sachs Disease

www.medinaz.com

Tay-sachs disease
Autosomal recessive
Young deaths (<4years)
Spot in the macula (Cherry red spot)
Ashkenazi jews (more commonly affected)
Cytoplasmic vacuoles in dilated neurons in CNS
Hexosaminidase A deficiency
Storage disease (Lysosomal)

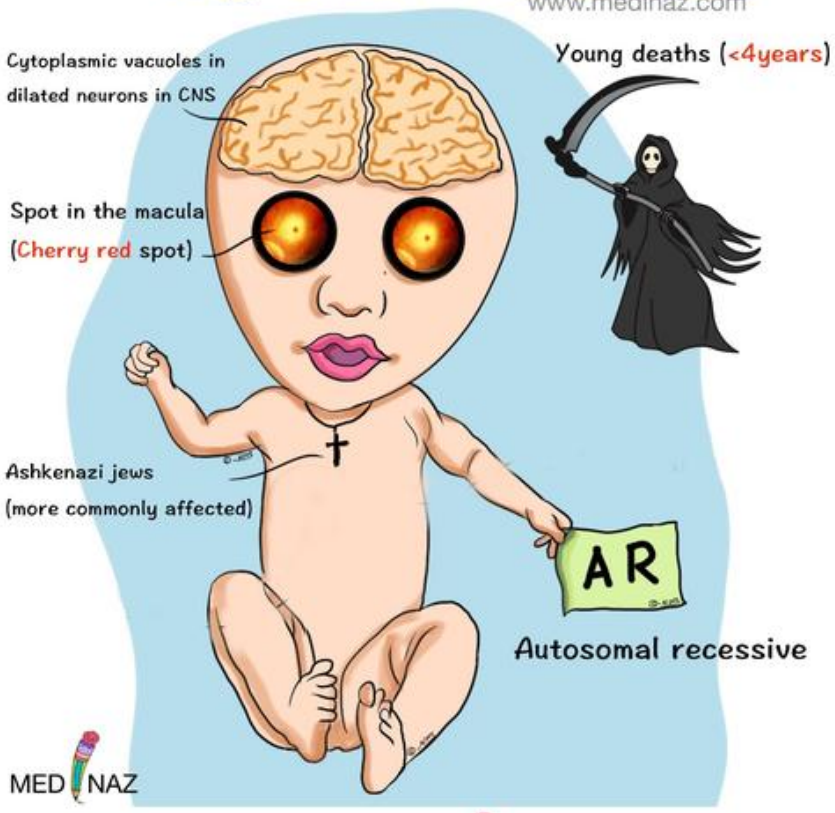
"TAYSACHS"



MEDINAZ

Tay-Sachs Disease

www.medinaz.com



MEDINAZ

MEDINAZ

Down Syndrome

www.medinaz.com

"CHILD HAS Mental PROBLEM"

Congenital heart disease / Cataracts
Hypotonia / Hypothyroidism
Increased gap between 1 st and 2 nd toe
Leukemia risk / lung infection
Duodenal atresia

Hirshprung's disease / Hearing loss
Alzheimer's disease / Atlantoaxial instability
Simian crease

Mental retardation / Micrognathia

Protruding tongue
Round face / Rolling eye (nystagmus)
Occiput flat / Oblique palpebral fissure
Brushfield spot / Brachycephaly
Low nasal bridge / Language problem
Epicanthic fold / Ear folded
Mongolian slant / Myoclonus

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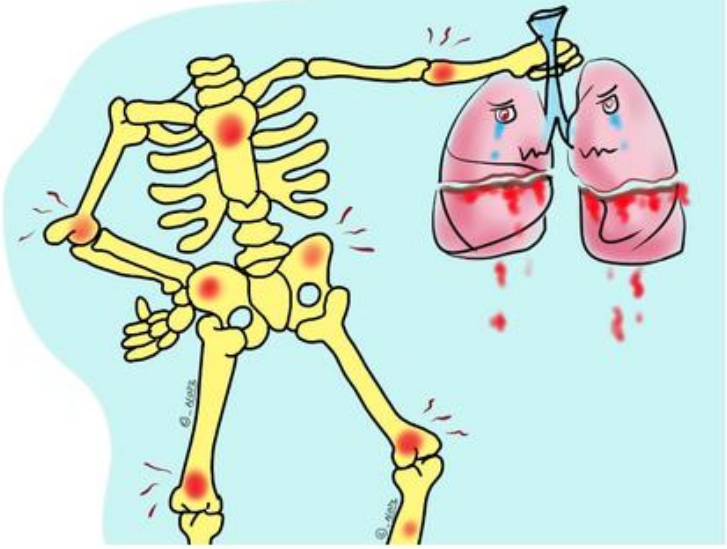
Neoplasia

Bone Metastasis primary organs

www.medinaz.com

Prostate,Breast > Kidney,Thyroid,Lung

"Painful Bones Kill The Lungs"



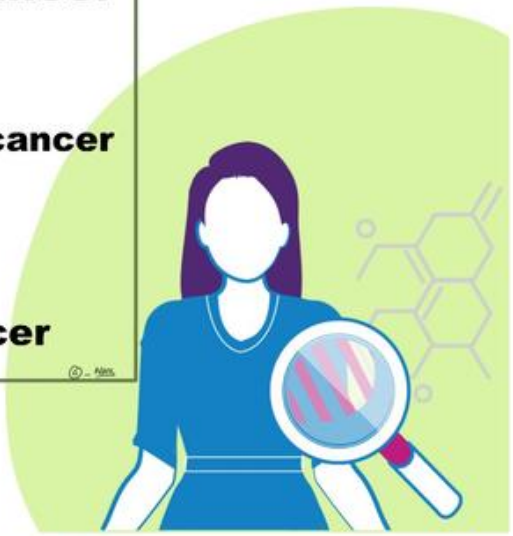
Association of BRCA-1 gene with other malignancies

www.medinaz.com

Ovarian cancer

Colo-rectal cancer

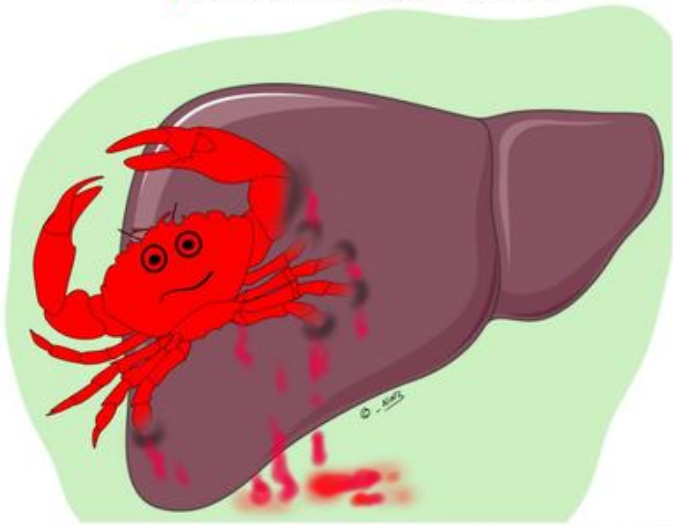
Prostate cancer



Liver metastasis primary organs

Colon >> Stomach > Pancreas

"Cancer Sometimes Penetrates liver"

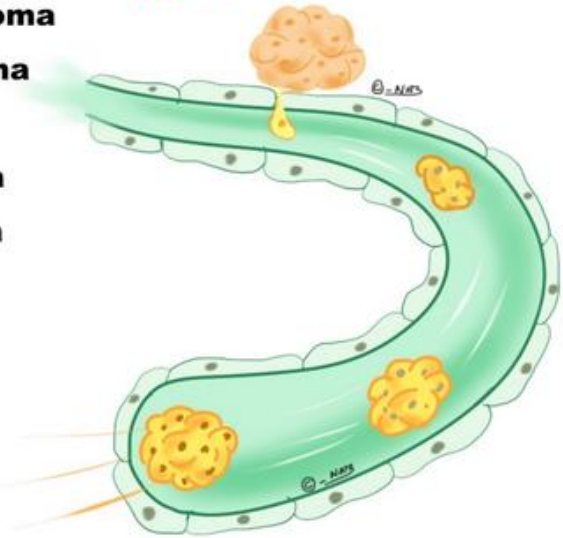


MEDINAZ

Lymphatic spread of Sarcomas

"Malignant Sarcoma RACE"

Malignant fibrous histiosarcoma
Synovial cell sarcoma
Rhabdomyosarcoma
Angiosarcoma
Clear cell sarcoma
Epithelial sarcoma



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Breast Cancer Risk Assessment

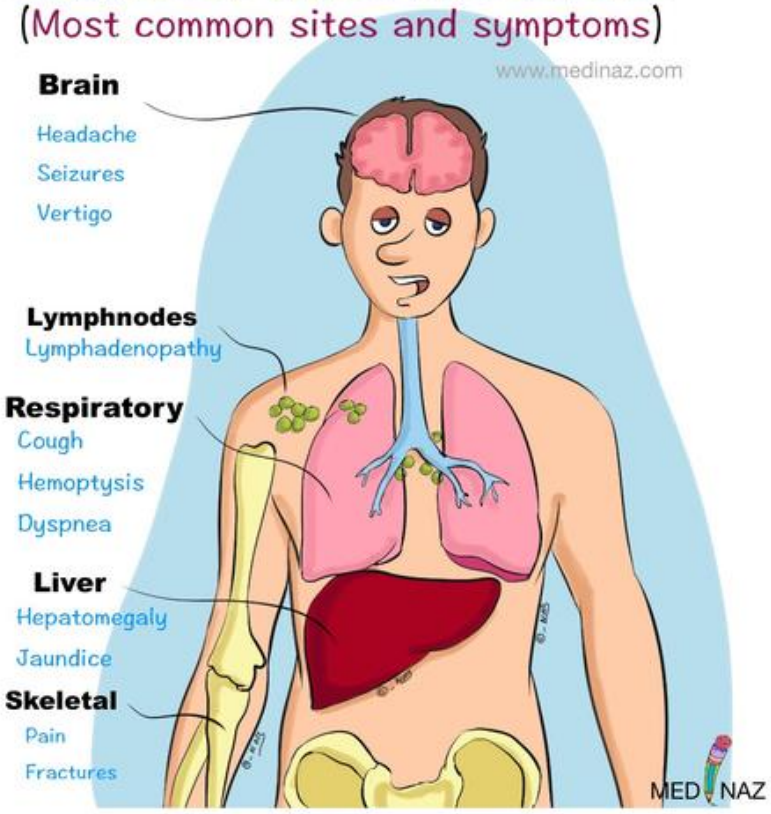
"History ALONE"

History (family, previous episode)
Abortion, Age (old)
Late menopause
Obesity
Nulliparity
Early menarche

MEDINAZ

Cancer Metastasis

(Most common sites and symptoms)



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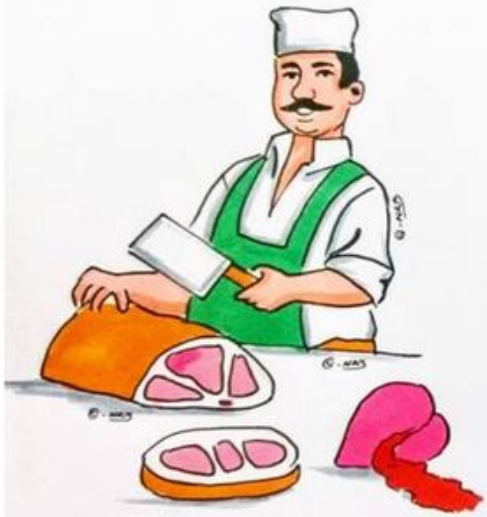
Cardiovascular System

Coronary artery disease risk factors



Eating too much **Fatty SOFT HAM** can cause Coronary artery disease

Fatty (HyperLipidemia)
Smoking
Obesity
Family history
Type 1 & 2 diabetes

Hypertension
Age
Male

Causes of new onset Atrial Fibrillation

P → **P**ulmonary
I → **I**schemic
R → **R**heumatic
A → **A**trial Myxoma
T → **T**hyroid
E → **E**mboli
S → **S**epsis

Acute MI treatment

www.medinaz.com

Glycerol trinitrate
Oxygen
Aspirin
Cyclomorph

"GOA Calling"

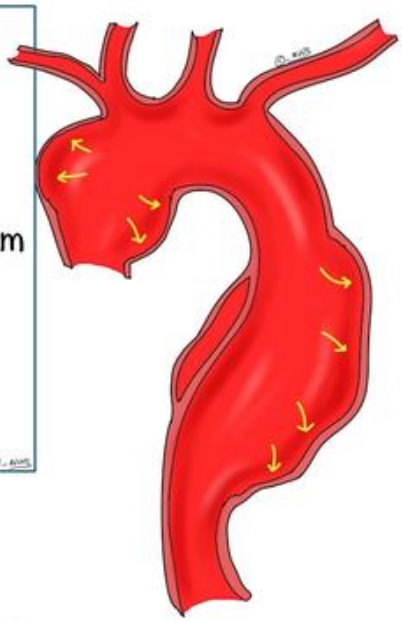
Aneurysm Types

www.medinaz.com

"BAD Circulatory MASs"

Berry
Arteriovenous fistula
Dissecting
Capillary micro aneurysm
Mycotic
Atherosclerotic
Syphilitic

Aortic aneurysm



Anti-arrythmics for AV nodes

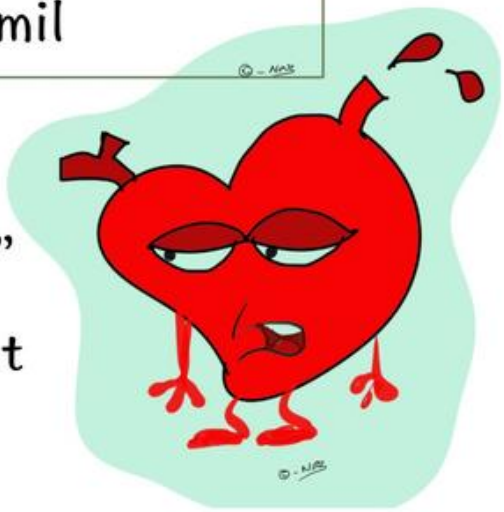
www.medinaz.com

Beta blockers

Adenosine

Digoxin

Verapamil



"BAD Ventricle"

needs treatment

Aortic Dissection risk factors

www.medinaz.com

"A,B,C"

Atherosclerosis, Ageing,
Aortic aneurysm

Blood pressure high,
Baby (pregnancy)

Connective tissue disorders
(Marfan's, Ehlers-danlos),
Cystic medial necrosis

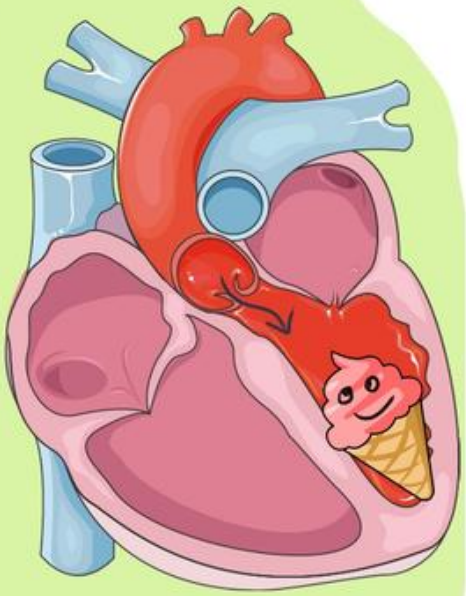
Aortic dissection

Aortic regurgitation causes

www.medinaz.com

"CREAM"

Congenital
Rheumatic damage
Endocarditis
Aortic dissection
Aortic root dilation
Marfan's



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Aortic regurgitation causes

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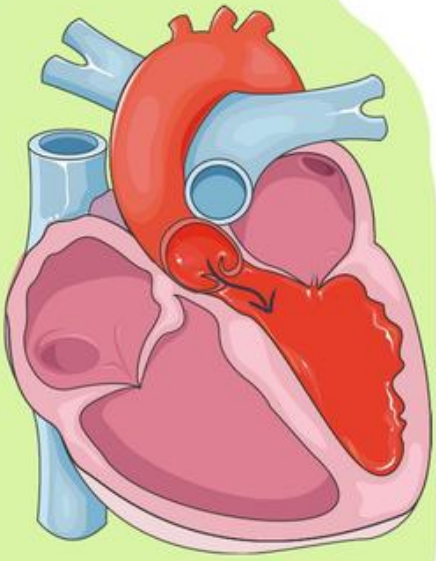
"MARRIS"

Marfans
Ankylosing spondylitis
Rheumatic fever
Rheumatoid arthritis
Infective endocarditis
Syphilis



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Aortic stenosis characteristics

www.medinaz.com

Syncope
Angina
Dyspnoea

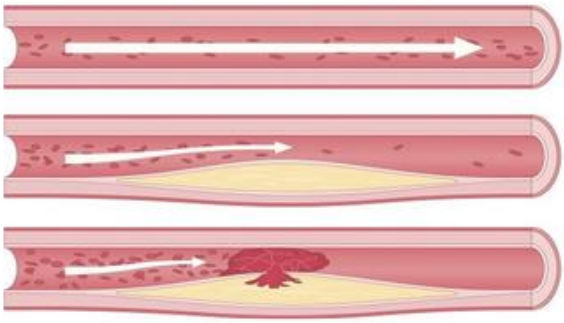
"SAD"

Atherosclerosis risk factors

www.medinaz.com

BP high : hypertension
Age : Middle aged, elderly
Diabetes mellitus
Sex - male
Elevated cholesterol
Tobacco

"BAD SET of life"



Beck's triad (Cardiac tamponade)

Distant heart sound

Distended jugular veins

Decreased arterial pressure

3D's

Breast cancer risk assessment

History (family, previous episode)

Abortion / Age (old)

Late menopause

Obesity

Nulliparity

Early menarche

"History ALONE"

Most common 1° cardiac tumor in Adults - Myxoma

Most common 1° cardiac tumor in Children - Rhabdomyoma

"MARCh"

Myxoma **A**dults **R**habdomyoma **Ch**ildren

Dilated cardiomyopathy Etiologies

Alcohol abuse (chronic)

Beriberi (wet)

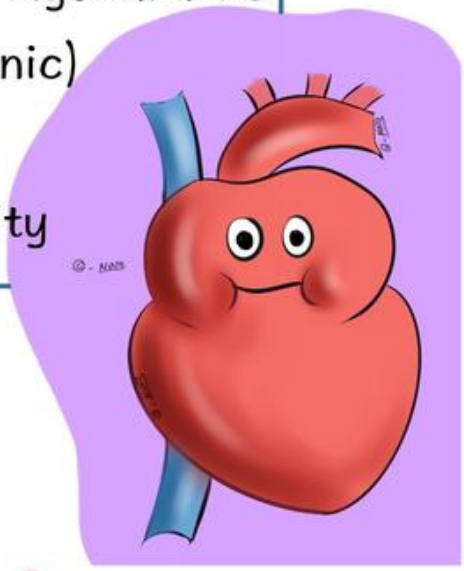
Coxsackie B viral myocarditis

Cocaine use (chronic)

Chagas disease

Doxorubicin toxicity

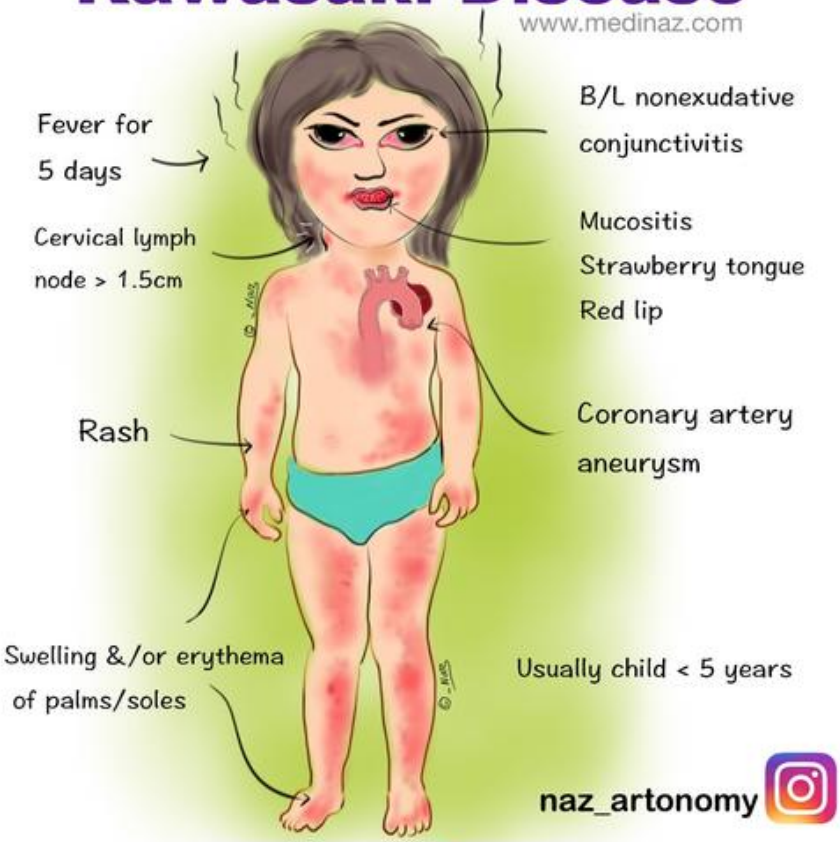
"ABCCD"



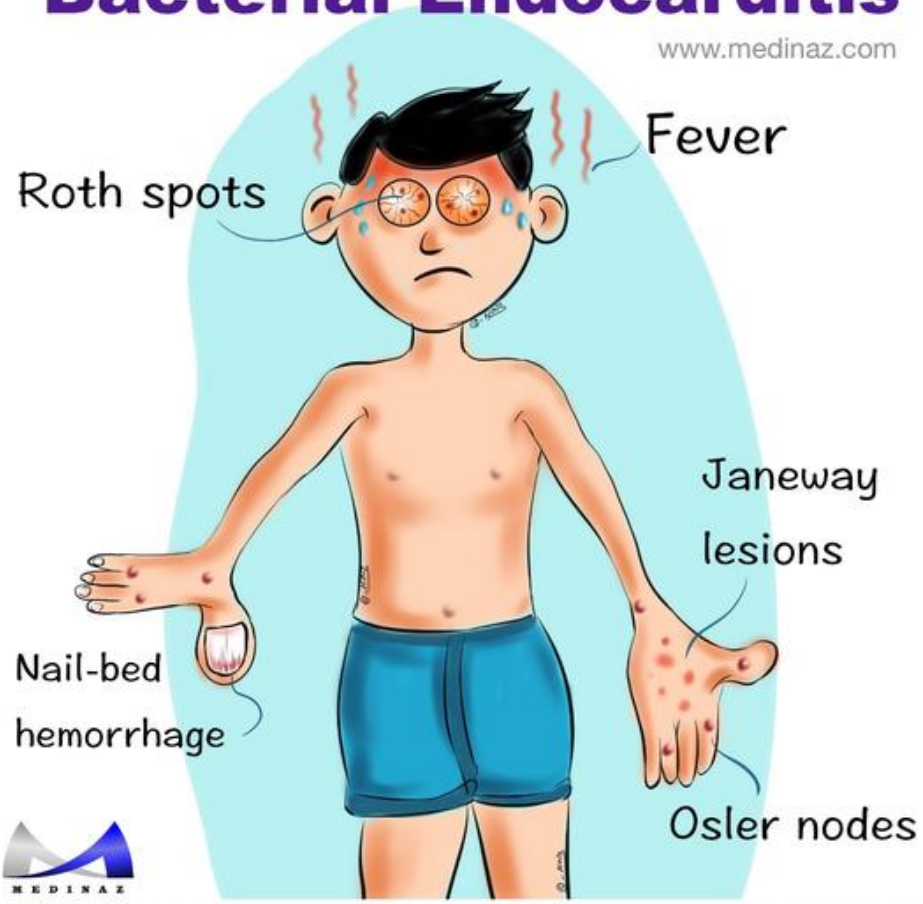
Heart Failure Causes

Hypertension
Embolism
Anemia
Rheumatic heart disease
Thyrotoxicosis
Myocardial infarction
Arrhythmia
Diet and lifestyle
Infection
Endocarditis

