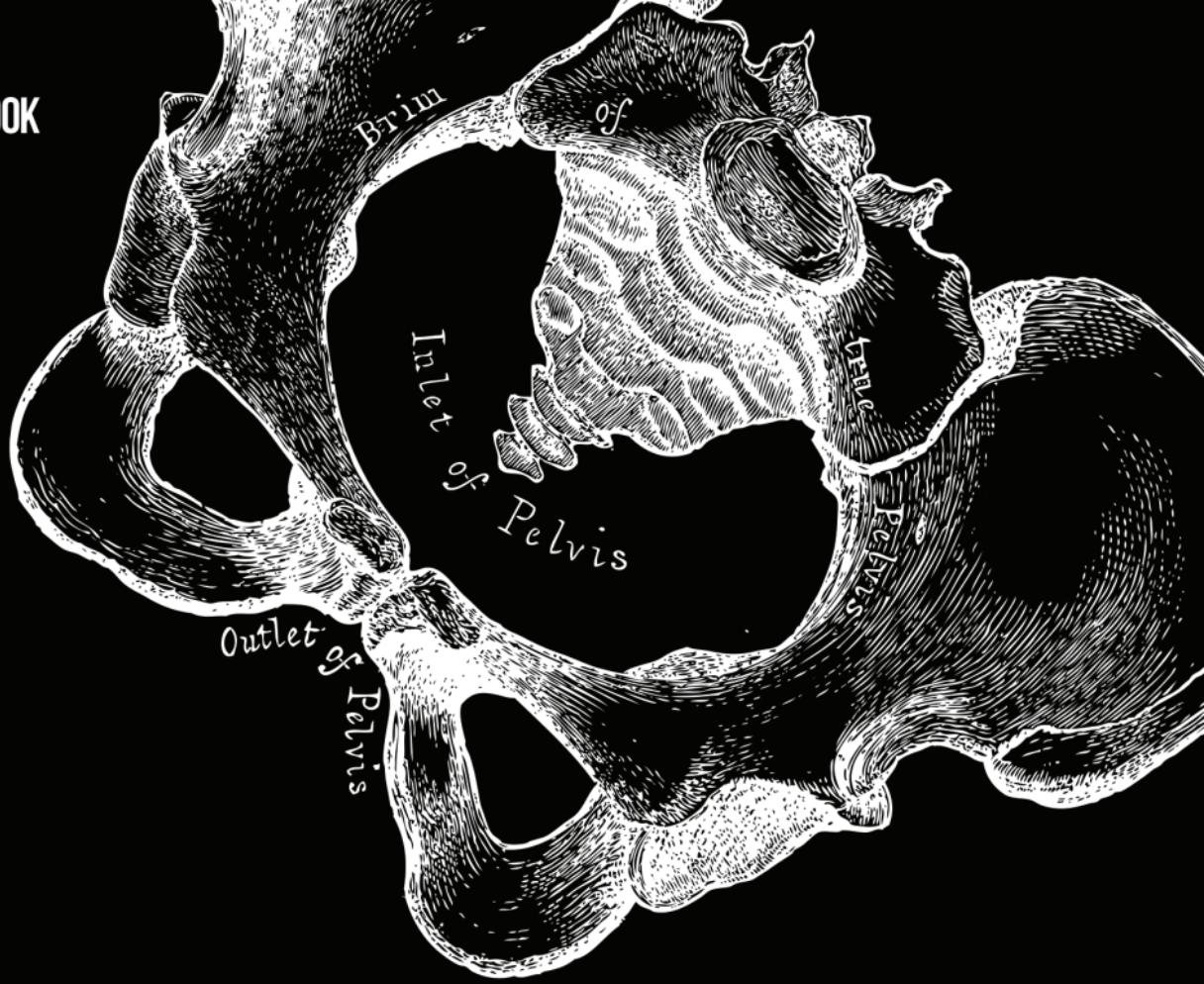


BLACKBOOK





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# Blackbook

Approaches to Medical Presentations  
Eleventh Edition (2019)

*Produced by The Cumming School of Medicine, University of Calgary*



**UNIVERSITY OF CALGARY**  
CUMMING SCHOOL OF MEDICINE



# **Blackbook: Approaches to Medical Presentations**

Eleventh Edition (2019)

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# A Message from the Editors

Welcome to the Twelfth Edition of *Blackbook*! This ongoing project is the result of the hard work and dedication of medical students and faculty at the University of Calgary, Cumming School of Medicine. We are proud that healthcare practitioners and trainees across North America find *Blackbook* to be a useful tool.

*Blackbook* continues to evolve and improve during each edition. In this newest print we have added and modified several schemes, including a new page for interpretation of pulmonary function tests, among numerous smaller edits and spelling corrections. We're working on an open access, online version of *Blackbook* that will link to and integrate our other project, *Calgary Cards* ([cards.ucalgary.ca](http://cards.ucalgary.ca)). *Cards* is another study aid that employs student-authored patient scenarios in MCQ format. If students are struggling in a particular area (e.g., acid-base questions), *Cards* is a great way to get some extra practice. *Cards* is free and in constant development - check it out!

As always, we welcome feedback, suggestions, edits, or ideas for new schemes.  
Please e-mail us at [blackbk@ucalgary.ca](mailto:blackbk@ucalgary.ca).

Thank you and happy learning!

Rebecca Phillips, Ainna Preet Randhawa & Vaneet Randhawa

# **Introduction to Schemes**

The material presented in this book is intended to assist learners in organizing their knowledge into information packets, which are more effective for the resolution of the patient problems they will encounter. There are three major factors that influence learning and the retrieval of medical knowledge from memory: meaning, encoding specificity (the context and sequence for learning), and practice on the task of remembering. Of the three, the strongest influence is the degree of meaning that can be imposed on information. To achieve success, experts organize and "chunk" information into meaningful configurations, thereby reducing the memory load.

These meaningful configurations or systematically arranged networks of connected facts are termed schemata. As new information becomes available, it is integrated into schemes already in existence, thus permitting learning to take place. Knowledge organized into schemes (basic science and clinical information integrated into meaningful networks of concepts and facts) is useful for both information storage and retrieval. To become excellent in diagnosis, it is necessary to practice retrieving from memory information necessary for problem resolution, thus facilitating an organized approach to problem solving (scheme-driven problem solving).

The domain of medicine can be broken down to 121 (+/- 5) clinical presentations, which represent a common or important way in which a patient, group of patients, community or population presents to a physician, and expects the physician to recommend a method for managing the situation. For a given clinical presentation, the number of possible diagnoses may be sufficiently large that it is not possible to consider them all at once, or even remember all the possibilities. By classifying diagnoses into schemes, for each clinical presentation, the myriad of possible diagnoses become more manageable 'groups' of diagnoses. This thus becomes a very powerful tool for both organization of knowledge memory (its primary role at the undergraduate medical education stage), as well as subsequent medical problem solving.

There is no single right way to approach any given clinical presentation. Each of the schemes provided represents one approach that proved useful and meaningful to one experienced, expert author. A modified, personalized scheme may be better than someone else's scheme, and certainly better than having no scheme at all. It is important to keep in mind, before creating a scheme, the five fundamentals of scheme creation that were used to develop this book.

If a scheme is to be useful, the answers to the next five questions should be positive:

1. Is it simple and easy to remember? (Does it reduce memory load by "chunking" information into categories and subcategories?)
2. Does it provide an organizational structure that is easy to alter?
3. Does the organizing principle of the scheme enhance the meaning of the information?
4. Does the organizing principle of the scheme mirror encoding specificity (both context and process specificity)?
5. Does the scheme aid in problem solving? (E.g. does it differentiate between large categories initially, and subsequently progressively smaller ones until a single diagnosis is reached?)

By adhering to these principles, the schemes presented in this book, or any modifications to them done by the reader, will enhance knowledge storage and long term retrieval from memory, while making the medical problem-solving task a more accurate and enjoyable endeavour.

Dr. Henry Mandin

Dr. Sylvain Coderre

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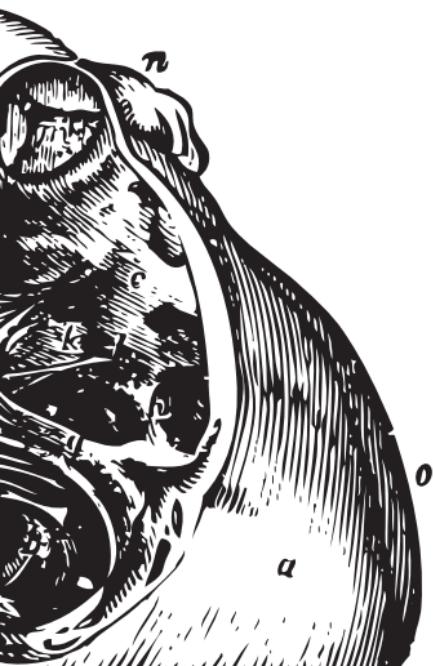
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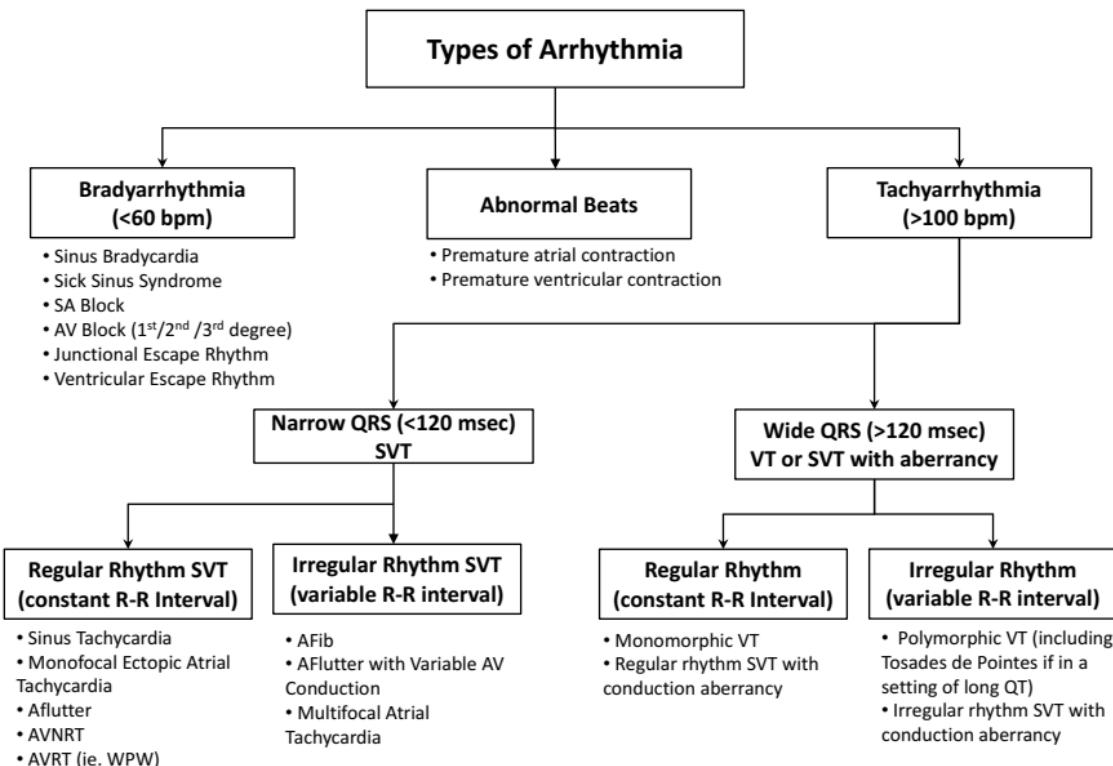
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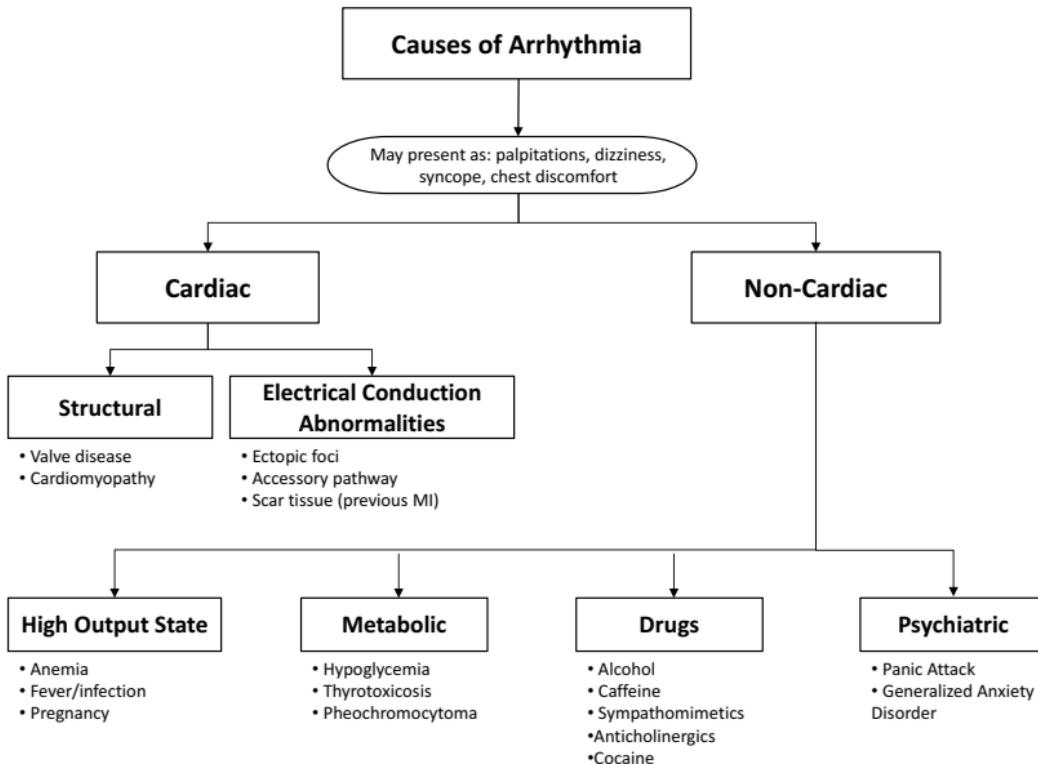
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# Abnormal Rhythm (1)

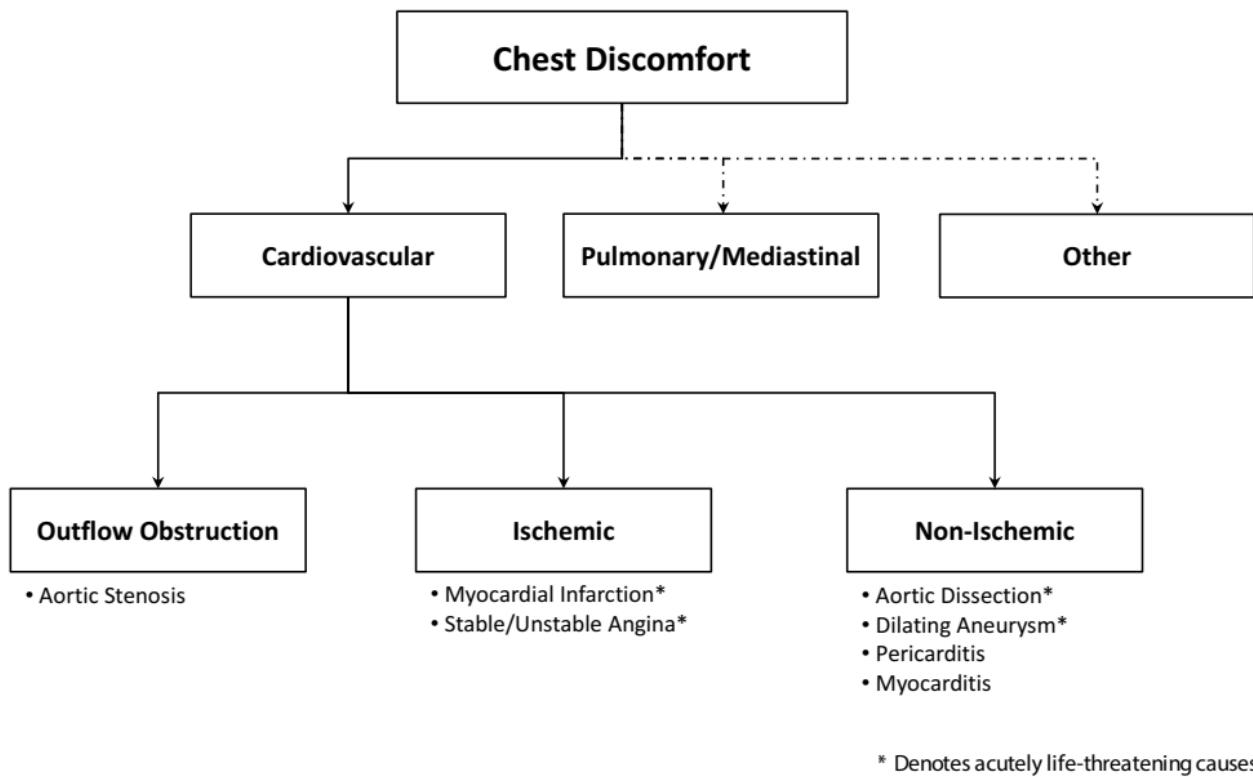


# Abnormal Rhythm (2)



# Chest Discomfort

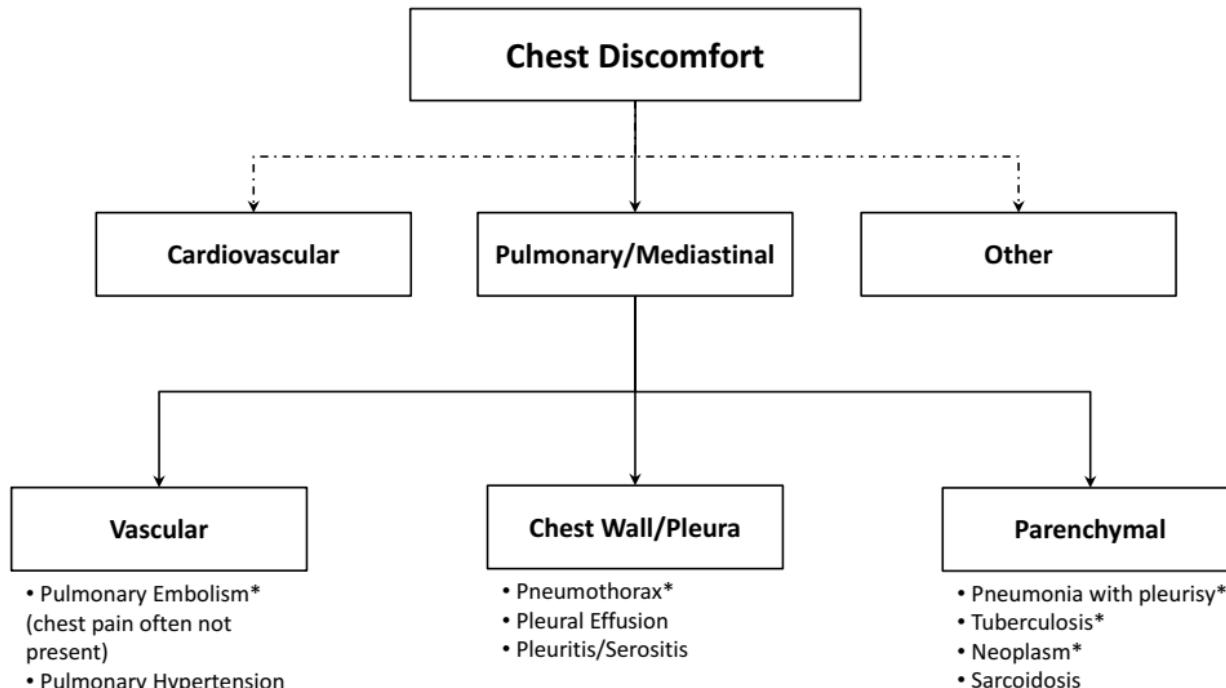
Cardiovascular



Cardiovascular

# Chest Discomfort

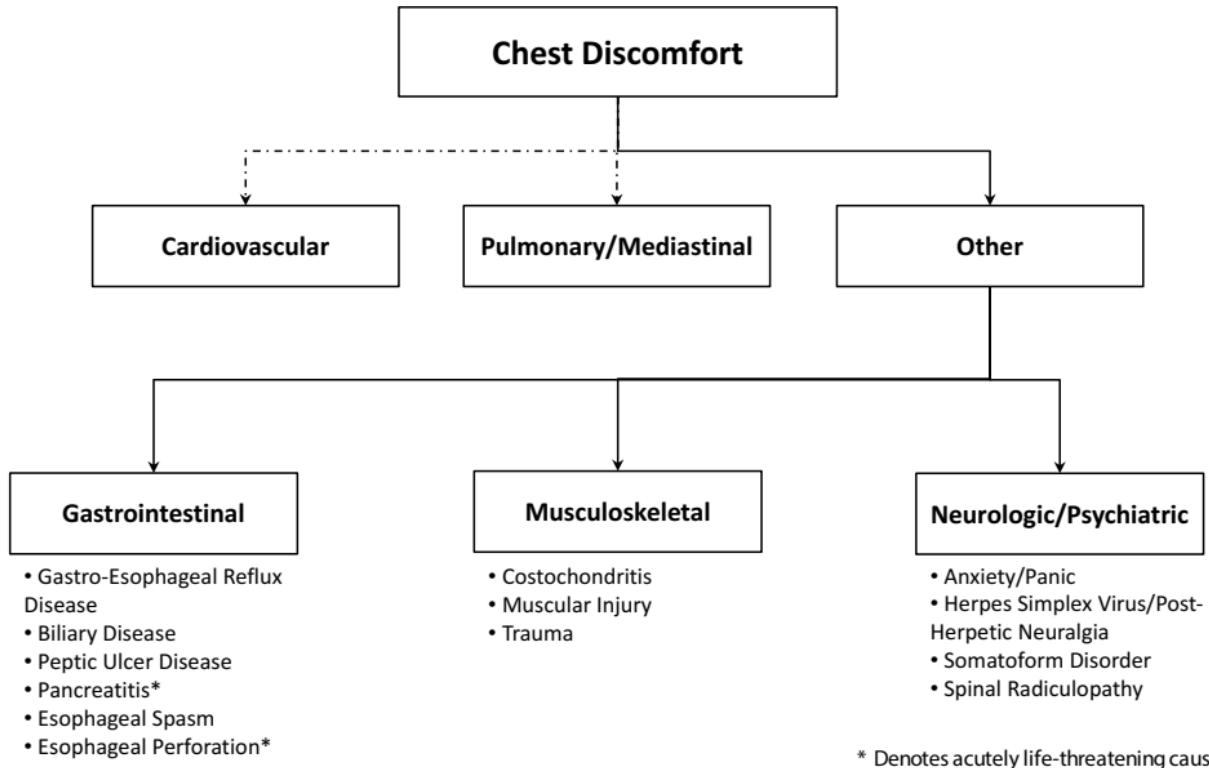
Pulmonary / Mediastinal



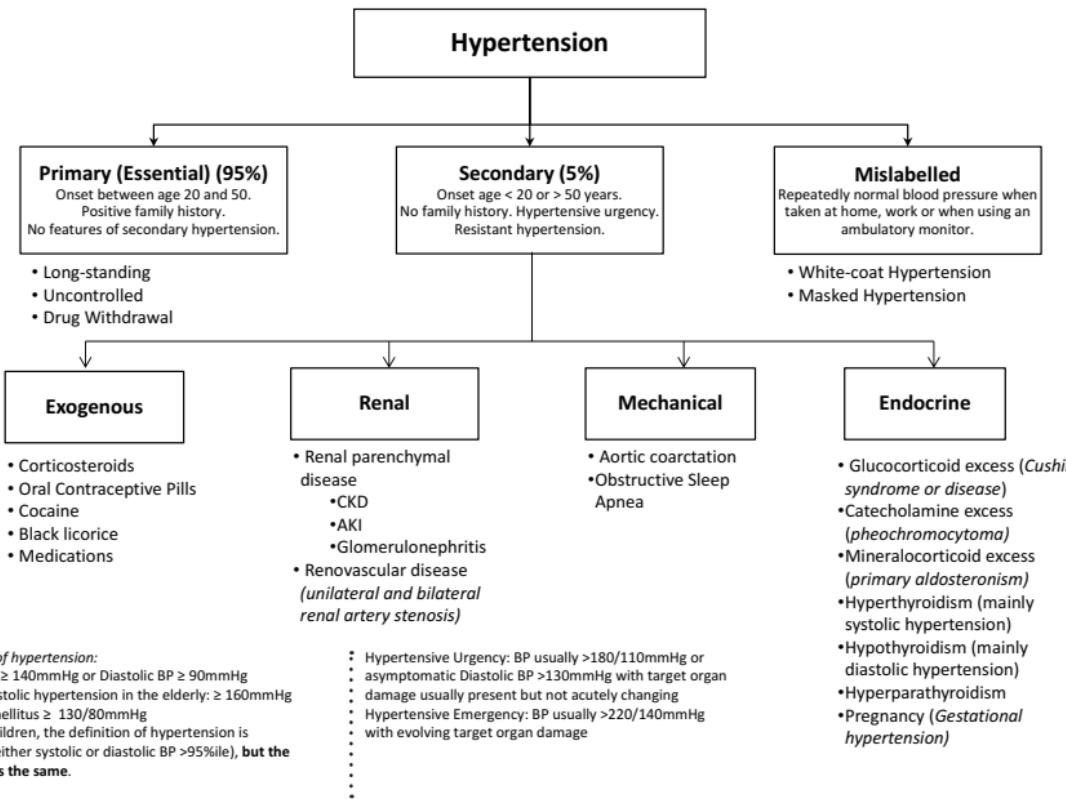
\* Denotes acutely life-threatening causes

# Chest Discomfort

Other

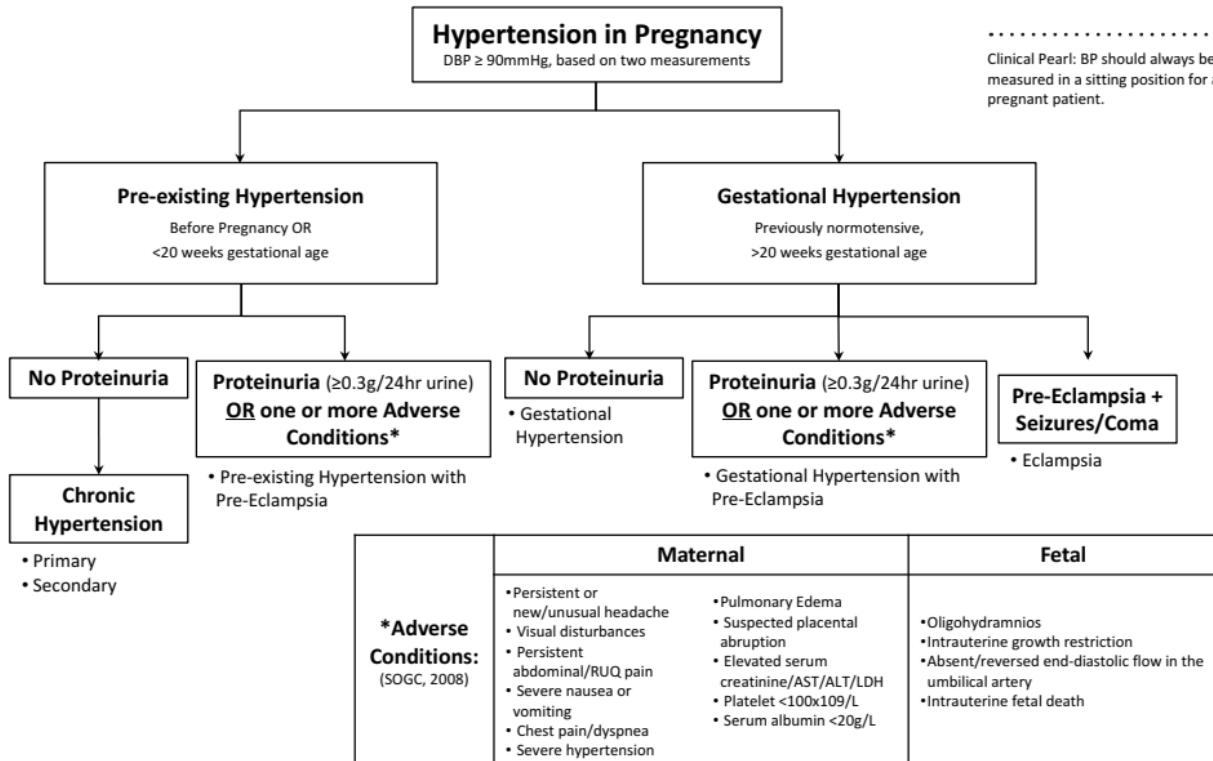


# Hypertension

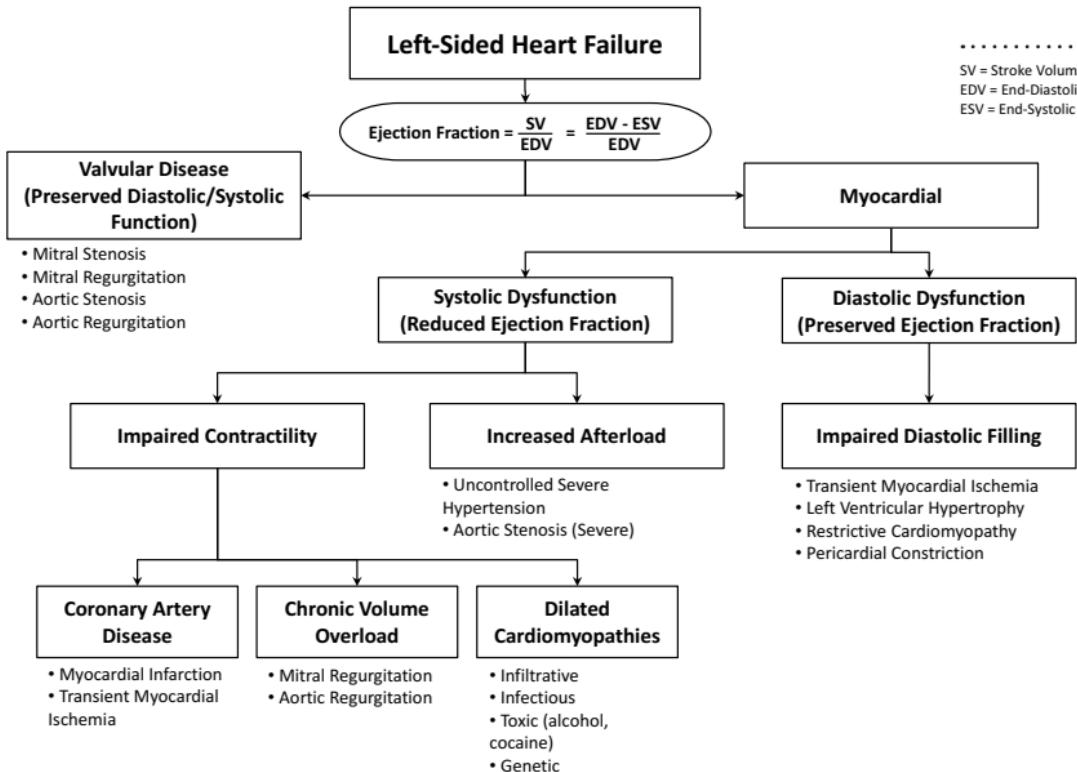


# Hypertension in Pregnancy

Clinical Pearl: BP should always be measured in a sitting position for a pregnant patient.

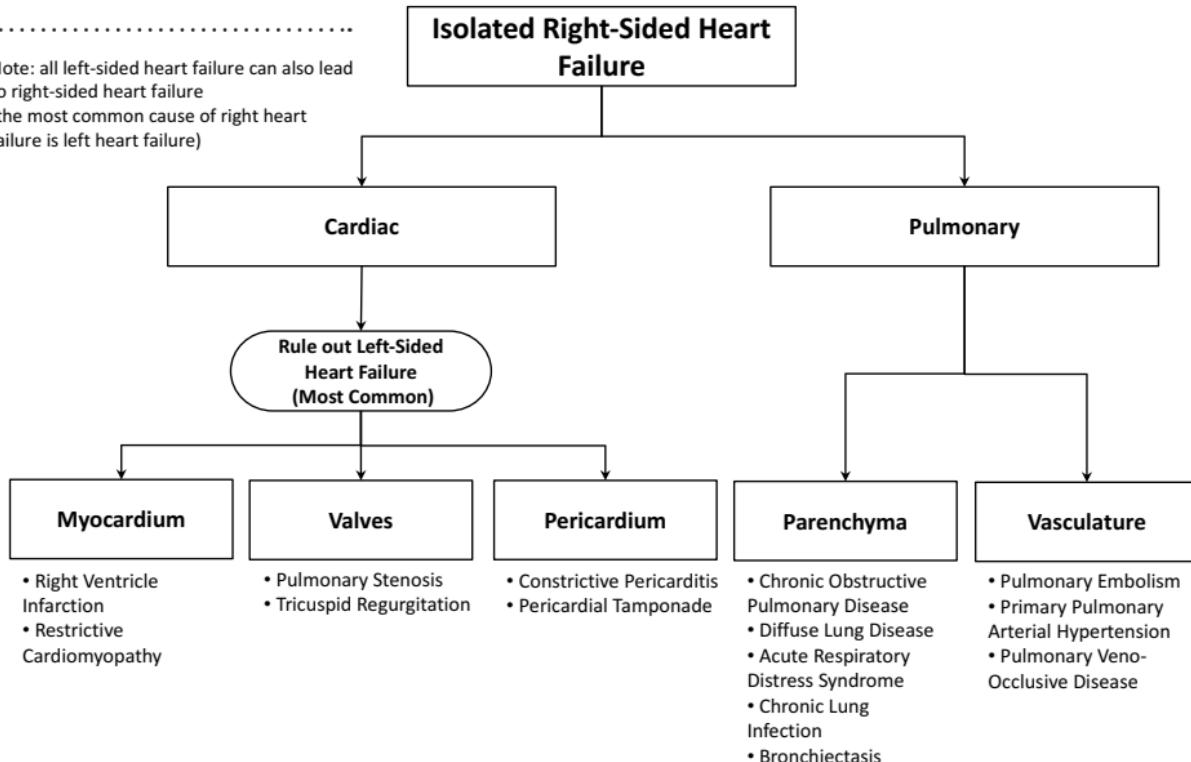


# Left-Sided Heart Failure

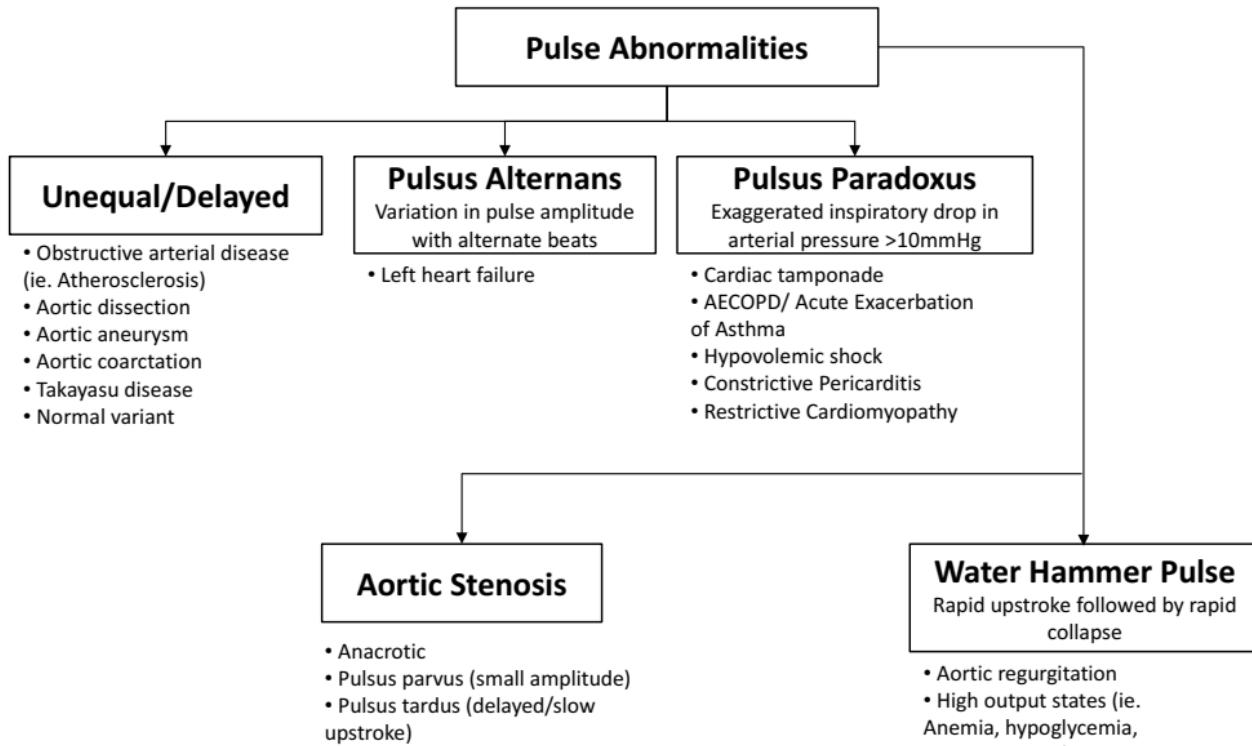


# Isolated Right-Sided Heart Failure

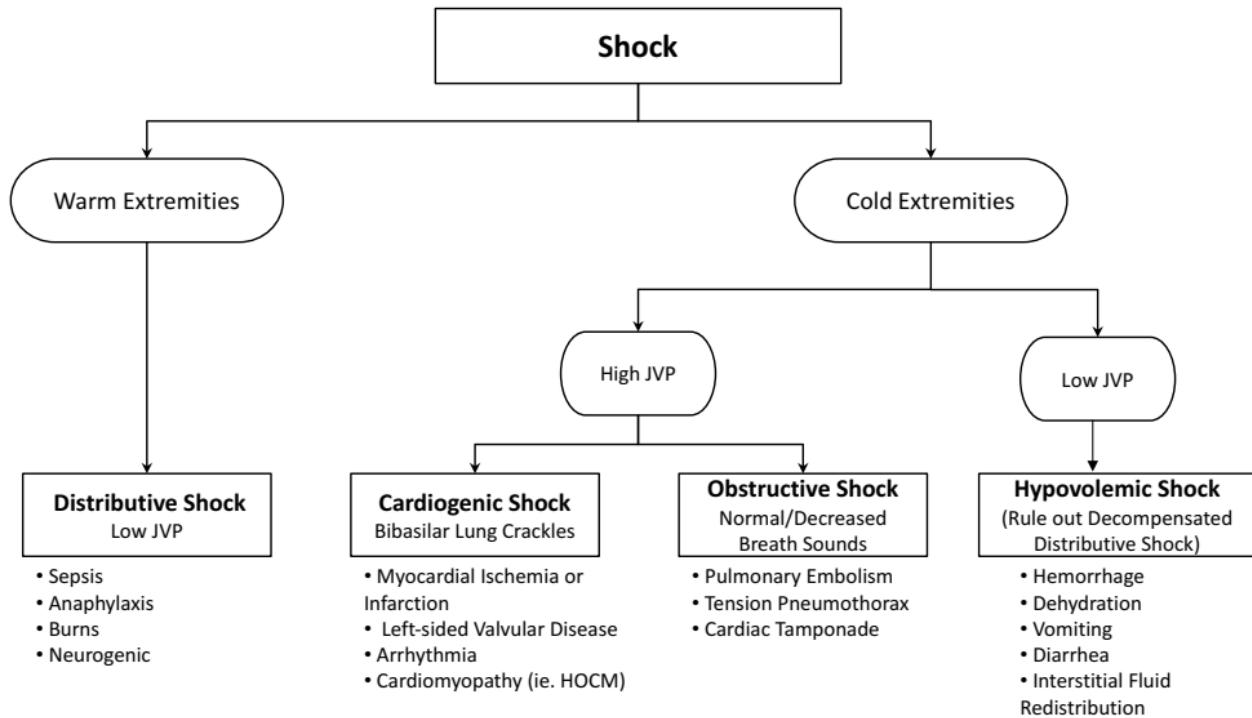
Note: all left-sided heart failure can also lead to right-sided heart failure  
(the most common cause of right heart failure is left heart failure)



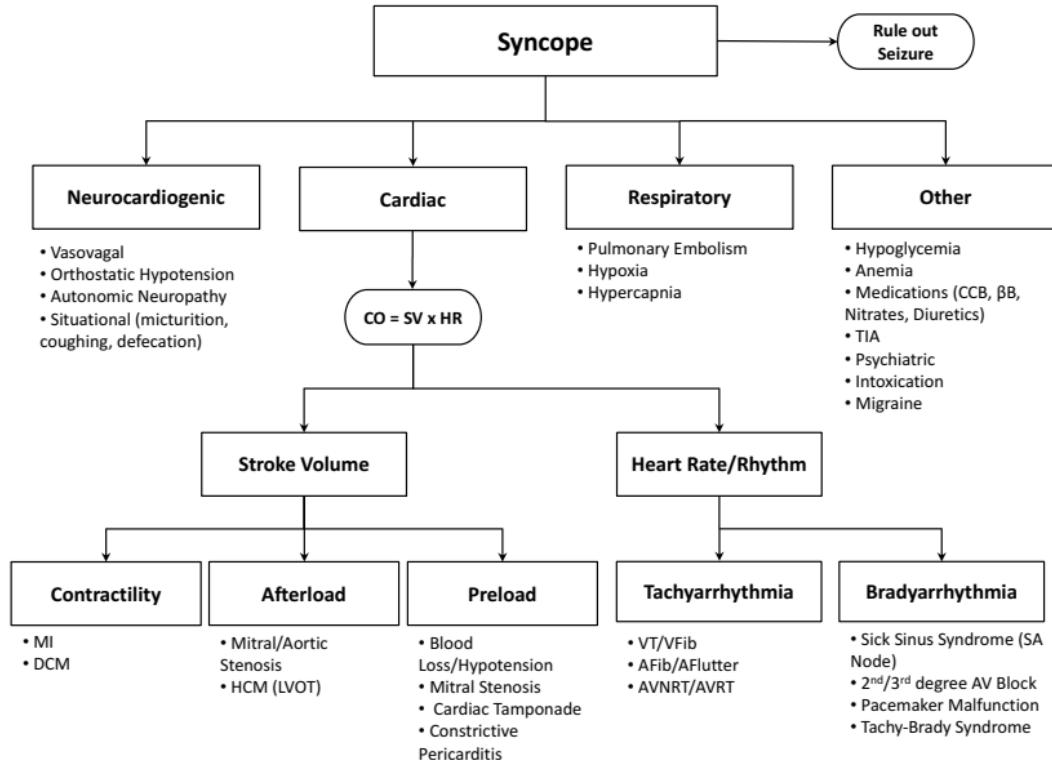
# Pulse Abnormalities



# Shock

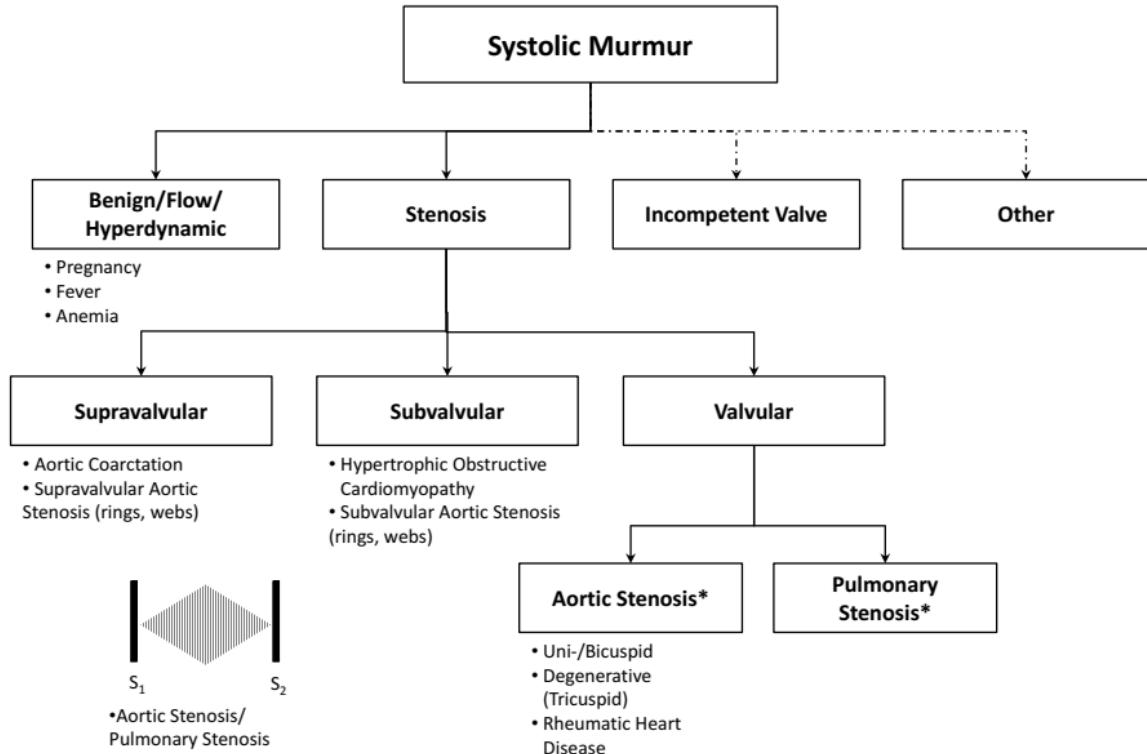


# Syncope



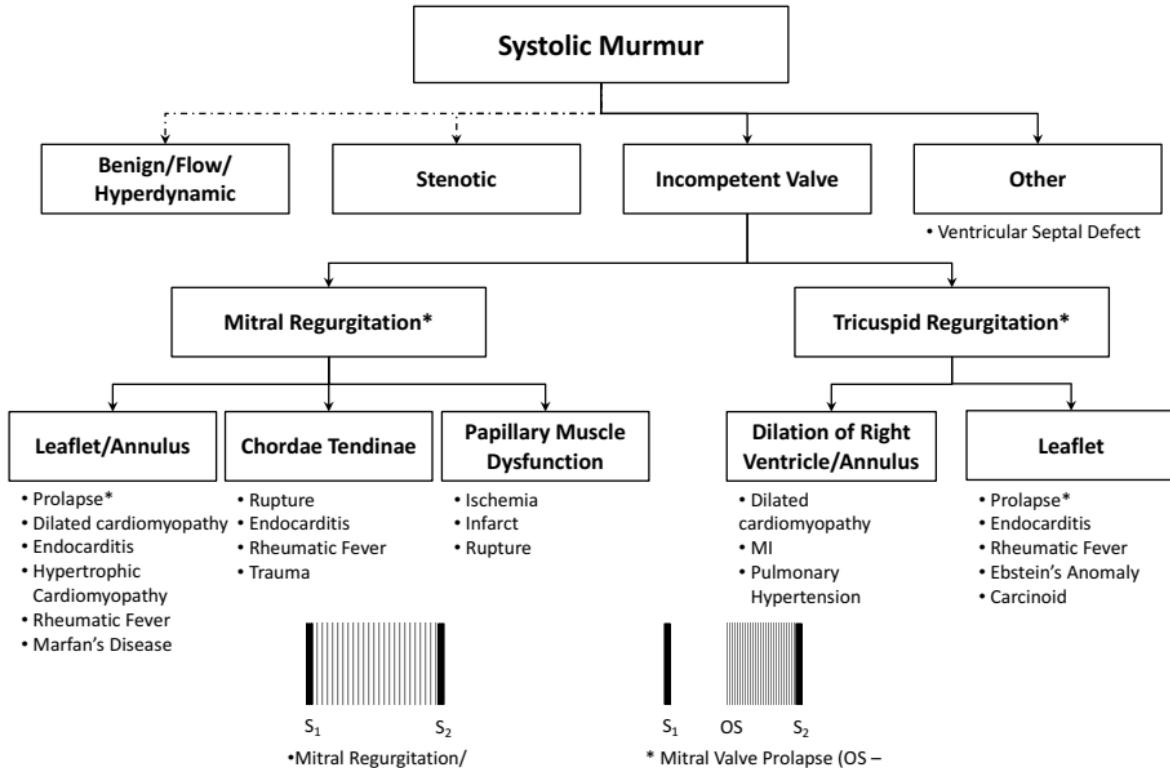
# Systolic Murmur

Benign & Stenotic

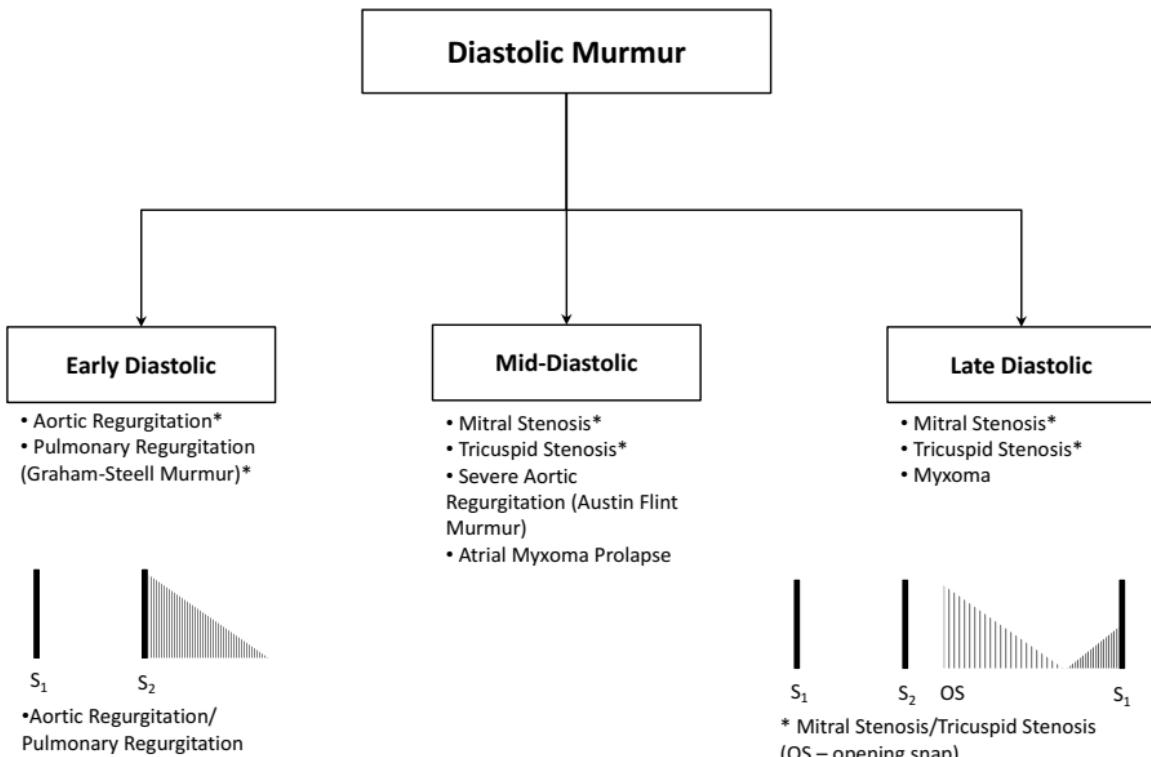


# Systolic Murmur

Valvular & Other



# Diastolic Murmur





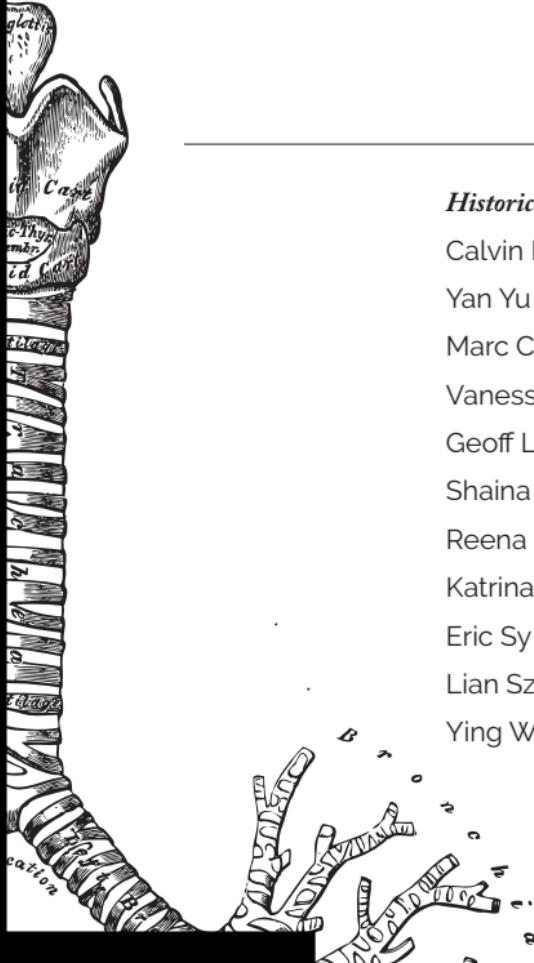
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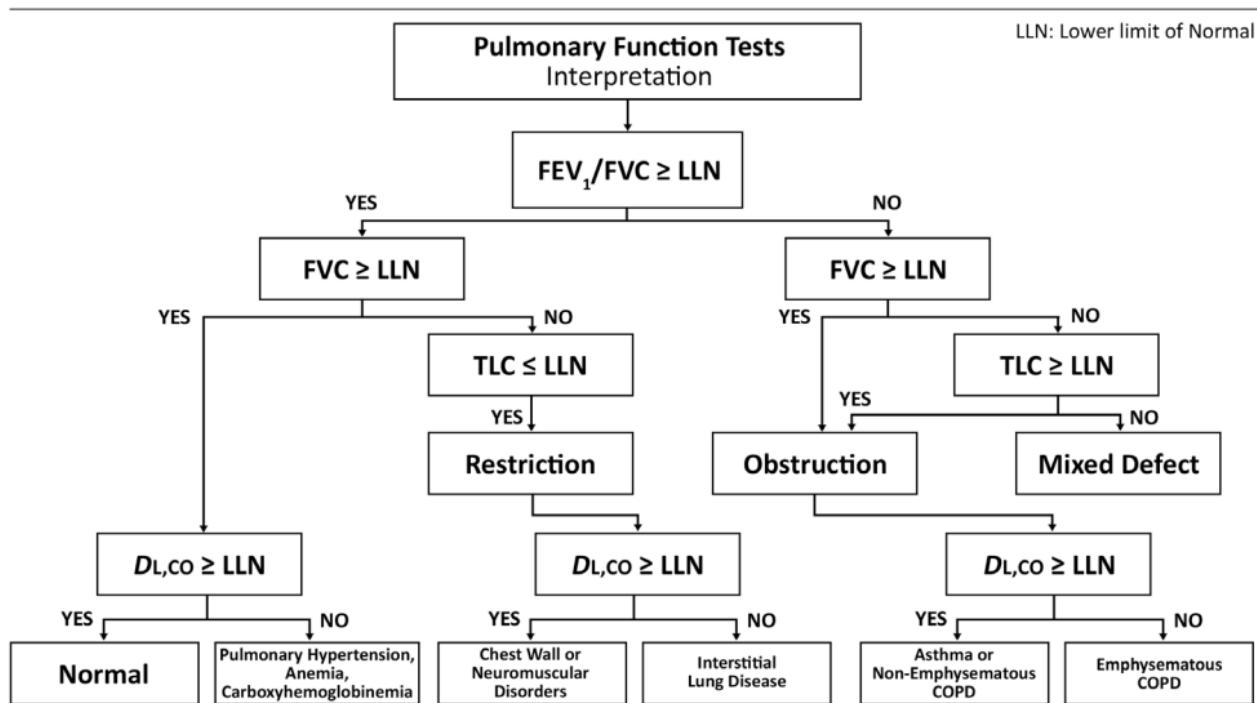
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Dr. Daniel Miller

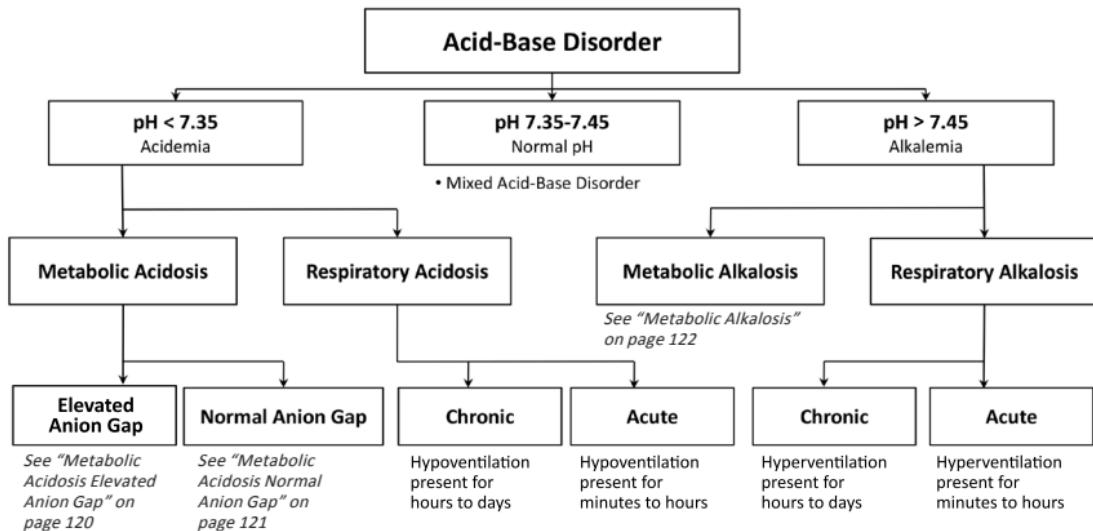
# Pulmonary Function Tests

## Interpretation



# Acid-Base Disorder

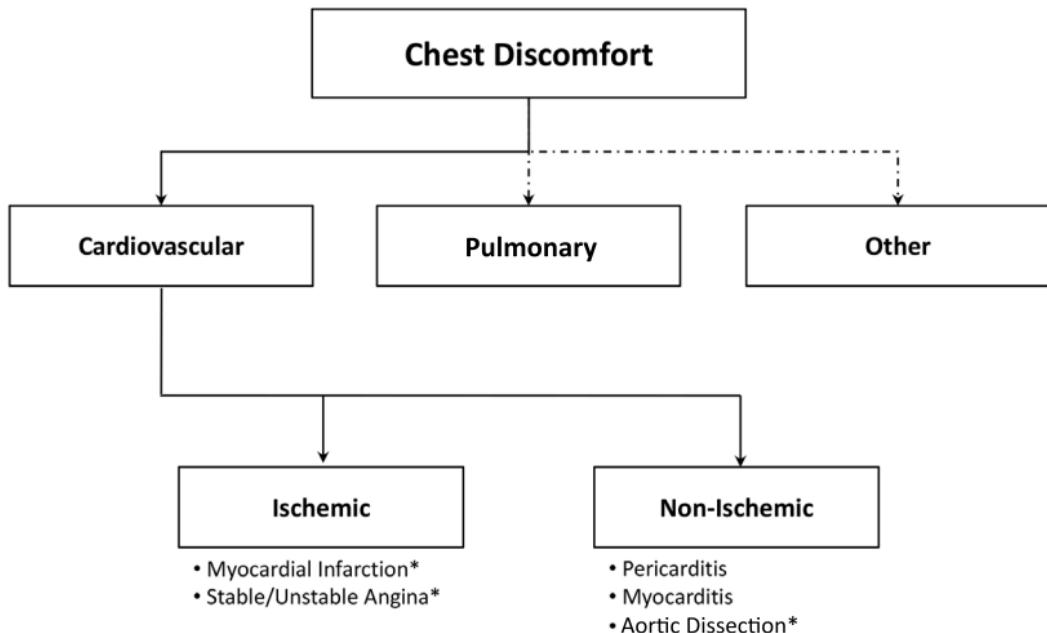
Pulmonary



<u>Appropriate Compensation:</u>	Ratio ( $\text{CO}_2:\text{HCO}_3^-$ )
Metabolic Acidosis	12:10
Metabolic Alkalosis	7:10
Acute Respiratory Acidosis	10:1
Chronic Respiratory Acidosis	10:3
Acute Respiratory Alkalosis	10:2
Chronic Respiratory Alkalosis	10:4