Kawasaki Disease



Bacterial Endocarditis

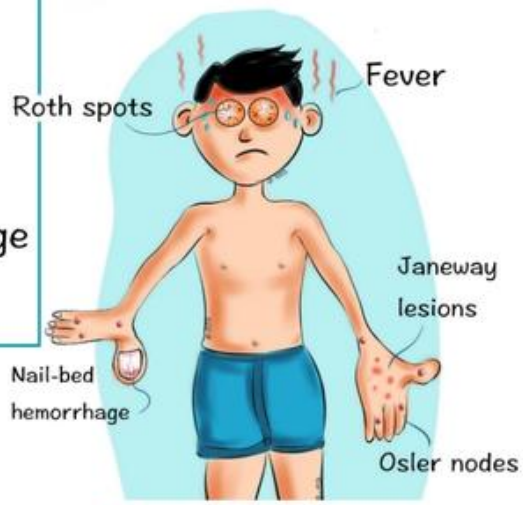


Bacterial Endocarditis

www.medinaz.com

Fever
Roth spots
Osler nodes
Murmur
Janeway lesions
Anemia
Nail-bed hemorrhage
Emboli

"FROM JANE"



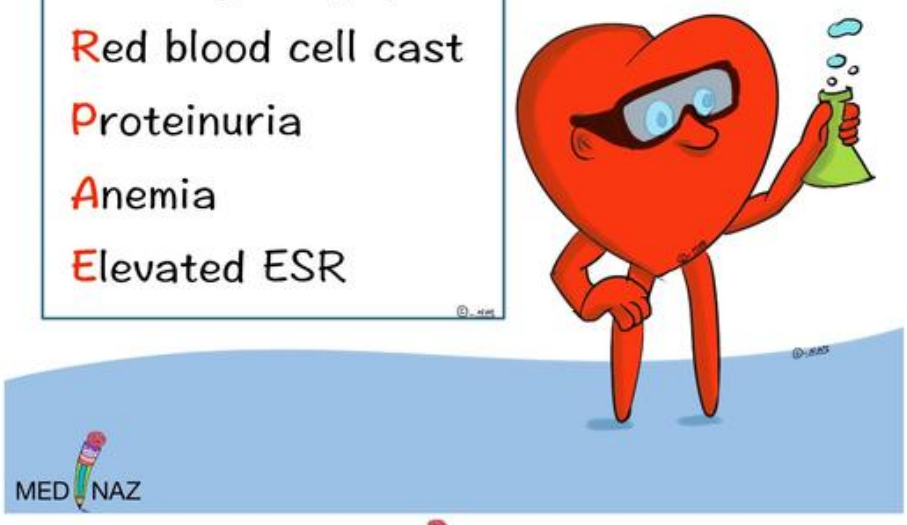
KAWASAKI DISEASE

Sausage fingers
Conjunctival redness
Rash
Extremity involvement
Adenopathy
Mucosal erythema
FEVER

Lab results suggesting Endocarditis

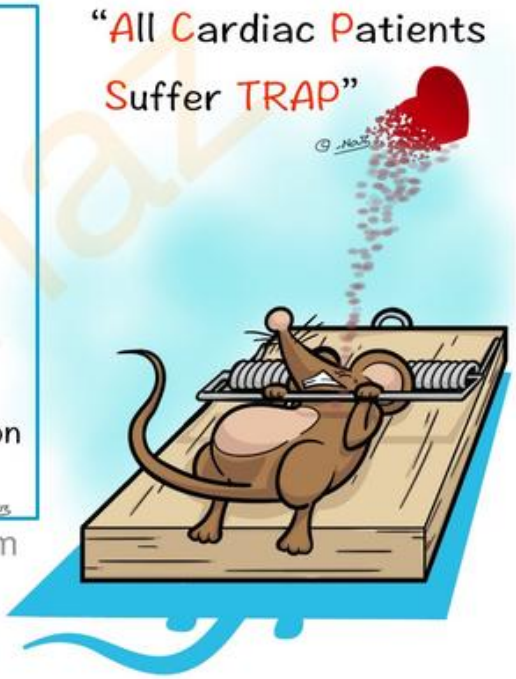
Hematuria
Thrombocytopenia
Leukocytosis, -penia
Red blood cell cast
Proteinuria
Anemia
Elevated ESR

"**H**igh **T**ech **L**ab **R**esults **P**oint **A**t **E**ndocarditis"



MI Complications

Arrhythmias
Congestive heart failure
Pericarditis
Shock cariogenic
Thromboembolism
Rupture
Aneurysm cardiac
Post myocardial infarction syndrome



Patau Syndrome

Cleft lip/palate
Renal Abnormalities
c**A**rdiac defects
Mental Retardation,
Microcephaly
Polydactyly

PATAU Syndrome

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Cleft lip / palate
Renal abnormalities
cArdiac defects
Microcephaly
Mental retardation
Polydactyly

"CRAMP"

PATAU Syndrome

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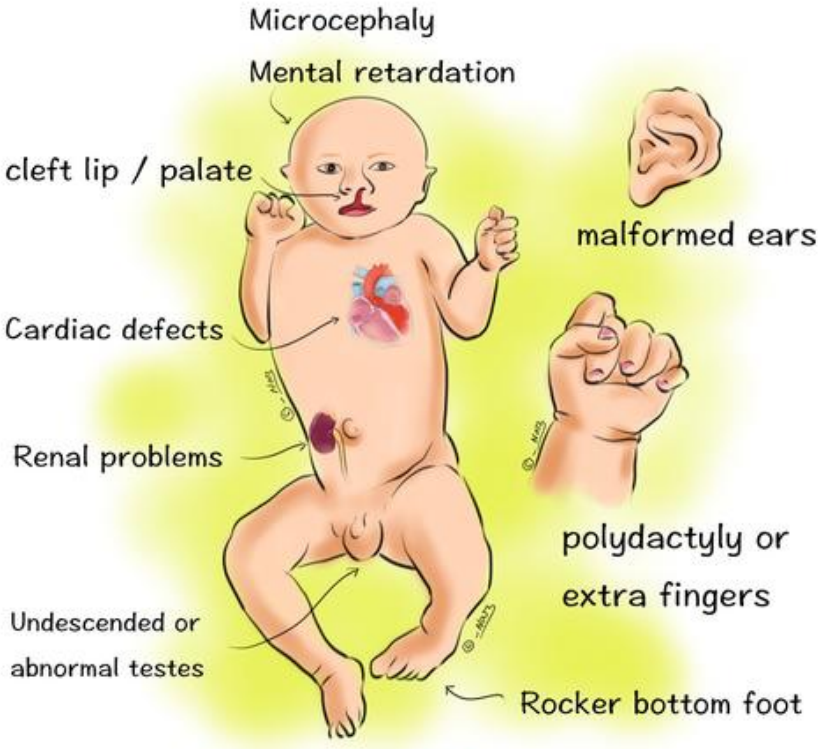
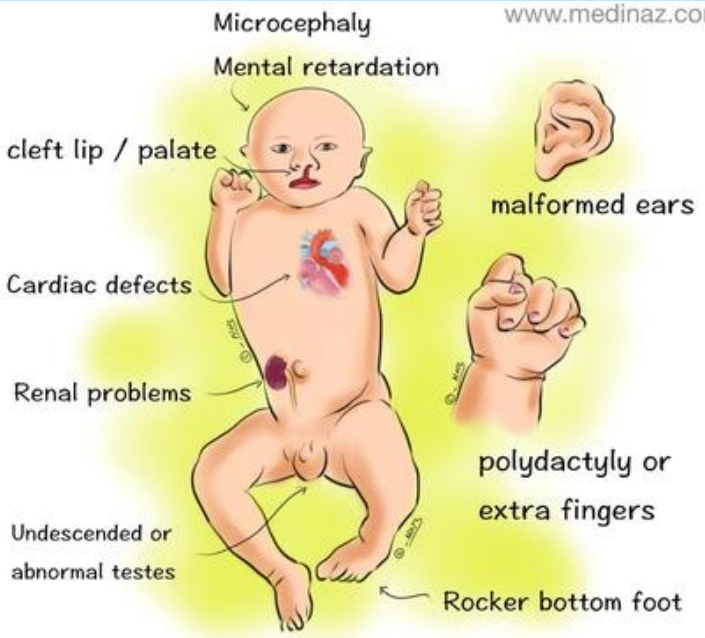


MEDINAZ

13 letters = Trisomy 13

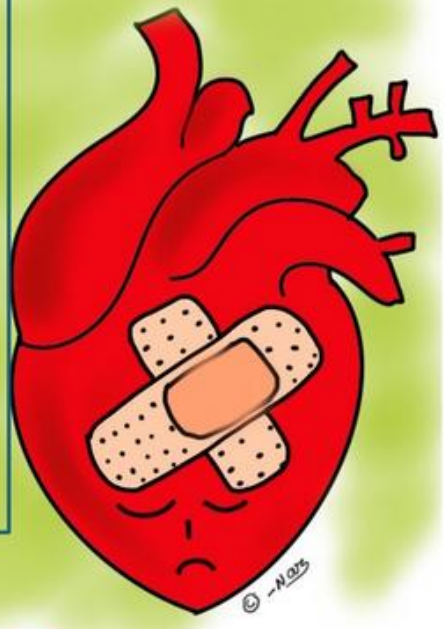
PATAU Syndrome



Pericarditis Causes

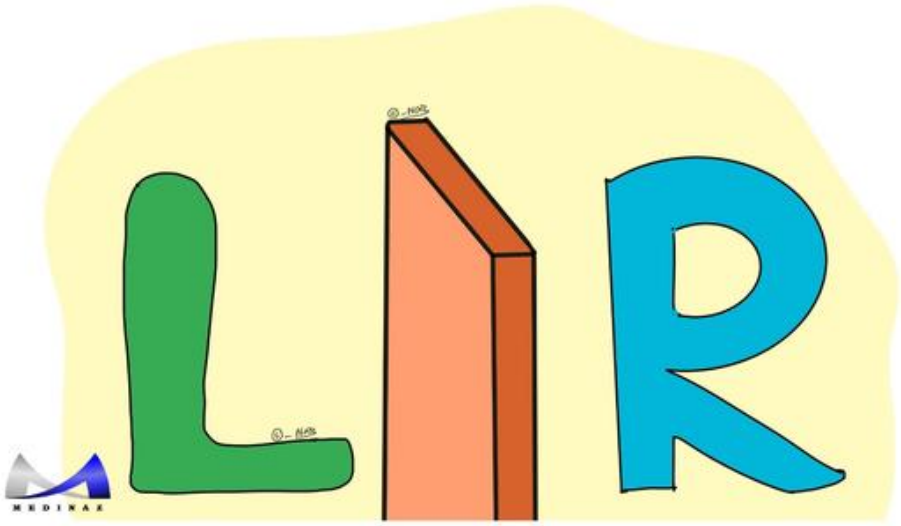
Collagen vascular disease
Aortic dissection
Radiation
Drugs
Infections
Acute renal failure
Cardiac (MI)
Rheumatic fever
Injury
Neoplasms
Dressler syndrome

"CARDIAC RIND"



Right-to-**L**eft shunts: ea**RL**y cyanosis

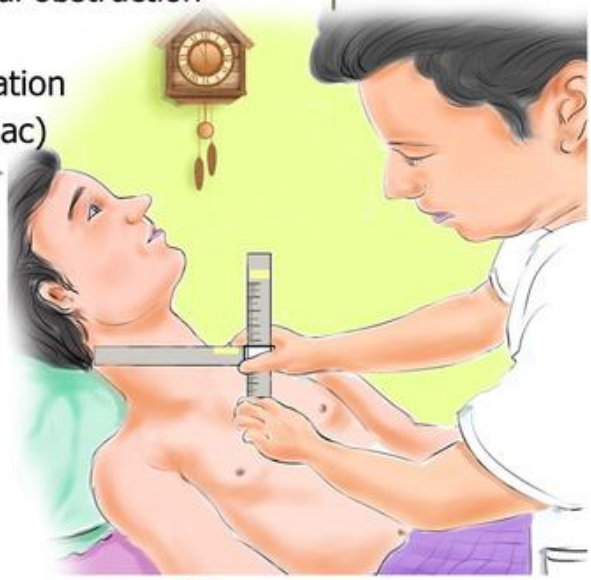
Left-to-**R**ight shunts: "**L**ate**R**" cyanosis.



Raised JVP differential

Pericardial effusion
Quantity of fluid raised (fluid over load)
Right heart failure
Superior vena caval obstruction
Tricuspid stenosis
Tricuspid regurgitation
Tamponade (cardiac)

"PQRST"



Restrictive/infiltrative cardiomyopathy

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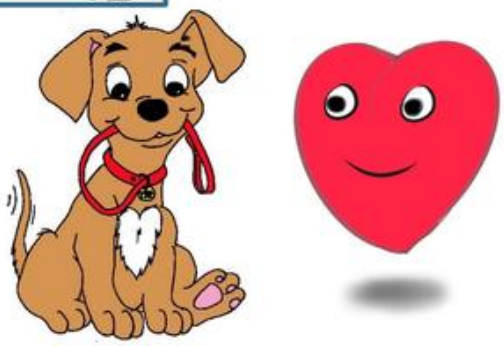
Postradiation fibrosis
Löffler endocarditis
Endocardial fibroelastosis
Amyloidosis
Sarcoidosis
Hemochromatosis

"Puppy LEASH"



Rheumatic Fever

(Major criteria)

www.medinaz.com

Joint (migratory polyarthritis)

Carditis

Nodules in skin (subcutaneous)

Erythema marginatum

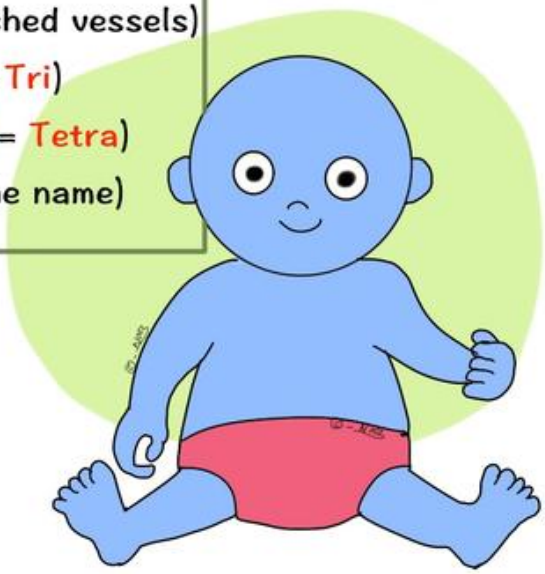
Sydenham chorea

RIGHT-TO-LEFT SHUNTS

www.medinaz.com

Truncus arteriosus (1 vessel)
Transposition (2 switched vessels)
Tricuspid atresia (3 = Tri)
Tetralogy of Fallot (4 = Tetra)
TAPVR (5 letters in the name)

"5 T's"



MEDINAZ

Immediate treatment of Myocardial Infarction

M → Morphine

O → Oxygen

N → Nitroglycerine

A → Acetylsalicylic acid

Right to Left Shunt

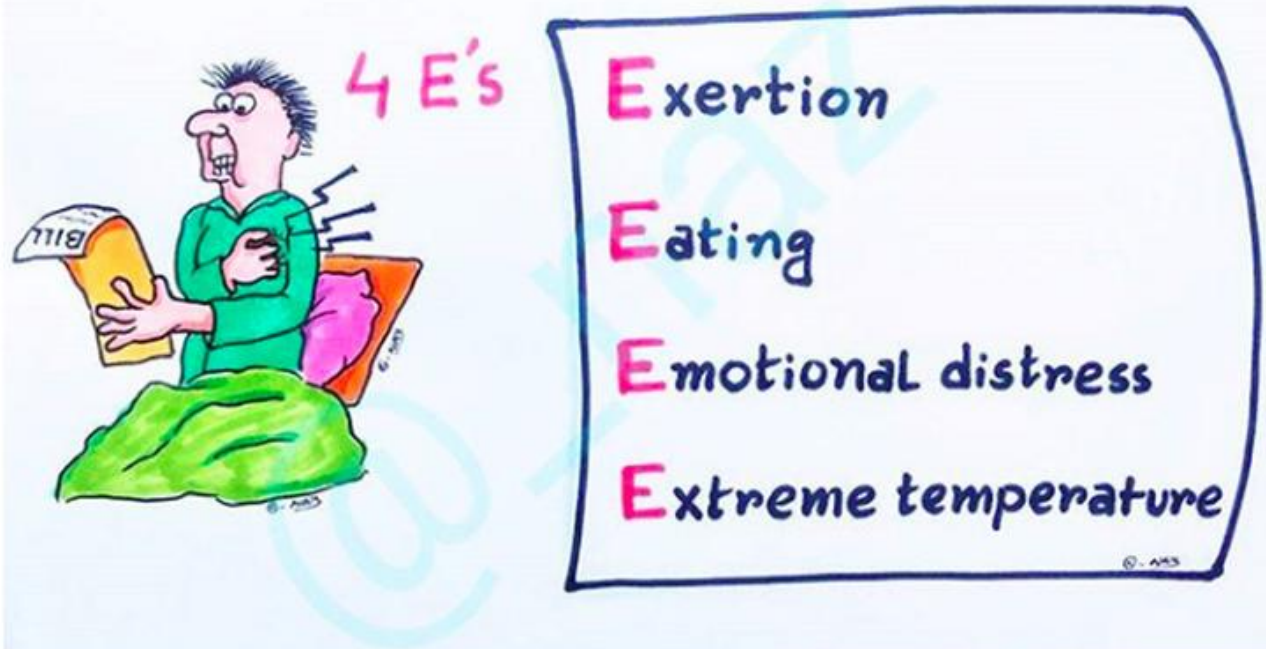
Tetralogy of fallot

Tricuspid atresia

Truncus arteriosus

Transposition of great vessels

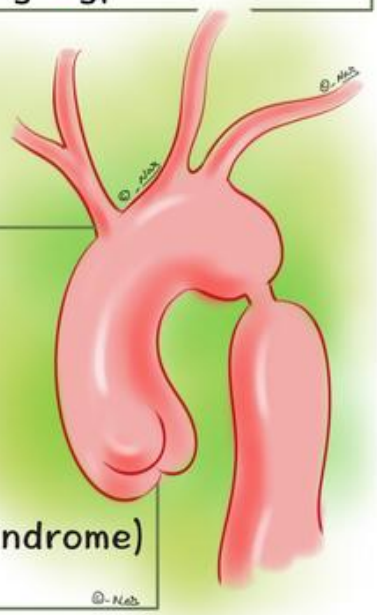
Angina precipitating factors



Secondary Hypertension Causes

www.medinaz.com

"Pathological Aorta Causes Secondary Hypertension"



Pheochromocytoma
Aortic coarctation
Cushing syndrome
Stenosis of renal arteries
Hyperaldosteronism (Conn syndrome)

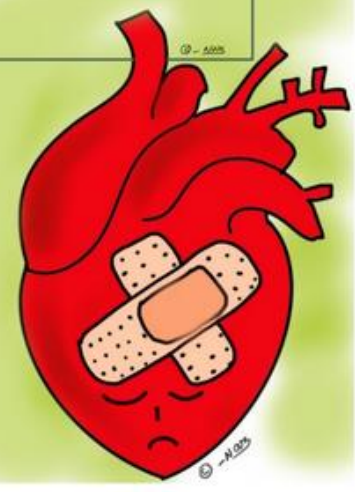
naz_artonomy

Syncope causes (CVS)

www.medinaz.com

Heart attack
Embolism (PE)
Aortic obstruction (IHSS, AS or myxoma)
Rhythm disturbance, ventricular
Tachycardia

"HEART"



Syncope causes (Vascular)

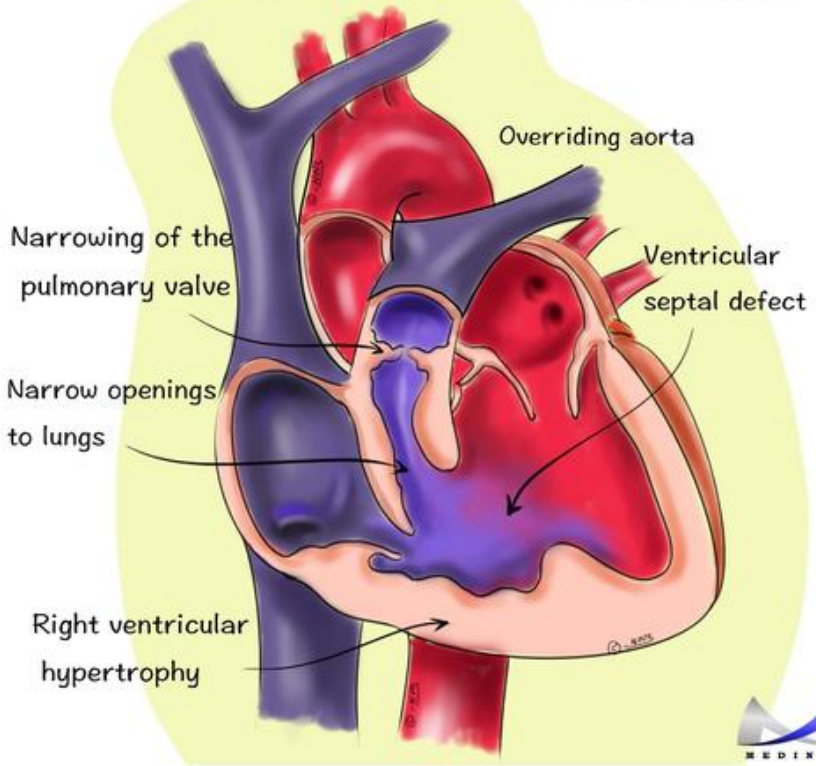
www.medinaz.com

Vasovagal
Ectopic (reminds one of hypovolemia)
Situational
Subclavian steal
ENT (glossopharyngeal neuralgia)
Low systemic vascular resistance (Addison's, diabetic vascular neuropathy)
Sensitive carotid sinus

"VESSELS"

Tetralogy of Fallot

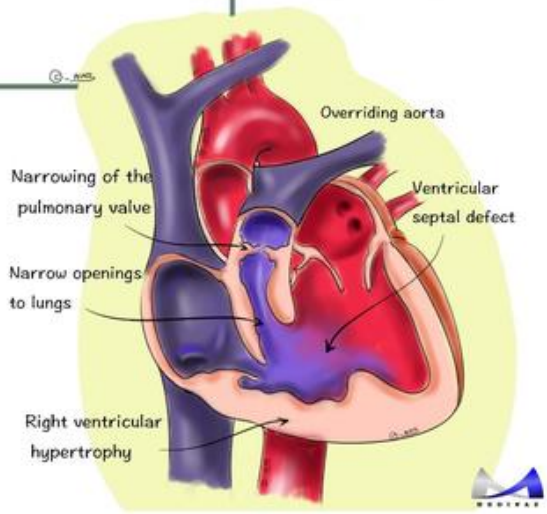
www.medinaz.com



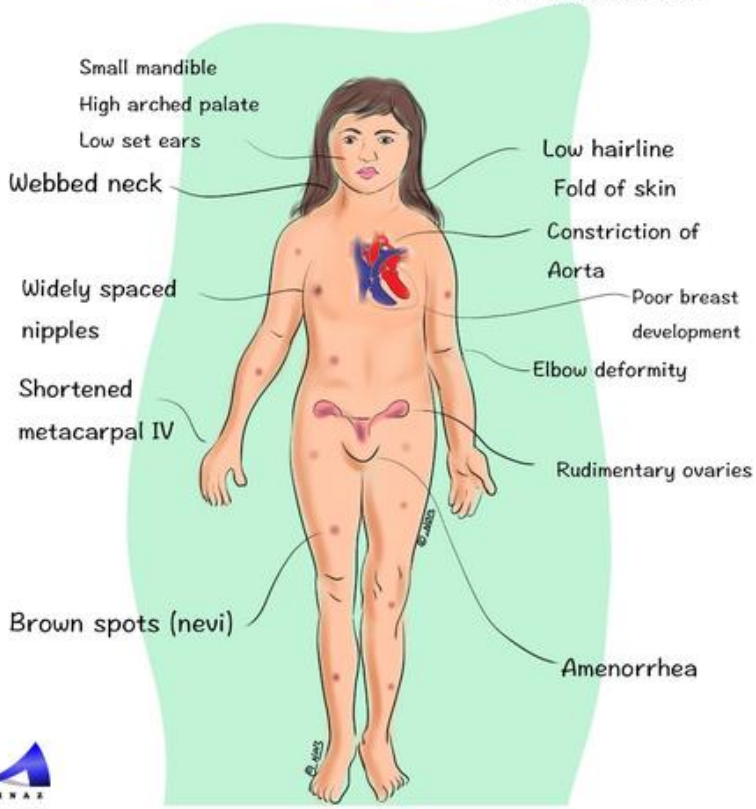
Tetralogy of Fallot

Pulmonary infundibular stenosis (most important determinant for prognosis)
Right ventricular hypertrophy (RVH) — boot-shaped heart on CXR
Overriding aorta
VSD

"PROVe"

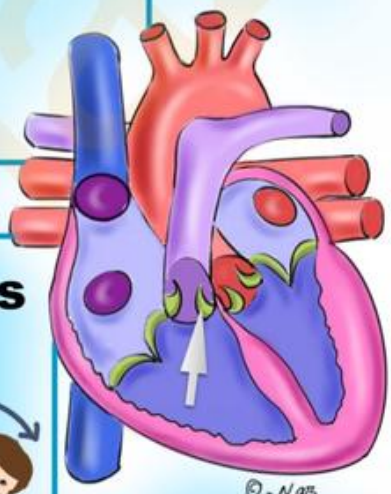


Turner Syndrome



Valve Movement

Aortic valve moves
Vertically



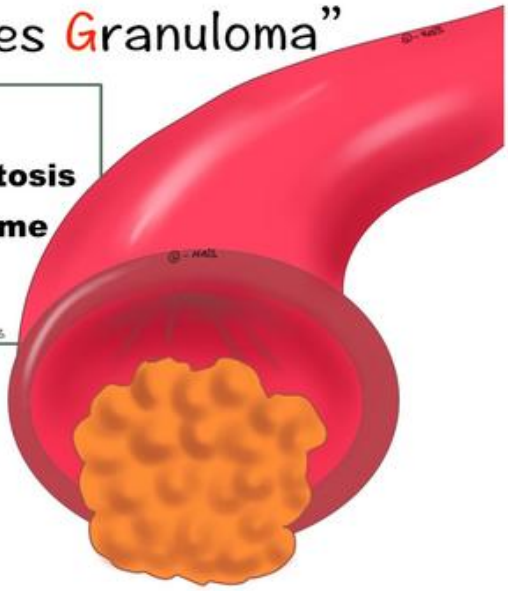
Mitral valve moves
Side to **S**ide
(MiSS)

naz_artonomy

Vasculitis Causing Granuloma

"This Way Comes Granuloma"

Takayasu arteritis
Wegener's granulomatosis
Churg Strauss Syndrome
Giant cell arteritis



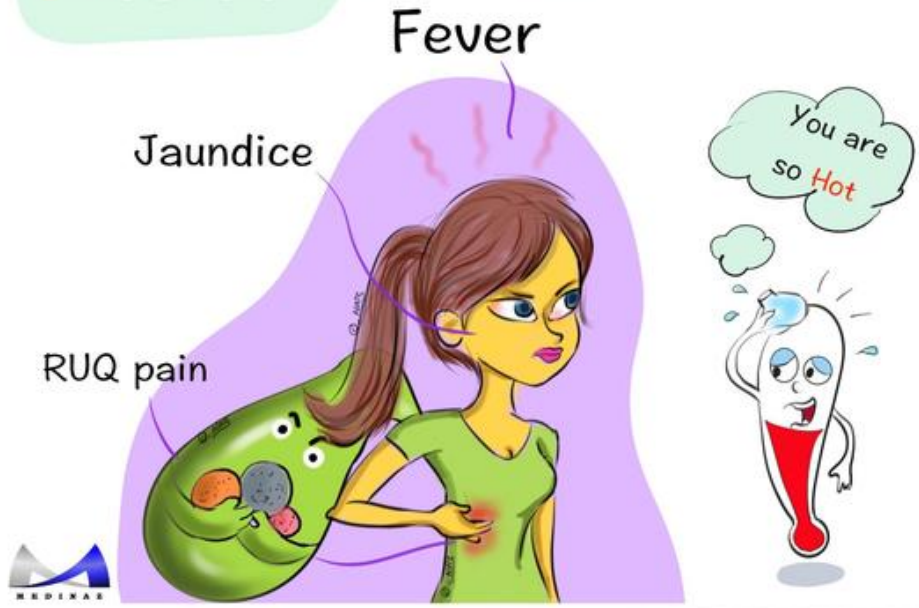
Liver pathology

Charcot's Triad

www.medinaz.com

Colour change (jaundice)
Colic (biliary pain) / RUQ pain
Chills & fever

3C's



Chronic liver failure signs

(found on the arms)

www.medinaz.com

Clubbing
Leukonychia
Asterixis
Palmar erythema
Scratch marks

"CLAPS"

Cirrhosis, differential Common & Rare

www.medinaz.com

Common causes..

Alcohol
B (hepatitis)
C (hepatitis)

"ABC"

Rare causes..

Autoimmune
Biliary cirrhosis
Copper (Wilsons)

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Conditions where Mallory Hyaline bodies are seen

www.medinaz.com

Non-alcoholic fatty liver disease (NAFLD)
Indian childhood cirrhosis
Wilson's disease
Alpha 1 AT deficiency, Alcoholic liver disease
Tumor of liver (Hepatocellular carcinoma)
Chronic cholastatic conditions
Hepatic or primary biliary cirrhosis
(it is not seen in secondary biliary cirrhosis)

"New Indian WATCH"

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Decompensating Chronic Liver failure D/D

- Haemorrhage
- Electrolyte disturbance
- Protein load / Paracetamol
- Alcohol binge
- Trauma
- Infection
- Constipation
- Uremia
- Sedatives / Shunt / Surgery

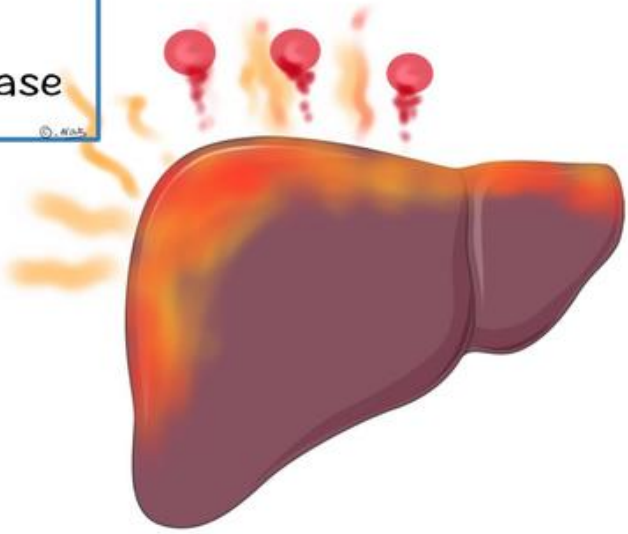
"HEPATICUS"

MEDINAZ

Elevated bilirubin common causes

- Hemolysis
- Obstruction
- Tumor
- Liver disease

"HOT Liver"



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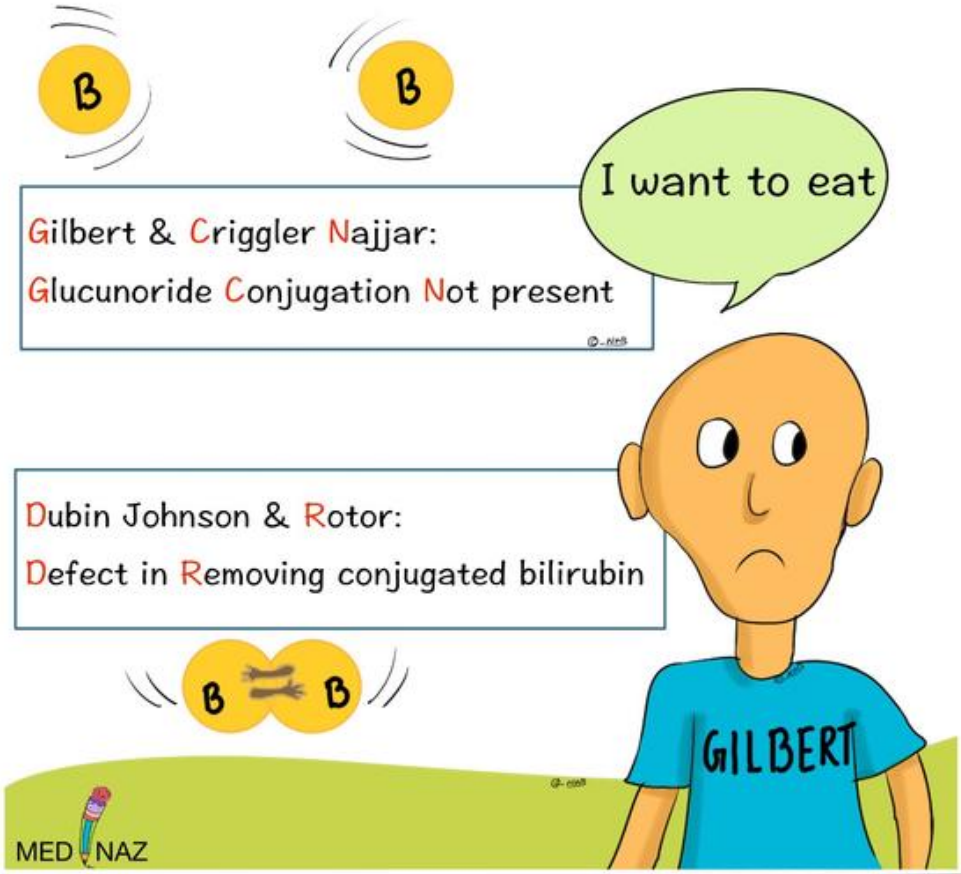

Hepatic Encephalopathy

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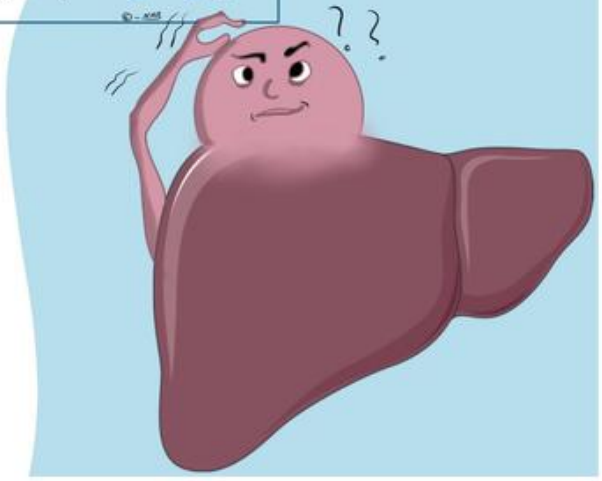
Sign & Symptoms

pSychosis
Confusion
Asterixis
Lethargy --> coma (late sign)
Personality changes (early sign)

"SCALP"



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Risk factors of cholangiocarcinoma

Primary sclerosing Cholangitis

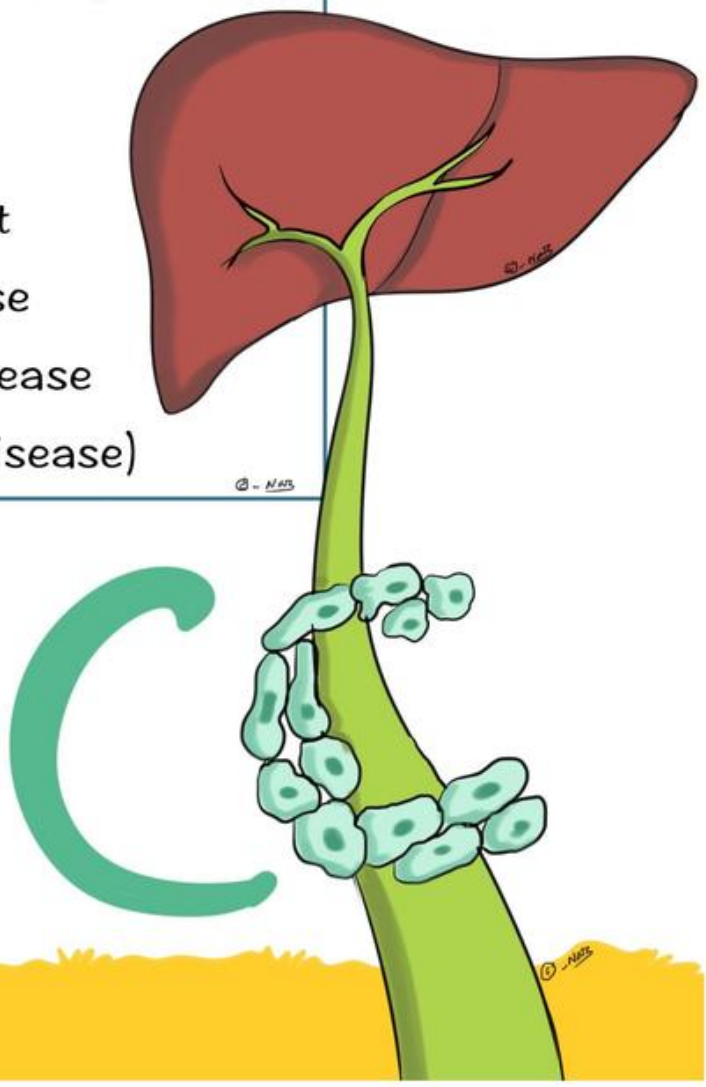
Clonorchis sinensis & Opisthorchis viverrini (Liver flukes)

Choledocholithiasis

Contact material – thorotrast

Chronic Alcoholic Liver Disease

Congenital fibropolycystic disease (Choledochal cysts, Caroli's disease)

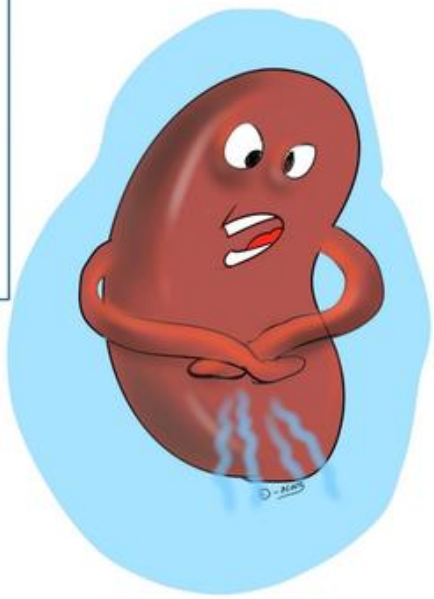


Renal Pathology

Acute Renal Failure detection

Acute presentation
over hours and days
Creatinine rises
Urea rises (oliguria < 400ml/24hrs)

"ACUte"



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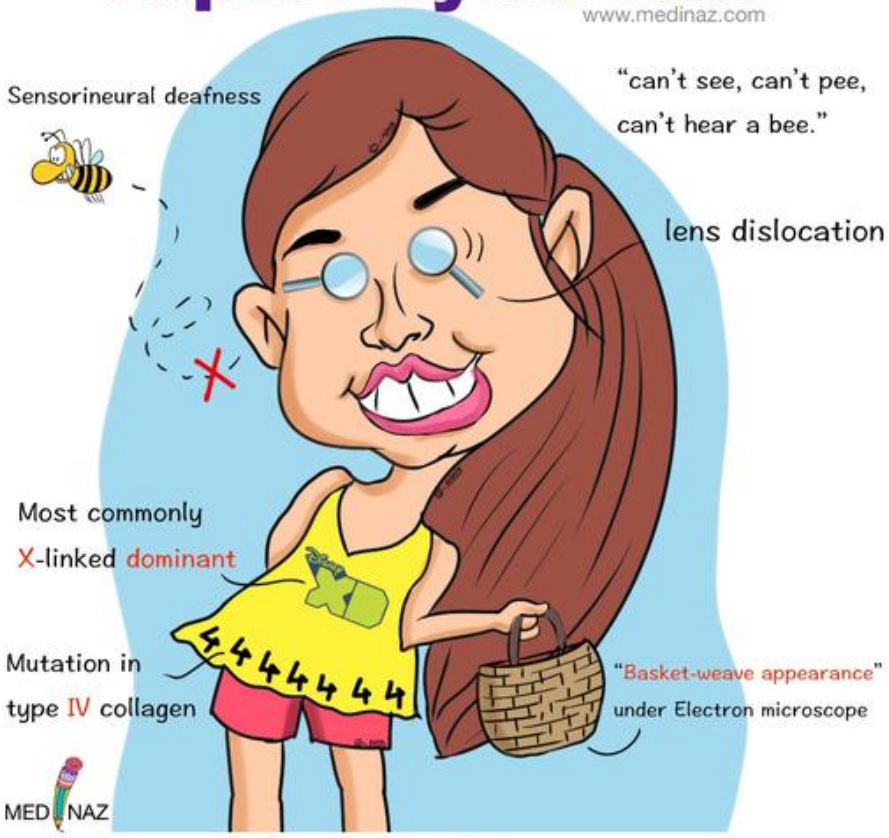
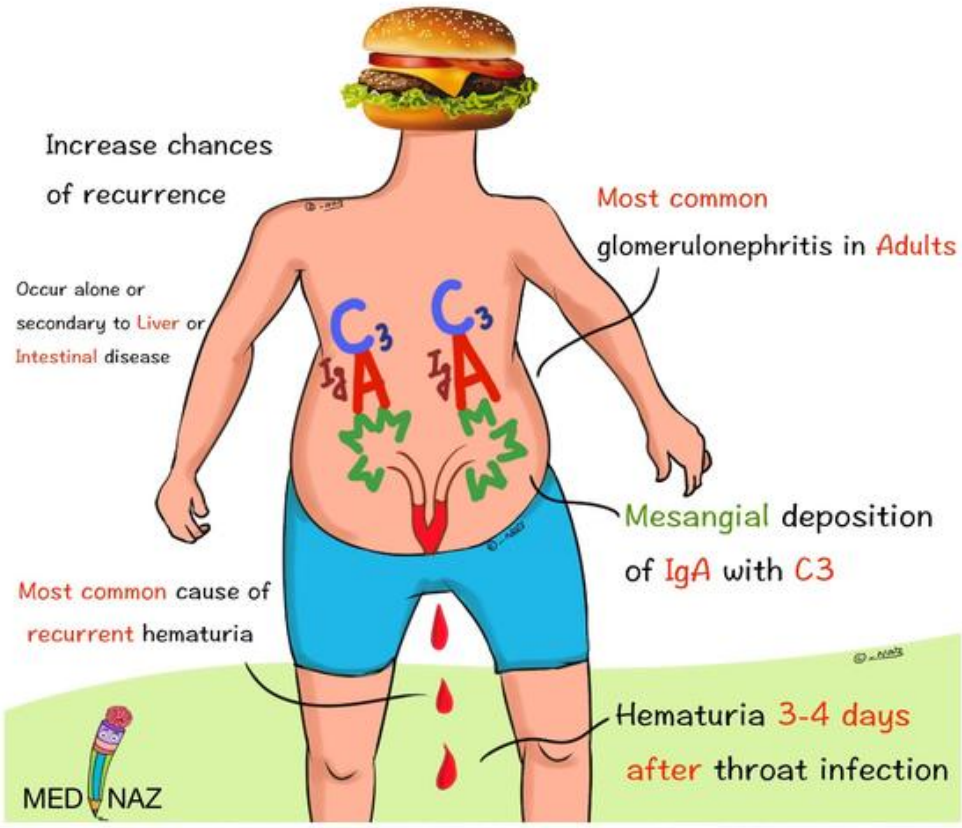
Alport Syndrome



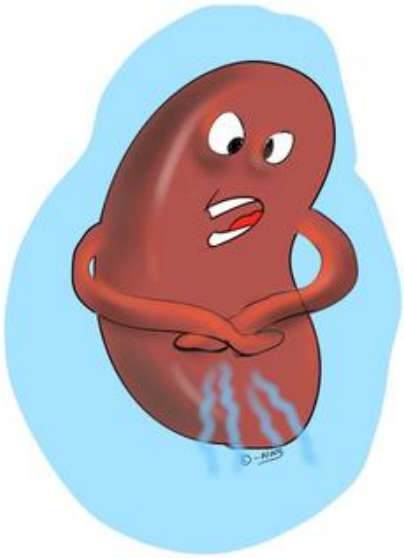
IgA Nephropathy (Berger Disease)



Chronic Renal Failure presentation

"NASER & 8 P's"

- Nails are brown
- Arises blood pressure
- Skin is yellow
- Excoriations (scratch mark)
- Retinopathy
- Pallor
- Purport and bruises
- Pericarditis & cardiomegaly
- Pleural effusions
- Pulmonary edema
- Peripheral edema
- Proximal myopathy
- Peripheral neuropathy



Hematuria Urethral causes

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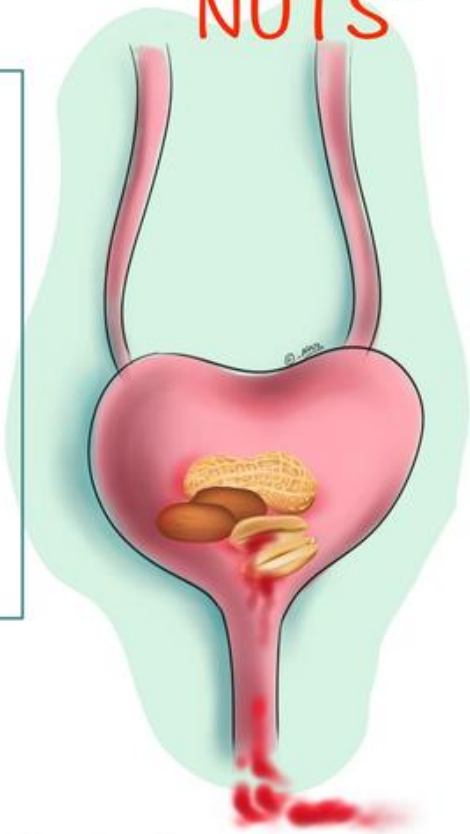
"NUTS"

Neoplasm

Urethritis

Tumor

Stone



Kidney enlargement causes

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"SHAPE"

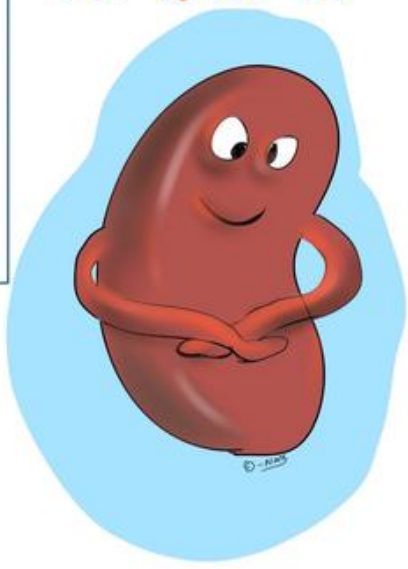
Scleroderma

HIV nephropathy

Amyloidosis

Polycystic kidney disease

Endocrinopathy (Diabetes)



Nephritic Syndrome

(Glomerular diseases commonly presenting as nephritic syndrome)

Post-streptococcal
Alport's
RPGN
IgA nephropathy
SLE

"PARIS"

Nephrotic syndrome features

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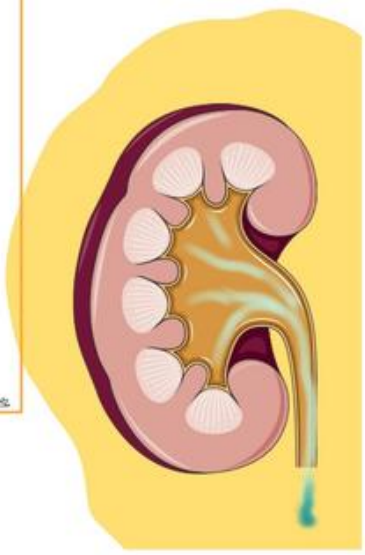
Na+ decreased (hyponatremia)
Albumin decrease (hypoalbuminemia)
Proteinuria > 3.5mg/day
Hyperlipidemia
Renal vein thrombosis
Orbital edema
Thromboembolism
Infection (due to loss of immunoglobulins in urine)
Coagulability (due to loss of antithrombin III in urine)

"NAPHROTIC"



Papillary Necrosis Causes

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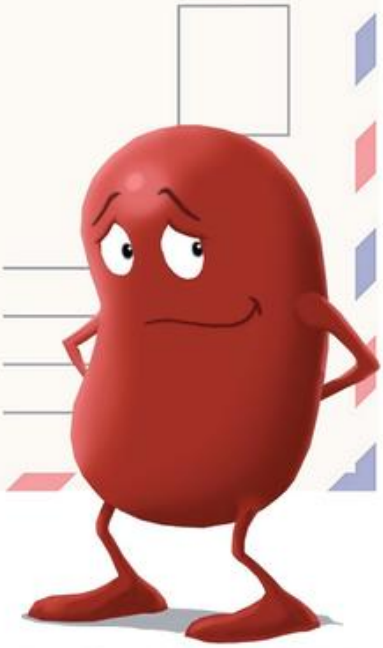
"POSTCARD"

Pyelonephritis
Obstruction
Sickle-cell disease
Tuberculosis
Cirrhosis
Analgesic abuse/ Alcohol
Renal vein thrombosis
Diabetes