# Chest Discomfort

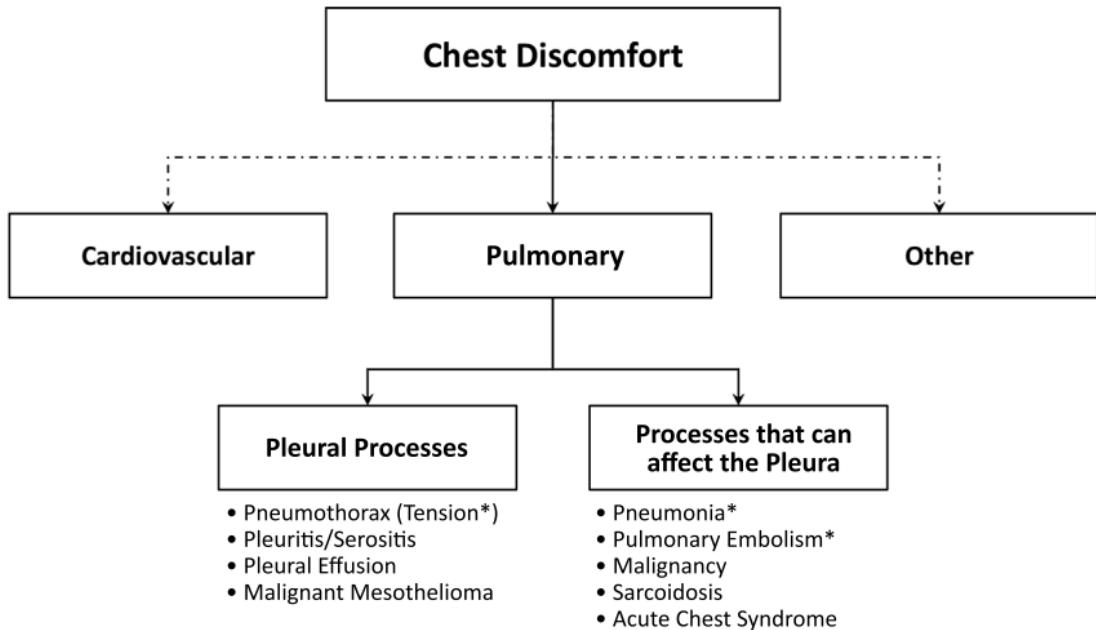
Cardiovascular



Respiratory

# Chest Discomfort

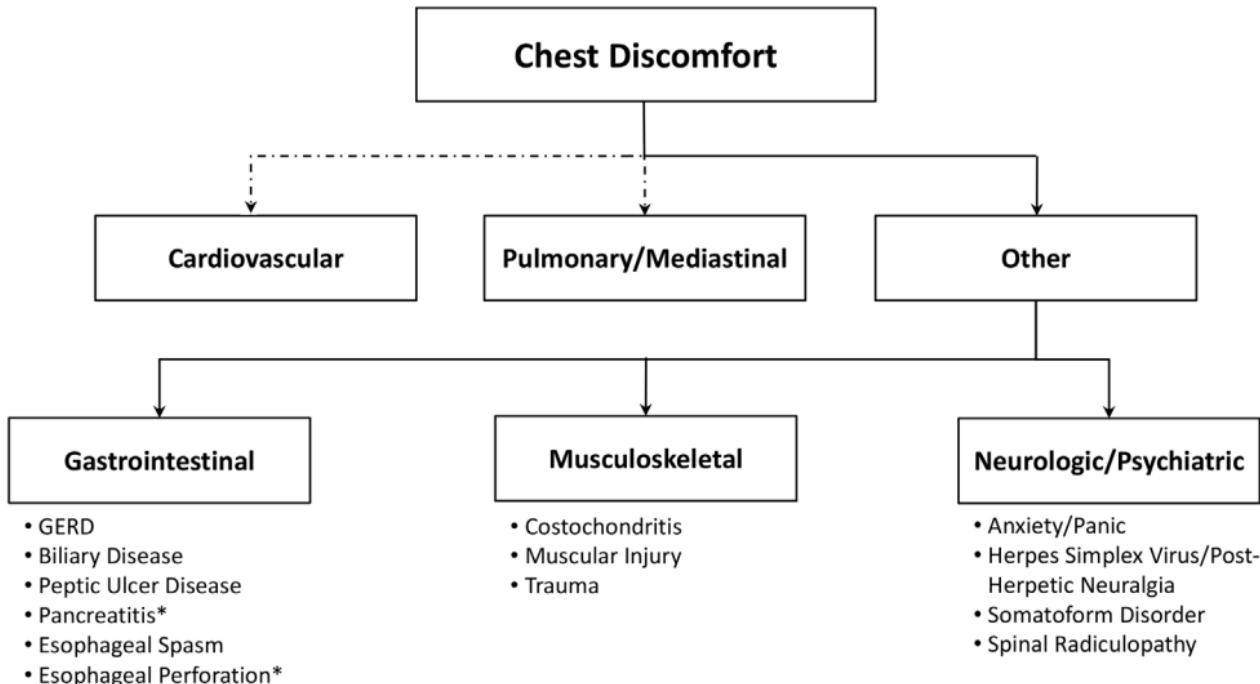
Pulmonary



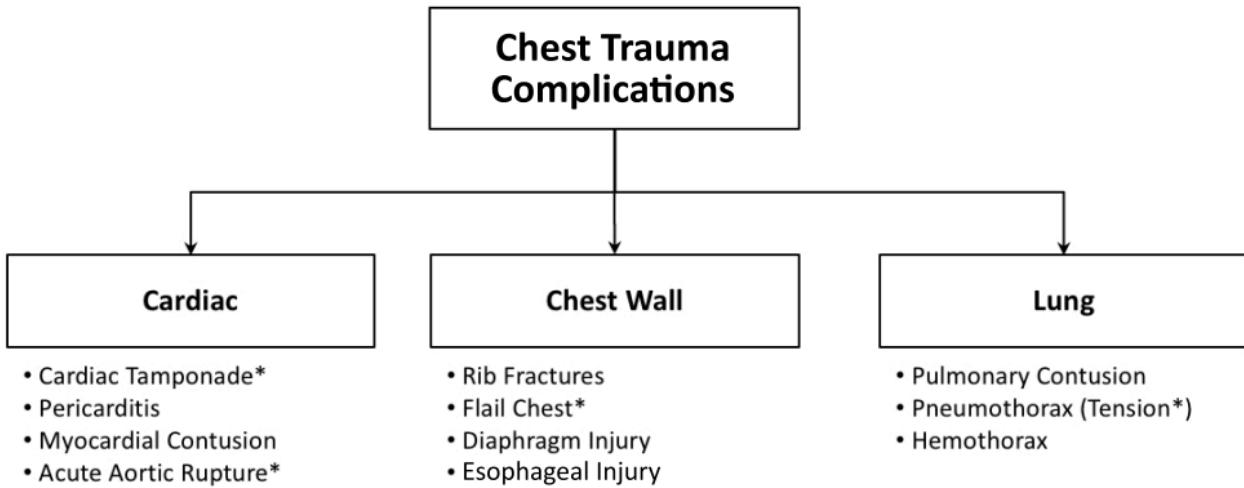
\* Potentially acutely life-threatening

# Chest Discomfort

Other



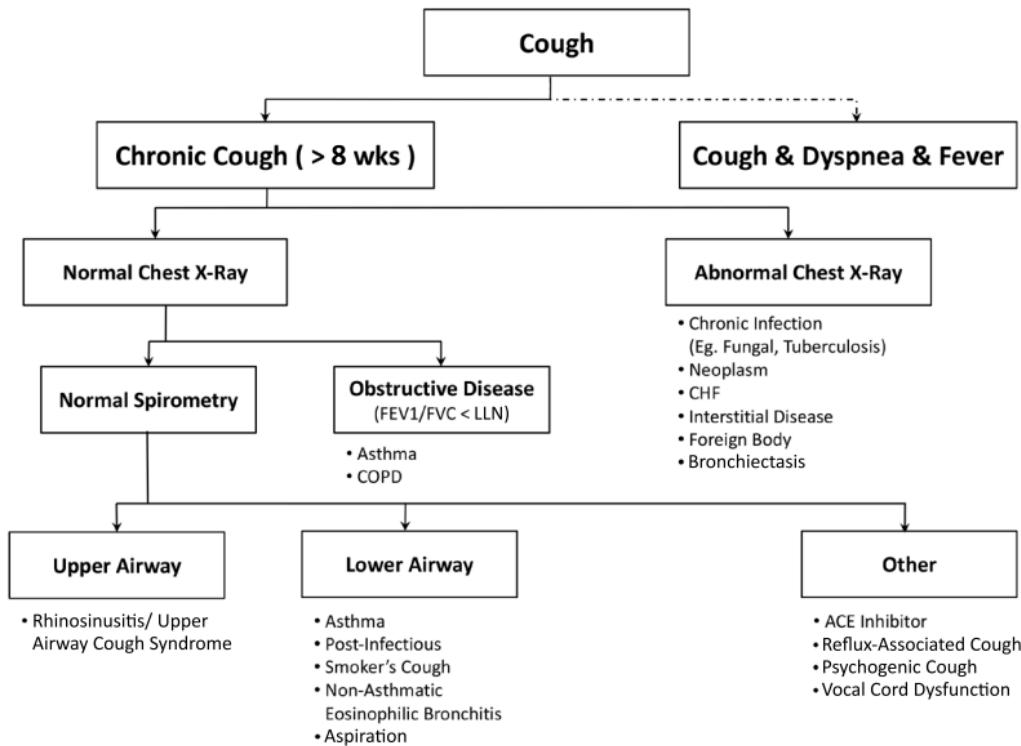
# Chest Trauma Complications



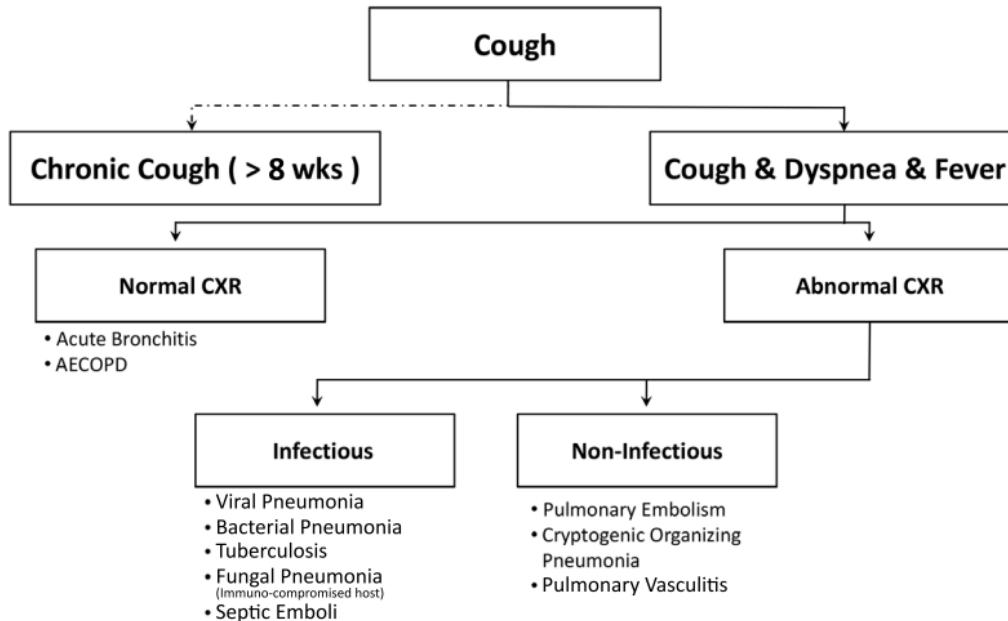
\* Potentially acutely life-threatening

# Cough

Chronic



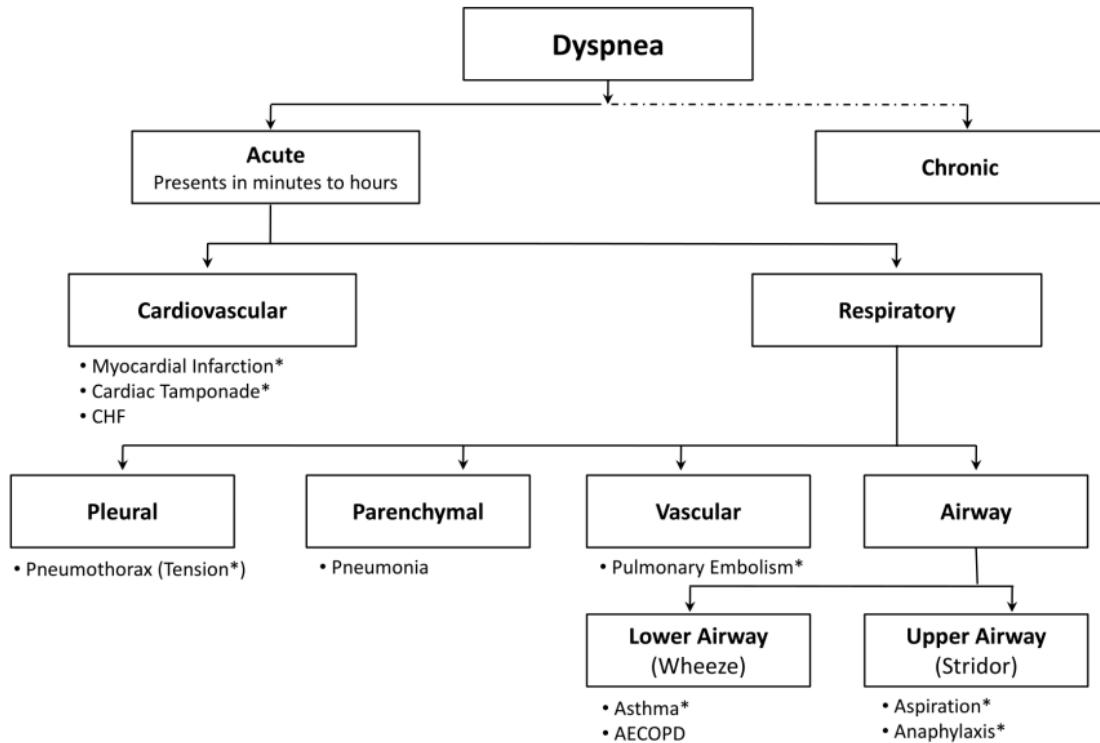
# Cough, Dyspnea & Fever



\* Potentially acutely life-threatening

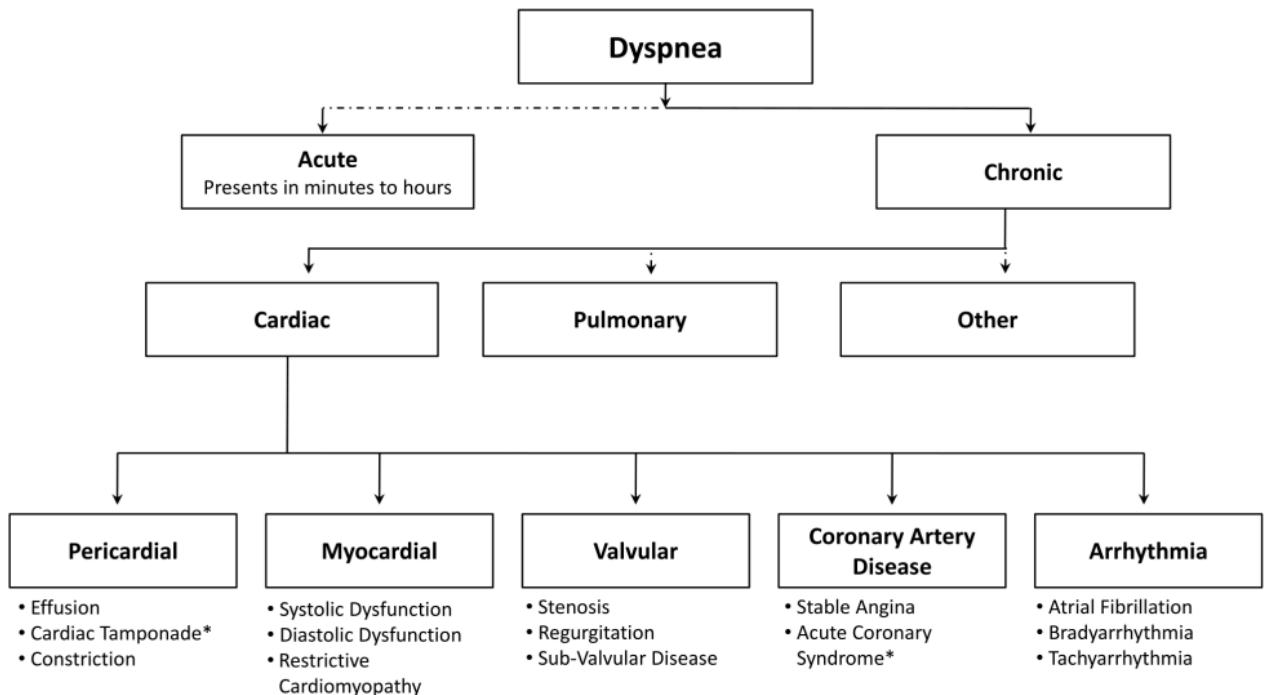
# Dyspnea

Acute



# Dyspnea Chronic

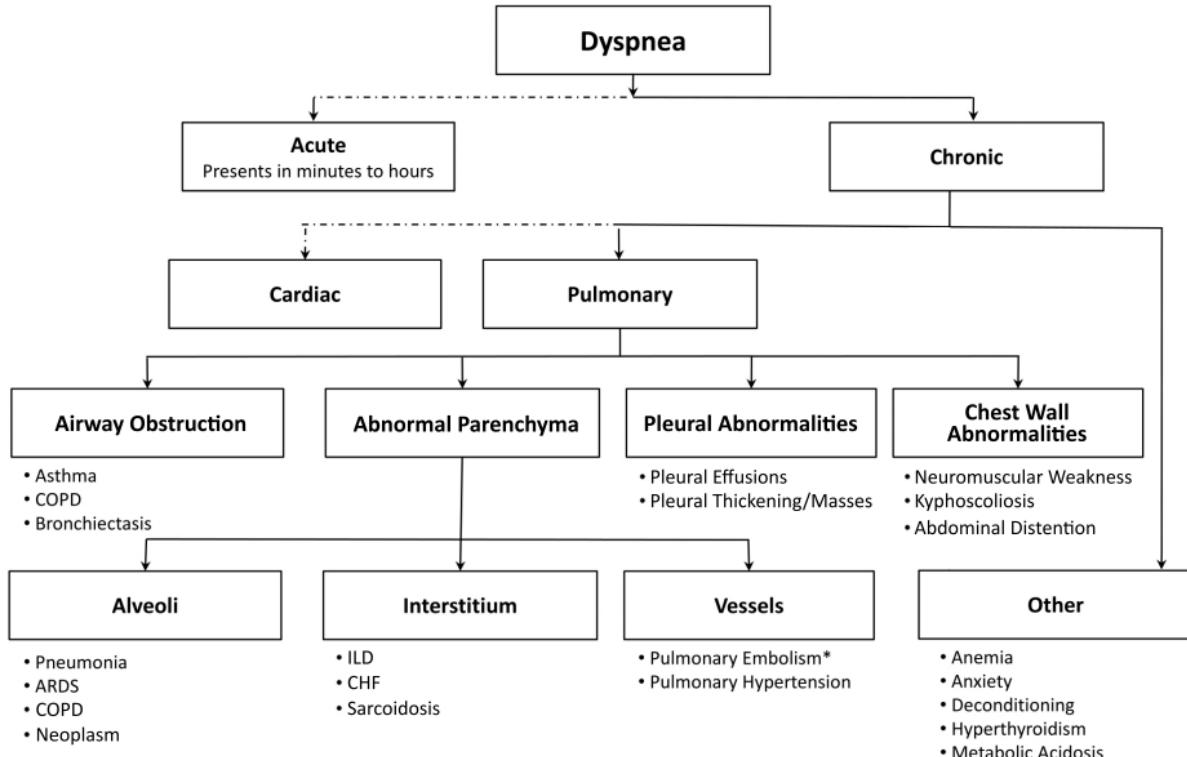
Cardiac



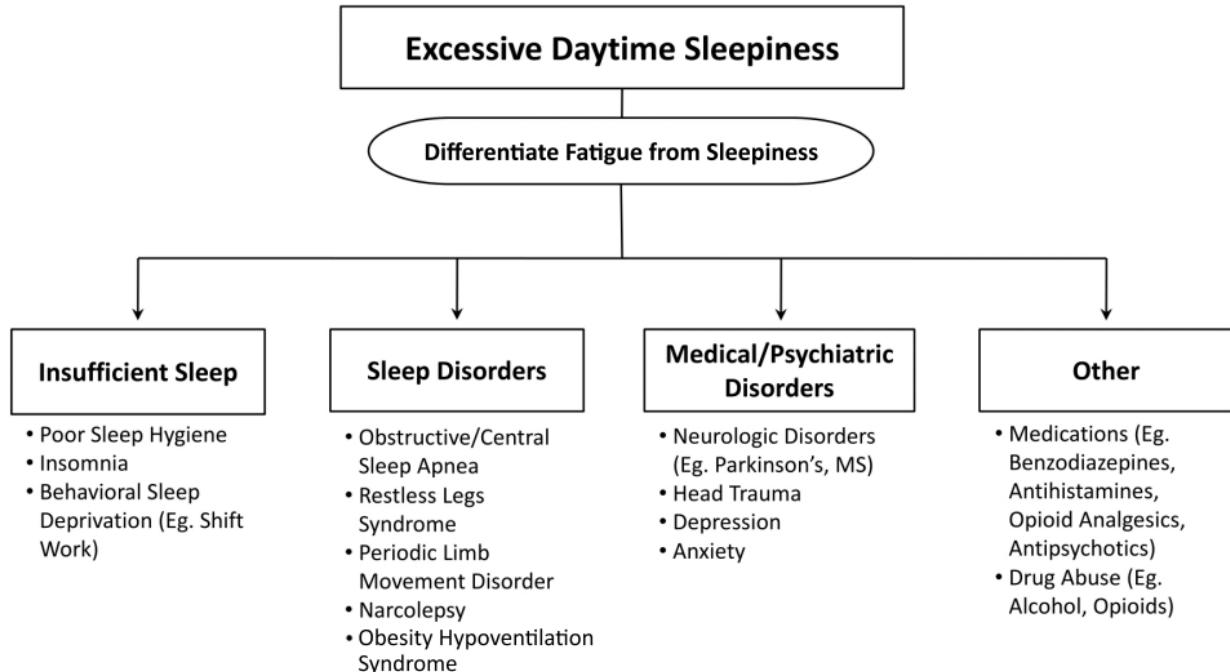
\* Potentially acutely life-threatening

# Dyspnea Chronic

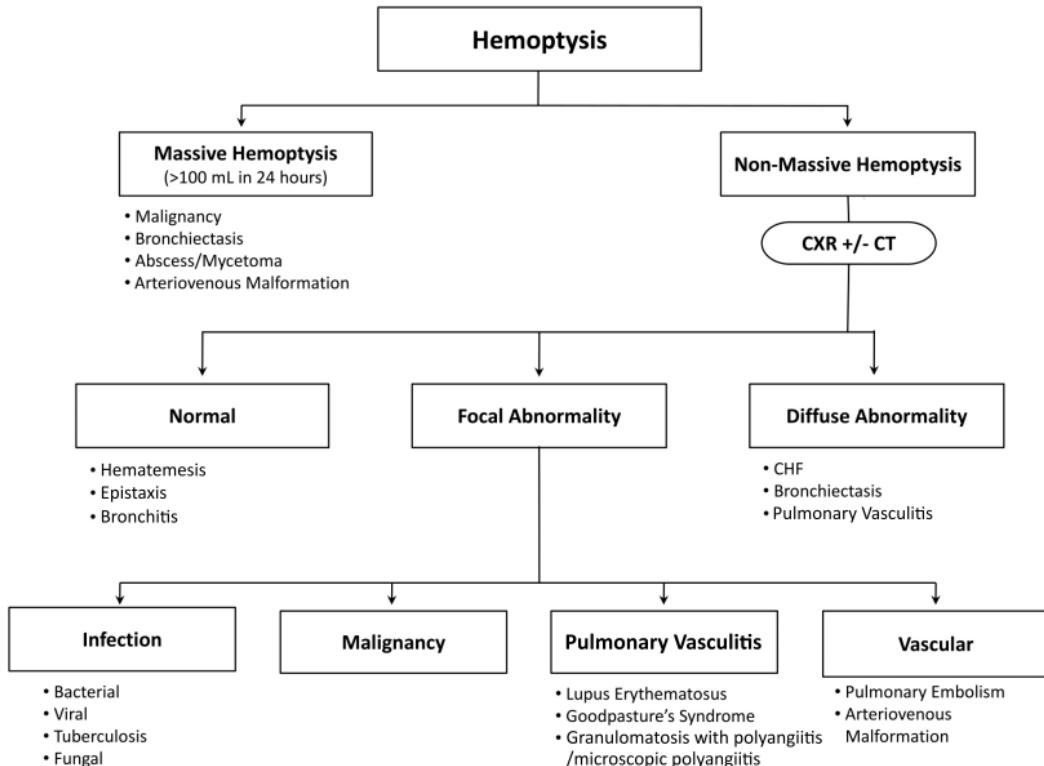
Pulmonary / Other



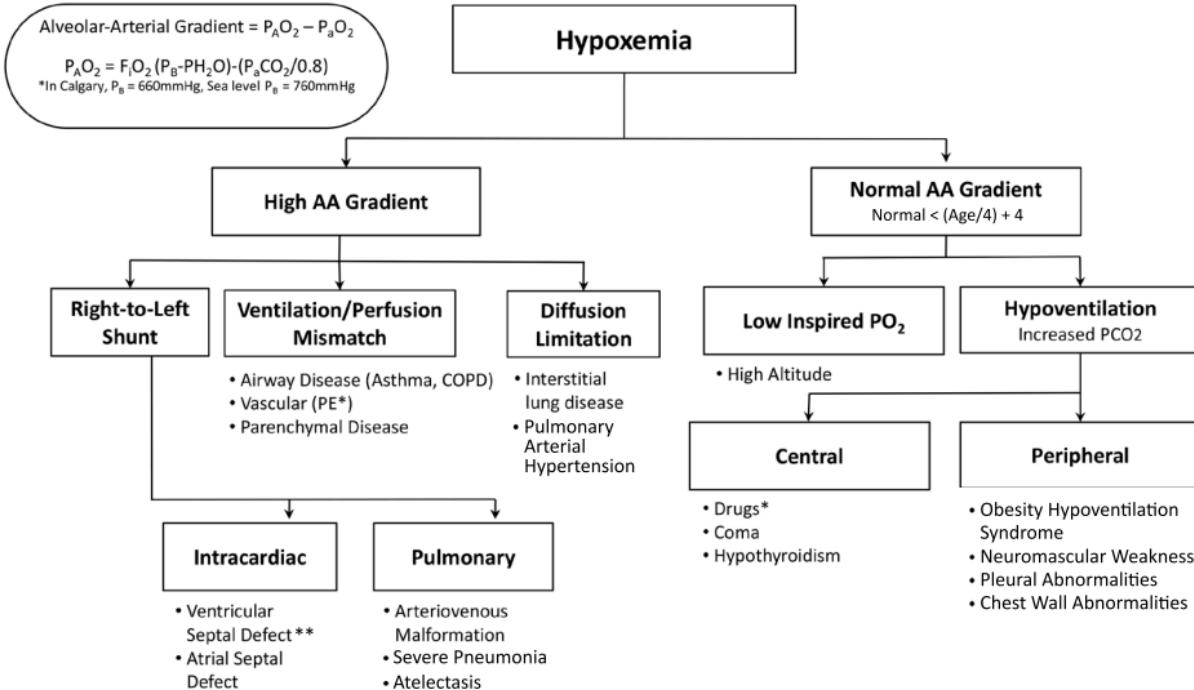
# Excessive Daytime Sleepiness



# Hemoptysis



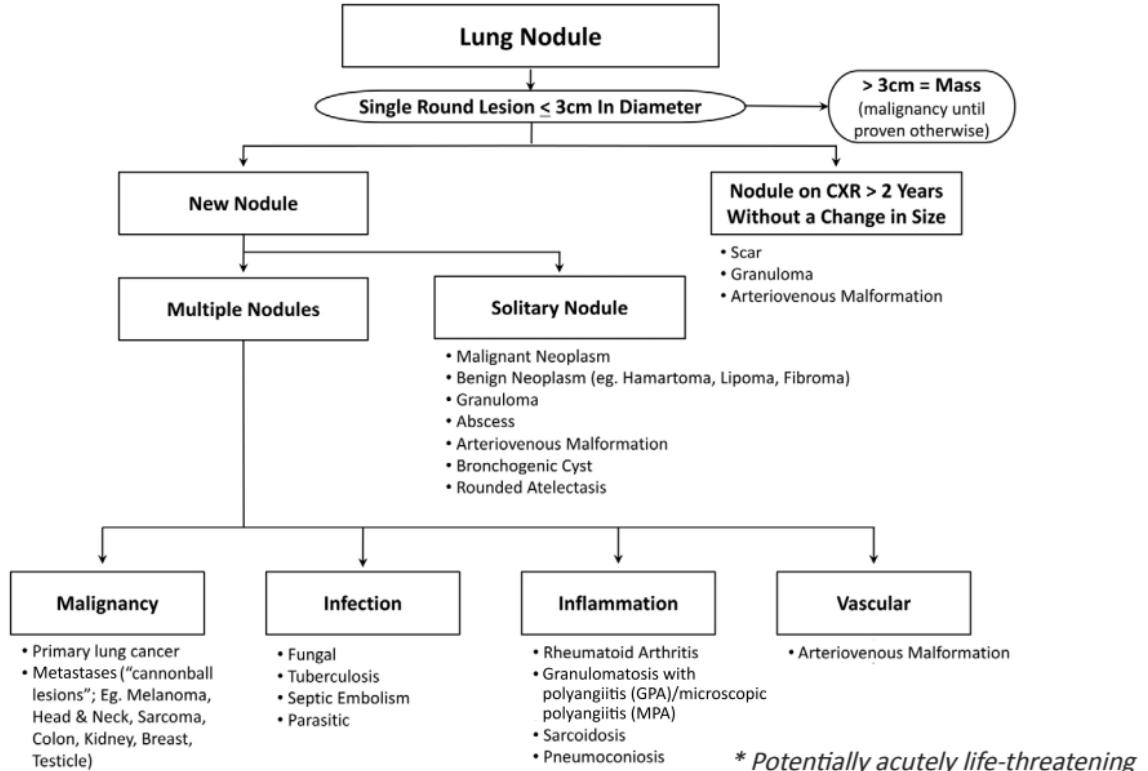
# Hypoxemia



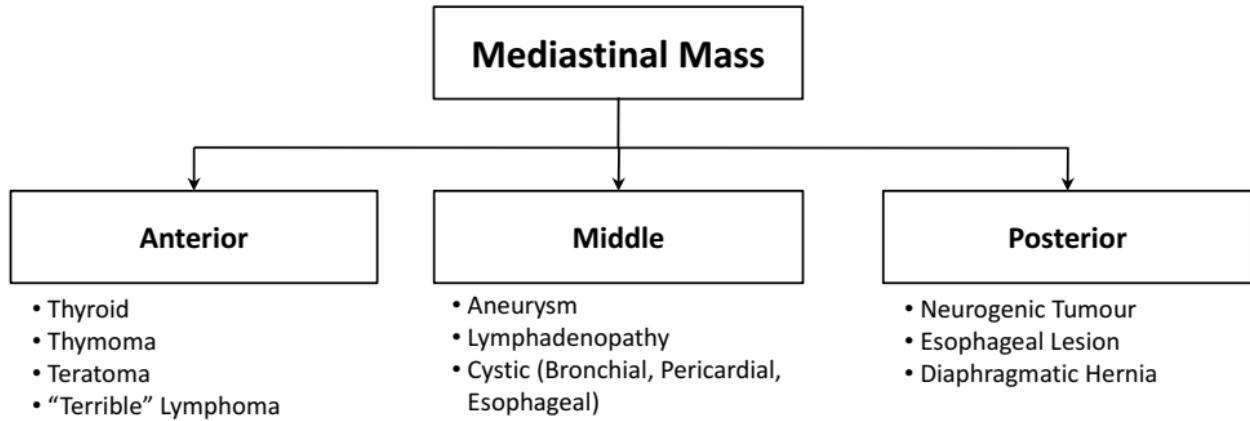
\* Potentially acutely life-threatening.

\*\* SDS will be a Right-to-left shunt in infancy, become a Left-to-Right shunt in childhood to adulthood, and revert back to a right-to-left shunt when the left ventricle fails in severe disease, contributing to Eisenmenger's Syndrome.

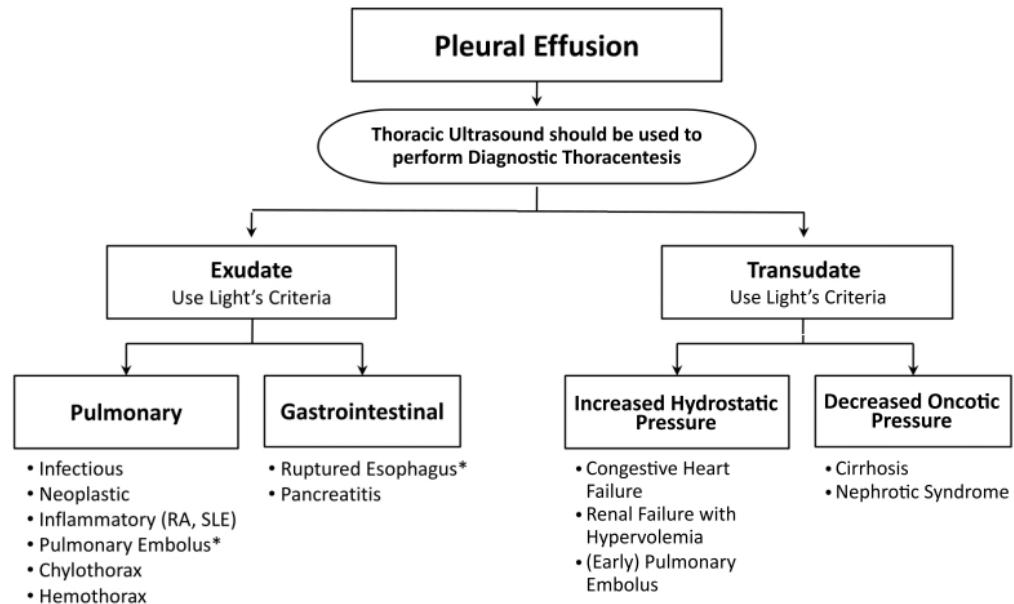
# Lung Nodule



# Mediastinal Mass



# Pleural Effusion



## Light's Criteria

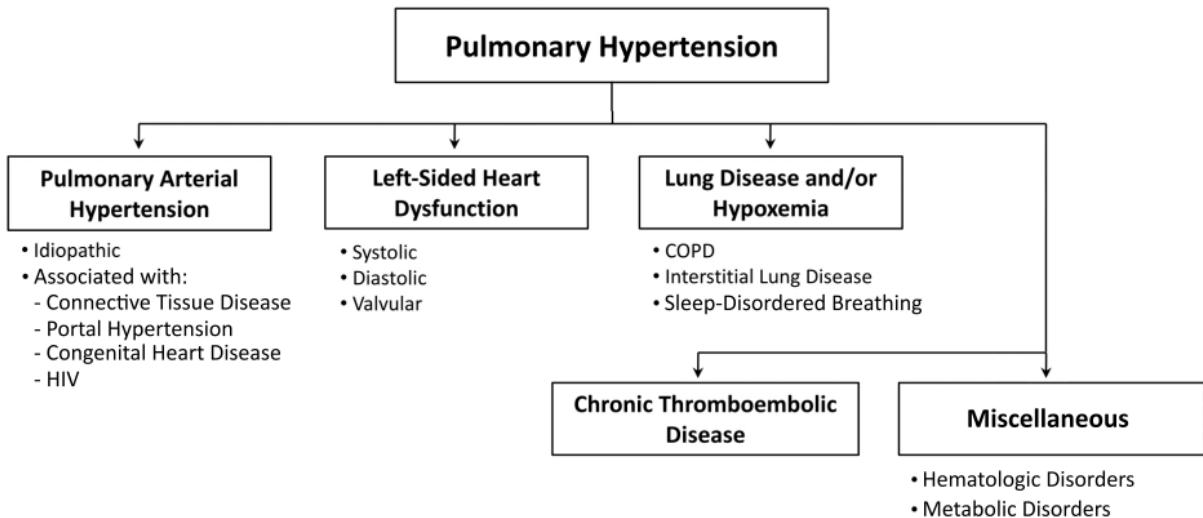
Pleural Fluid Protein/Serum Protein > 0.5

Pleural Fluid Lactate Dehydrogenase (LDH)/Serum LDH > 0.6

Pleural Fluid LDH > 2/3 Serum LDH Upper Limit of Normal

\* Potentially acutely life-threatening

# Pulmonary Hypertension



# Hematologic

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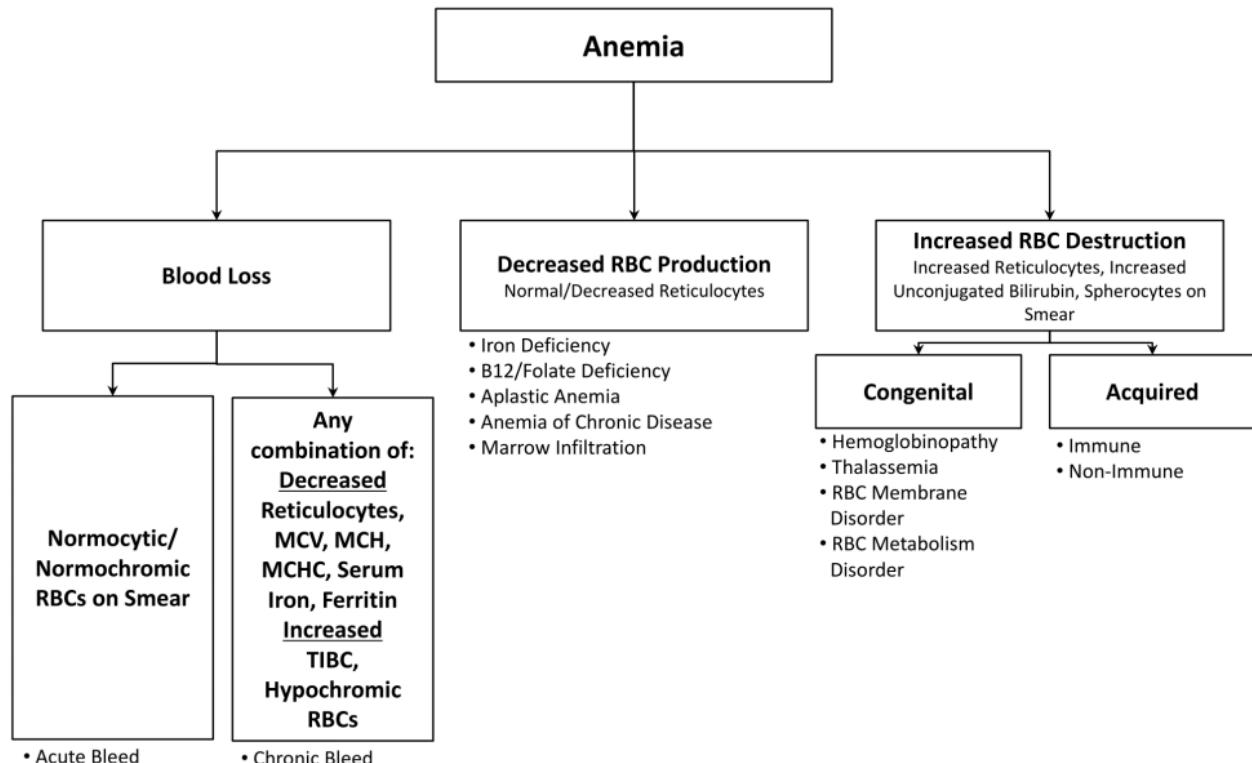
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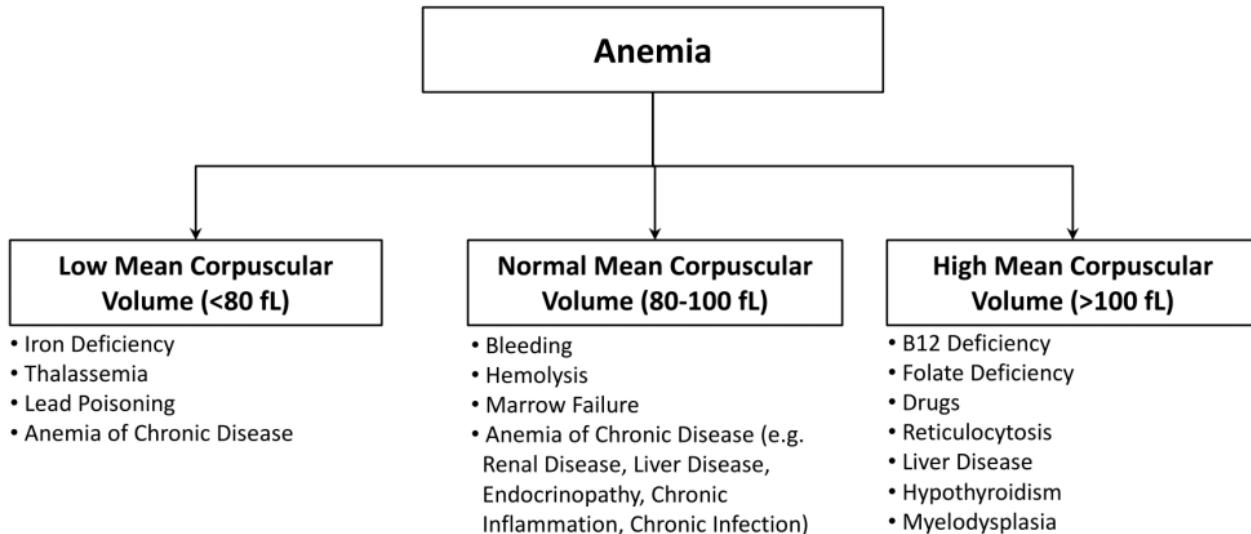
Dr. Lynn Savoie

# Overall Approach to Anemia

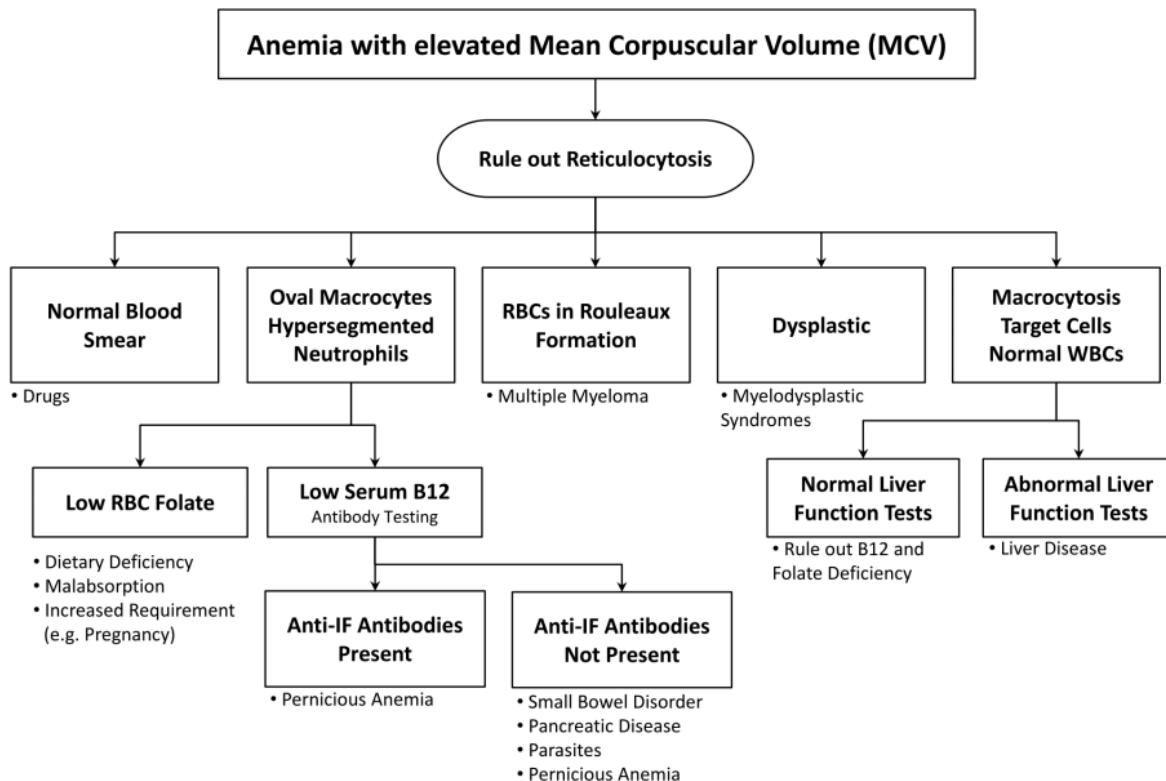


# Approach to Anemia

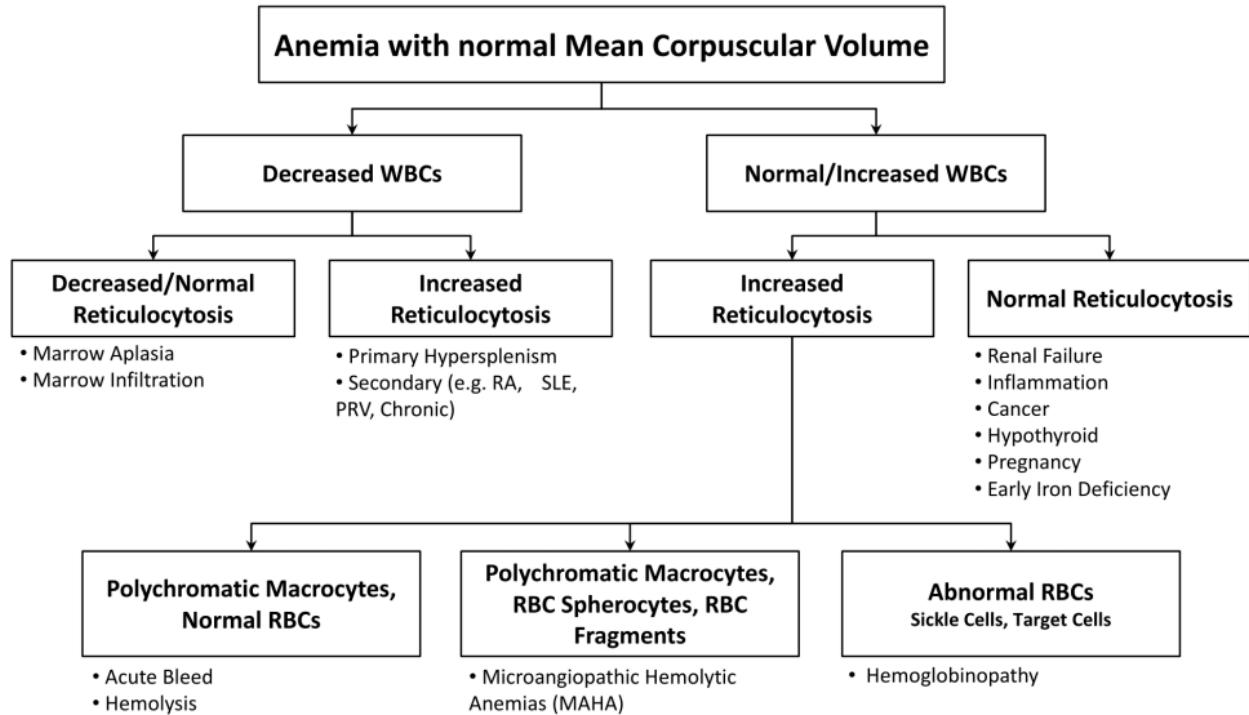
Mean Corpuscular Volume



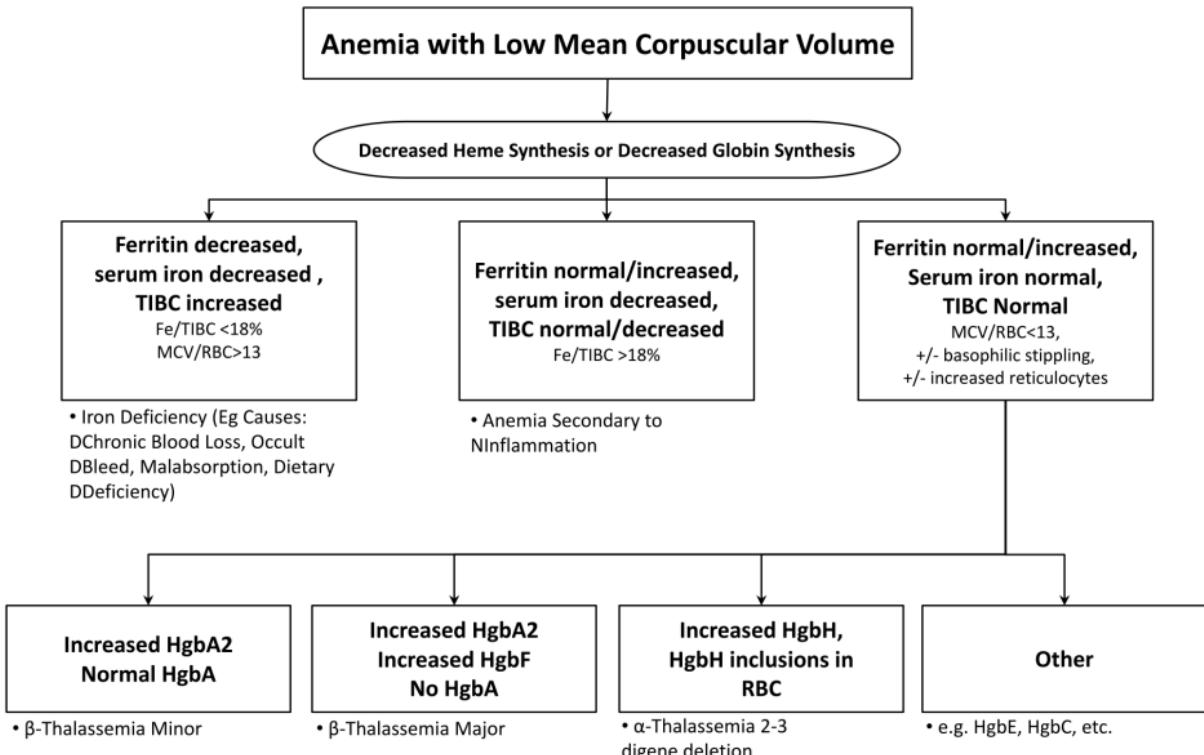
# Anemia with Elevated MCV



# Anemia with Normal MCV

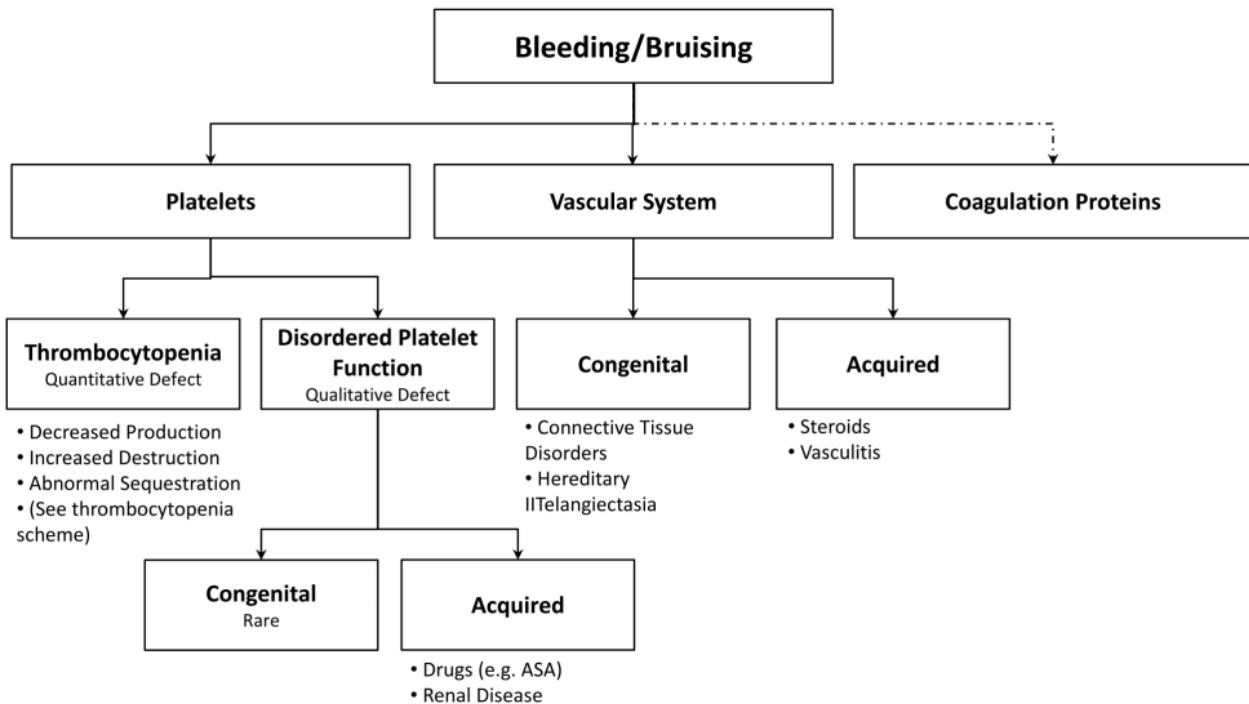


# Anemia with Low MCV



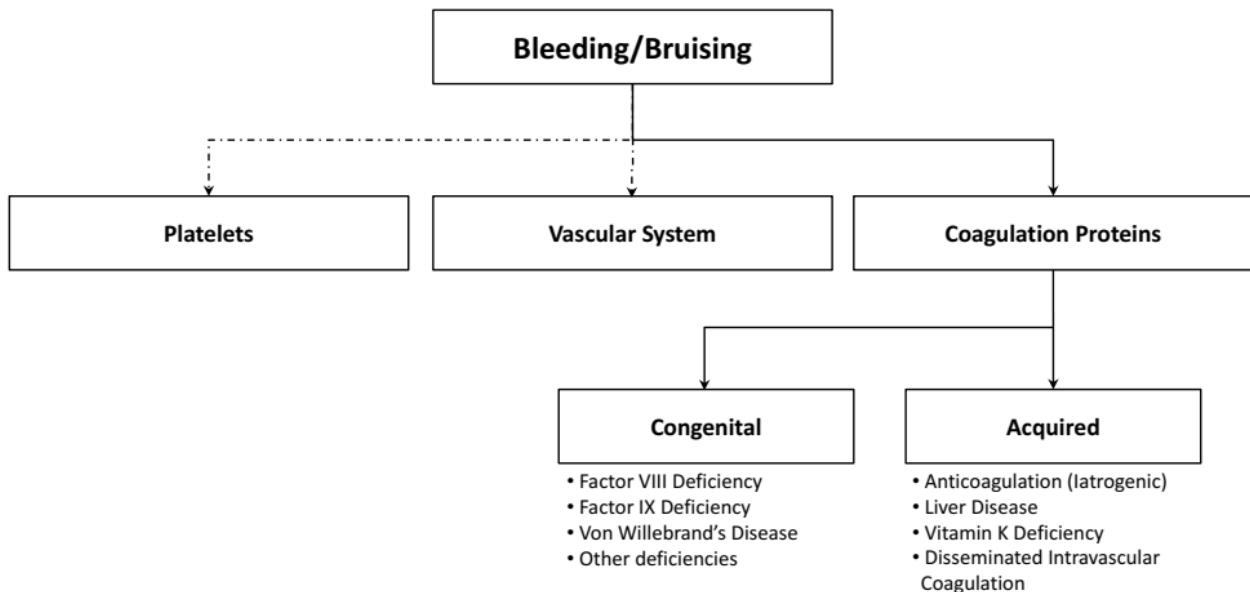
# Approach to Bleeding / Bruising

Platelets & Vascular System

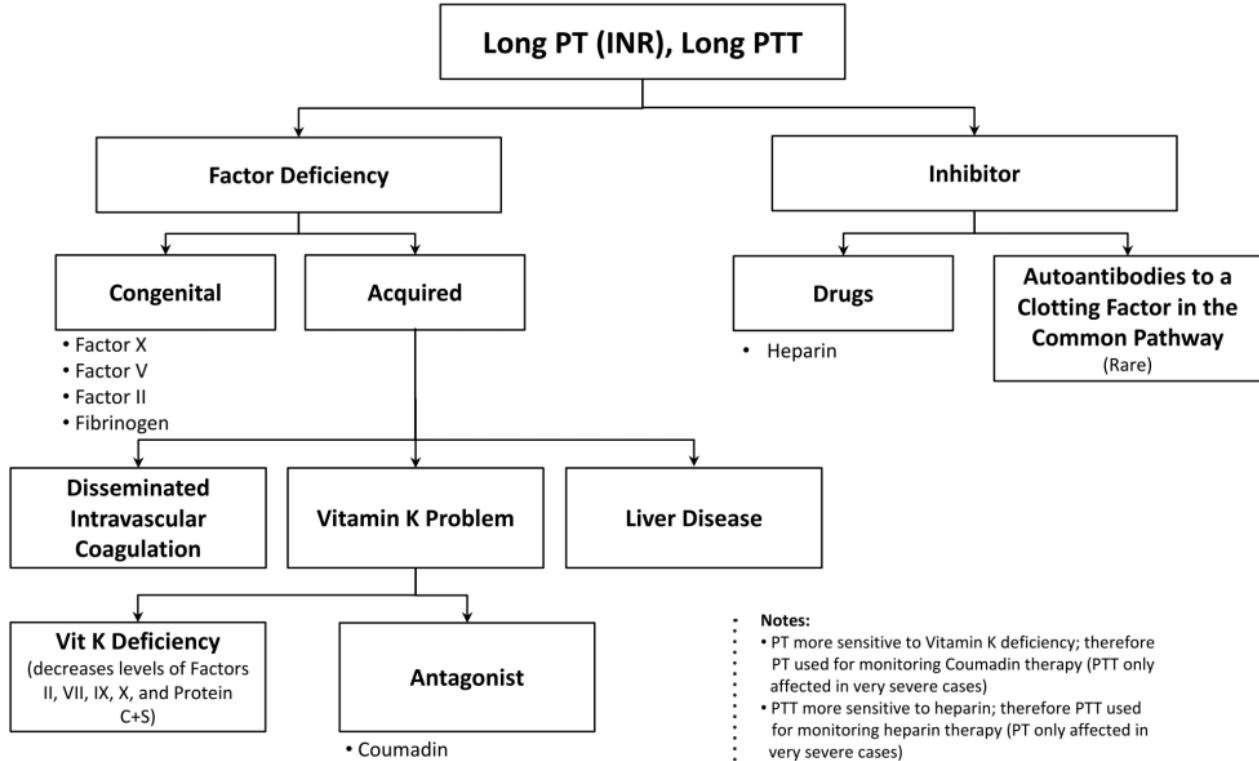


# Approach to Bleeding / Bruising

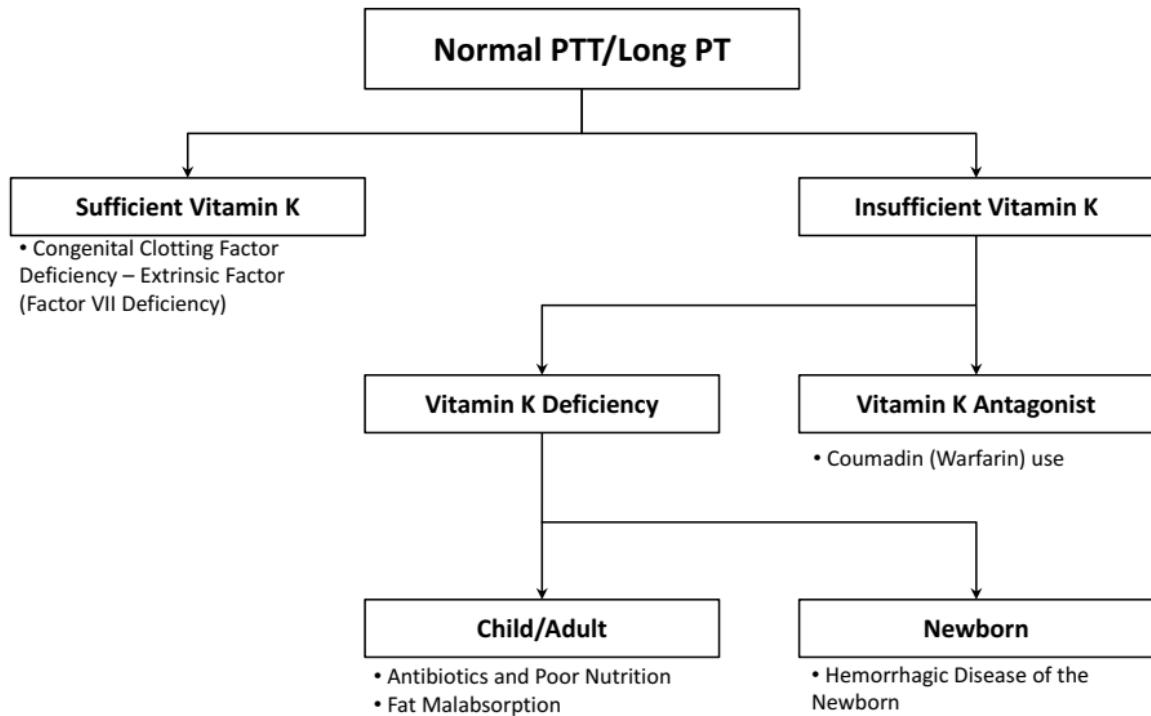
## Coagulation Proteins



# Approach to Prolonged PT (INR), Prolonged PTT

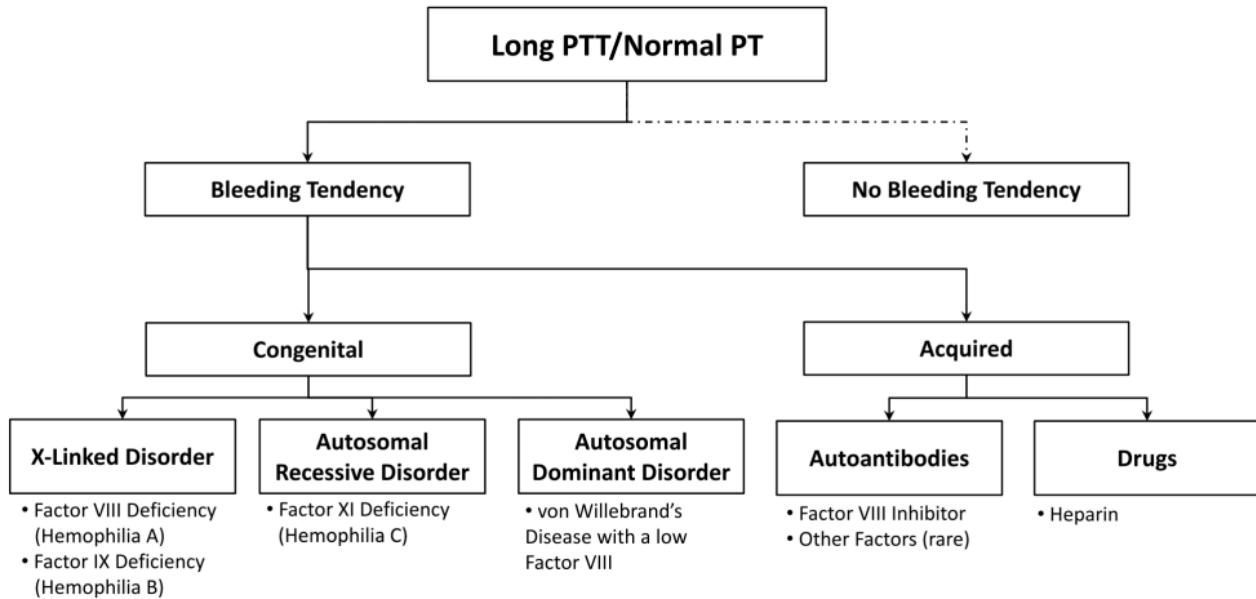


# Prolonged PT (INR), Normal PTT



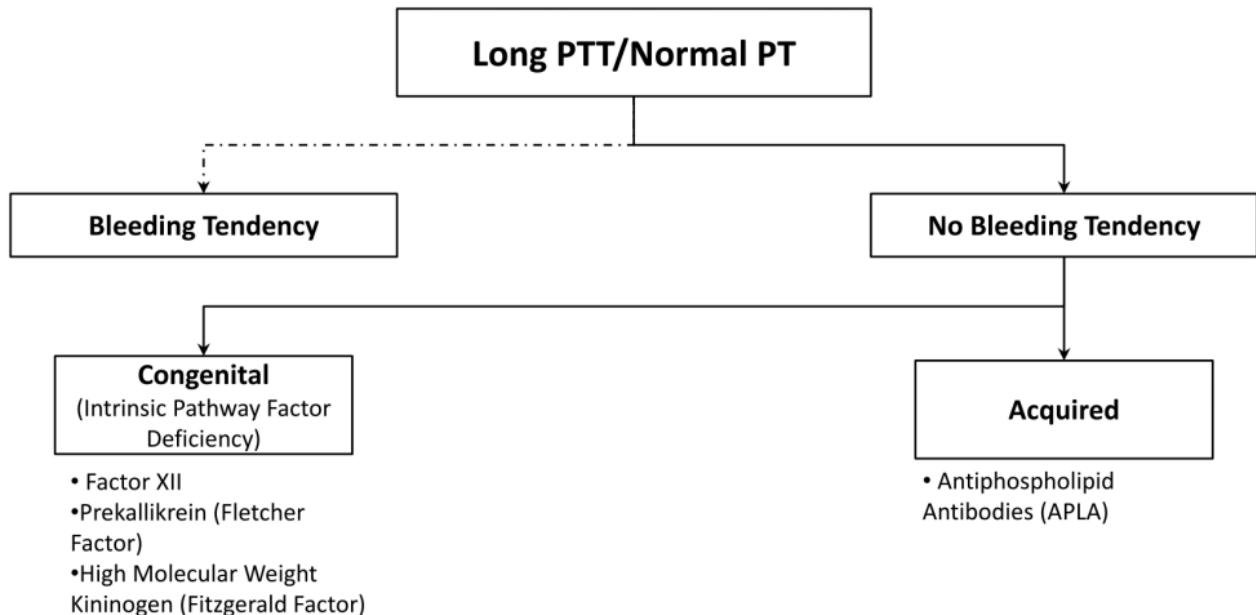
# Prolonged PTT, Normal PT (INR)