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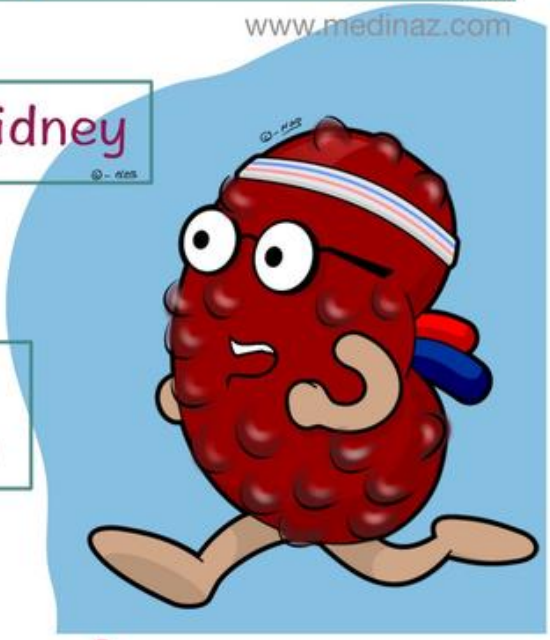
Polycystic Kidney disease

ADult Polycystic Kidney disease =
Autosomal **D**ominant

Polycystic Kidney

16 letters

defect on chromosome 16



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Lung Pathology

Pneumonia Complications

Don't

Septicaemia

Lung abcess

ARDS

Para-pneumonic effusion

Hypotension

Empyema

Respiratory/Renal failure

ARDS Causes

Aspiration (gastric), **A**cute pancreatitis, **A**mniotic fluid embolus
Raised ICP, **R**espiratory track infection-pneumonia
DKA, **D**IC, **D**rugs
Sepsis, **S**hock, **S**moke inhalation, **S**evere burns

Bronchial obstruction consequences

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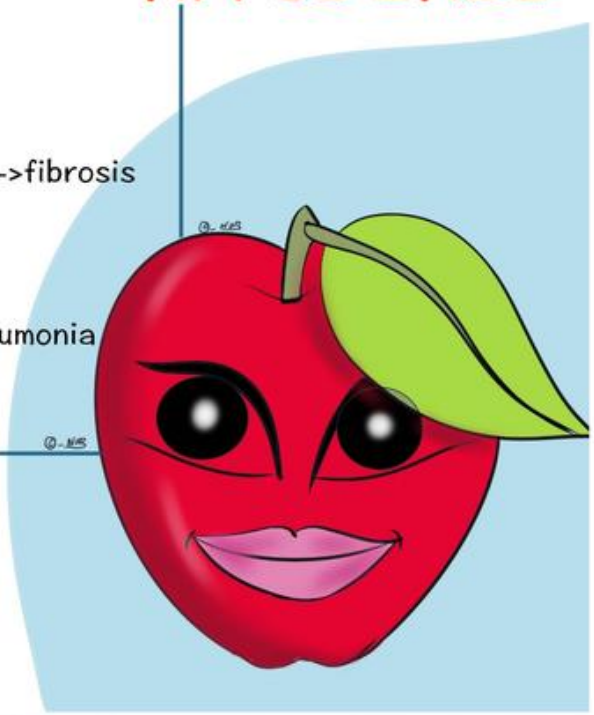
"APPLE BABE"

Atelectasis
Pleural adhesions
Pleuritis
Lipid pneumonia
Effusion->organisation->fibrosis
Bronchiectasis
Abscess
Broncho and lobar pneumonia
Emphysema



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6 P's of DYSPNEA

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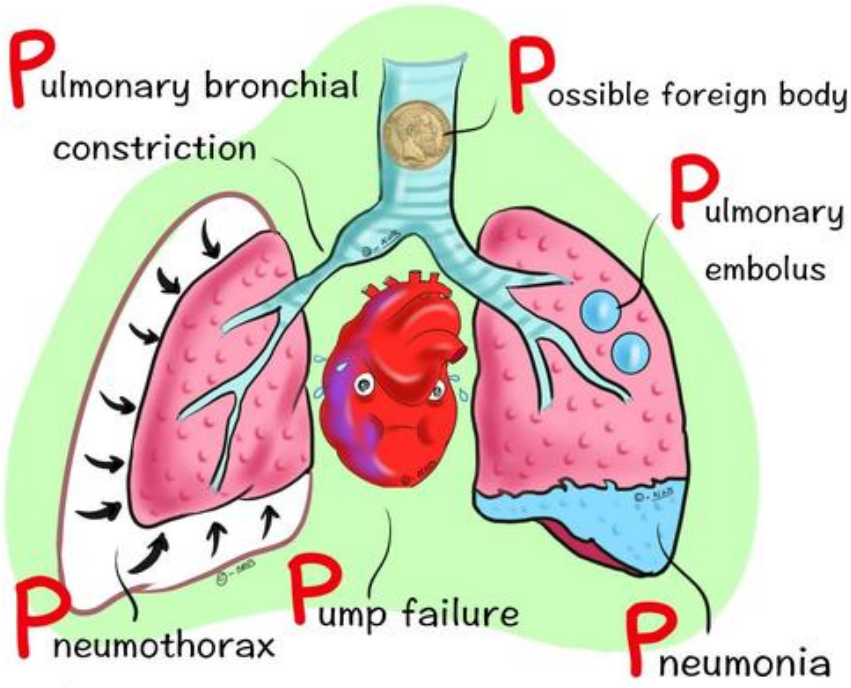

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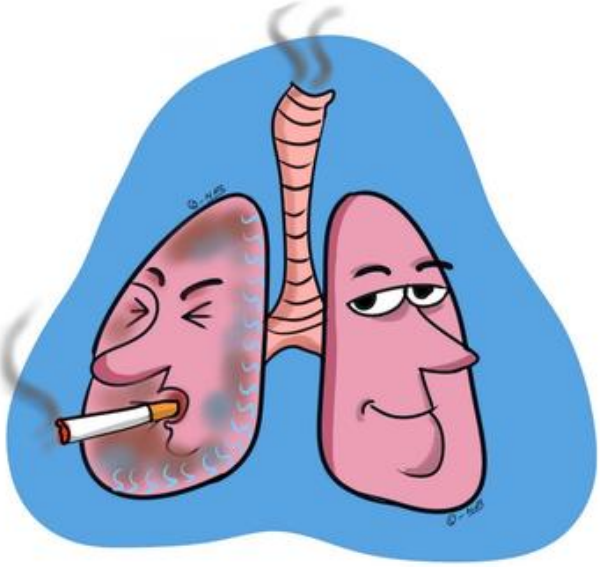
Em Physema = Pink Puffer

chronic Bronchitis = Blue Bloater

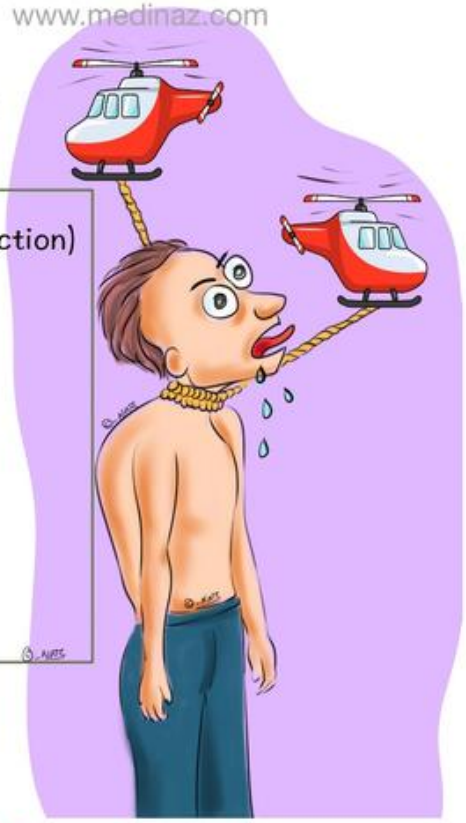


Epiglottitis

"AIR RAID"

Airway inflammation (Obstruction)
Increased pulse
Restlessness

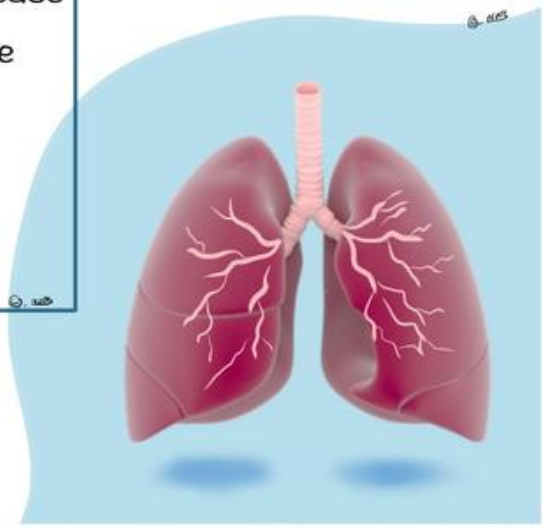
Retractions
Anxiety increased
Inspiratory stridor
Drooling



Interstitial Lung Disease causes

Sarcoidosis
Allergic reaction
Radiation
Connective tissue disease
Occupational exposure
Infection
Drugs
Idiopathic

"SARCOIDI"



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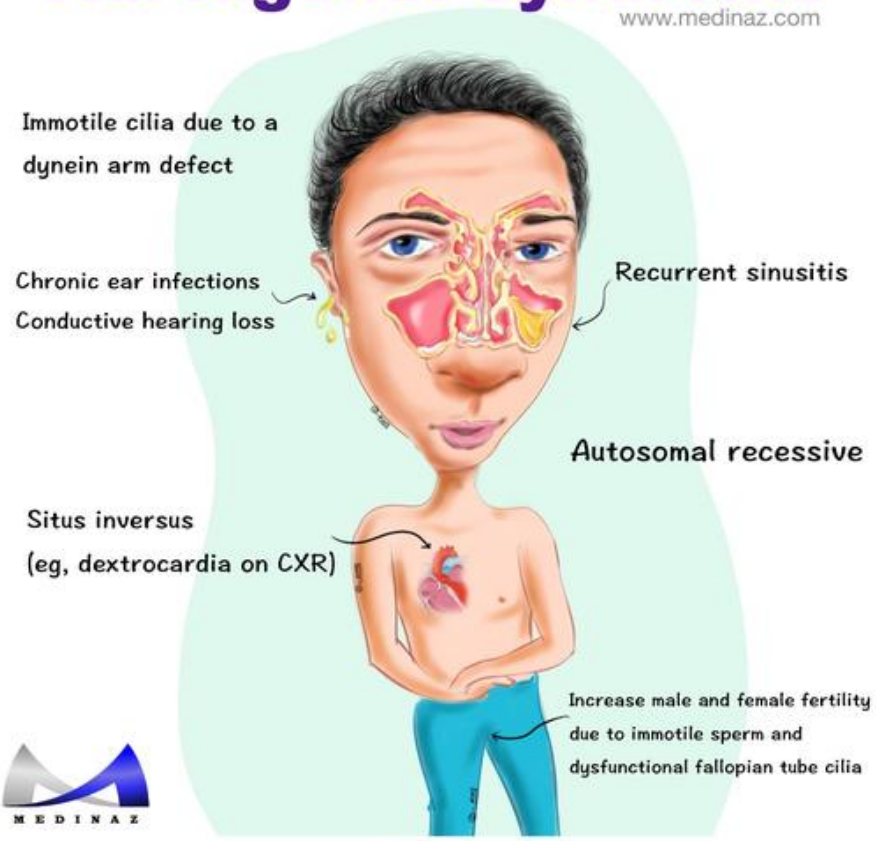
Kartagener syndrome



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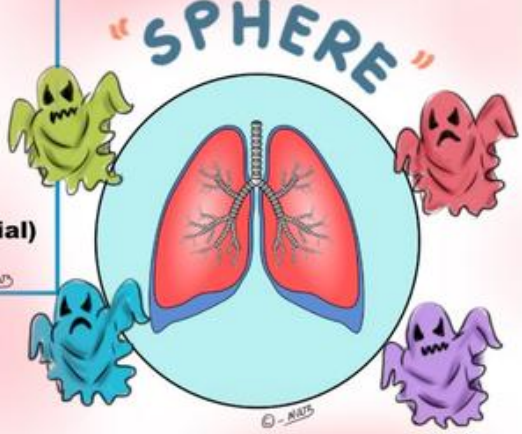
Lung Cancer Complications

Superior vena cava syndrome
Pancoast tumor

Horner syndrome
Endocrine (paraneoplastic)

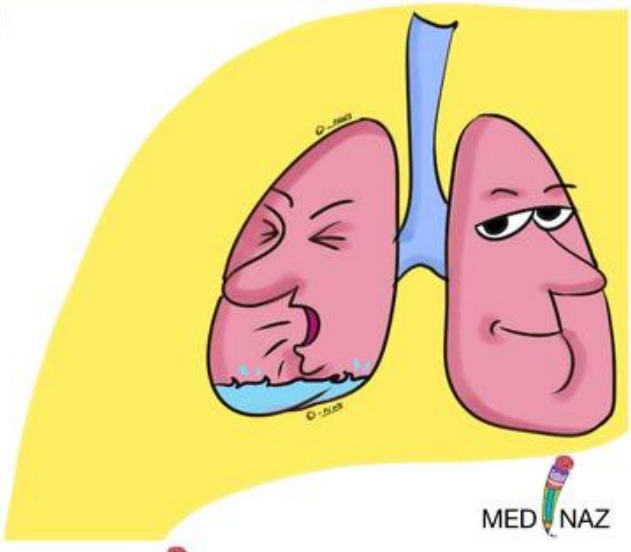
Recurrent laryngeal nerve compression (hoarseness)

Effusions (pleural or pericardial)



Acute pneumonia caused by
Pyogenic bacteria: **P**MN infiltrate

Acute pneumonia caused by
Miscellaneous microbes: **M**ononuclear infiltrate



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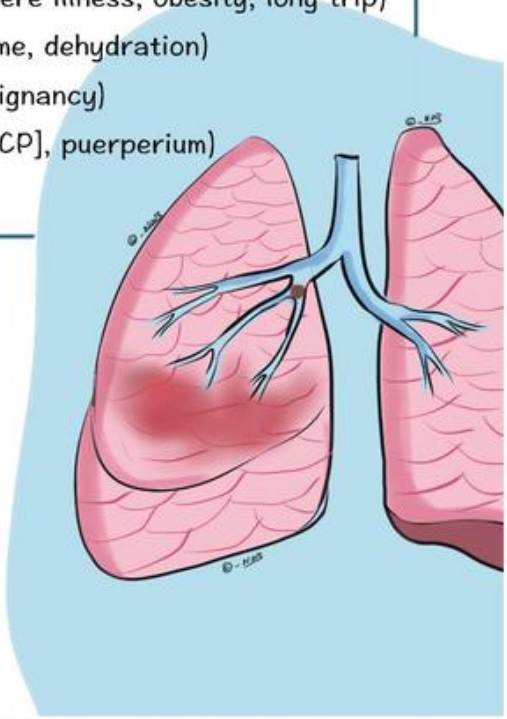
Pulmonary Embolism risk factors

Hereditary (eg factor V Leyden, protein C or S deficiency)
History (previous DVT or PE)
Hypomobility (fracture, CVA, severe illness, obesity, long trip)
Hypovolaemia (nephrotic syndrome, dehydration)
Hypercoagulability (smoking, malignancy)
Hormones (oestrogens [esp. in OCP], puerperium)
Hyperhomocysteinaemia

"7 H's"



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Pulmonary Fibrosis differential

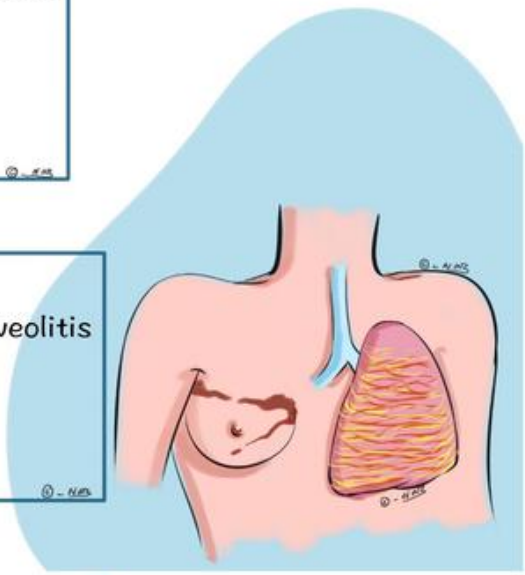
Upper lobe

Beryliosis
Radiation
Extrinsic allergic alveolitis
Ankylosing spondylitis
Sarcoidosis
TB

"BREAST SCAR"

Lower lobe

Systemic sclerosis
Cryptogenic fibrosing alveolitis
Asbestosis
Radiation



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Respiratory distress syndrome in infants:

www.medinaz.com

(Major risk factors)

PCD (Primary Ciliary Dyskinesia)

Prematurity

Cesarean section

Diabetic mother

"PCD"

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Sputum findings in Asthma

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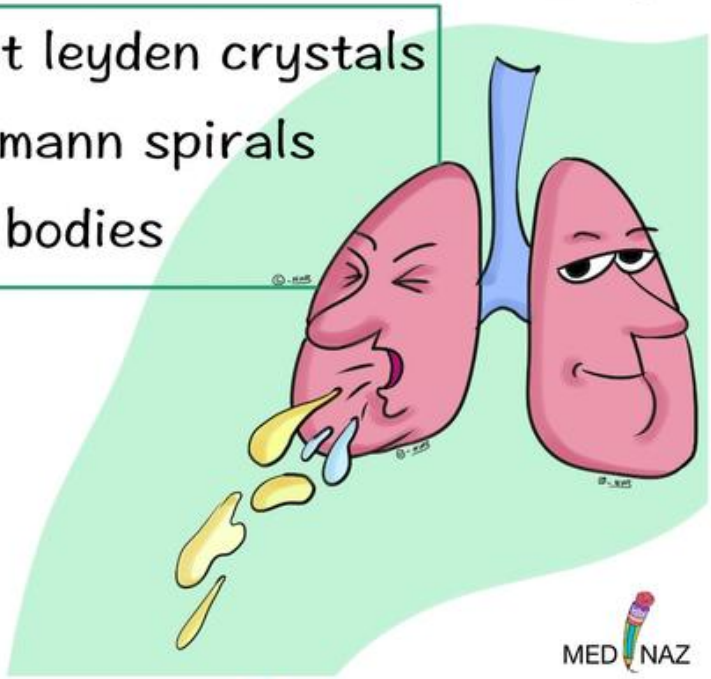
"3 C's"

Charcot leyden crystals

Curschmann spirals

Creola bodies



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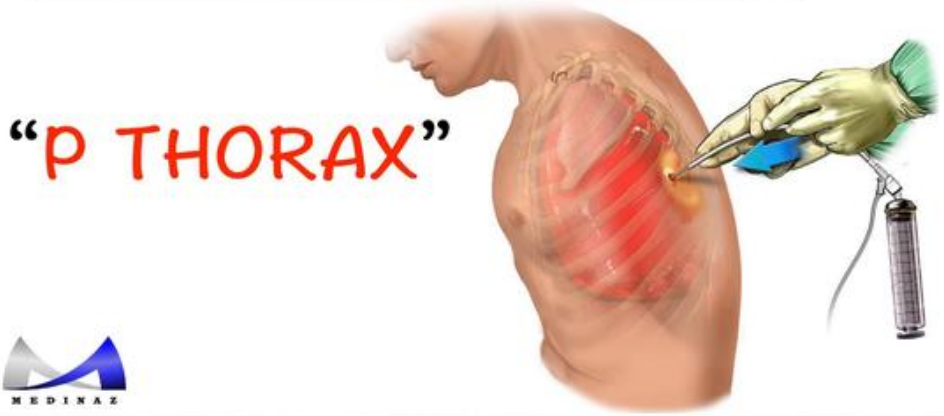
Tension pneumothorax: signs and symptoms

www.medinaz.com

Pleuritic pain
Tracheal deviation
Hyperresonance
Onset sudden
Reduced breath sounds (and dyspnea)
Absent fremitus
X-ray shows collapse



Wheezing causes

www.medinaz.com

- **A**neurysm, **A**sthma, **A**spiration
- **S**moke or irritant inhalation, **S**mall airway disease
- **T**hyroid/ **T**racheal enlargement, **T**oxic fumes
- **H**eart Failure, **H**ypersensitivity pneumonitis
- **M**edication (Aspirin, Beta Blocker), **M**astocytosis/carcinoid
- **A**naphalaxis, **A**llergy/eosinophilic disease, **A**ngioedema
- **T**umor, **T**hromboembolism
- **I**nfection (pneumonia, bronchitis),
  Infarction (pulmonary embolus, sickle cell chest syndrome)
- **C**ystic fibrosis/bronchectasis

Gastrointestinal pathology

Abdominal pain causes during pregnancy

www.medinaz.com

"LARA CROFT"

- **L**abour
- **A**bruption of placenta
- **R**upture (eg. ectopic/uterus)
- **A**bortion
- **C**holestasis
- **R**ectus sheath hematoma
- **O**varian tumor
- **F**ibroids
- **T**orsion of uterus

Causes of Abdominal swelling

9 Fs

- **F**at
- **F**luid
- **F**ull bladder
- **F**ull-sized tutor
- **F**alse pregnancy
- **F**eces
- **F**latus
- **F**etus
- **F**ibroids

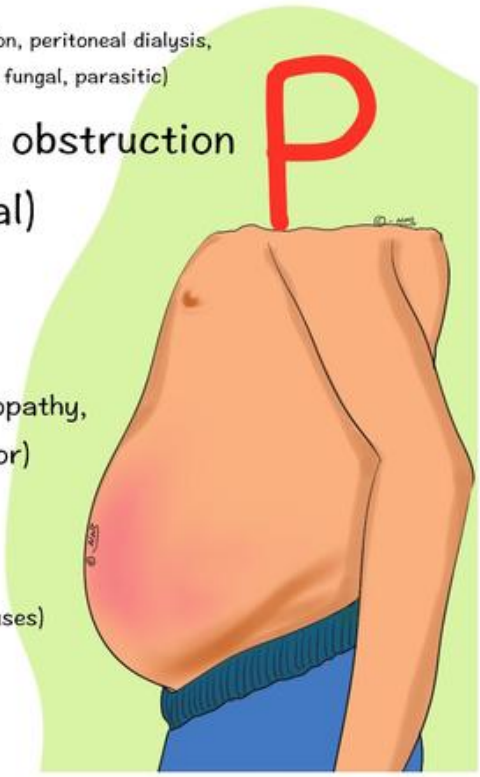
Ascites, Causes

Peritonitis
(peritoneal carcinomatosis, post-irradiation, peritoneal dialysis, pancreatitis, mesothelioma, bacterial, TB, fungal, parasitic)

Peritoneal lymphatic obstruction
(traumatic, congenital)

Protein deficiency
(cirrhosis, protein-losing enteropathy, nephrotic syndrome, kwashiorkor)

Portal hypertension
(pre-hepatic, hepatic, post-hepatic causes)



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Dysphagia causes

Mouth lesions
Obstruction
Oesophageal stricture
Neurological
(stroke, Guillain-Barre syndrome, achalasia)

"MOON"

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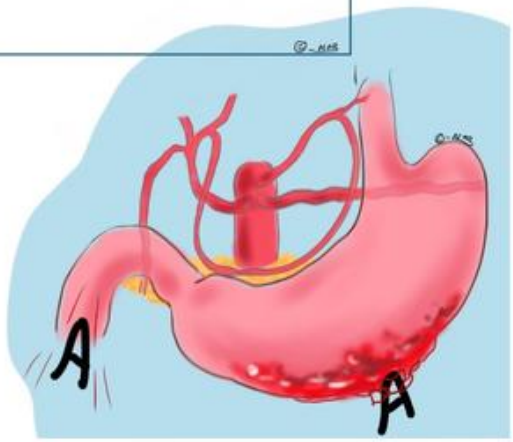
Gastric Carcinoma, Risk Factors

Anemia (ie, pernicious anemia)
Achlorhydria
Atrophic gastritis
Adenomas (ie, gastric adenomas)
A blood type



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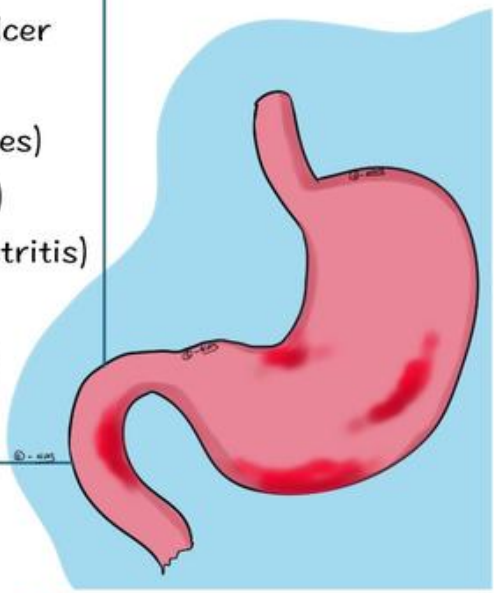
GI Bleeding causes

Angiodysplasia
Bowel cancer
Colitis
Diverticulitis / Duodenal ulcer
Epistaxis / Esophageal
(cancer, esophagitis, varices)
Fistula (anal, aortaenteric)
Gastric (cancer, ulcer, gastritis)
Haemorrhoids
Infectious diarrhoea / IBD
/ Ischemic bowl

"ABCDEFGHI"



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Insulin-independent glucose uptake

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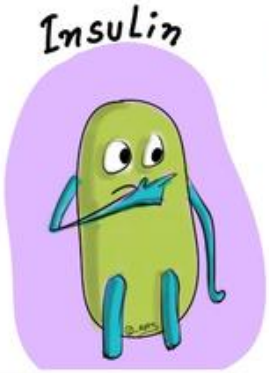
Brain
RBCs
Intestine
Cornea
Kidney
Liver
Islet (β) cells
Placenta
Spermatocytes

"BRICK LIPS"



Leptin vs Ghrelin

www.medinaz.com

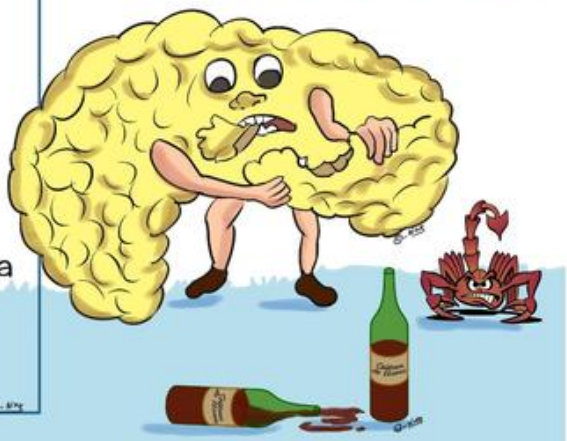
Leptin keeps you thin

Ghrelin makes you hunghre and ghreow (grow)

Pancreatitis (acute) causes

Idiopathic
Gall stones
Ethanol (alcohol)
Trauma
Steroids
Mumps / Malignancy
Autoimmune
Scorpion stings
Hypercalcemia / Hypertriglyceridemia
ERCP
Drugs

"I GET SMASHED"



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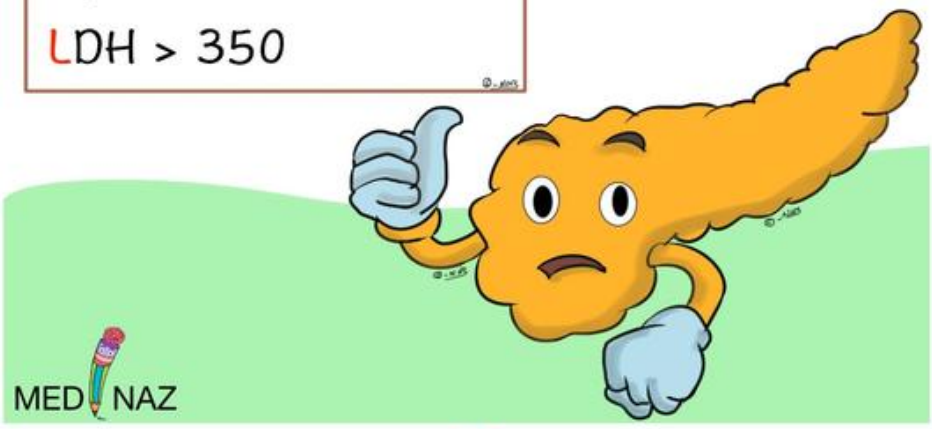
Pancreatitis Ranson criteria

(admission time)

Leukocytes > 16000
Enzyme AST > 250
Glucose > 200
Age > 55
LDH > 350

"LEGAL"



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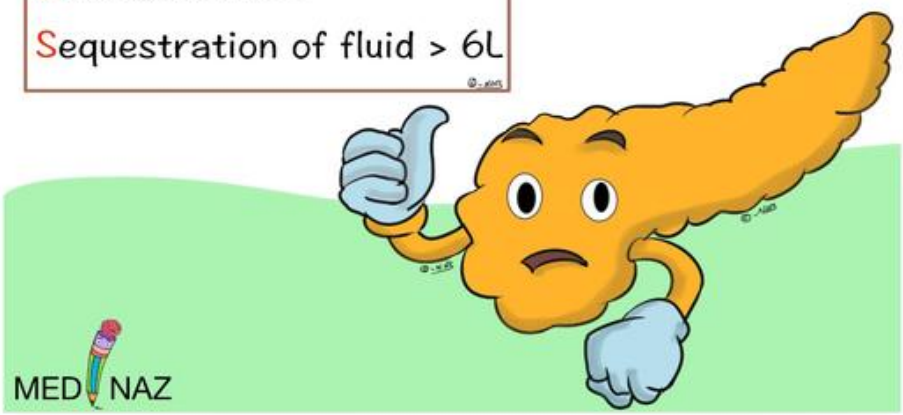
Pancreatitis Ranson criteria

(initial 48 hrs)

Calcium < 8
Hct drop > 10%
Oxygen < 60
BUN > 5
Base deficit > 4
Sequestration of fluid > 6L

"C & HOBBS"
(Calvin & Hobbes)



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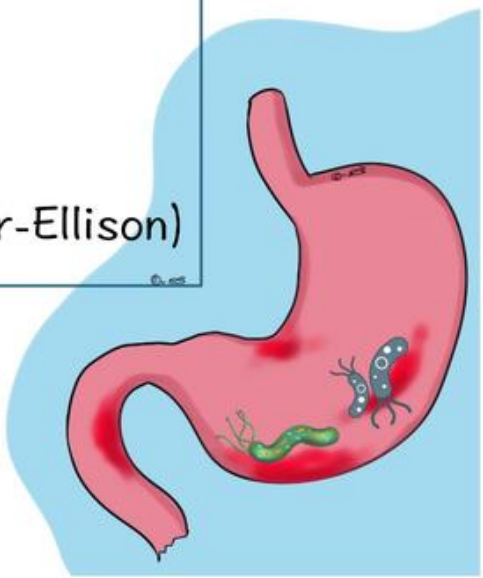
Peptic ulcer associated causative factors

Hypercalcemia
MEN type I
Aspirin / Acidity
Smoking
Syndrome (Zollinger-Ellison)

"H.pylori MASS"



MEDINAZ

Peptic ulcer

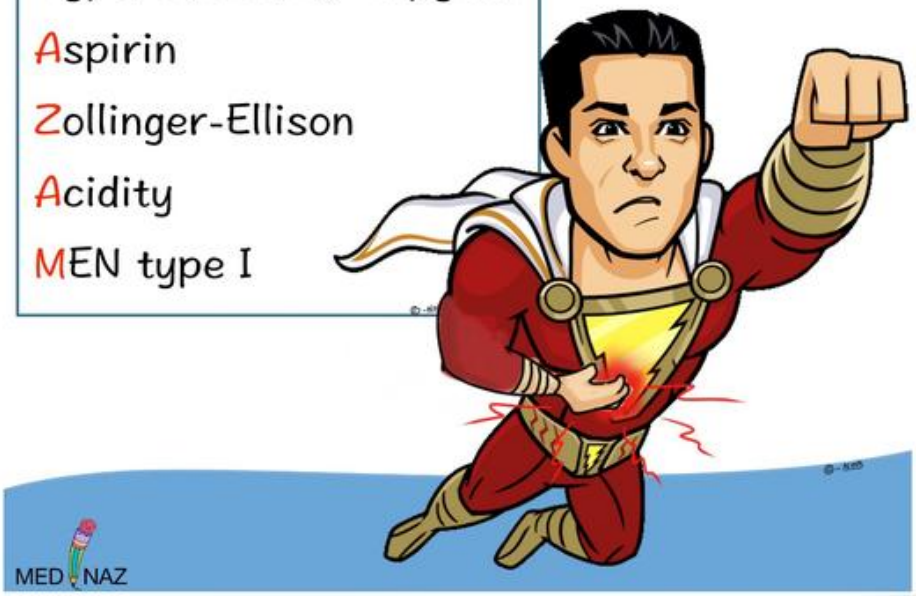
(associated causative factors)

www.medinaz.com

"SHAZAM"

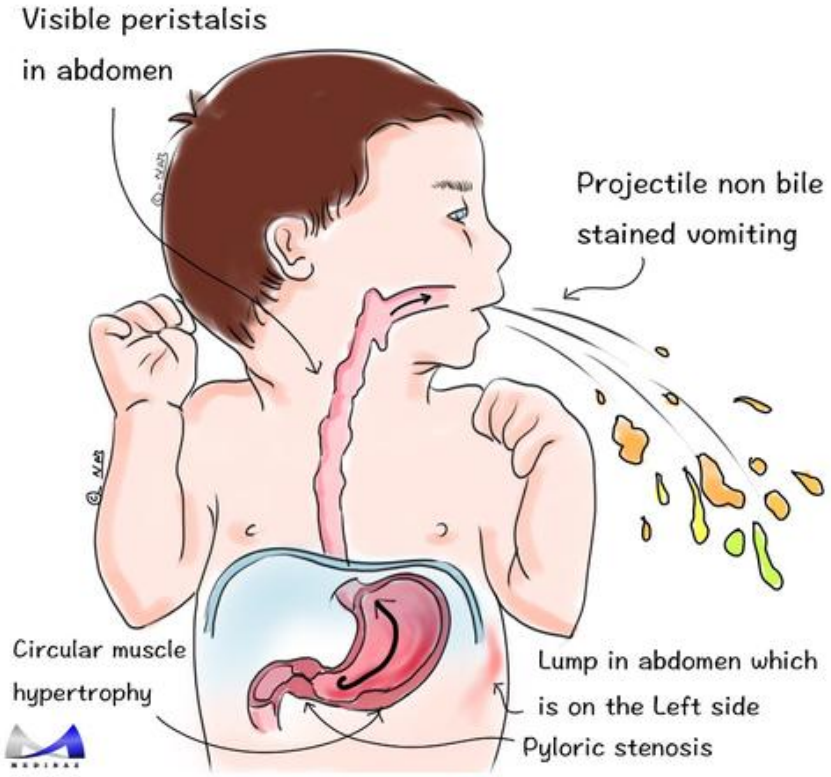
with peptic ulcer

- Smoking
- Hypercalcemia, H. pylori
- Aspirin
- Zollinger-Ellison
- Acidity
- MEN type I



Pyloric Stenosis

www.medinaz.com



MED NAZ

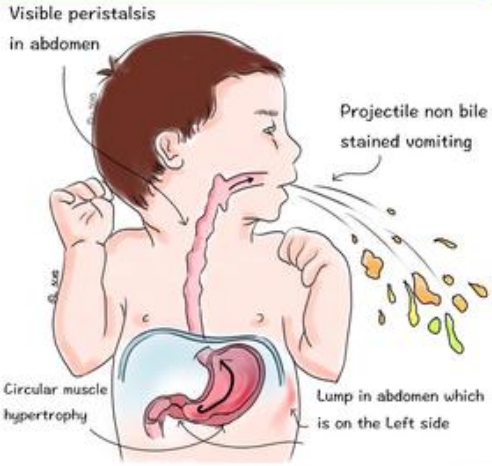
Pyloric Stenosis

www.medinaz.com

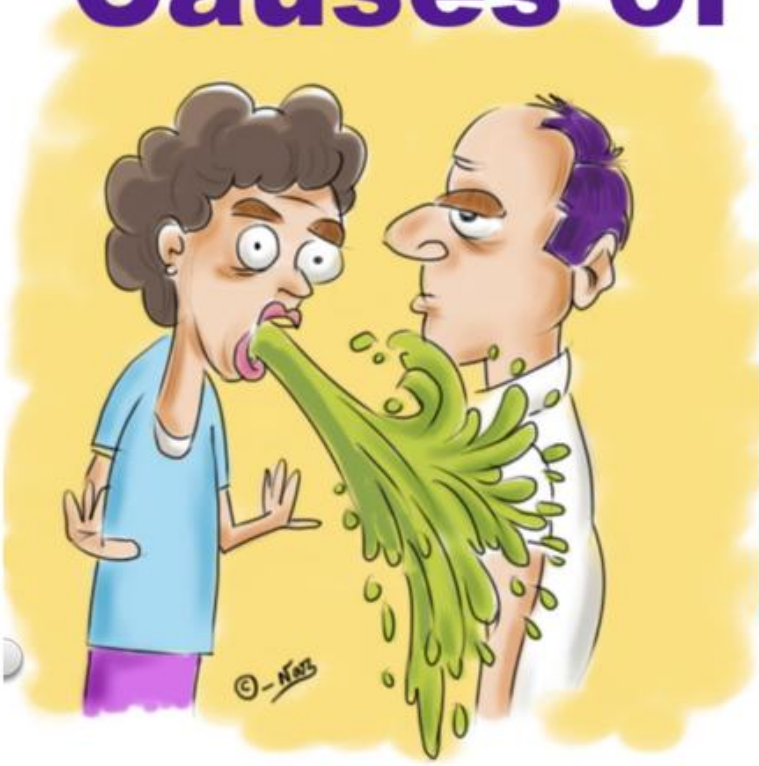
Peristalsis (Visible peristalsis in abdomen)
Yuck! So the kid vomits everything he eats (non bile stained vomiting)
Lump in abdomen which is on the Left side
Olive mass, Doughnut sign on USG
Ramstedt's pyloromyotomy (treatment)
Imbalance of electrolytes
Circular muscle hypertrophy

"PYLORIC"

naz_artonomy



Causes of Vomiting



V	Vestibular / Vagal reflex
O	Opiates
M	Migraine / Metabolic (DKA)
I	Infection
T	Toxicity (cytotoxic,digoxin)
I	Increased ICP / Ingested alcohol
N	Neurogenic
G	GI / Gestation

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MED NAZ

Somatostatin vs Somatomedin

www.medinaz.com

Somatostatin keeps your growth static

Somatomedin mediates your growth

Gastric Ulcer

Greater Pain

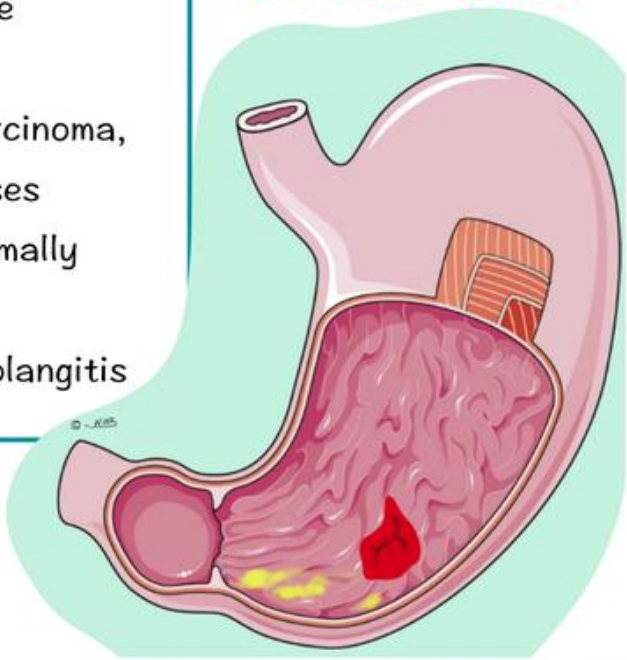
Duodenal Ulcer

Decrease Pain

Ulcerative colitis

Ulcers
Large intestine
Continuous,
Colorectal carcinoma,
Crypt abscesses
Extends proximally
Red diarrhea
Sclerosing cholangitis

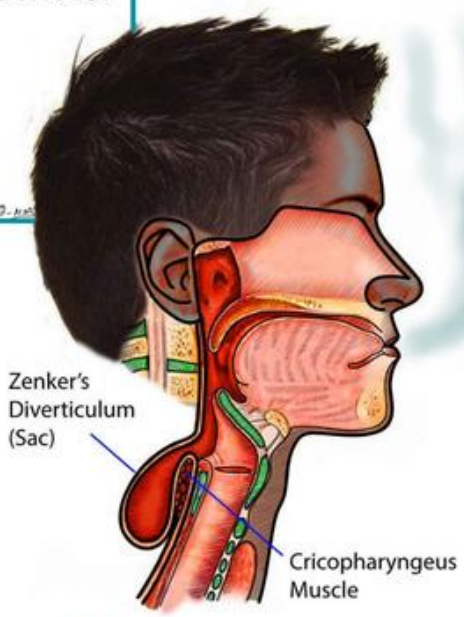
"ULCCCERS"



Zenker diverticulum

Elderly
Males
Inferior pharyngeal constrictor
Killian triangle
Esophageal dysmotility
Halitosis

"Elder MIKE has bad breath"



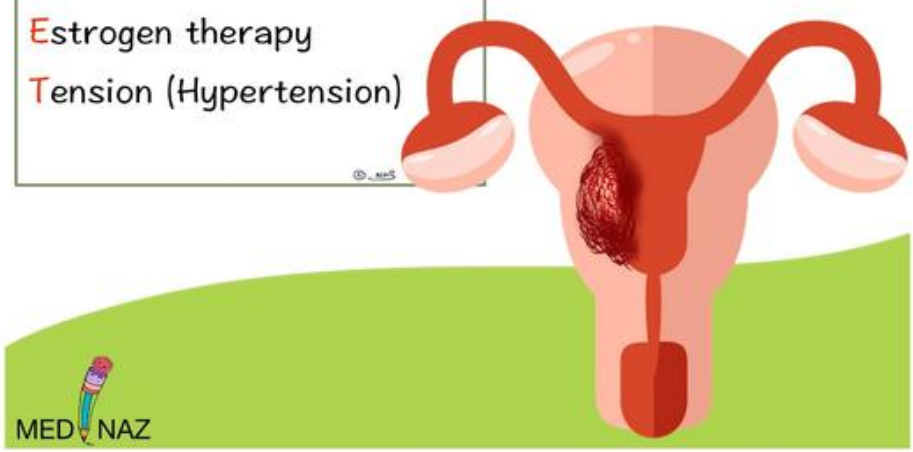
Genital system & Breast

Endometrial cancer risk factors

www.medinaz.com

Elderly
Nulliparity
Diabetes
Obesity
Menstrual irregularities
Estrogen therapy
Tension (Hypertension)

"ENDOMETrial"



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Genital cysts

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Mesonephric cyst
Epithelial inclusion cyst
Nabothian cyst
Follicular cyst
Gartner's duct cyst
Chocolate cyst
Bartholin's cyst

"MEN Found Genital Cysts Bizarre"

MEDINAZ

Polycystic ovarian disease (PCOD)

www.medinaz.com

"HOLD My Breast"

Hirsutism
Obesity
LH evevated, Increase
LH/FSH ratio
DHEAS increased
Menstrual irregularities
Breast discharge absent

MED NAZ

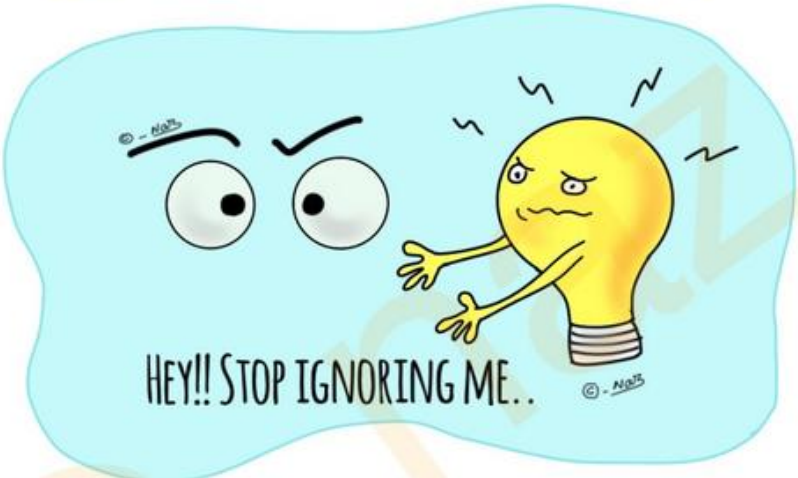
CNS pathology

Horner's Syndrome

Horny PAMELA

Ptosis
Anhydrosis
Miosis
Enophthalmos
Loss of Ciliary-Spinal reflex
Anisocoria

Argyll Robertson Pupil



Argyll Robertson Pupil (ARP)

ARP

→ **A**ccommodation **R**eflex **P**resent (**ARP**)

← **P**upillary **R**eflex **A**bsent (**PRA**)

AUTISM

Affect isolation
Unrelated to others
Twiddle
I/You confusion in speech
Self-mutilation
Temper tantrums
Inconsistent development
Concrete thinking
Perceptual difficulties
Echolalia
Oderly
Physical motor disorder
Lack language skills
Excessive activity

"AUTISTIC PEOPLE"

Balint's Syndrome

Simultagnosia
Optic ataxia
Ocular apraxia
Tunnel vision

"ShOOT"

MEDINAZ

Bell's Palsy Symptoms

"BELL'S Palsy"

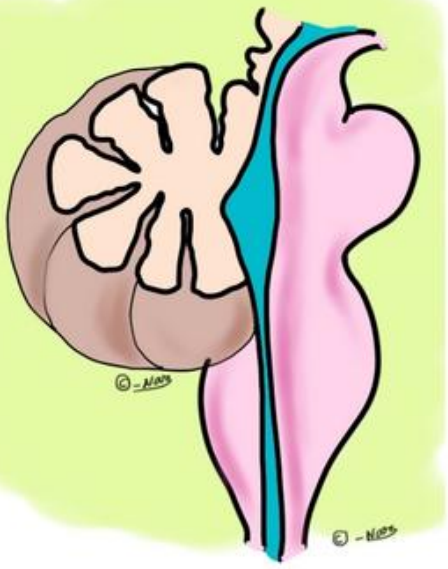
Blink reflex abnormal
Earache
Lacrimation
Loss of taste
Sudden onset
Palsy of 7th
nerve muscles

All symptoms are Unilateral

Signs of Cerebellar Damage

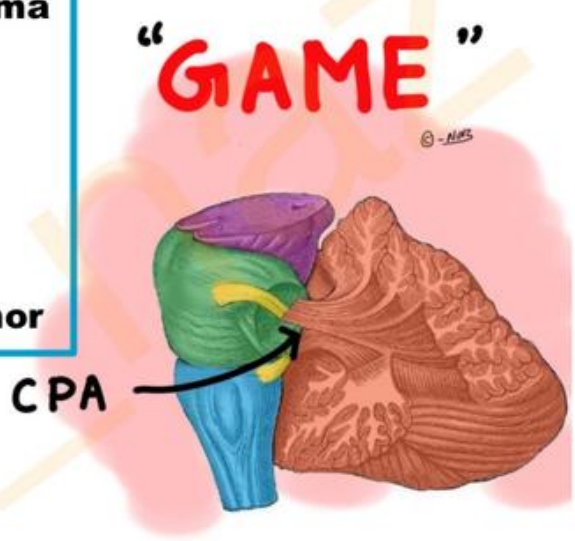
Vertigo
Ataxia
Nystagmus
Intentional tremor
Slurred speech
Hypotonia
Exaggerated broad based gait
Dysdiadochokinesia

"VANISHED"



Cerebellopontine angle Tumors

Glomus tumor
Acoustic neuroma
Arachnoid cyst
Aneurysm
Meningioma
Metastasis
Epidermoid tumor



Chorea Common Causes

Sydenhams
Vascular
Increased RBCs (polycythemia)
Toxins: CO, Mg, Hg
Uremia
SLE
Senile chorea
Drugs
APLA syndrome
Neurodegenerative conditions : HD
Neuroacanthocytosis, DRPLA
Conception related: Pregnancy, OCPs
Endocrine: Hyperthyroidism, Hypo & Hyperglycemia

"St. VITUS'S DANCE"