Bleeding Tendency

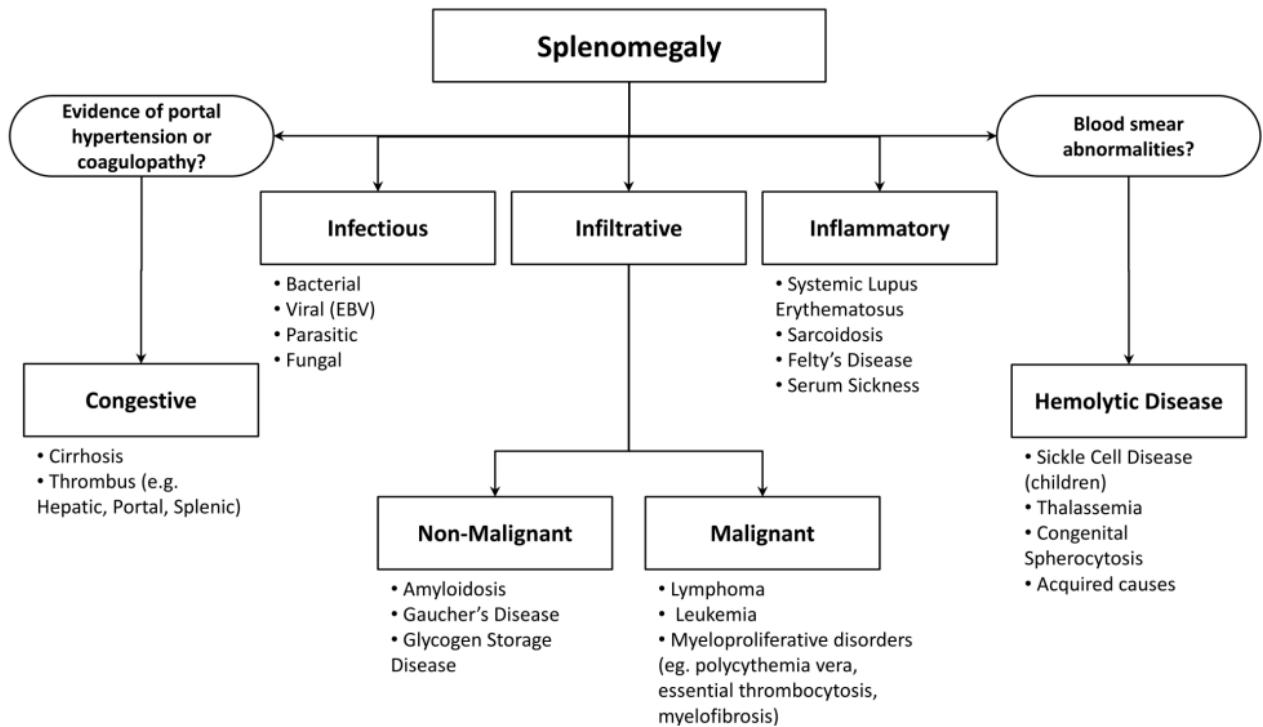


# Prolonged PTT, Normal PT (INR)

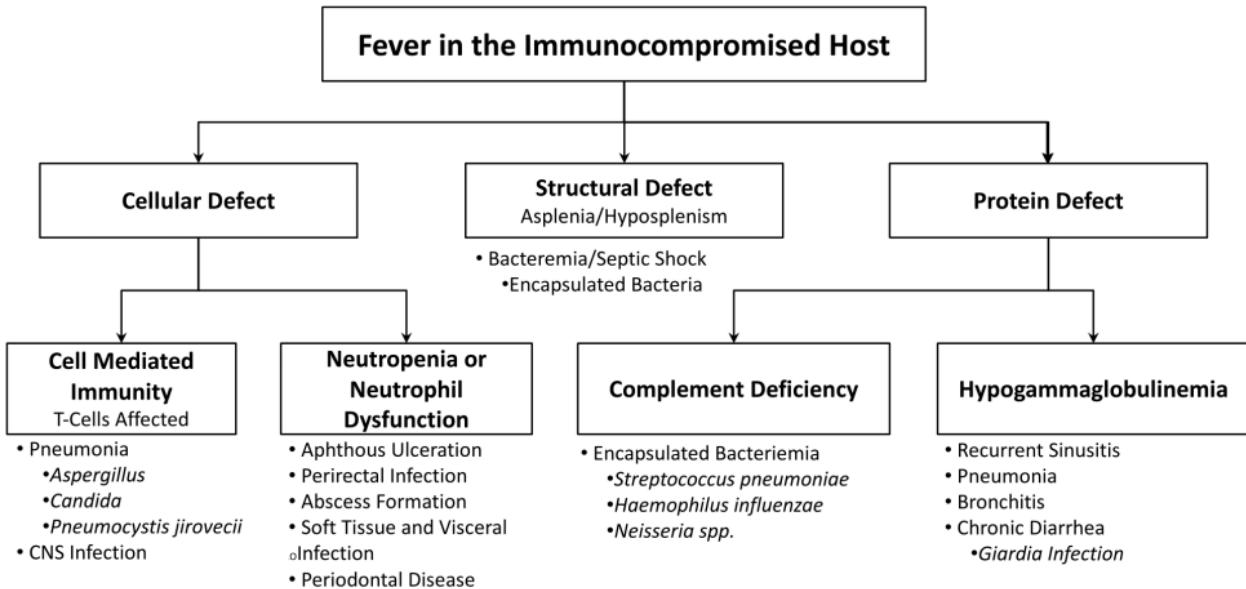
No Bleeding Tendency



# Approach to Splenomegaly

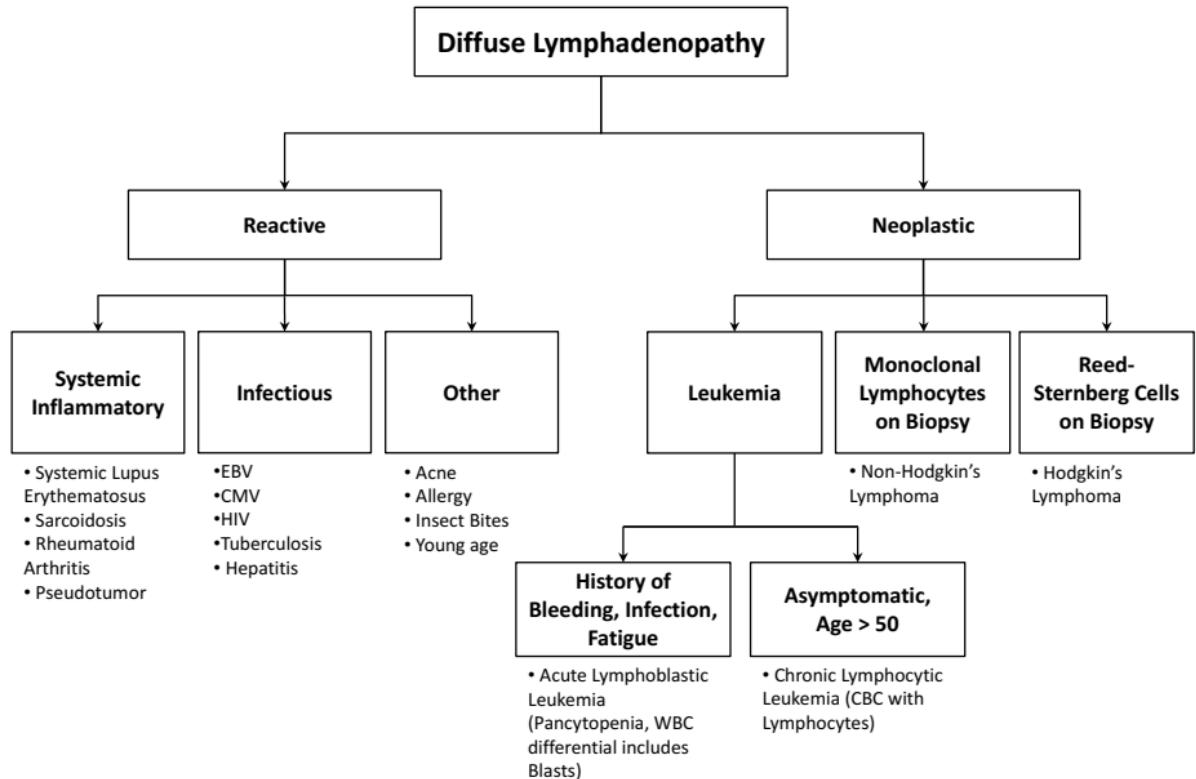


# Fever in the Immunocompromised Host



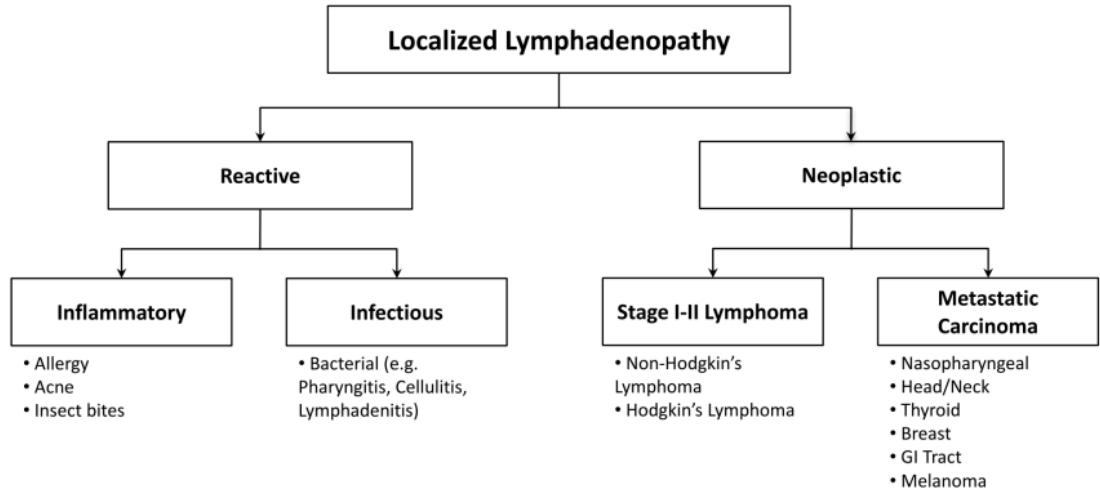
# Lymphadenopathy

Diffuse



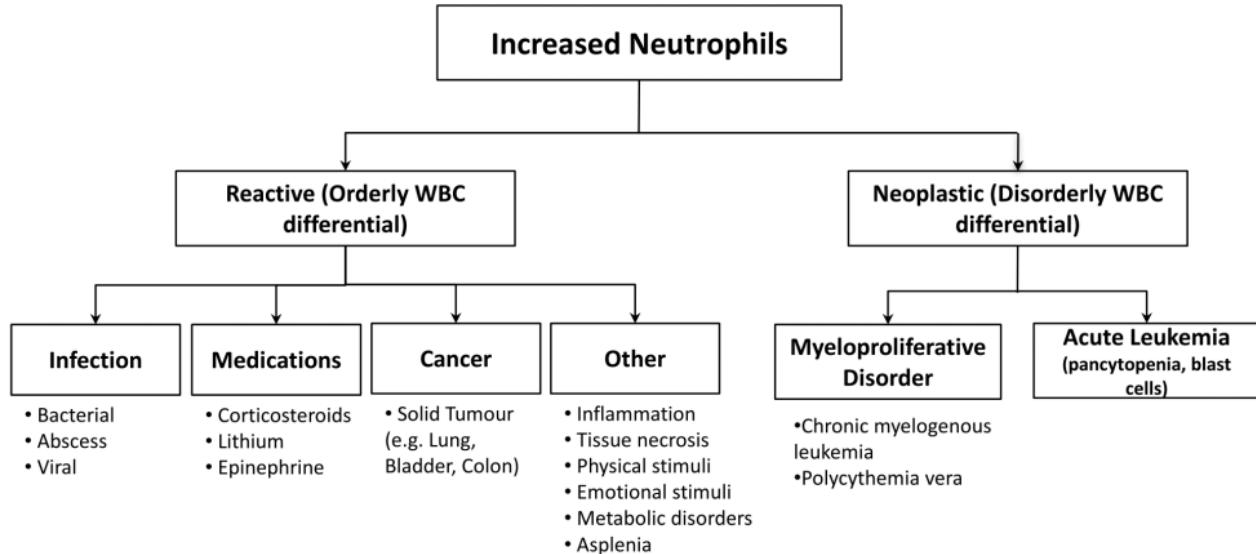
# Lymphadenopathy

Localized



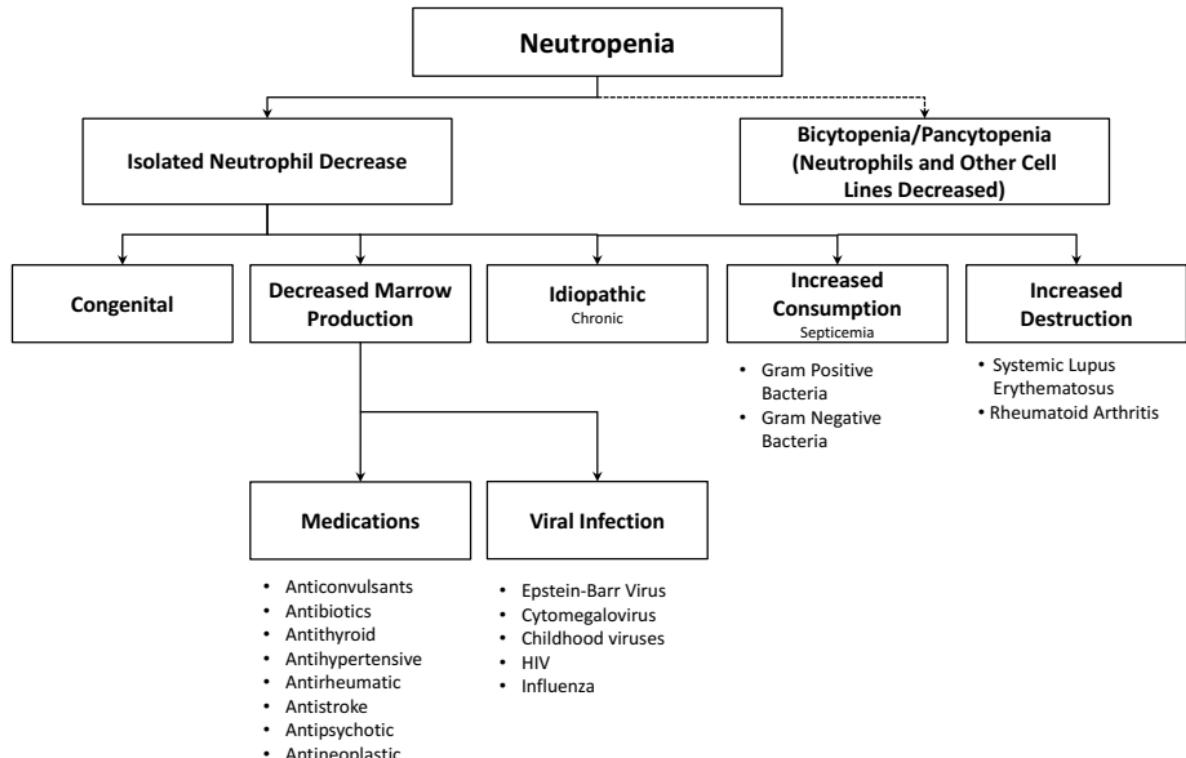
Cervical	SuprACLAVICULAR	Axillary	EPIROCHLEAR (Always pathologic)	Inguinal
<p><u>Anterior</u></p> <ul style="list-style-type: none"><li>Infection (e.g. Mononucleosis, Toxoplasmosis)</li></ul> <p><u>Posterior</u></p> <ul style="list-style-type: none"><li>TB</li><li>Lymphoma</li><li>Kikuchi Disease</li><li>Head/Neck Malignancy</li></ul>	<ul style="list-style-type: none"><li>Thoracic Malignancy (Breast, Mediastinum, Lungs, Esophagus)</li><li>Abdominal Malignancy (Virchow's Node)</li></ul>	<ul style="list-style-type: none"><li>Infection (Arm, Thoracic Wall, Breast)</li><li>Cancer (In absence of infection in upper extremity)</li></ul>	<ul style="list-style-type: none"><li>Infection (Forearm/Hand)</li><li>Lymphoma</li><li>Sarcoidosis</li><li>Tularemia</li><li>Secondary Syphilis</li></ul>	<ul style="list-style-type: none"><li>Leg Infection</li><li>Sexually Transmitted Infection</li><li>Cancer</li></ul>

# Neutrophilia



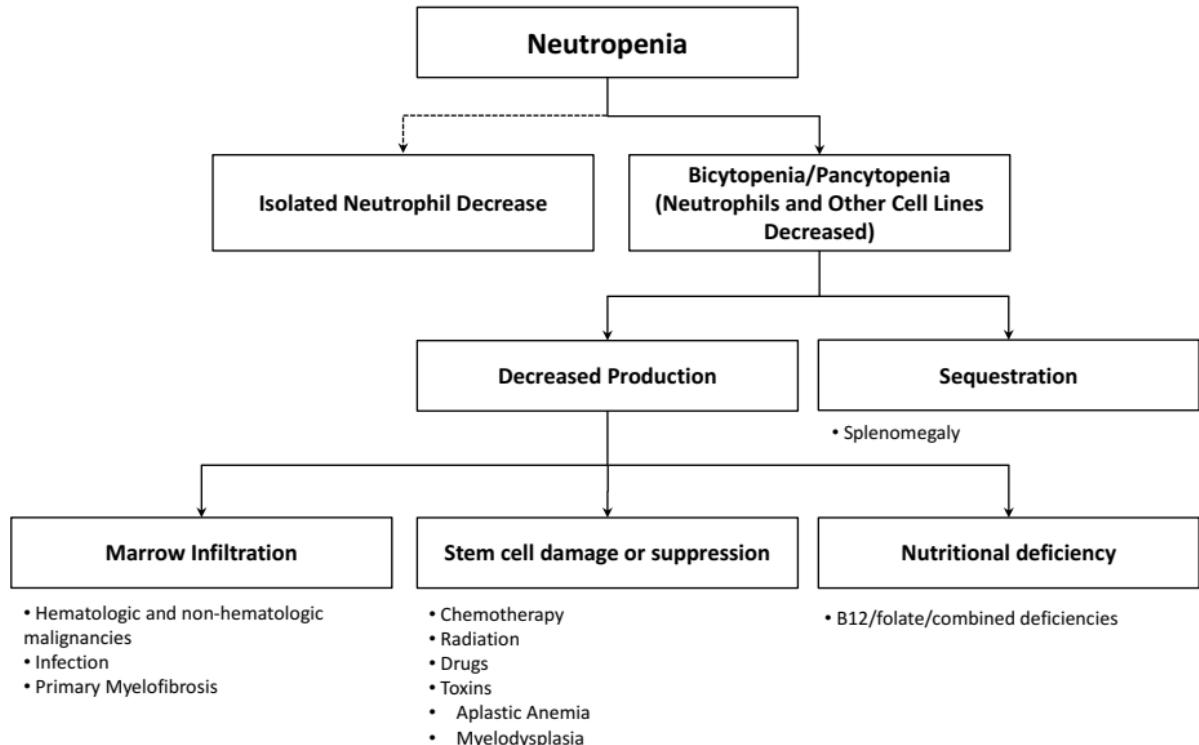
# Neutropenia

Decreased Neutrophils Only

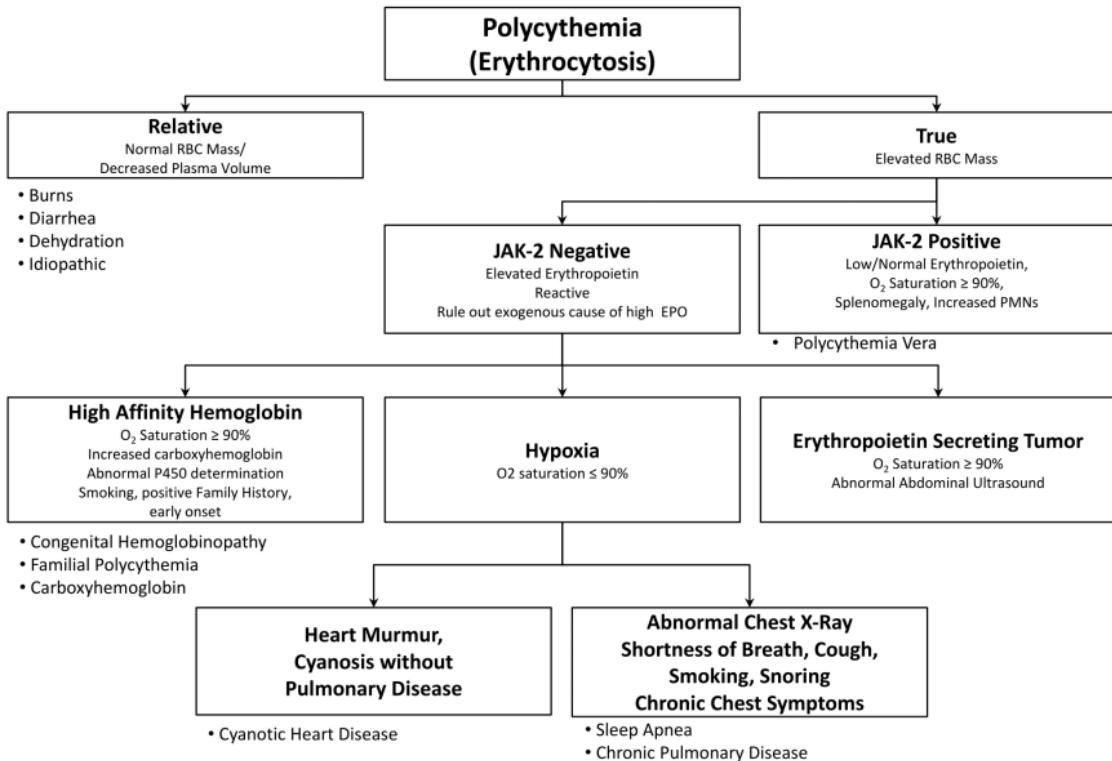


# Neutropenia

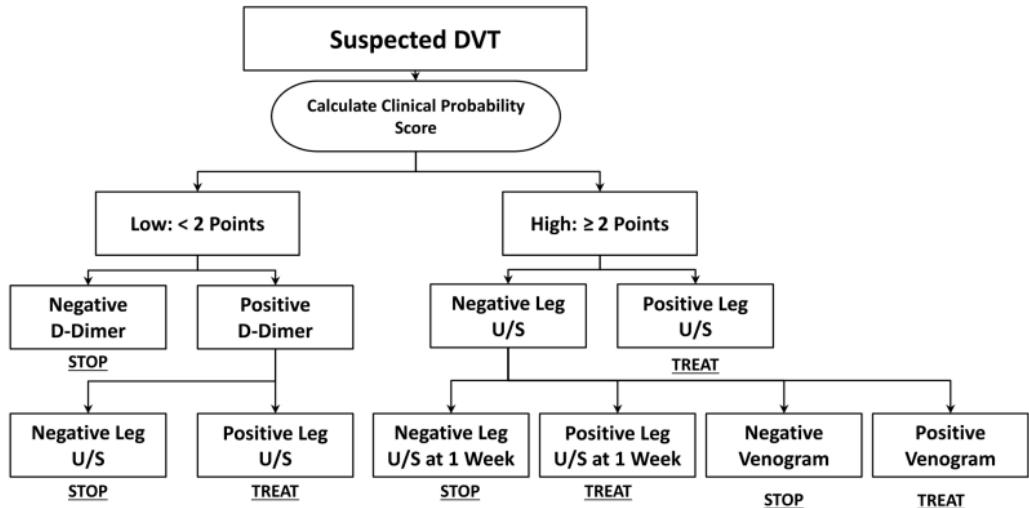
Bicytopenia / Pancytopenia



# Polycythemia



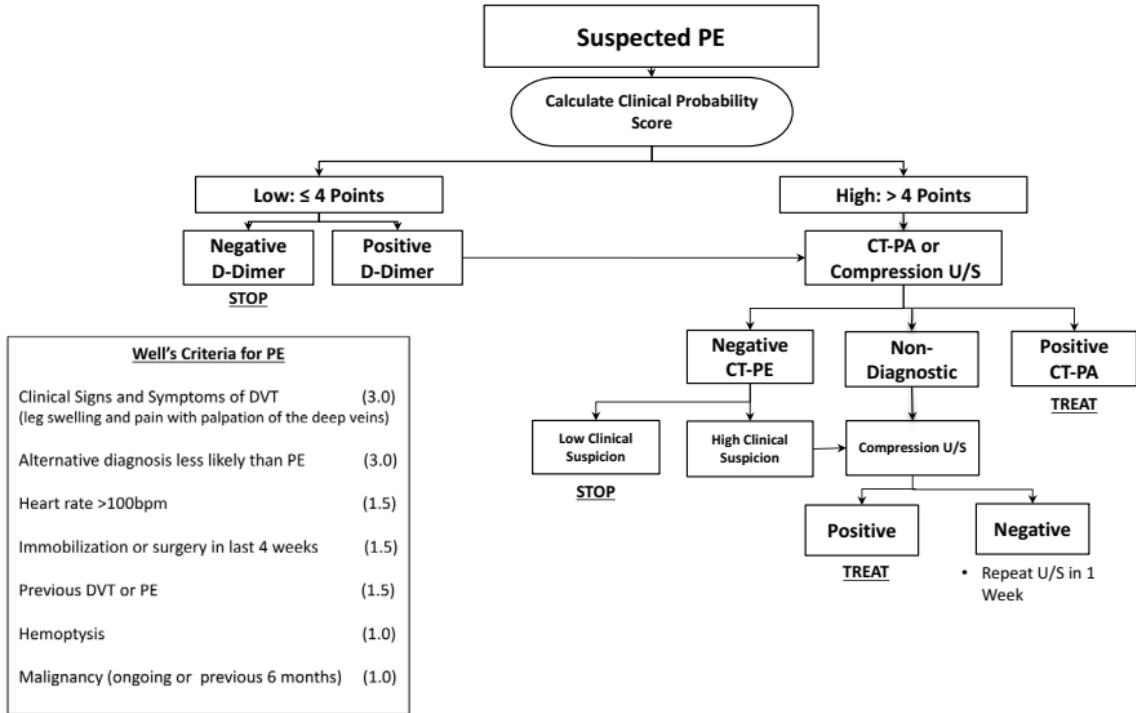
# Suspected Deep Vein Thrombosis (DVT)