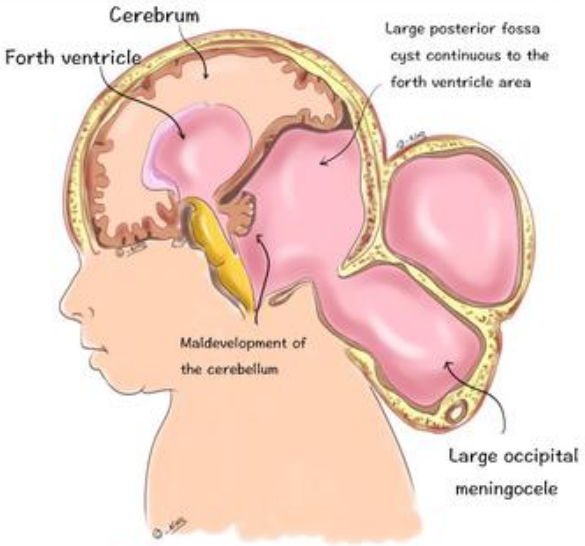
Decrease level of Consciousness
(Metabolic causes)

Major end organs (liver, kidney)
Endocrine / Electrolytes
Toxins
Acid-Base disorders
Oxygenation
Lung (PE, pneumonia)
Infection / Inflammation
Calcium

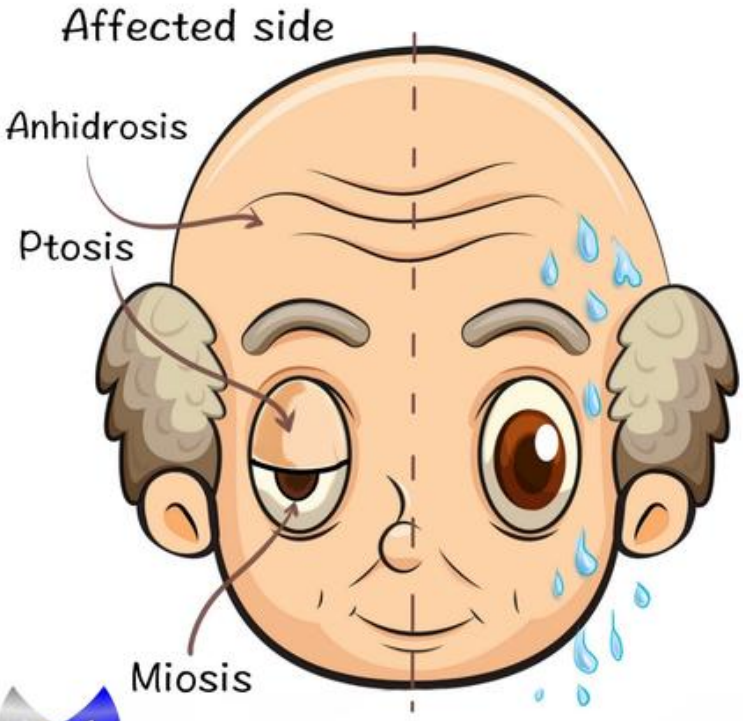
"METABOLIC"

Dandy Walker Malformation

Dandy = Dilated 4th Ventricle
Walker = Water on the brain (Hydrocephalus)
Syndrome = Small or absent vermis



Horner syndrome



Meniere's Disease

Fluctuating hearing loss
Aural fullness
Tinnitus
Episodic vertigo

Parkinson's Disease

www.medinaz.com

Be Bending / forward tilt

S Shuffling gait

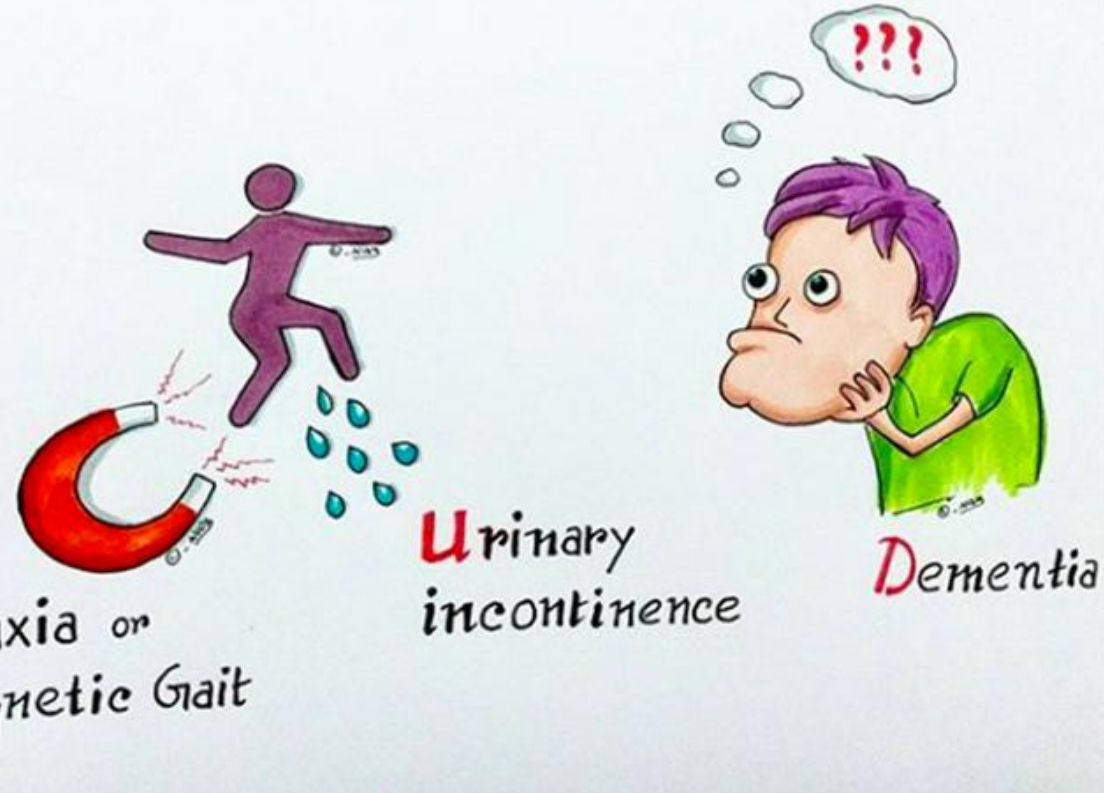
M Mask like face

A Akinesia

R Rigidity

T Tremor

Normal Pressure Hydrocephalus



Seizure Causes

www.medinaz.com

Vascular - Stroke, bleeding, aneurysm
Infectious - Meningitis, encephalitis, brain abscess
Trauma
Autoimmune - CNS vasculitis
Metabolic - Hypoxia, hypoglycemia, hypocalcemia, hypo & hypernatremia
Idiopathic
Neoplastic
pSychiatric

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Subarachnoid hemorrhage causes

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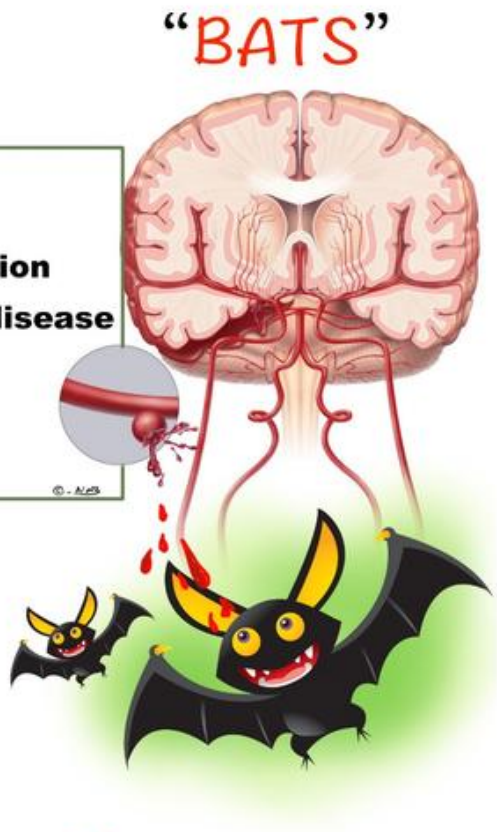
Berry aneurysm
Arteriovenous malformation
Adult polycystic kidney disease
Trauma
Stroke



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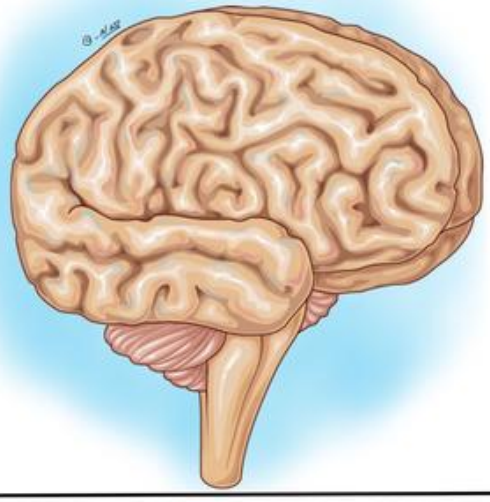
Syncope causes (CNS)

www.medinaz.com

Hypoxia/Hypoglycemia
Epilepsy
Anxiety
Dysfunctional brain stem (basivertebral TIA)

"HEAD"



Syncope causes (CVS)

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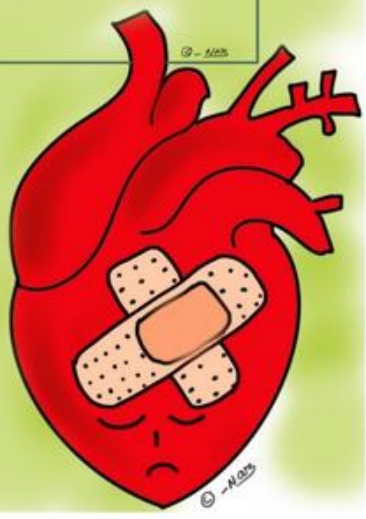
Heart attack
Embolism (PE)
Aortic obstruction (IHSS, AS or myxoma)
Rhythm disturbance, ventricular
Tachycardia

"HEART"



Syncope causes (Vascular)

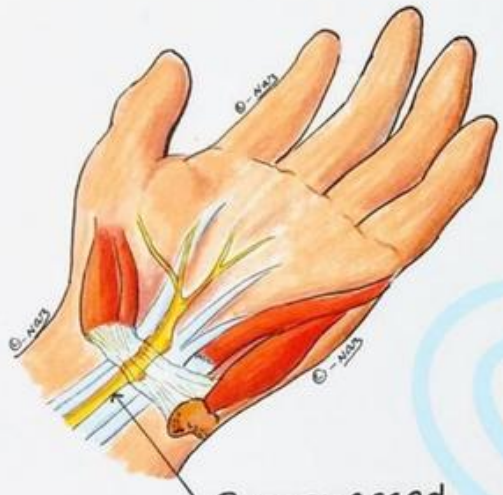
Vasovagal
Ectopic (reminds one of hypovolemia)
Situational
Subclavian steal
ENT (glossopharyngeal neuralgia)
Low systemic vascular resistance (Addison's, diabetic vascular neuropathy)
Sensitive carotid sinus

"VESSELS"

Musculoskeletal system

Carpal tunnel syndrome

(causes)



Myxoedema
Edema Premenstrually
Diabetes
Idiopathic
Acromegaly
Neoplasm

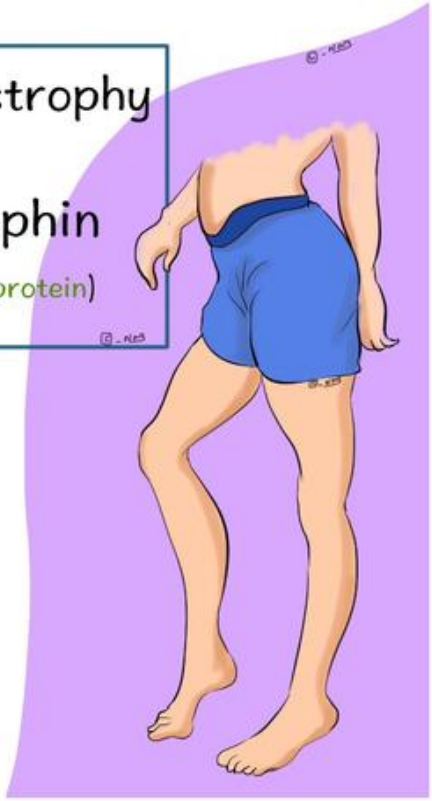
Trauma
Rheumatoid arthritis
Amyloidosis
Pregnancy

Becker Muscular Dystrophy

Becker Muscular Dystrophy

Badly Made Dystrophin

(Reduced formation of an altered protein)



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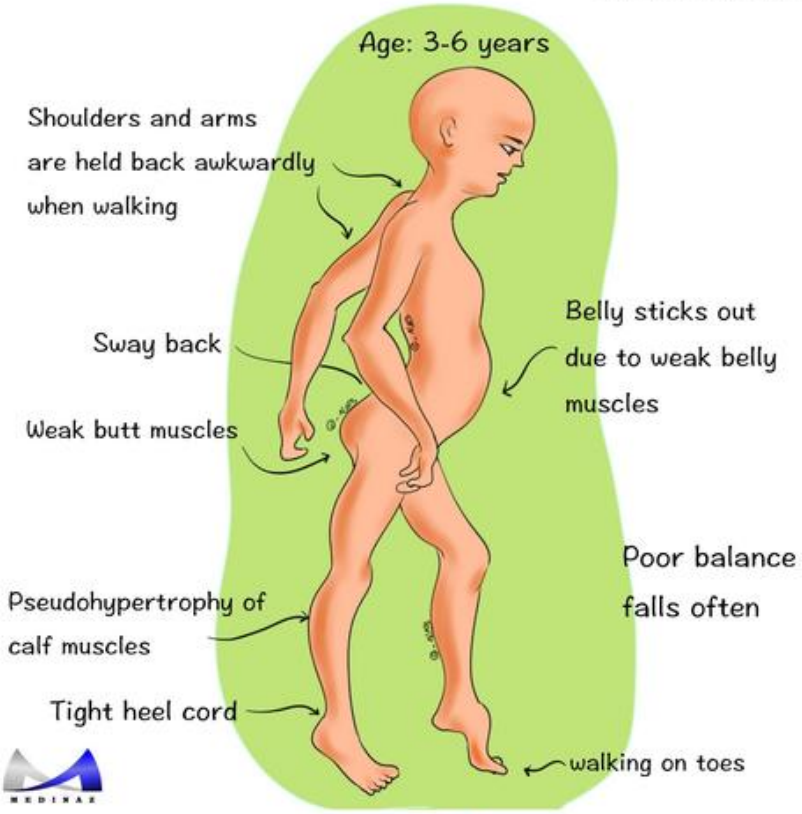
Congenital myopathy features

Dominantly inherited
Reflexes decreased
Enzymes normal
Apathetic floppy baby
Milestones delayed

"DREAM"

Duchenne Muscular Dystrophy



Ectopia Lentis

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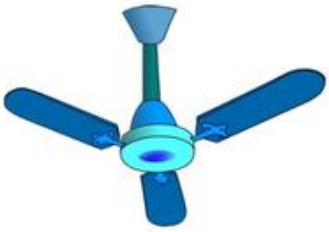
marFAN syndrome
FAN is up
Superior dislocation



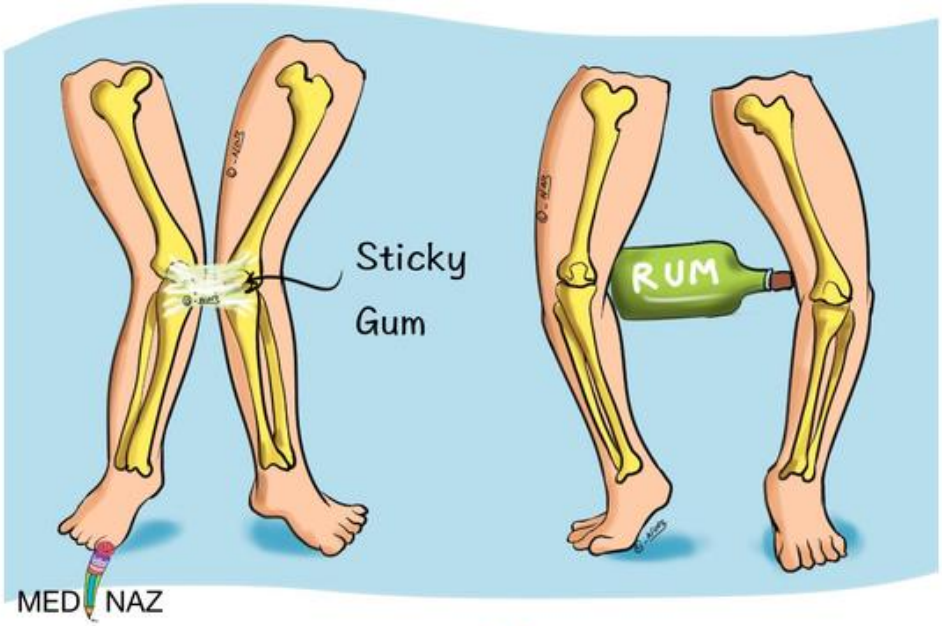
homocystinURIA
URINE goes down
Inferior dislocation

weill-MARCHesani syndrome
we will **MARCH** forward
Anterior dislocation

GENU VALGUM vs GENU VARUM

www.medinaz.com

"**GUM**" makes your knees stick together	"**RUM**" makes your knees spread apart



Marfan syndrome features

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Mitral valve prolapse
Aortic aneurysm
Retinal detachment
Fibrillin
Arachnodactyly
Negative Nitroprusside test
(+ve for Homocystinuria)
Subluxated lens

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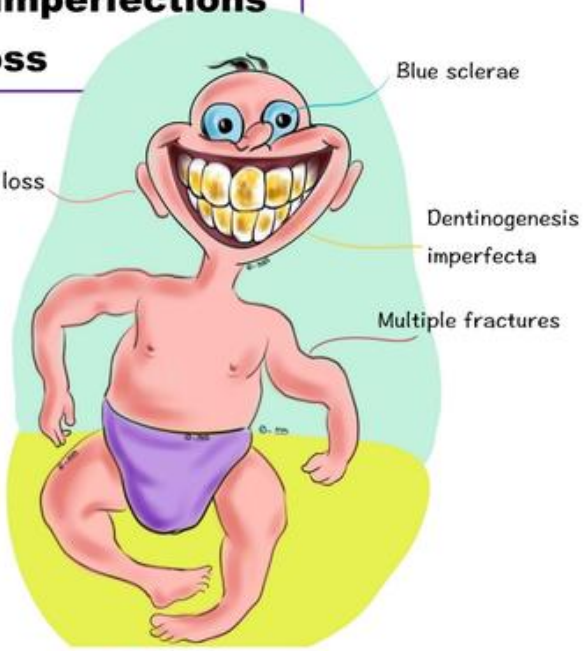
Osteogenesis Imperfecta

www.medinaz.com

Bones = multiple fractures
I (eye) = blue sclerae
Teeth = dental imperfections
Ear = hearing loss

"BITE"



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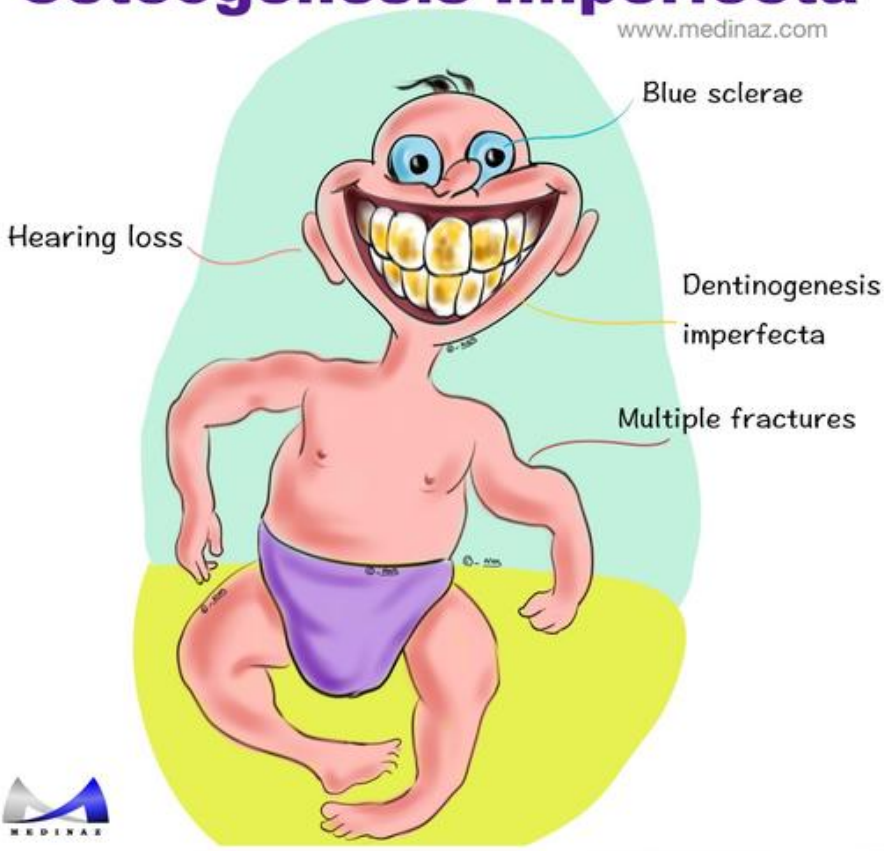
MEDINAZ

Osteogenesis Imperfecta



Osteonecrosis causes

Corticosteroids
Alcoholism
Sickle cell disease
Trauma
"the **B**ends" (caisson/ decompression disease),
LEgg-Calvé-Perthes disease (idiopathic)
Gaucher disease
Slipped capital femoral epiphysis

Paget's disease

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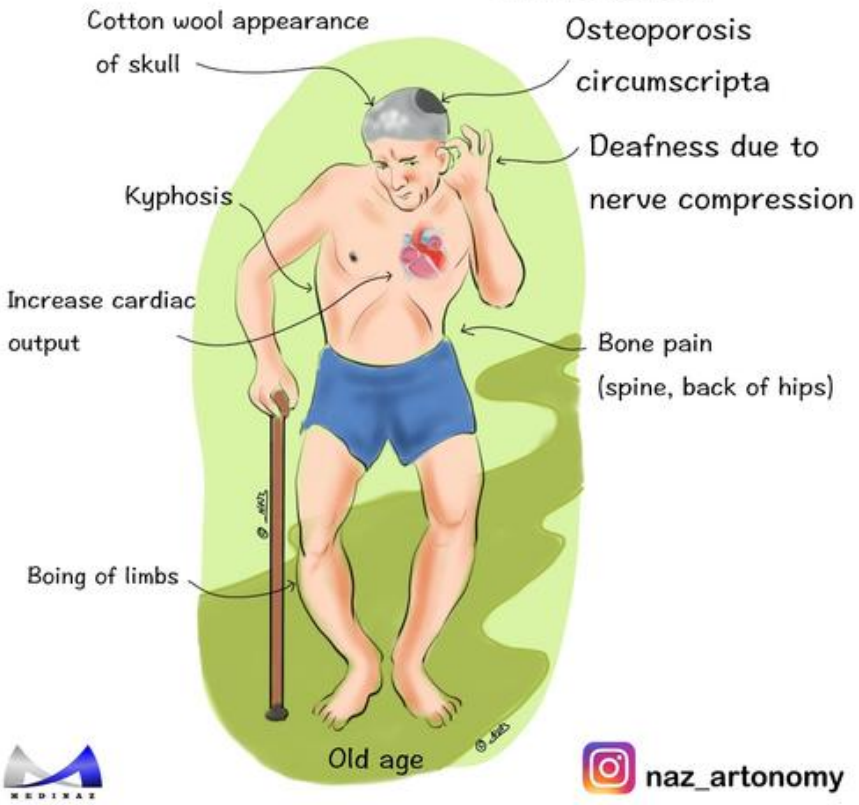

Reactive arthritis causative agents

www.medinaz.com

Shigella
Yersinia
Chlamydia
Campylobacter
Salmonella

"ShY ChiCS"

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Reactive arthritis

www.medinaz.com

Classic triad:

Conjunctivitis

Urethritis

Arthritis

"Can't see, can't pee, can't bend my knee"

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Scoliosis Vs Kyphosis

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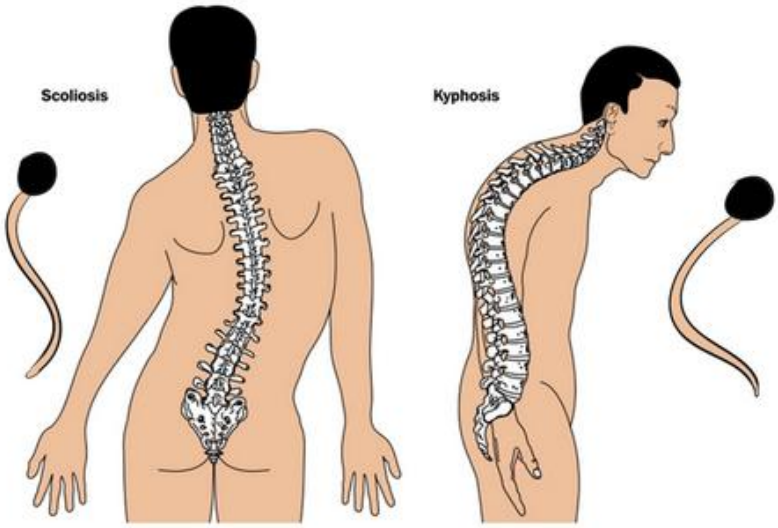

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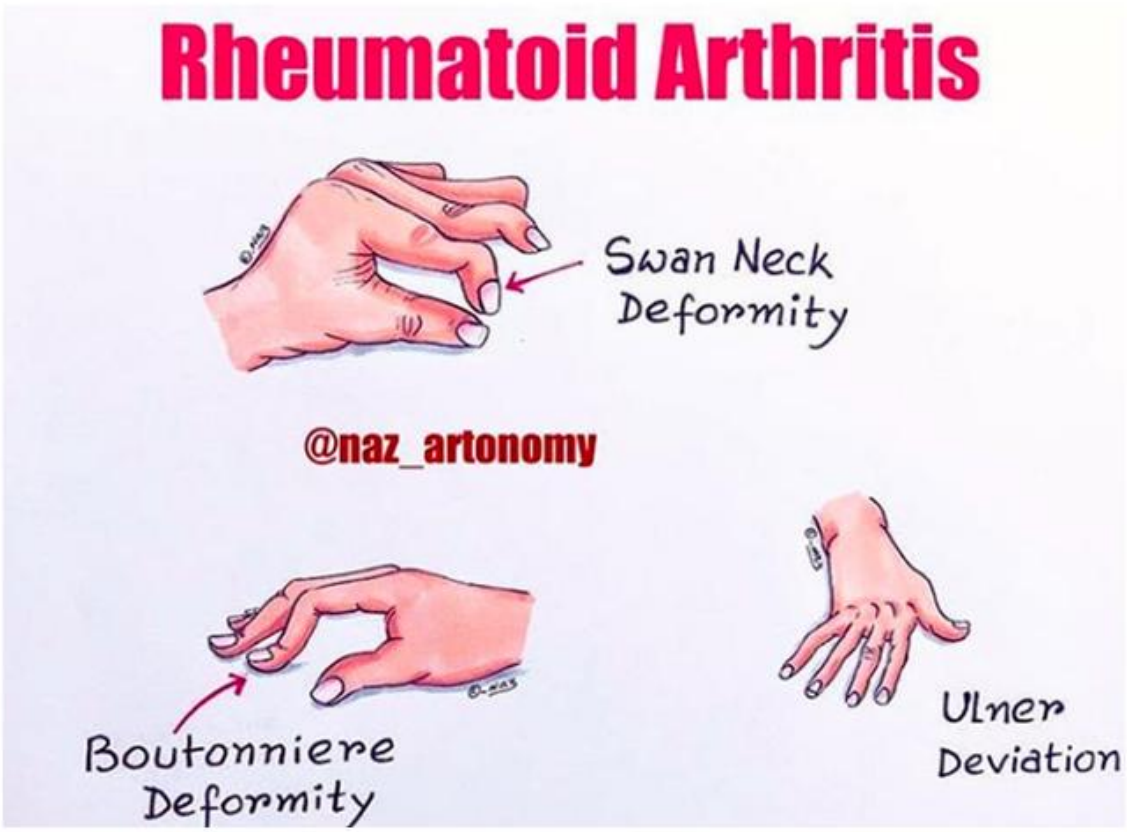

Rheumatoid Arthritis
Swan Neck Deformity
@naz_artonomy
Boutonniere Deformity
Ulner Deviation

Endocrinology

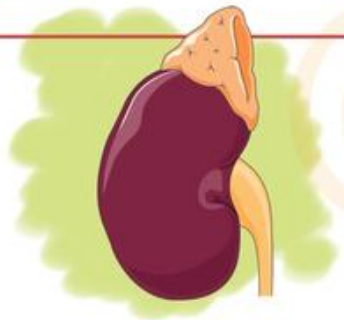
Acromegaly Symptoms

Arthralgia / **A**rthritis
Blood pressure raised
Carpal Tunnel **S**yndrome
Diabetes
Enlarged Organs
Field Defect

"ABCDEF"

Addison's **D**isease

AdrenaL **D**eficiency



Cushing **S**yndrome

CortisoL **S**urge

MEDINAZ

Addison's disease Causes

Autoimmune, Amyloid

Neoplastic

TB

Meningococcal (Waterhouse-Freidhrick)

4 "S" of Adrenal Crisis Management

Salt : 0.9% saline

Steroids : I.V. cortisone 100 mg

Support

Search for the underlying illness

MED NAZ

Adrenal Crisis Management

Salt - 0.9% saline
Steroids - IV hydrocortisone 100mg q 8 h
Support
Search underlying causes

Adrenal insufficiency Causes

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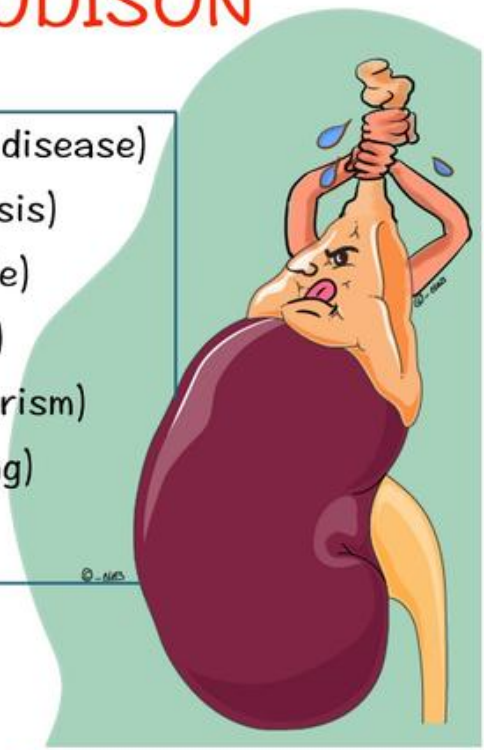
"ADDISON"

Autoimmune (Addison's disease)
Degenerative (amyloidosis)
Drugs (e.g. ketoconazole)
Infections (e.g. TB, HIV)
Secondary (hypopituitarism)
Others (adrenal bleeding)
Neoplasia



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Cretinism occurs in **C**hildren

Myxoedema occurs in **M**ature people

CUSHING SYNDROME

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"CUSHING"

Central obesity, **C**ollagen finer weakness,
Comedones (acne)
Urinary free cortisol and glucose increase
Striae, **S**uppressed immunity
Hypercortisolism, **H**ypertension,
Hyperglycemia, **H**ypercholesterolemia
Iatrogenic (**I**ncreased administration of corticosteroid)
Noniatrogenic (**N**eoplasms)
Glucose intolerance, **G**rowth retardation

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DIABETES MELLITUS

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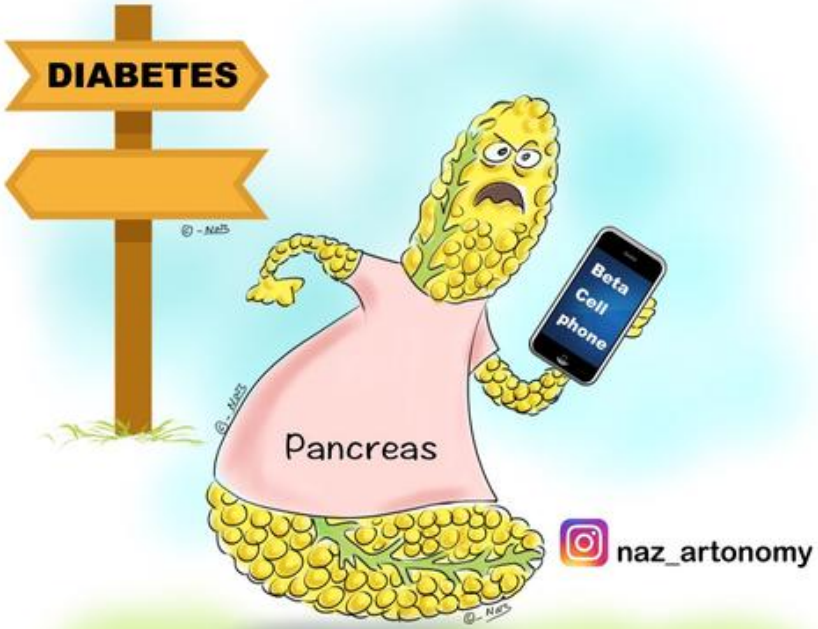

Diabetes Complications

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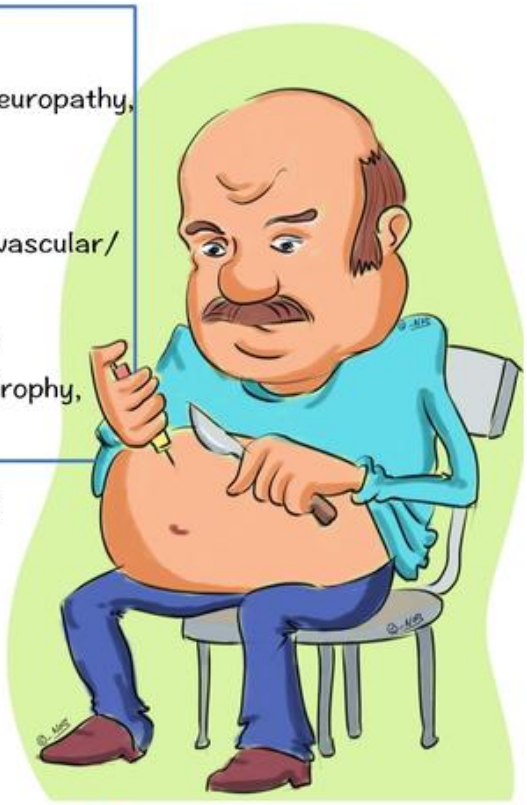
Kidney – nephropathy
Neuromuscular – peripheral neuropathy, mononeuritis, amyotrophy
Infective – UTIs, TB
Vascular – coronary/cerebrovascular/ peripheral artery disease
Eye – cataracts, retinopathy
Skin – lipohypertrophy/lipoatrophy, necrobiosis lipoidica

"KNIVES"



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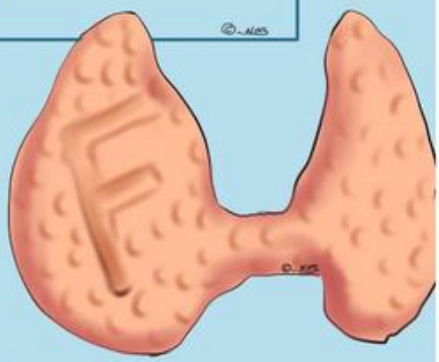
Follicular Carcinoma

www.medinaz.com

Female
Faraway metastasis
Favourable prognosis
Flow in blood (vascular invasions are common)

"4 Fs"



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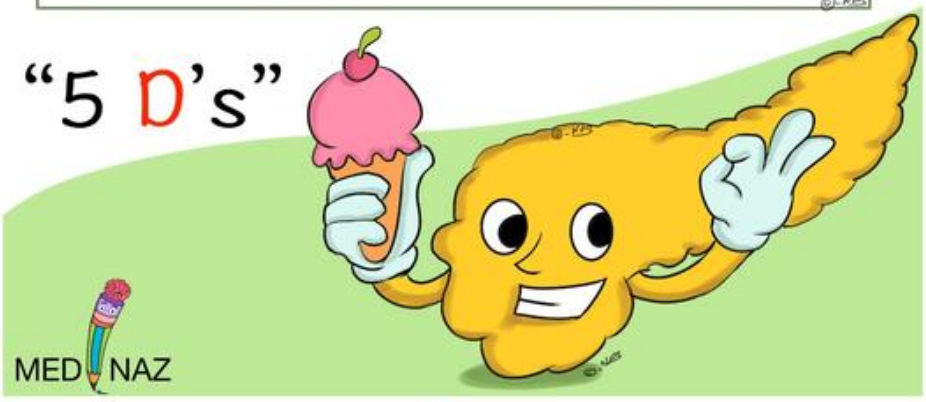
Glucagonoma Signs & Symptoms

www.medinaz.com

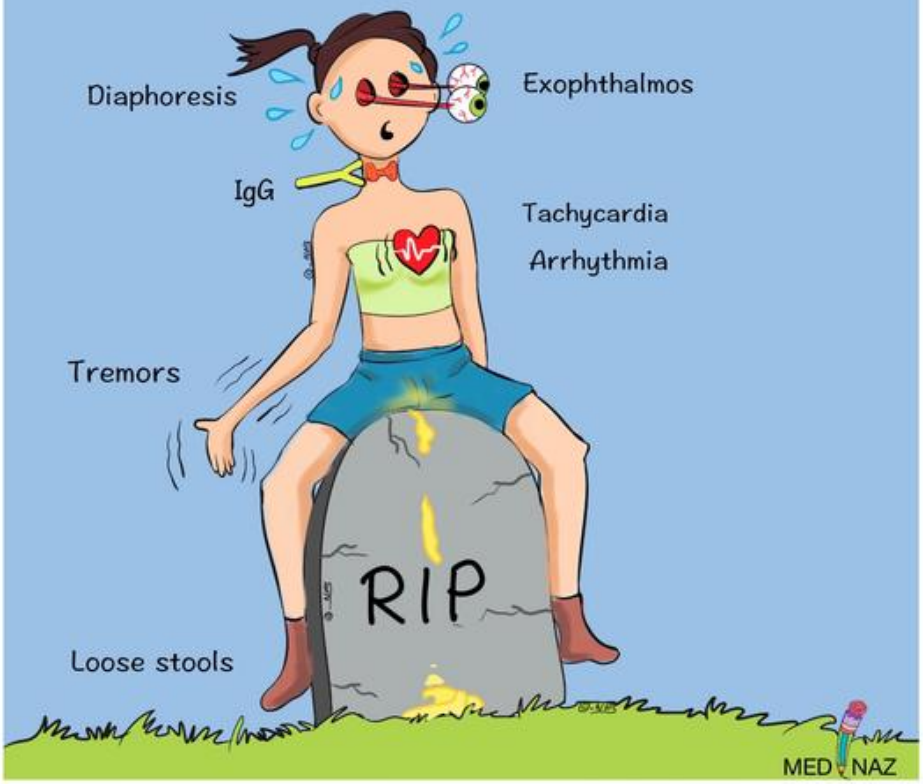
Dermatitis (necrolytic migratory erythema)
Diabetes (hyperglycemia)
DVT
Declining weight
Depression

"5 D's"



MEDINAZ

GRAVES' DISEASE

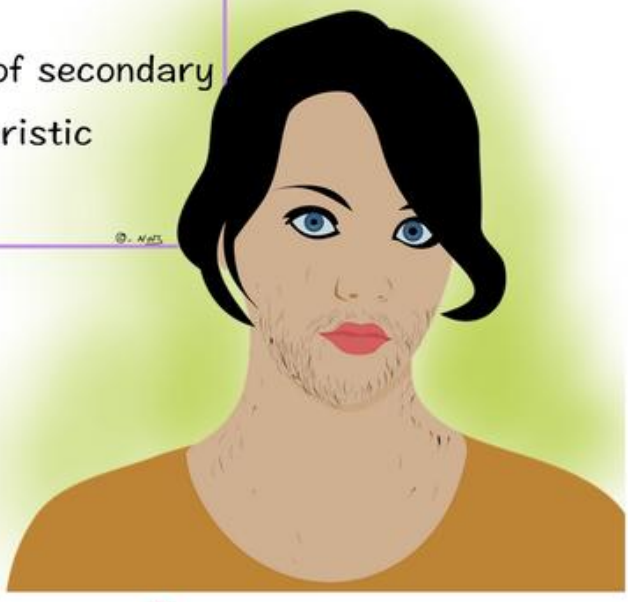


Hirsutism

Hair on body like a male

Virilism

Voice & rest of secondary sexual characteristic like a male



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Hormones

(Decrease secretion in Stress)

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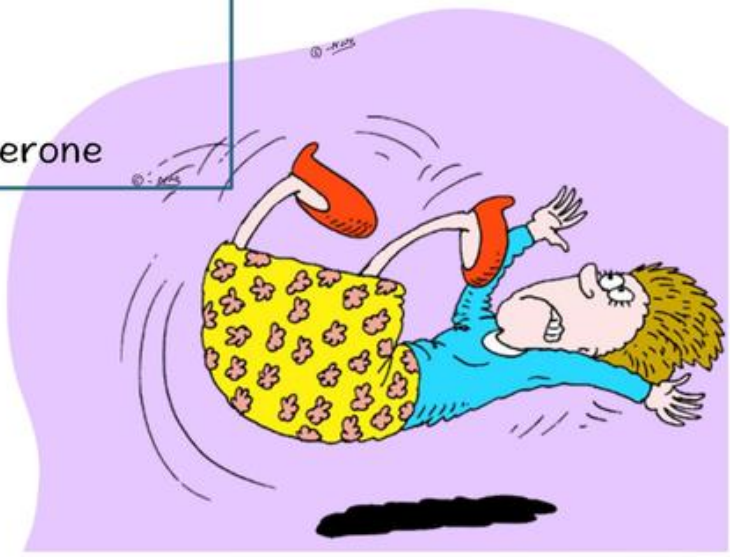
Anabolic hormones
LH
Insulin
FSH
Testosterone

"Anti LIFT"



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Hormones with Intracellular Receptors

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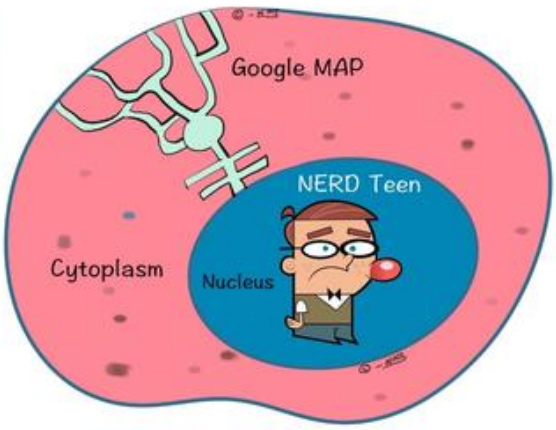
Cytoplasmic
Glucocorticoids
Mineralocorticoids
Androgens
Progestins

Nuclear
Estrogen
Retinoic acid
vit D
T3, T4

"C Google MAP
to find
NERD Teen"



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Hyperthyroidism Signs & Symptoms

www.medinaz.com

Sweating
Weight loss
Emotional lability
Appetite increased
Tremor/ tachycardia
Intolerance of heat/ Irregular menstruation/ Irritability
Nervousness
Goitre and GI problems (diarrhoea)

"SWEATING"

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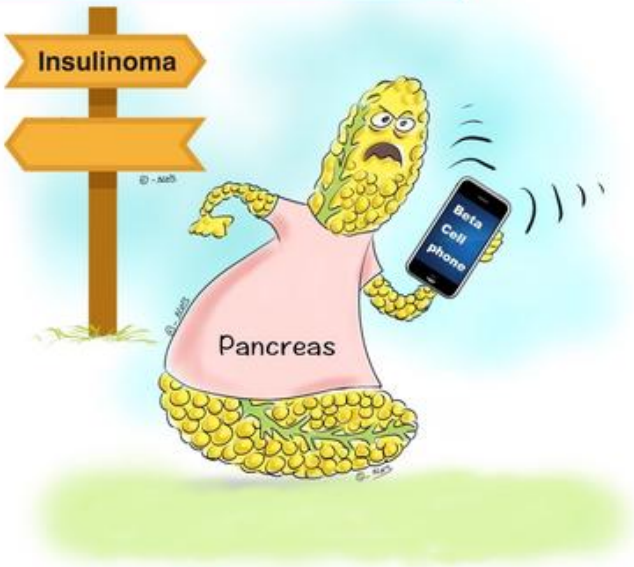
Insulinoma (rule of 10's)

www.medinaz.com

10% are part of MEN1 syndrome
10% are multiple
10% are malignant
10% contain ectopic pancreatic tissue



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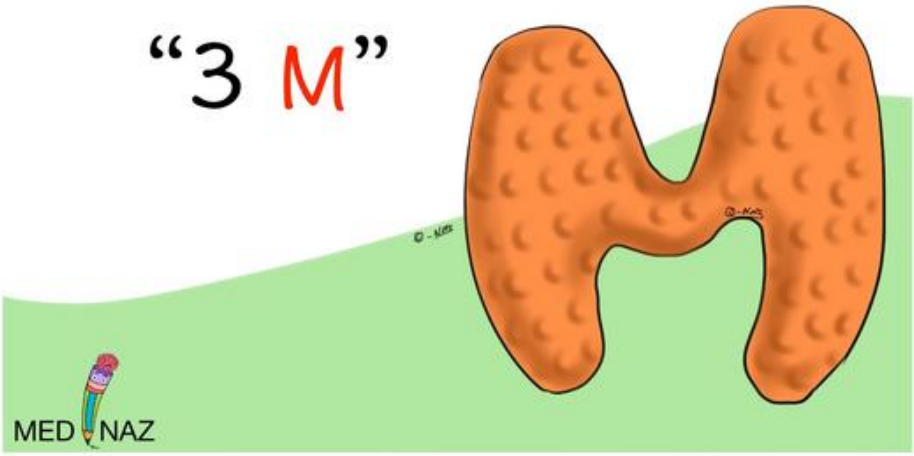
Medullary carcinoma Thyroid

MEN association (MEN IIa & MEN IIb)

Median node dissection

aMyloid (associated with amyloidosis)

"3 M"



MEN 1 affects

'P' Organs

Pituitary

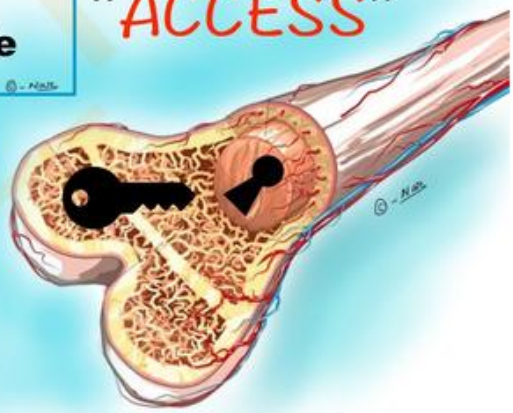
Pancreas

Parathyroid

Osteoporosis Causes

Alcohol
Corticosteroid
Calcium deficiency
Estrogen deficiency
Smoking
Sedentary lifestyle

"ACCESS"



Pancreatic Hormones

www.medinaz.com

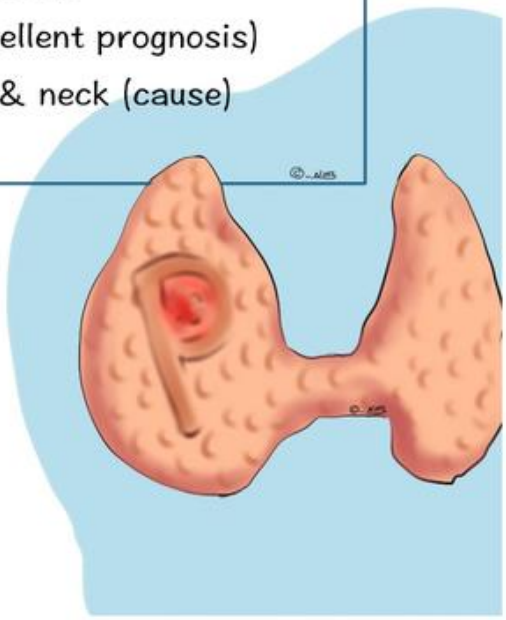
Pancreas
Insulin (β cell)
Glucagon (α cell)
Somatostatin (δ cell)

"PIGS"

Papillary thyroid tumor

Popular (most common)
Palpable lymph nodes (spread by lymphatics)
Positive iodine (131) uptake
Positive prognosis (excellent prognosis)
Post radiation in head & neck (cause)
Psammoma bodies

"6 Ps"