## Well's Criteria for DVT

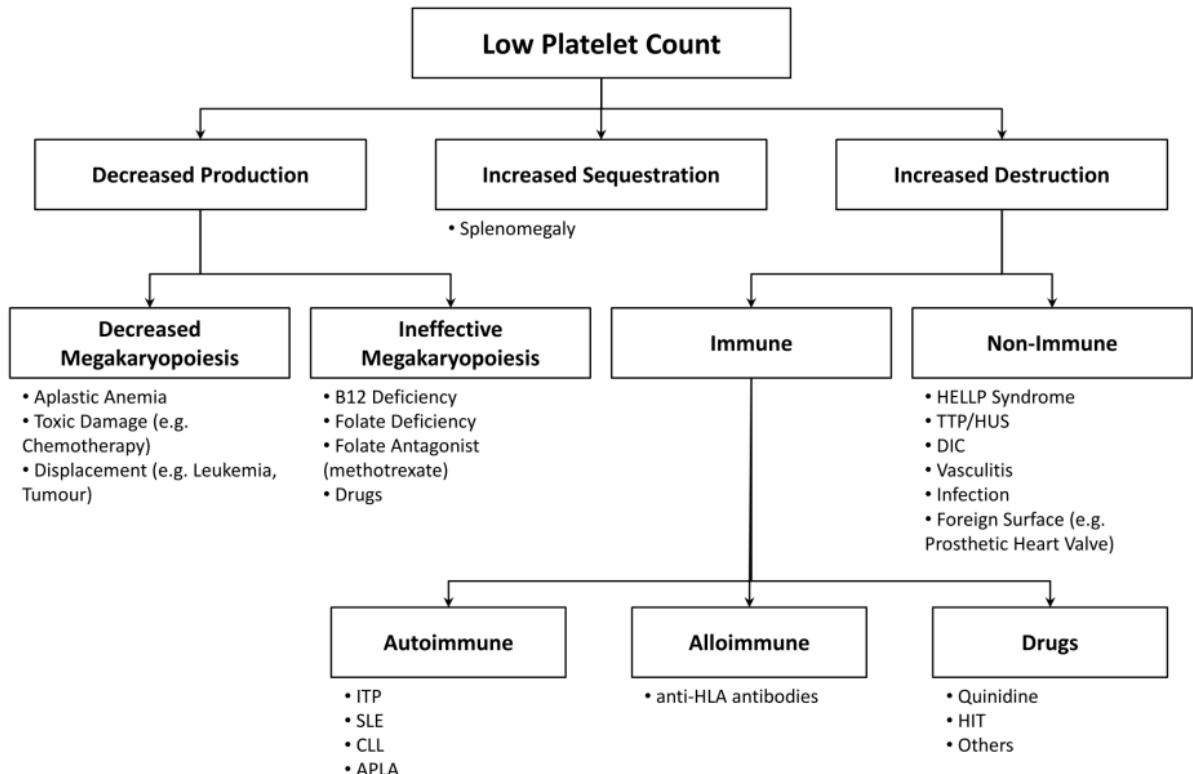
Active Cancer	(1)
Paralysis, paresis, recent immobilization of lower extremity	(1)
Recently bedridden for >3days, or major surgery in last 4 weeks	(1)
Localized tenderness along distribution of the deep venous system	(1)
Entire leg swollen	(1)
Calf swelling by >3cm compared to asymptomatic leg	(1)
Pitting edema (greater in symptomatic leg)	(1)
Collateral, nonvaricose superficial veins	(1)
Alternative diagnosis as or more likely than DVT	(-2)
Previously documented DVT	(1)

# Suspected Pulmonary Embolism (PE)

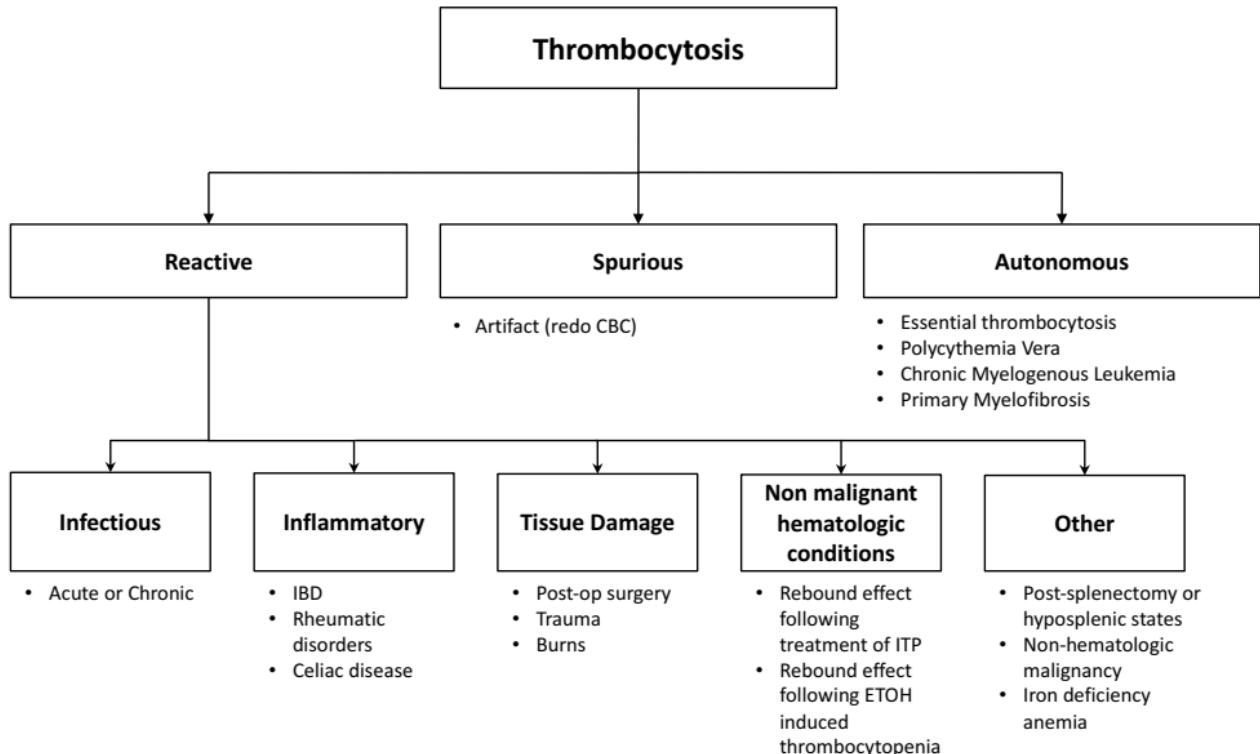


Wells P.S, et al. (2000). Derivation of a simple clinical model to categorize patients probability of pulmonary embolism: increasing the models utility with the SimpliRED D-dimer. *Thromb Haemost* 2003; 83: 416-20.  
Writing Group for the Christopher Study Investigators. (2006). Effectiveness of managing suspected pulmonary embolism using an algorithm combining clinical probability, D-Dimer testing, and computer tomography. *JAMA*;295: 172-179.

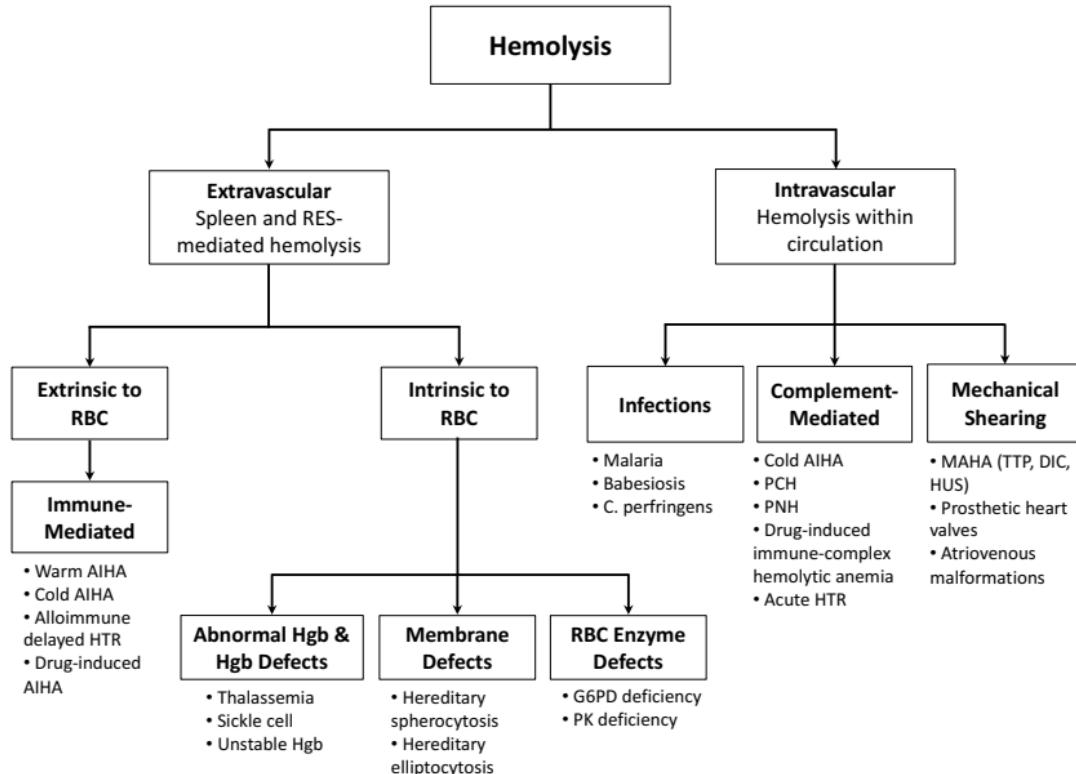
# Thrombocytopenia



# Thrombocytosis



# Hemolysis



# Gastrointestinal

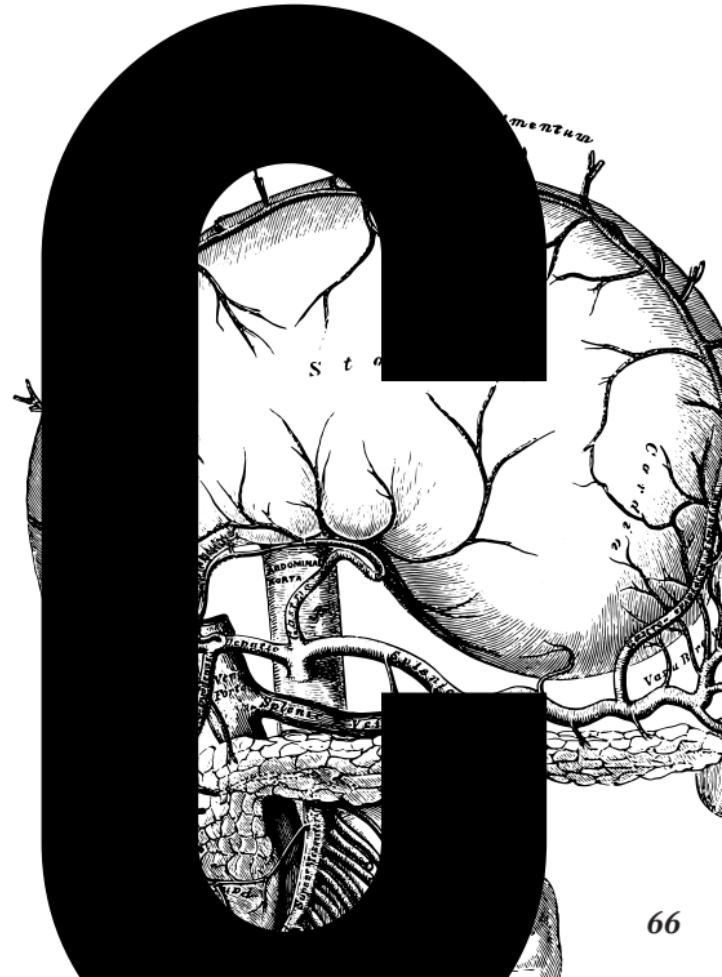
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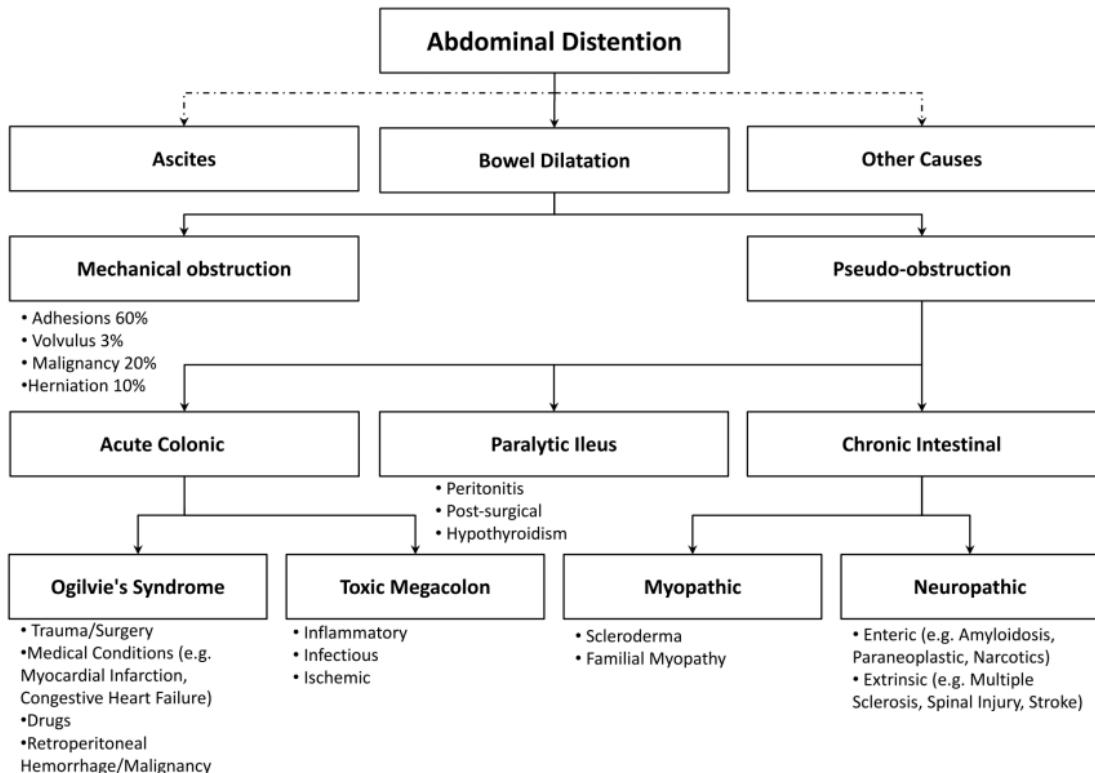
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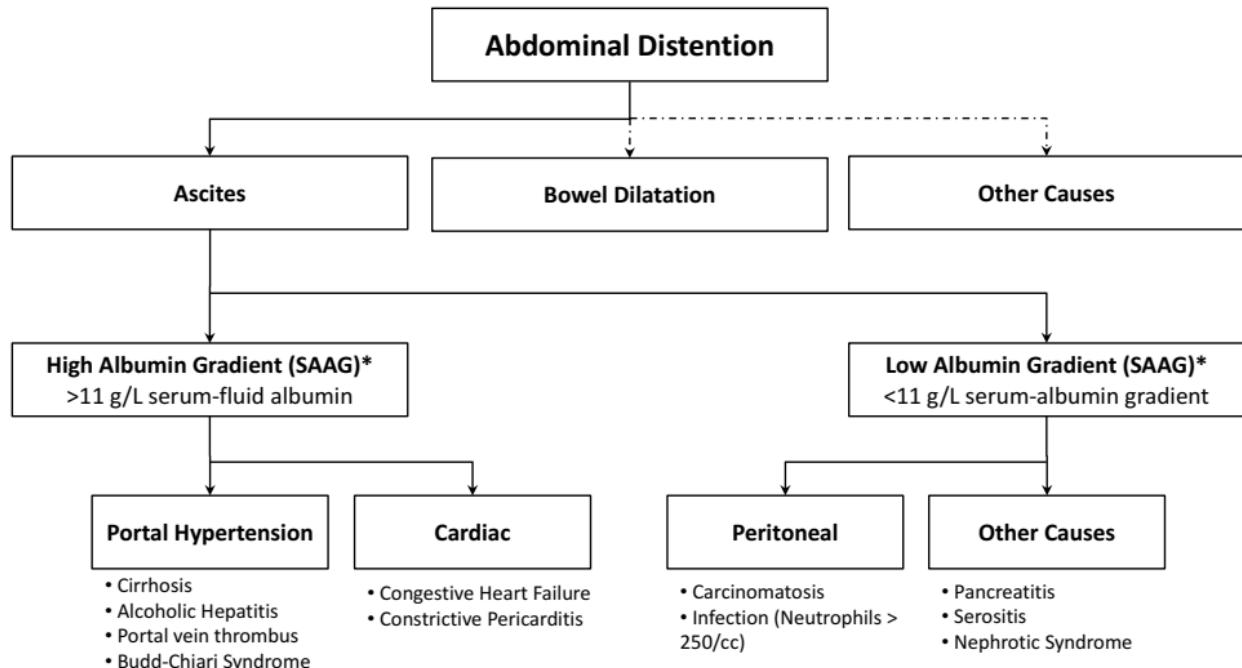


# Abdominal Distention



# Abdominal Distention

Ascites

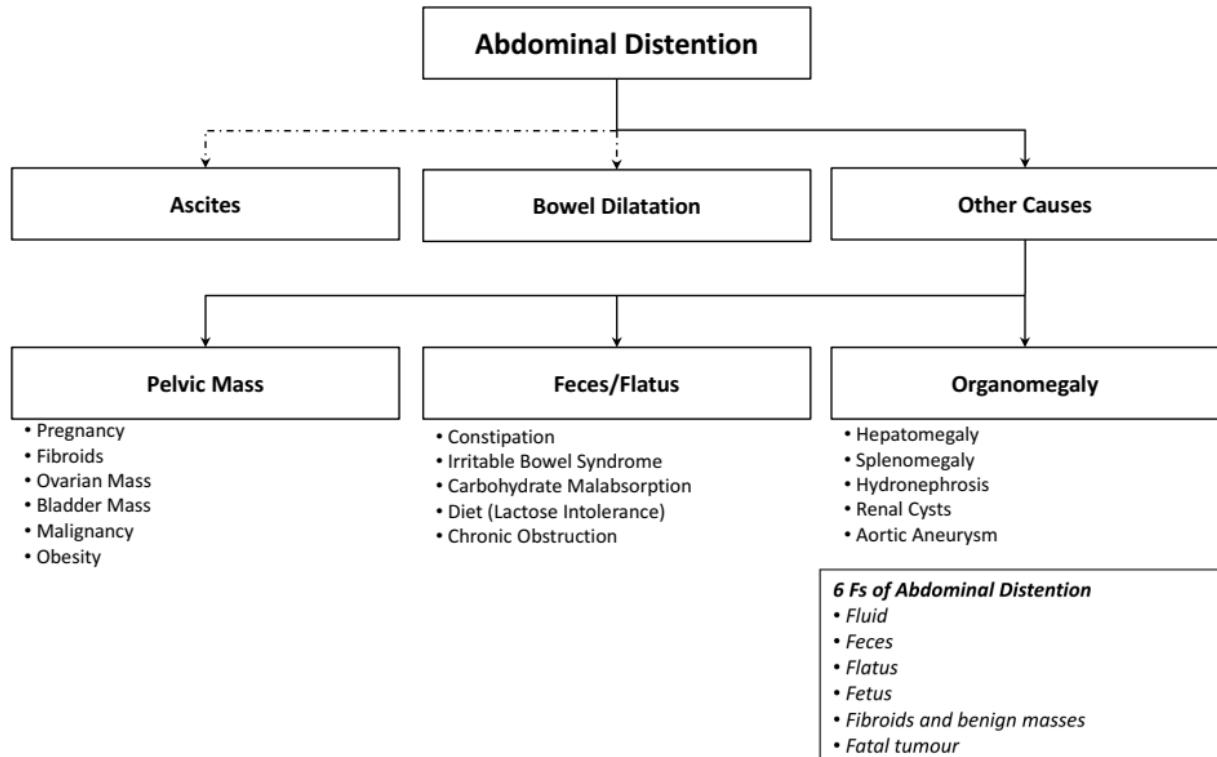


Clinical pearl: "rule of 97": SAAG 97% accurate. If high SAAG, 97% of time it is cirrhosis/portal hypertension. If low SAAG, 97% time carcinomatosis (and cytology 97% sensitive)

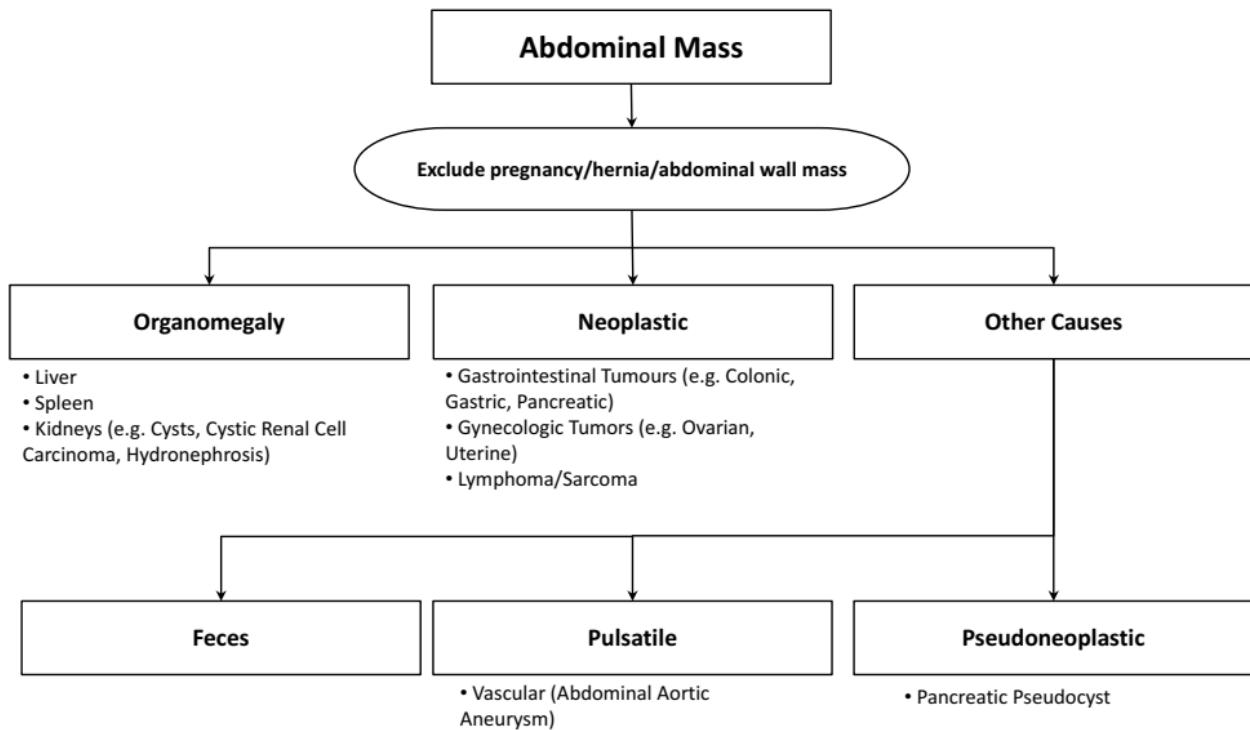
\*Serum Ascites Albumin Gradient (SAAG) = [Serum albumin] – [Peritoneal fluid albumin]

# Abdominal Distention

## Other Causes

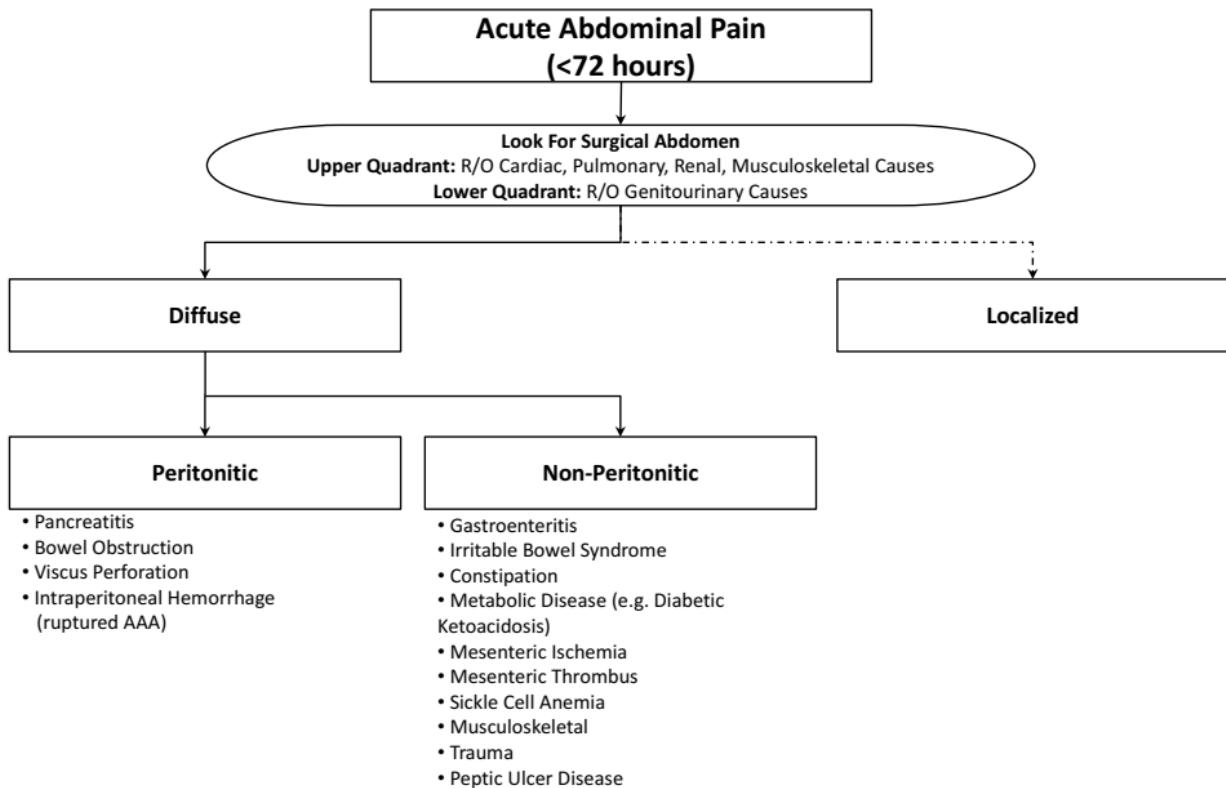


# Abdominal Mass



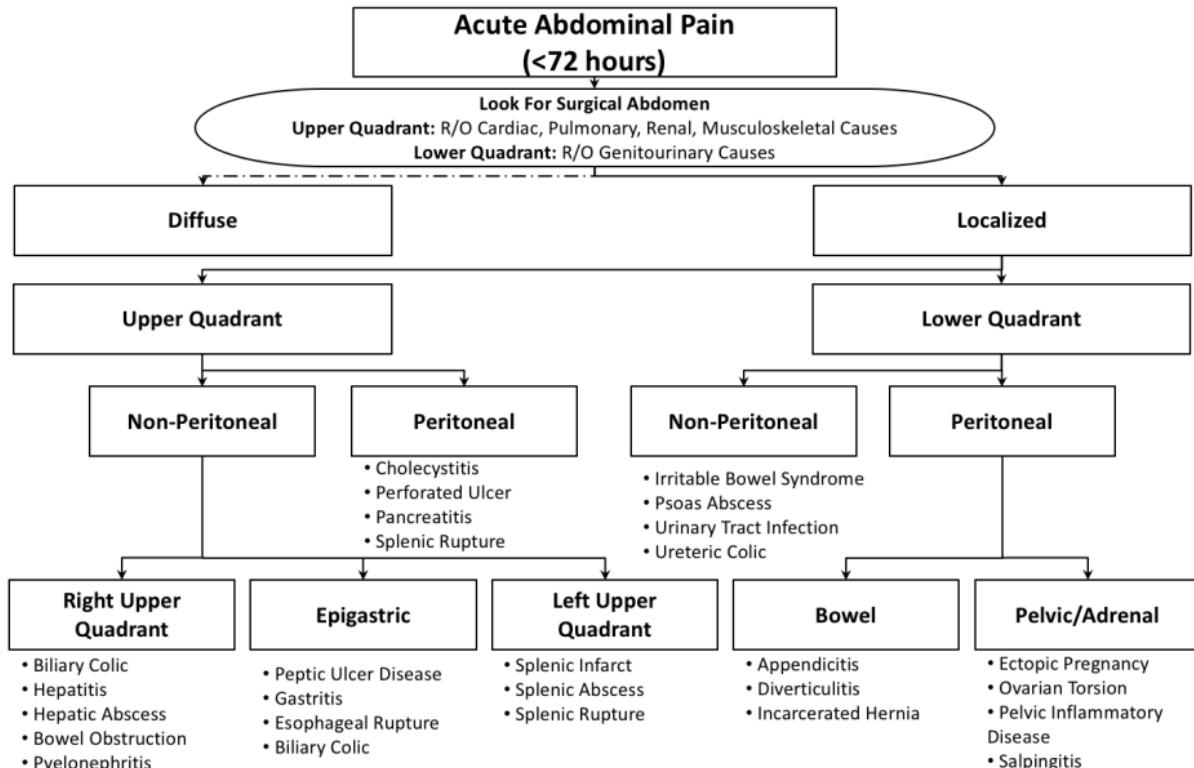
# Abdominal Pain (Adult)

Acute - Diffuse



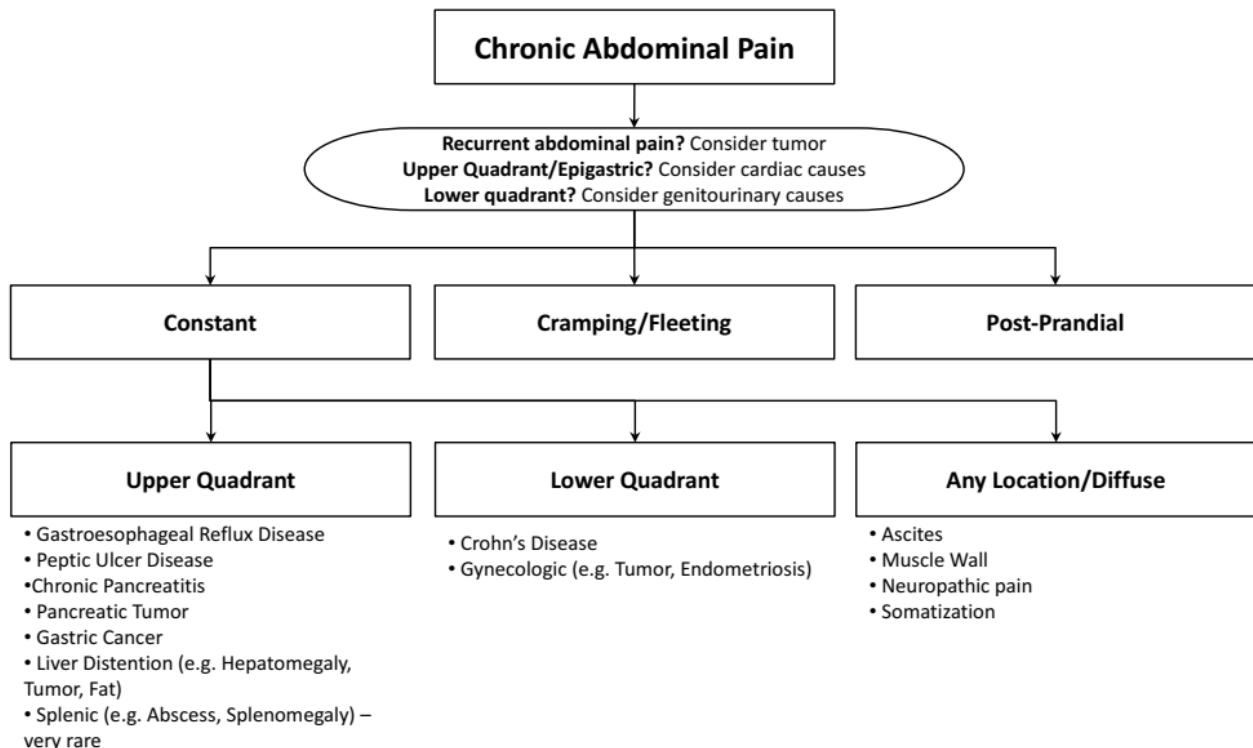
# Abdominal Pain (Adult)

Acute - Localized



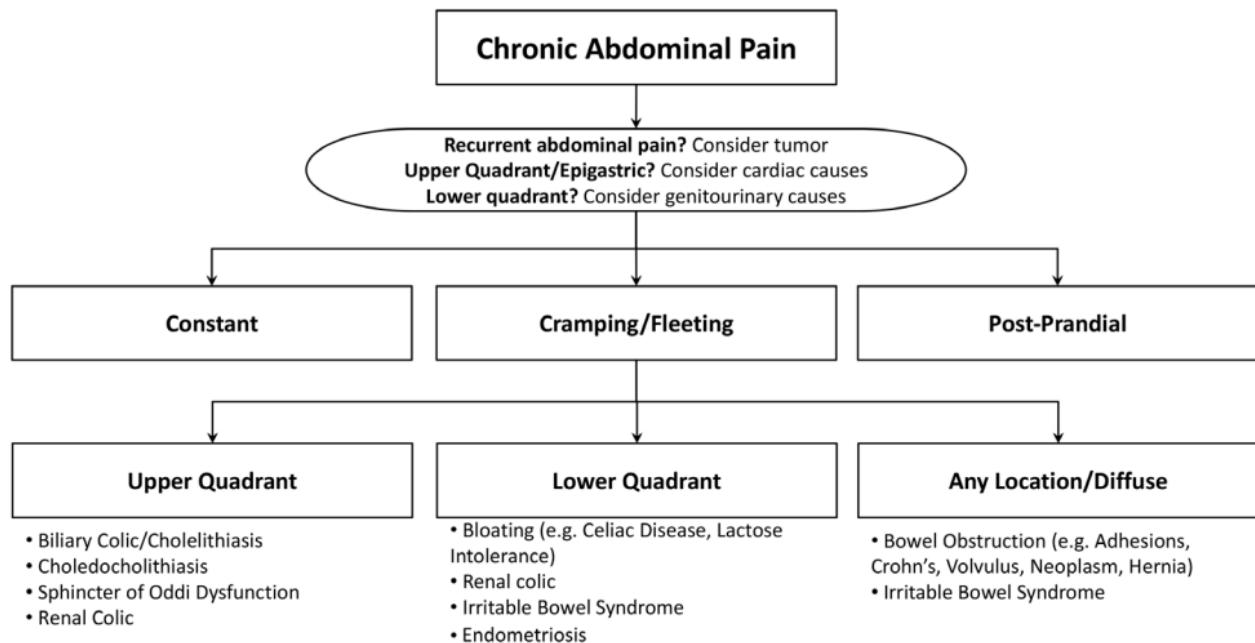
# Abdominal Pain (Adult)

Chronic - Constant



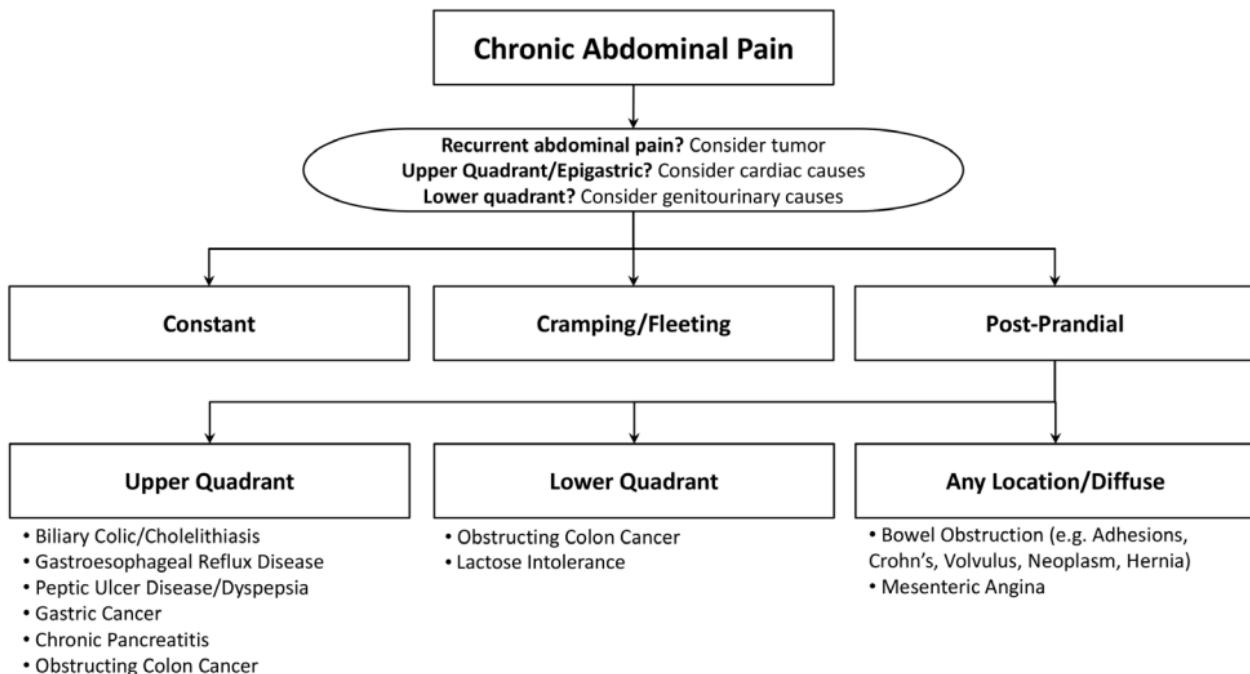
# Abdominal Pain (Adult)

Chronic - Crampy / Fleeting

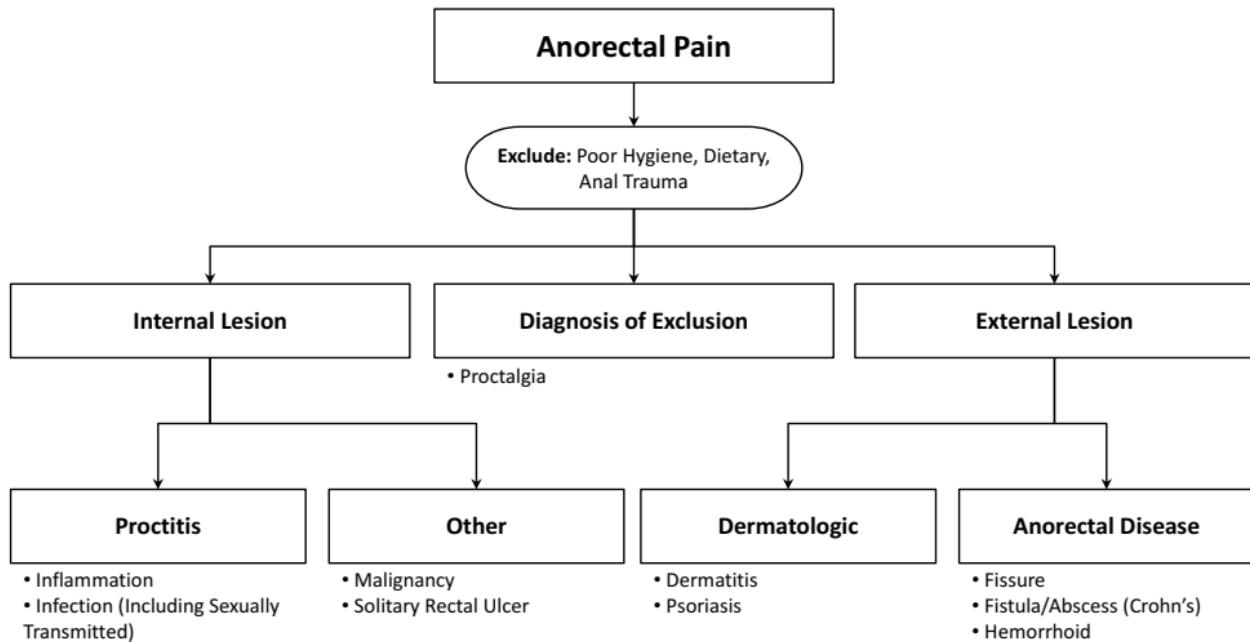


# Abdominal Pain (Adult)

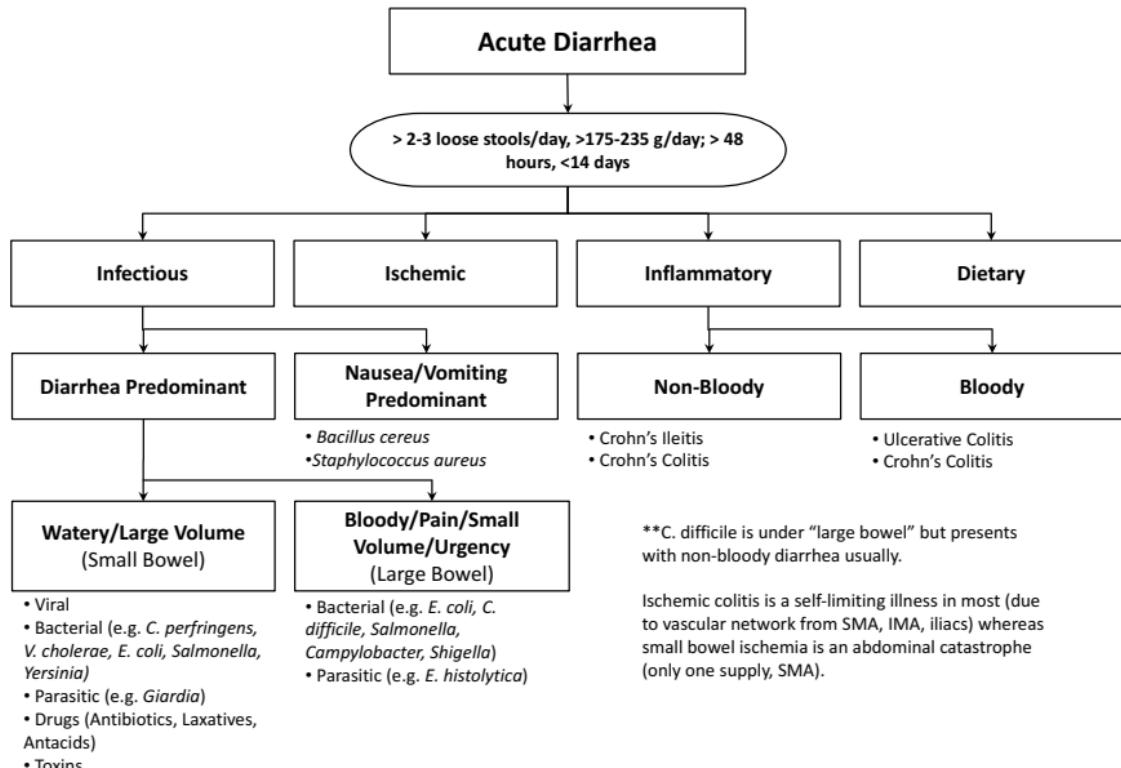
Chronic - Post-Prandial



# Anorectal Pain

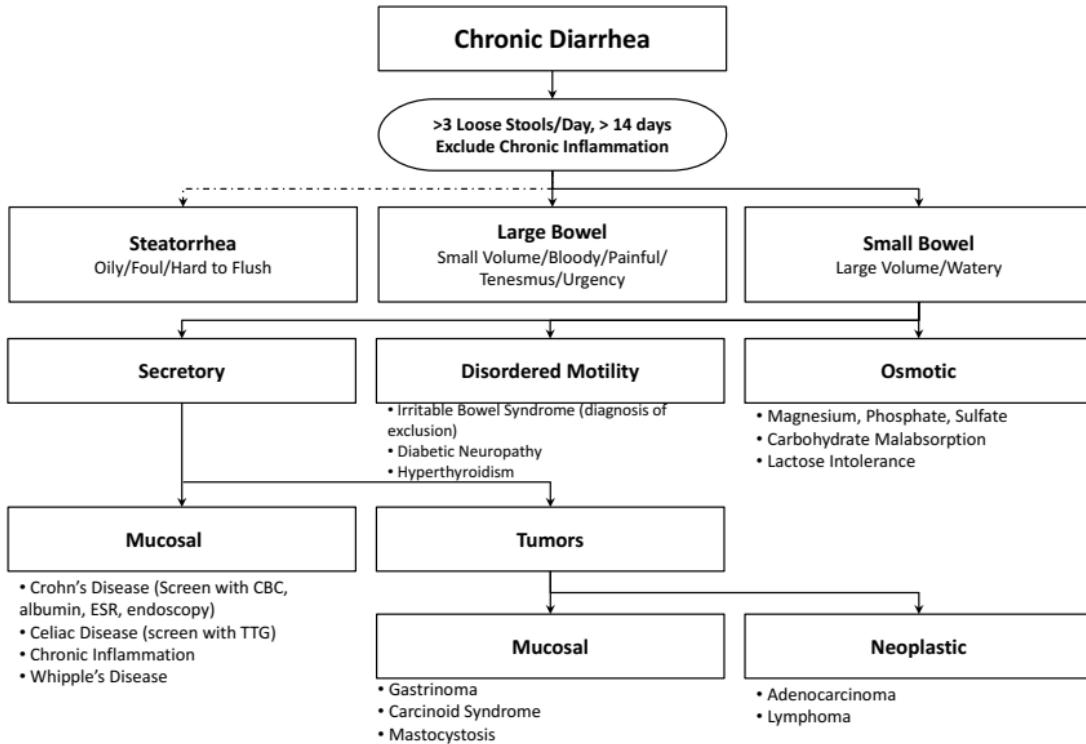


# Acute Diarrhea



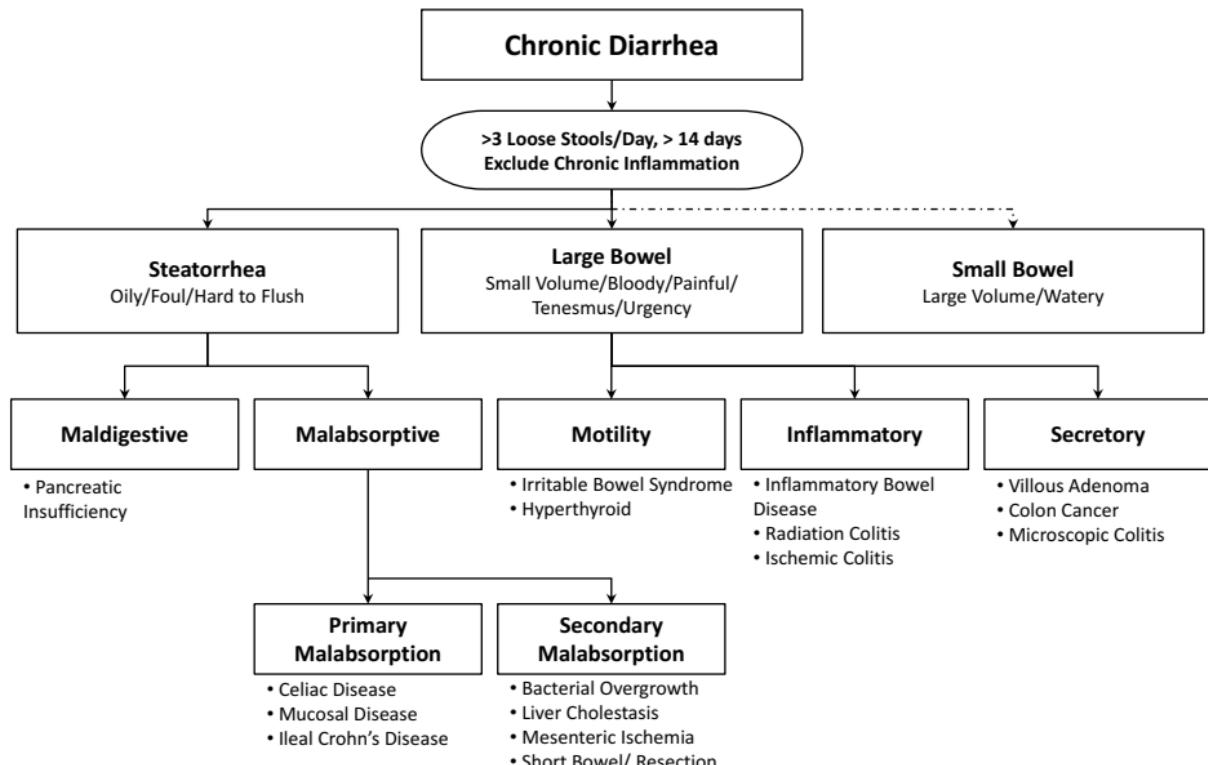
# Chronic Diarrhea

Small Bowel



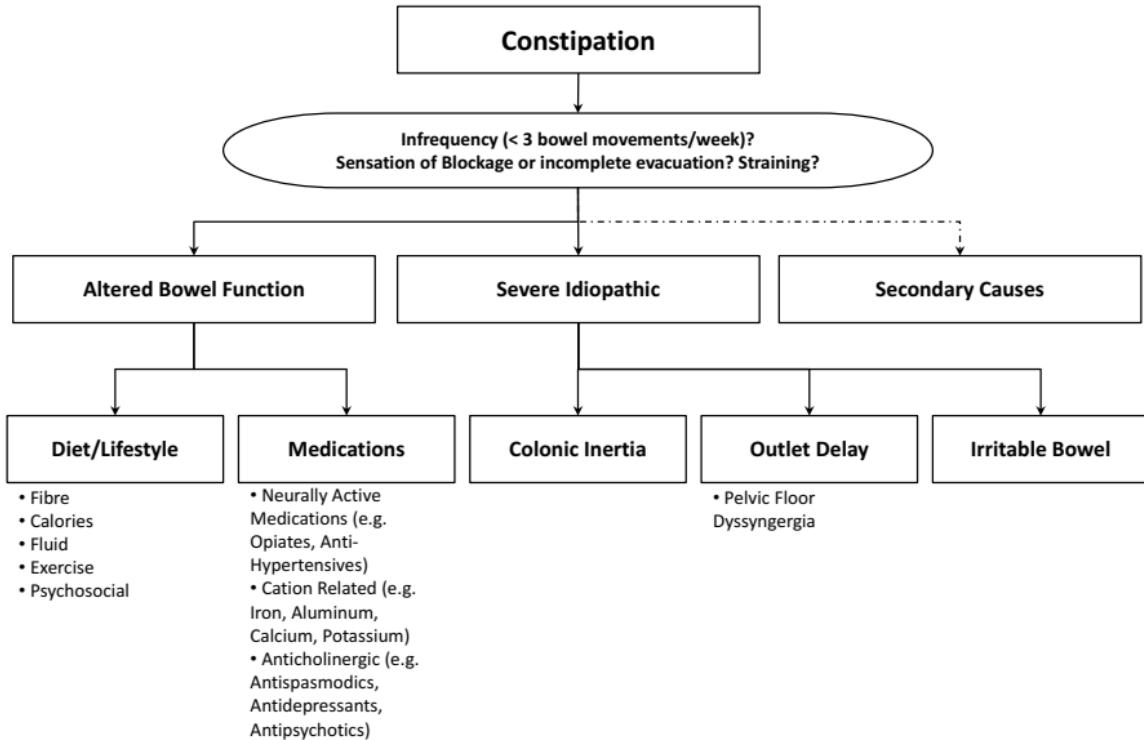
# Chronic Diarrhea

Steatorrhea & Large Bowel



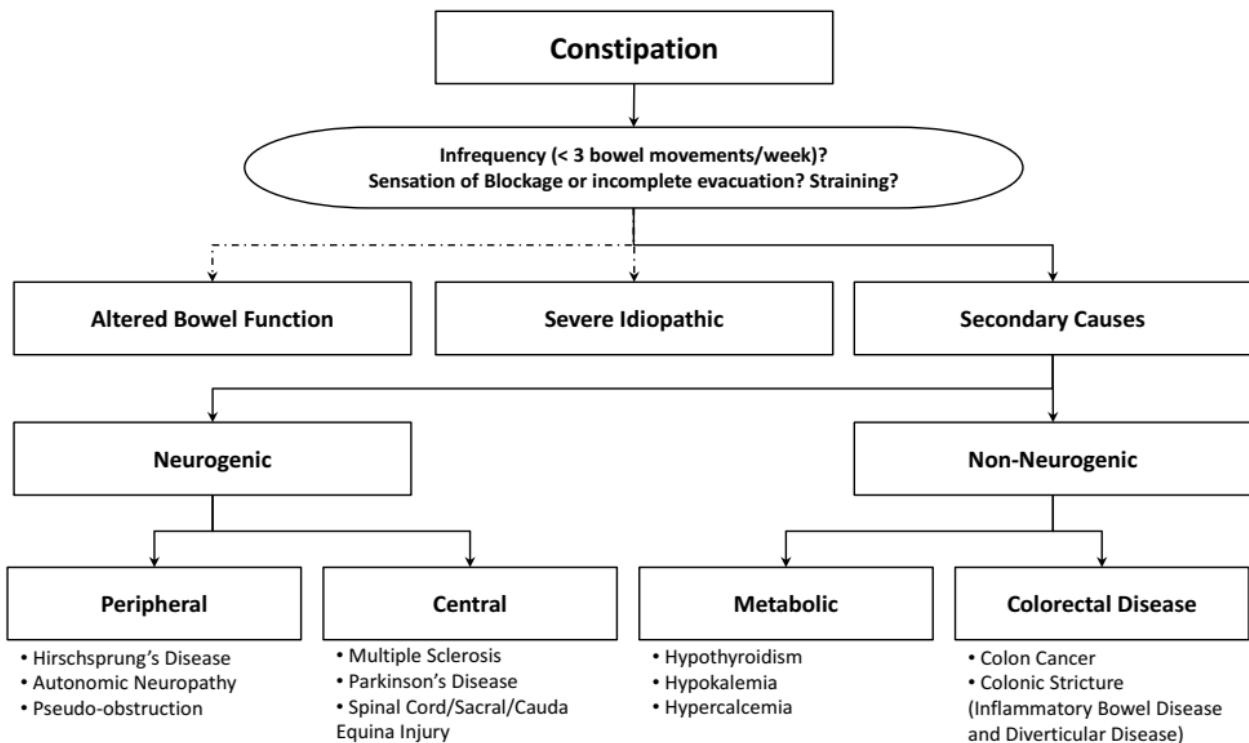
# Constipation (Adult)

Altered Bowel Function & Idiopathic

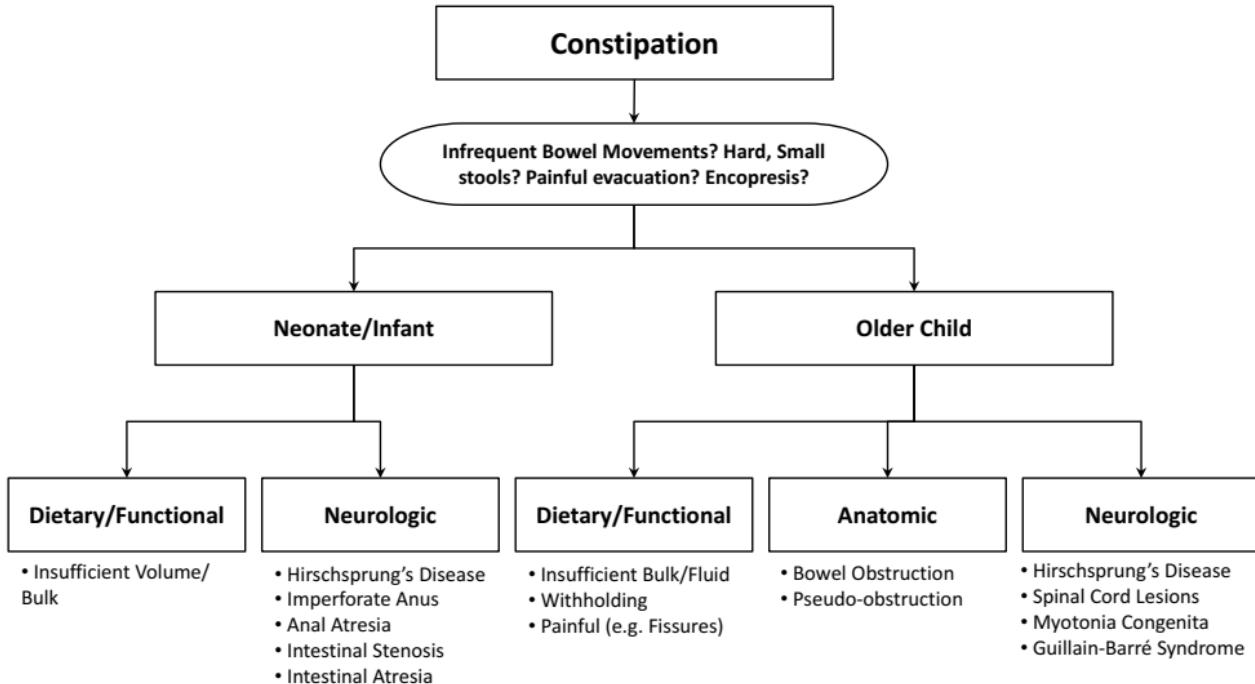


# Constipation (Adult)

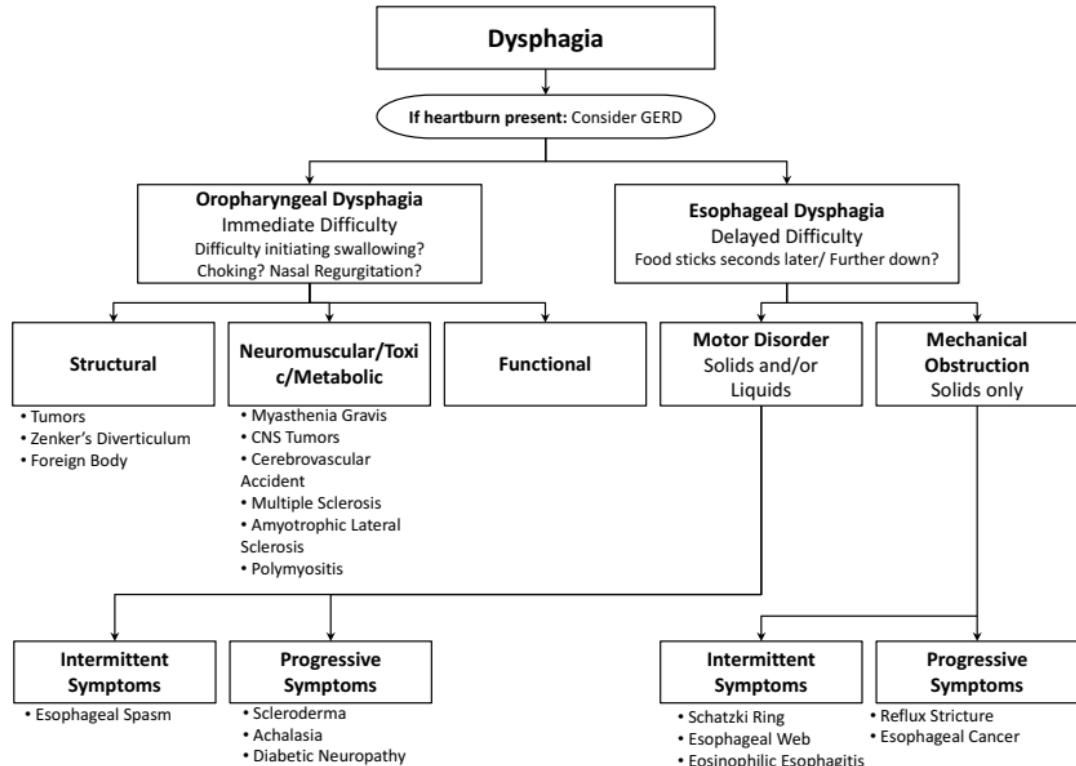
## Secondary Causes



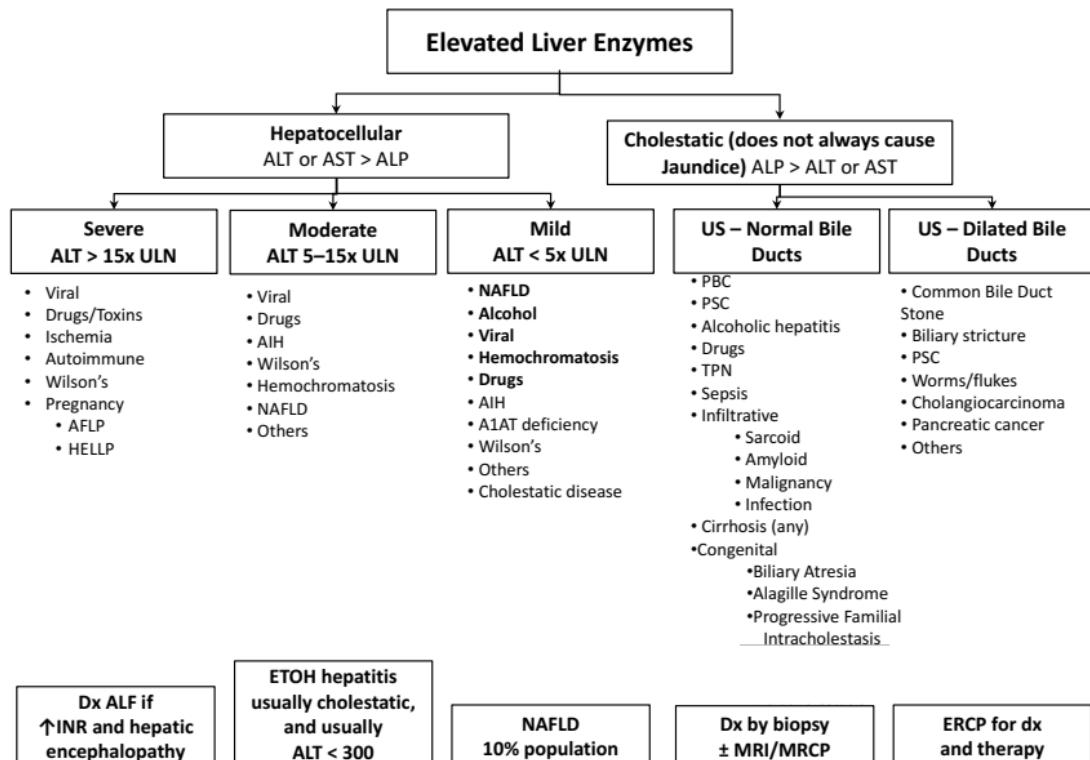
# Constipation (Pediatric)