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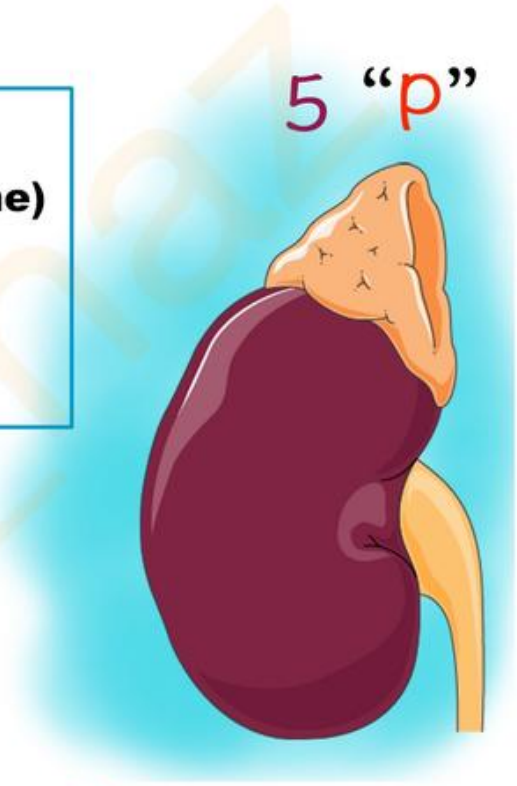
5 P's of Pheochromocytoma

Pressure (BP)
Pain (headache)
Perspiration
Palpitations
Pallor

5 "P"



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10% Rule of PHEOCHROMOCYTOMA

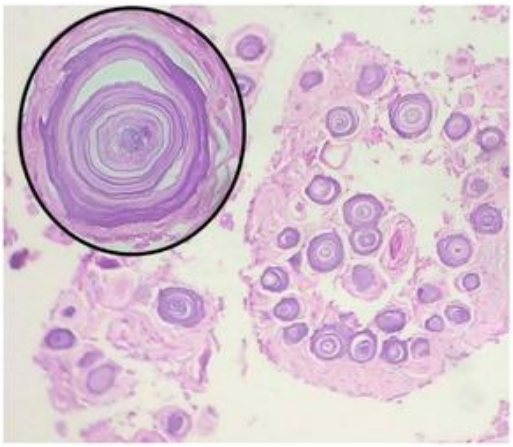
10% extra-adrenal
10% bilateral
10% malignant
10% in children
10% familial

Psammoma Bodies

seen in

Papillary carcinoma of thyroid
Somatostatinoma
Meningioma
Malignant Mesothelioma
Ovarian serous papillary cystadenocarcinoma
Milk (Prolactinoma)

"PSaMMOMa bodies"



Rickets Clinical Features

www.medinaz.com

"RICKETS"

R = Rachitic rosary
I = pIgeon chest
C = Craniotabes
K = Knock knees
E = End of long bones become wide
T = Teeth-delayed eruption & hypoplasia
S = Skull-Frontal bossing & delayed closure of fontanelles

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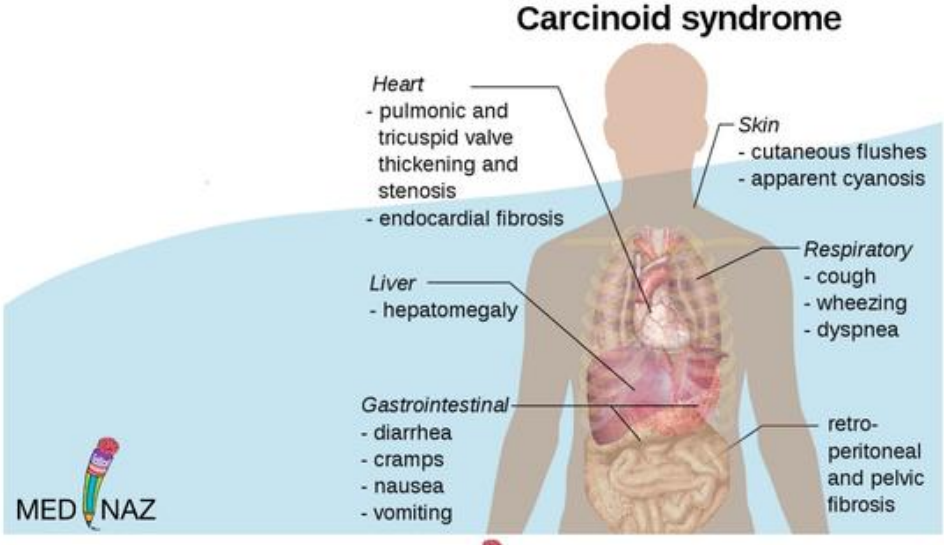
Rule of 1/3s of Carcinoid syndrome

www.medinaz.com

1/3 metastasize
1/3 present with 2nd malignancy
1/3 are multiple



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Thyroid Carcinoma Histological types

In order from most to least common
and least to most aggressive

Papillary (80% of total)
Follicular (10%)
Medullary (5%)
Anaplastic (3%)

"Please Feed
My Alligator"

Thyroid Neoplasms

5 "p"s

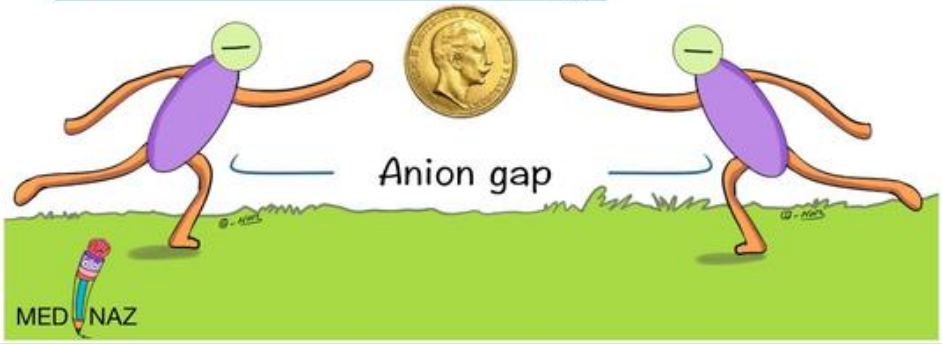
Papillary most popular
Papillae (branching)
Pupil nuclei (Orphan Annie nuclei)
Psammoma bodies
Positive prognosis

Miscellaneous

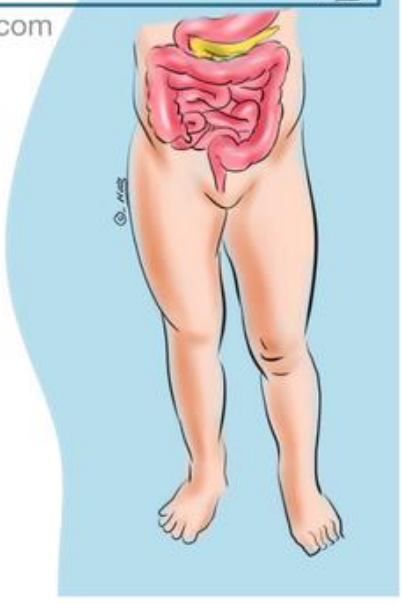
Anion Gap Causes

Glycols (ethylene, propylene)
Oxoproline (from paracetamol)
L-lactate
D-lactate
Methanol
Aspirin
Renal failure
Ketoacidosis

"GOLD MARK"



M idgut carcinoid tumors are
M alignant tumors



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Epidermoid Vs Sebaceous cyst

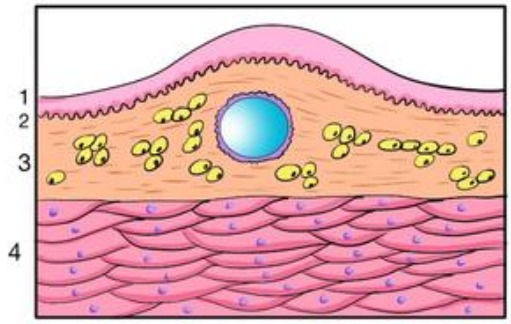

Diagram of a freely movable mass. An example of this type of mass is Epidermoid cyst, which can be moved freely in all direction by digital pressure

1. Stratified squamous epithelium, 2. Mucosa or skin
3. Loose connective tissue layer, 4. Skeletal muscle

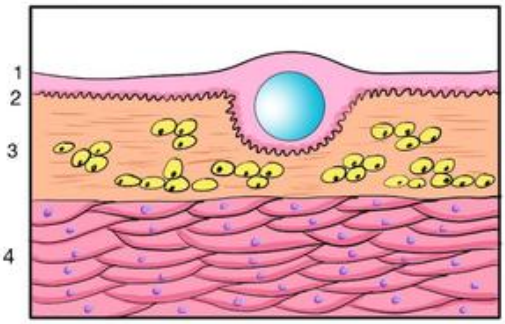

Diagram of a mass attached to the skin. An example of this type of mass is Sebaceous cyst, which can not be moved independent of the skin but is not attached to the deeper structure. This type of cyst thus can be moved as a unit with the skin

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Rhabdomyoma Vs Sq. cell carcinoma

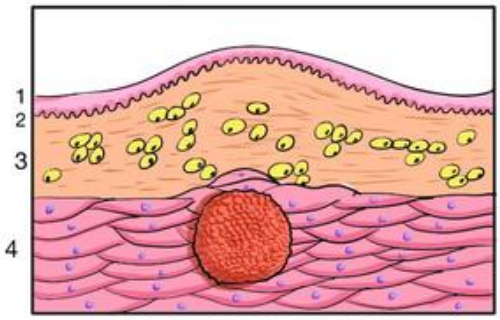

Diagram of a mass attached to the muscle. A Rhabdomyoma is an example of this type of mass, which can not be moved independent of the involved muscle but is not fixed to the skin or mucous membrane

1. Stratified squamous epithelium, 2. Mucosa or skin
3. Loose connective tissue layer, 4. Skeletal muscle

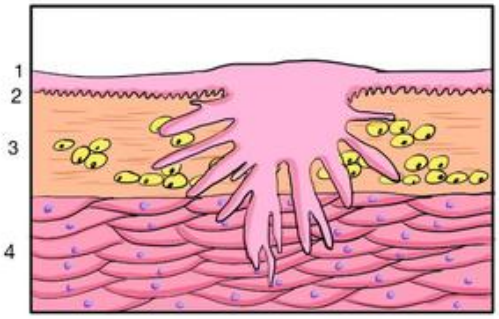

Diagram of an epithelial mass, fixed to all layer of tissue. An invasive squamous cell carcinoma at this stage fixes the skin or mucous membrane to the deeper tissues

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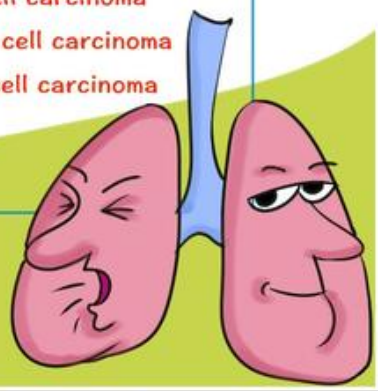
Lung Carcinoma

www.medinaz.com

Lung Ca with worst prognosis - Small cell Ca
Lung Ca most responsive to radiotherapy - Small cell Ca
Lung Ca most responsive to chemotherapy - Small cell Ca
Most common type of lung Ca - Adenocarcinoma
Most commonly metastasizing to opposite lung - Adenocarcinoma
Most common type in females - Adenocarcinoma
Most common type in nonsmokers - Adenocarcinoma
Most common in young - Adenocarcinoma
Most common in peripheral location - Adenocarcinoma
Second most common lung Ca - Squamous cell carcinoma
Most common cavitating lung Ca - Squamous cell carcinoma
Best prognosis among lung Ca - Squamous cell carcinoma
Most common to produce hypercalcemia - Squamous cell carcinoma



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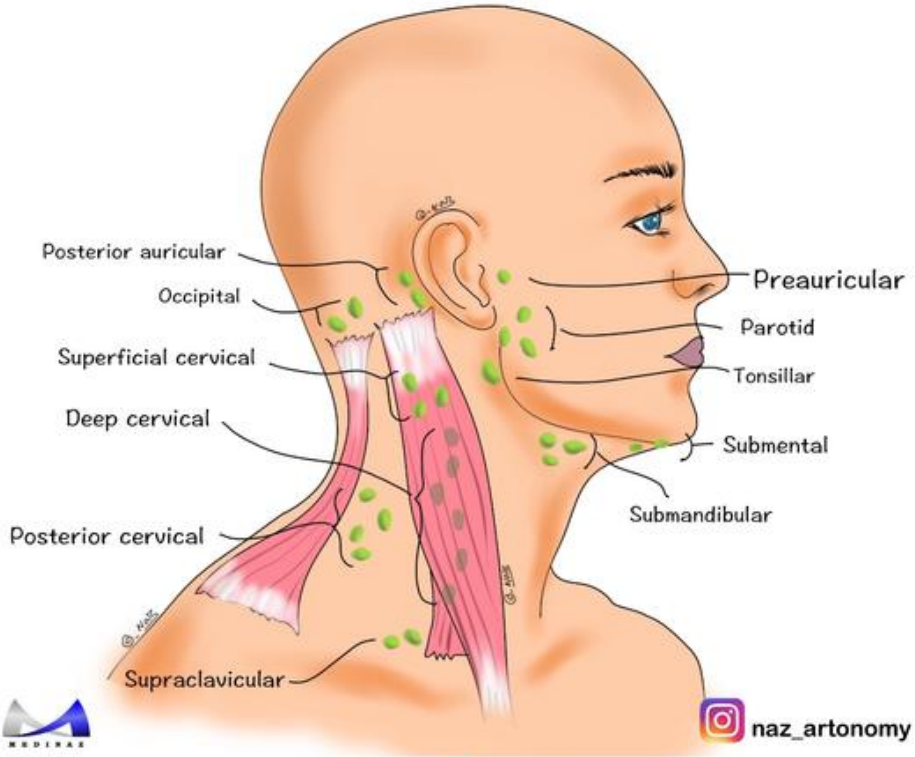
Lymph Nodes

www.medinaz.com

(Head & Neck)



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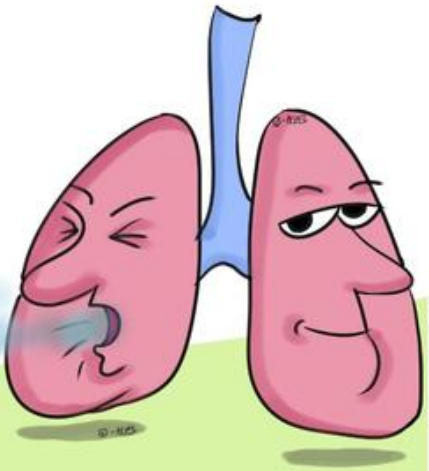
Metabolic acidosis: causes

Ketoacidosis
Uraemia
Sepsis
Salicylates
Methanol
Alcohol
Lactic acidosis

"KUSSMAL"



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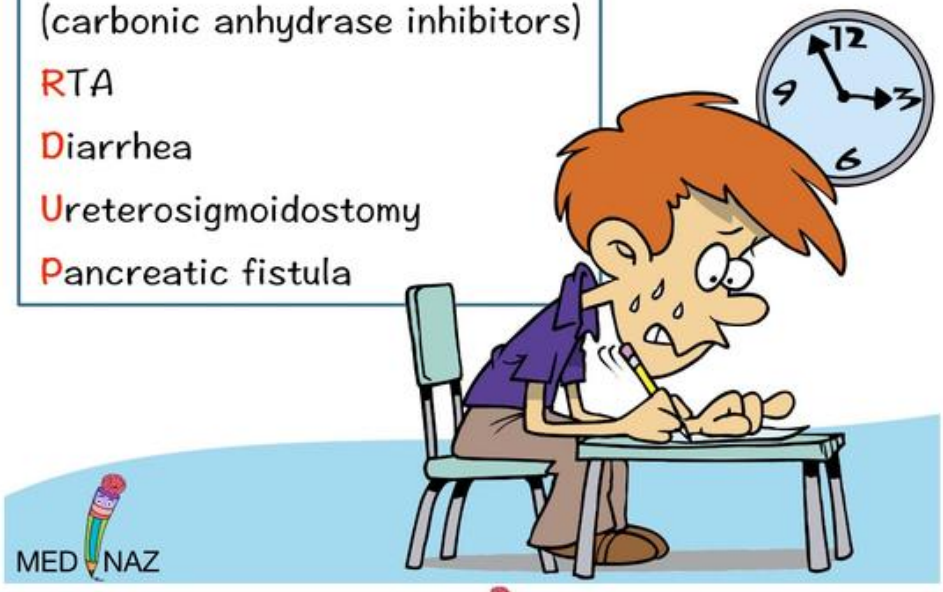
Non-gap acidosis: causes

Hyperalimentation
Acetazolamide
(carbonic anhydrase inhibitors)
RTA
Diarrhea
Ureterosigmoidostomy
Pancreatic fistula

"HARD UP"



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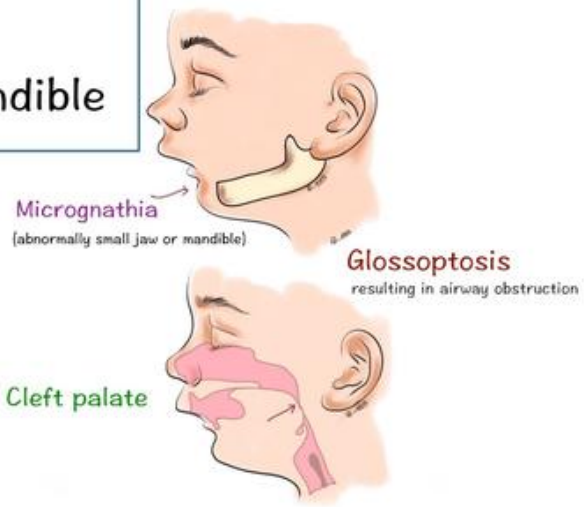
Pierre Robin Syndrome

Palatal Cleft
Respiratory system obstruction
Small size mandible

"PRS"



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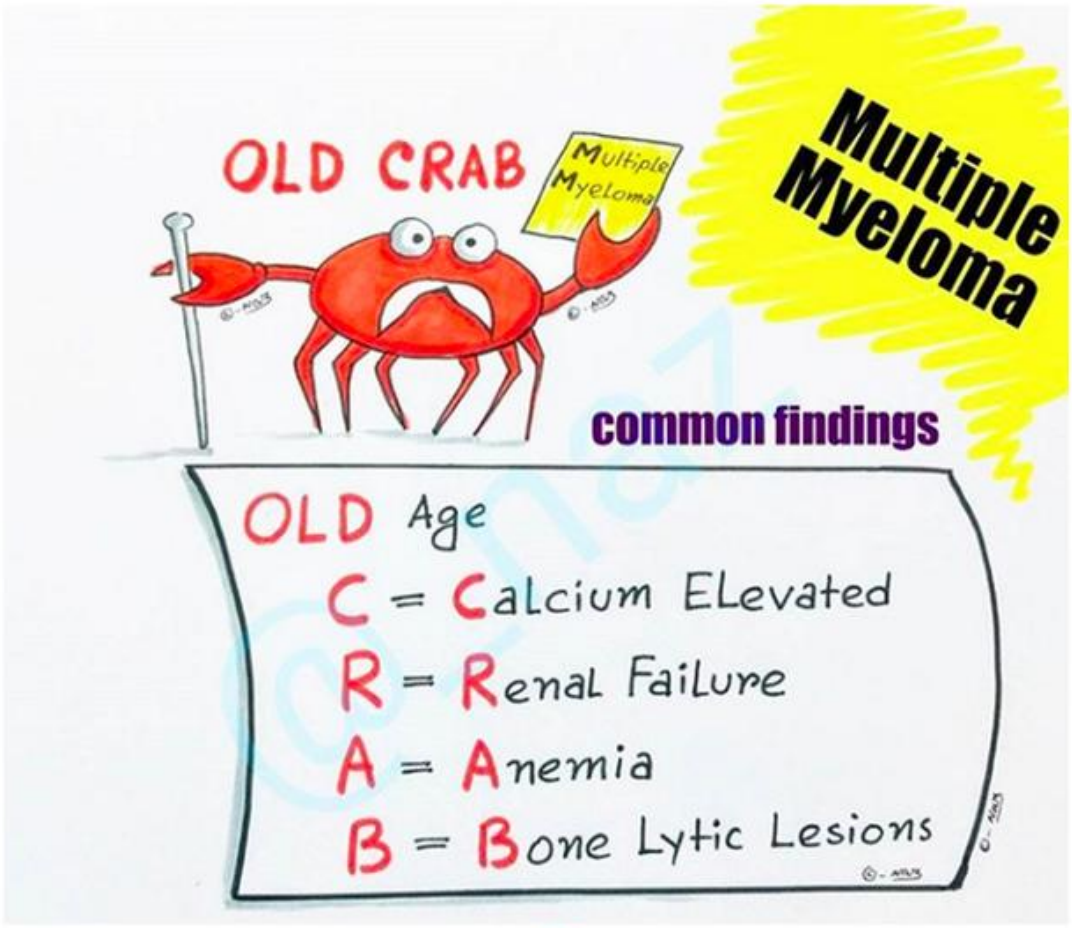

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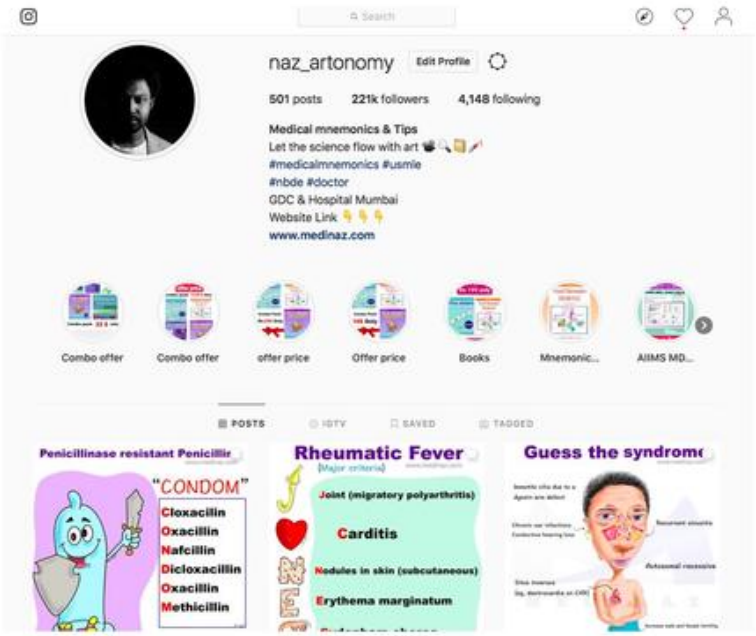
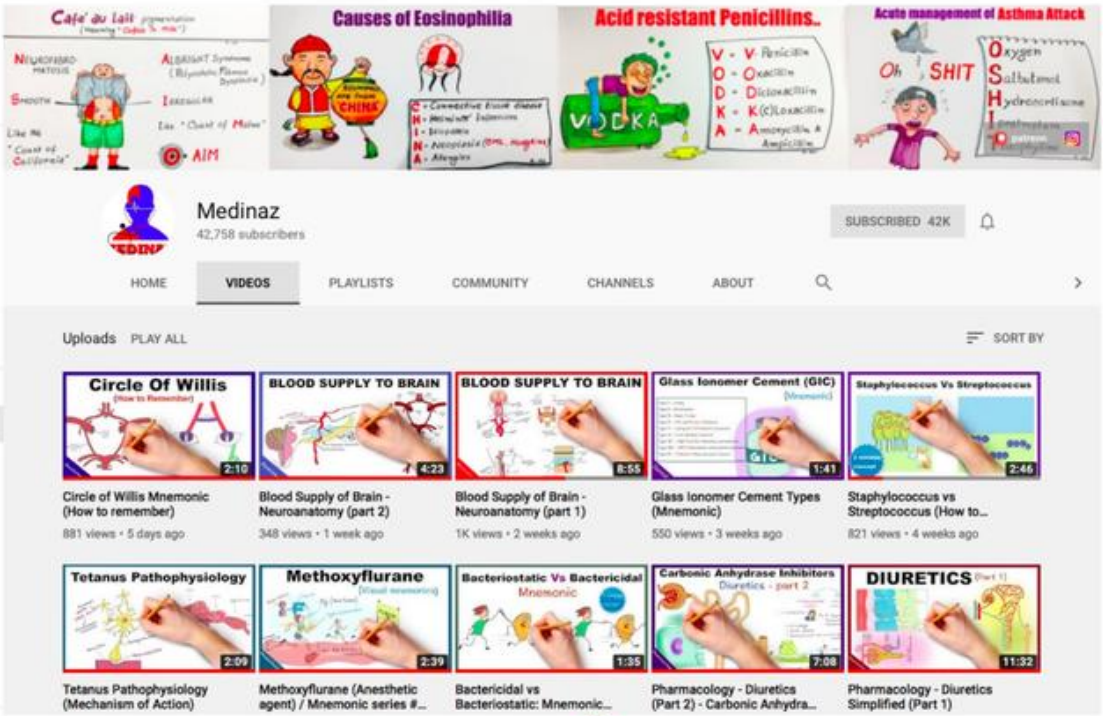


YouTube - "MEDINAZ"



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