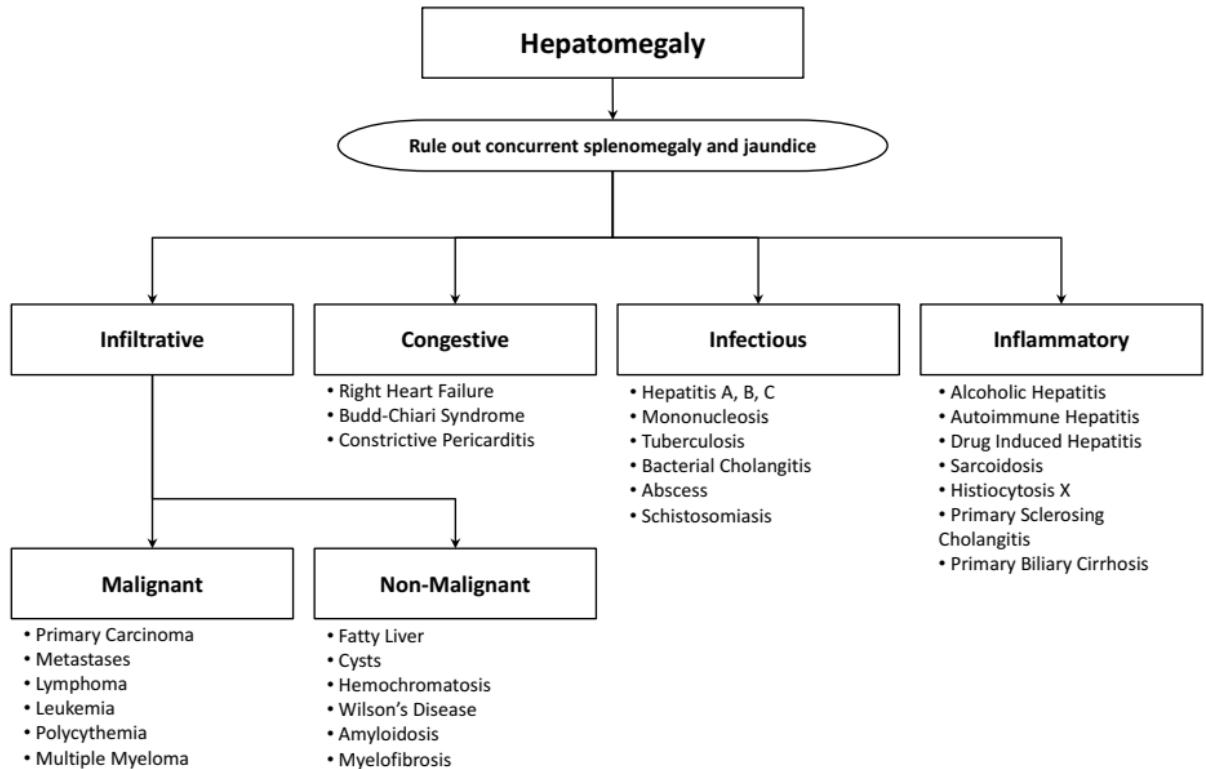
# Dysphagia



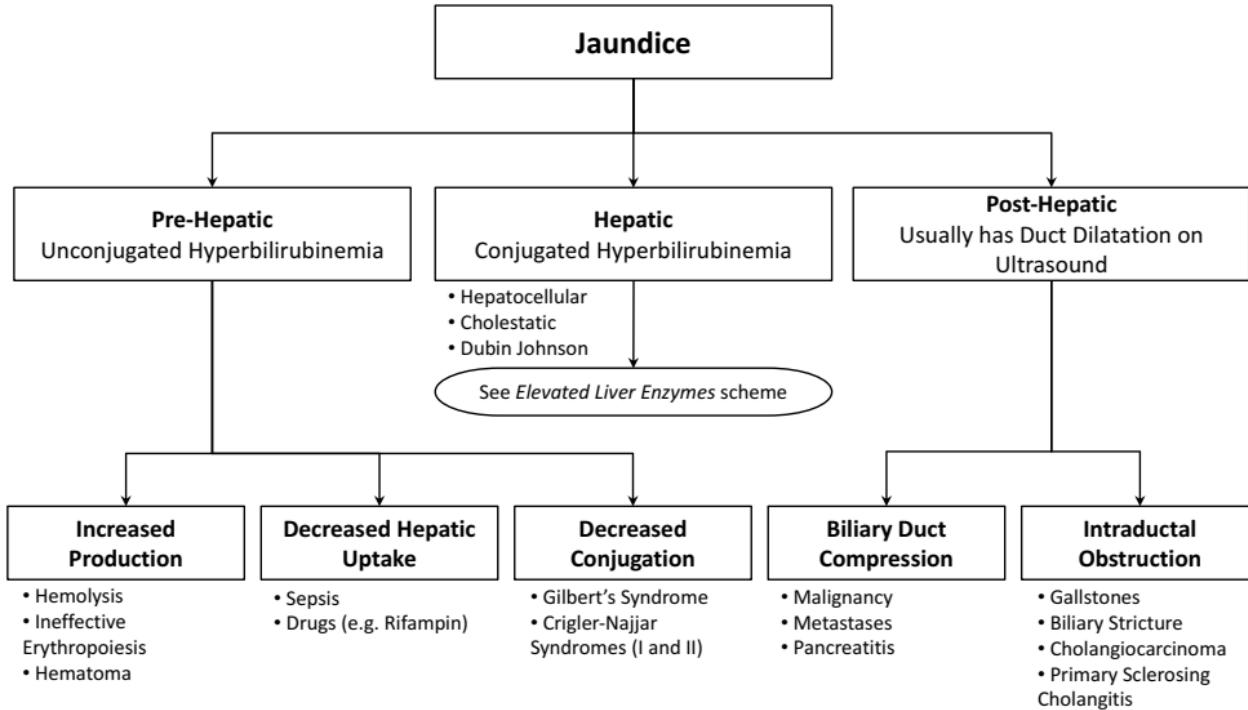
# Elevated Liver Enzymes



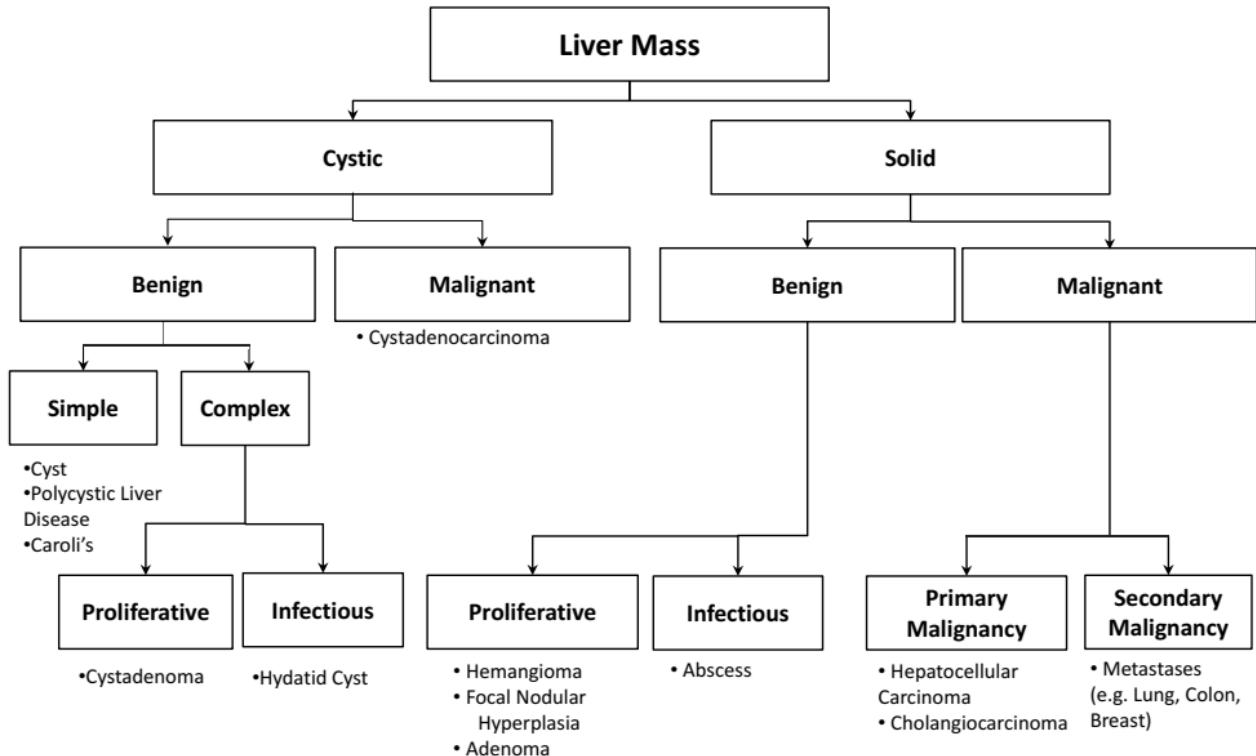
# Hepatomegaly



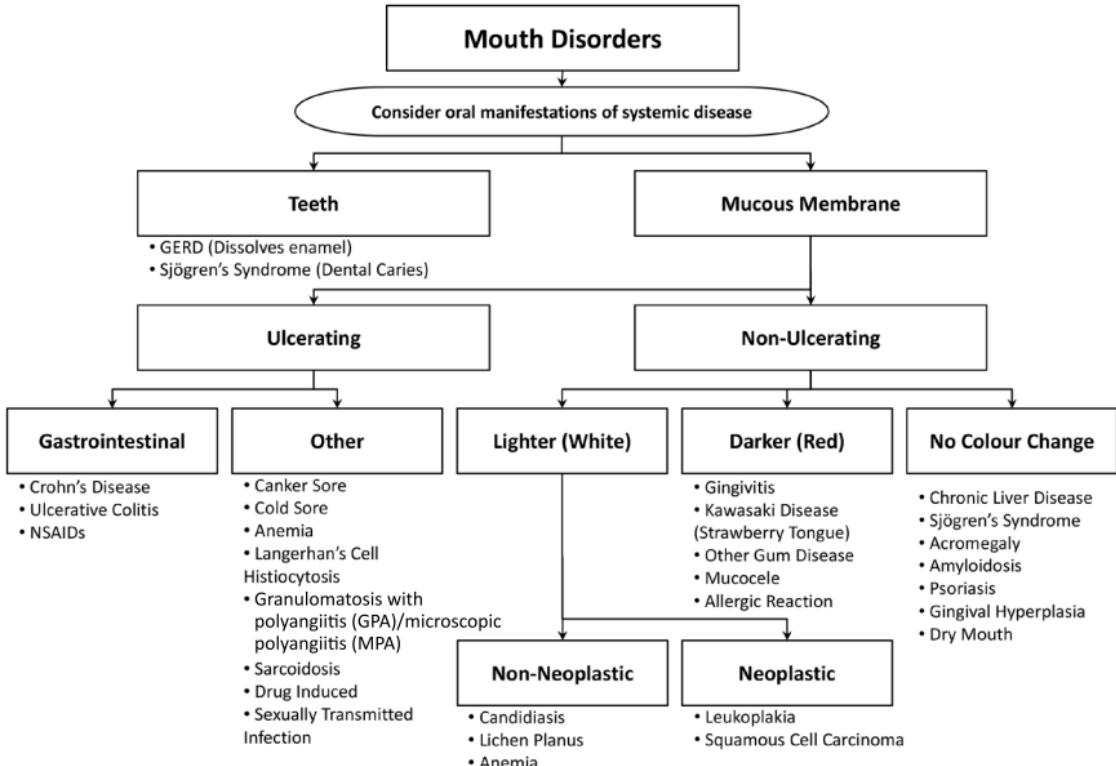
# Jaundice



# Liver Mass

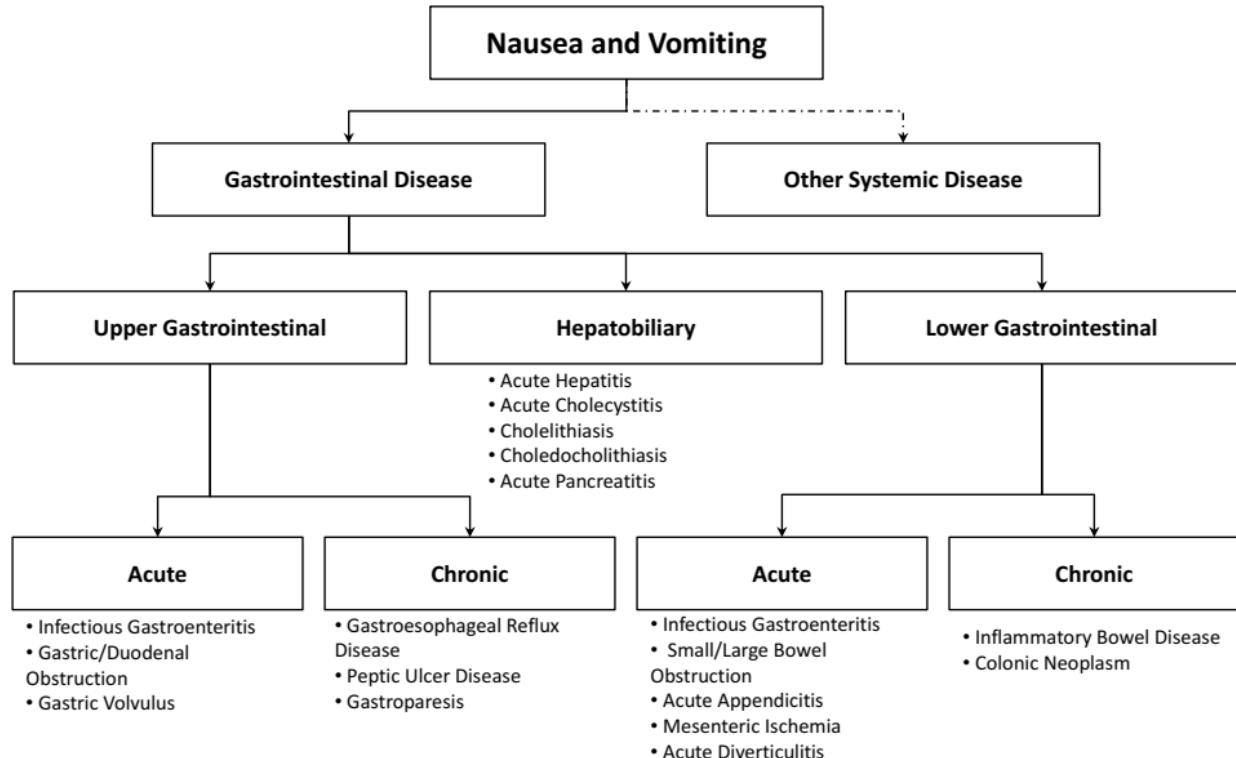


# Mouth Disorders (Adult & Elderly)



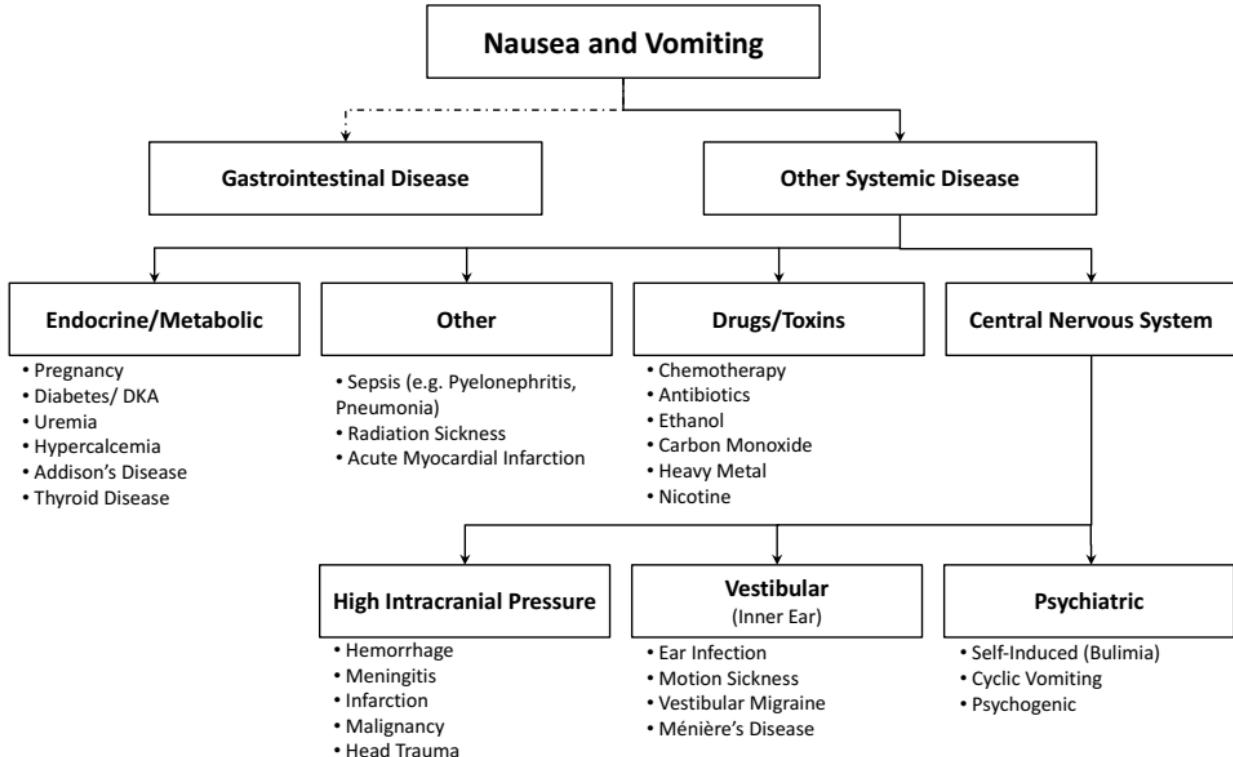
# Nausea & Vomiting

## Gastrointestinal Disease

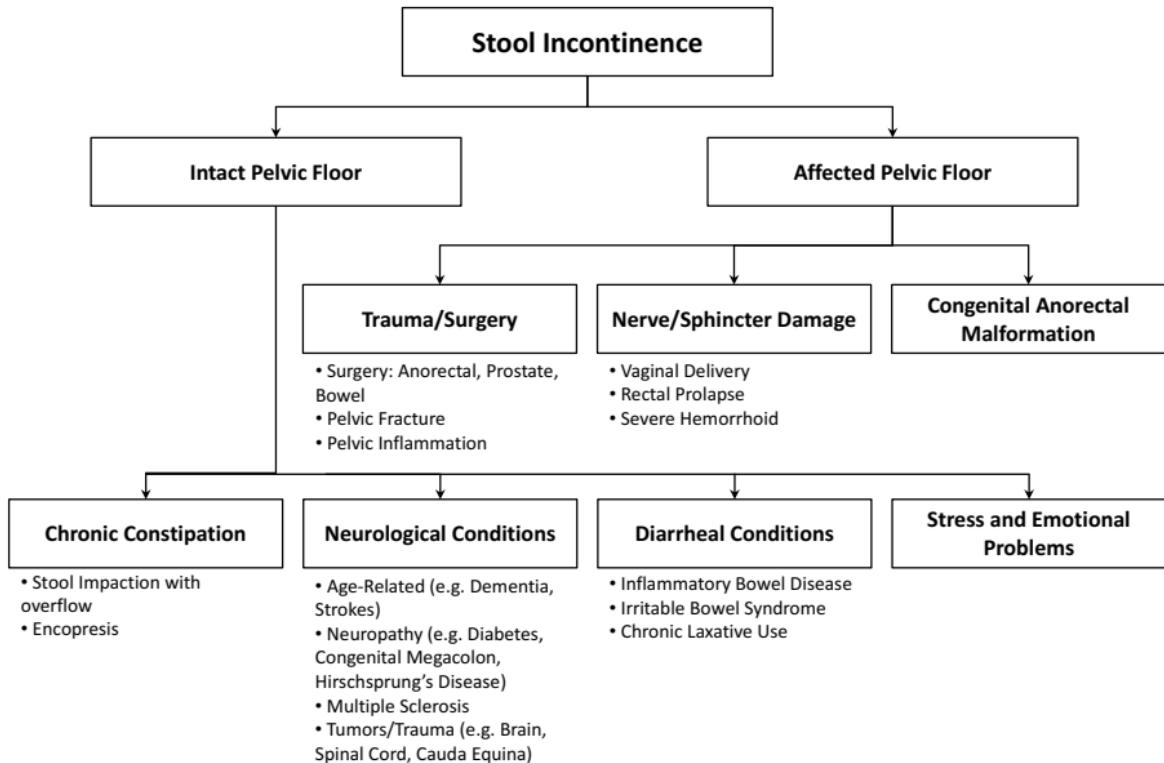


# Nausea & Vomiting

Other Systemic Disease

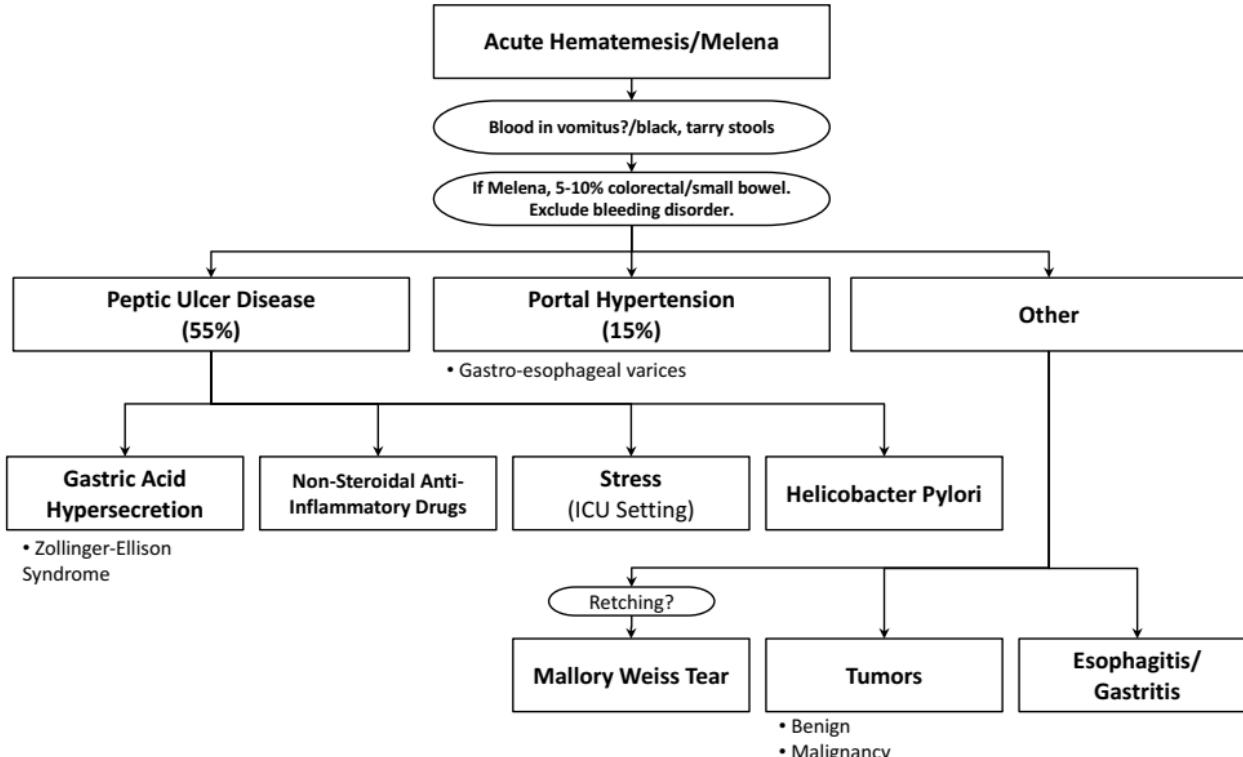


# Stool Incontinence

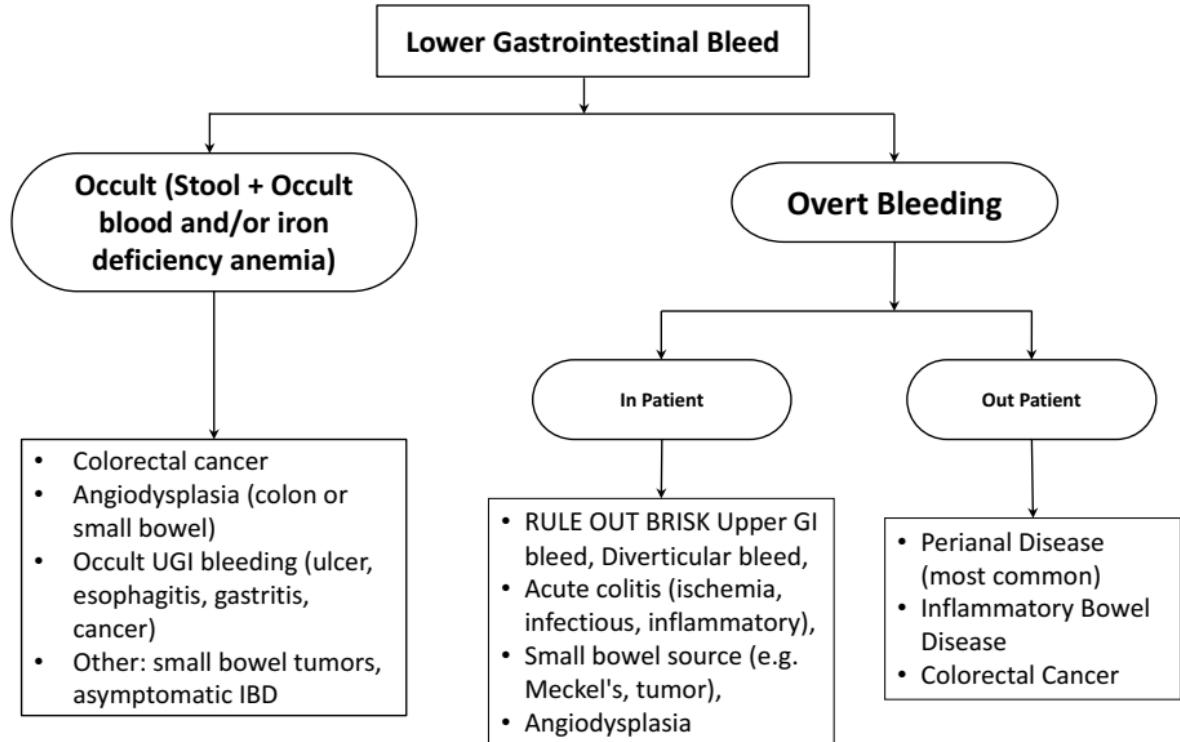


# Upper Gastronintestinal Bleed

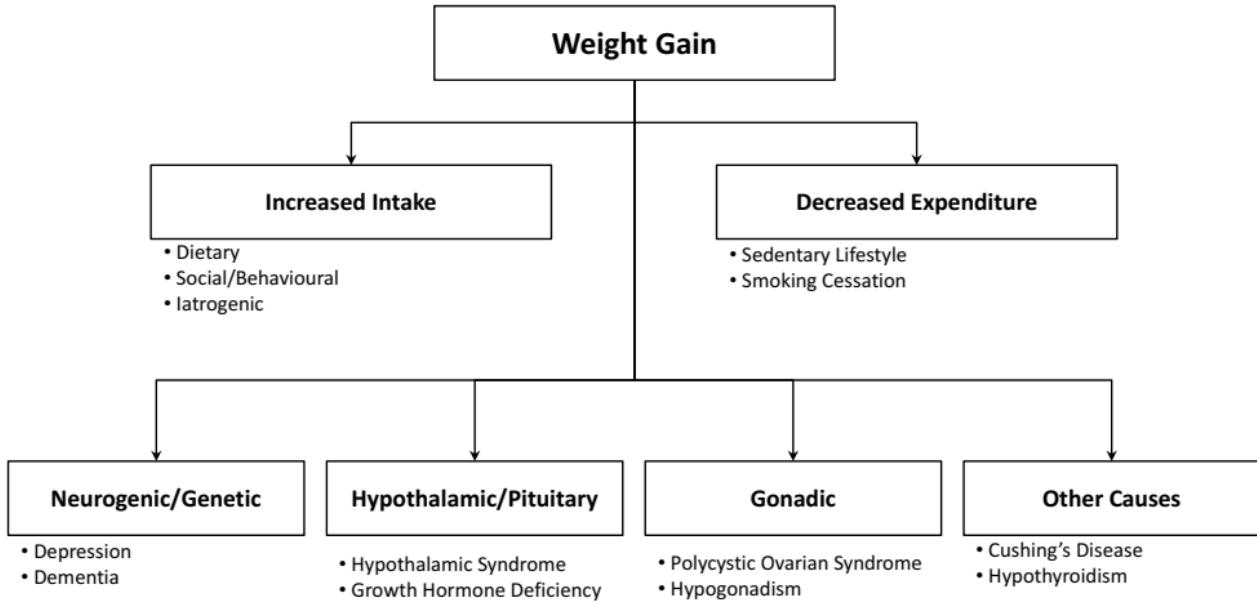
(Hematemesis / Melena)



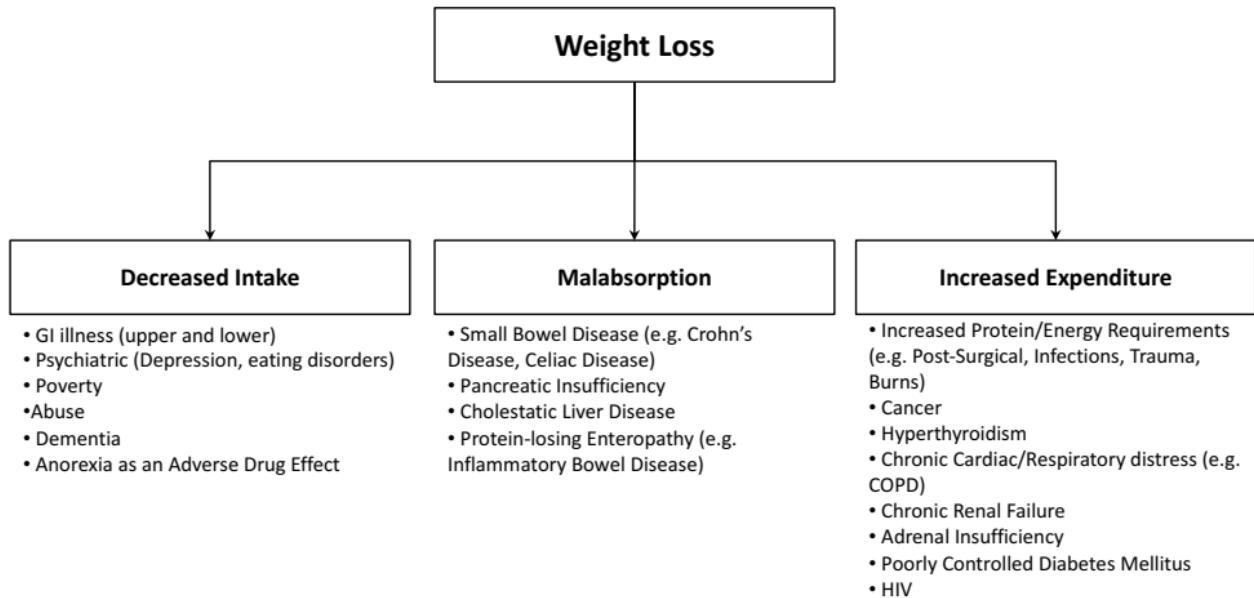
# Lower Gastrointestinal Bleed



# Weight Gain



# Weight Loss





# Renal

---

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***Historical Editors***

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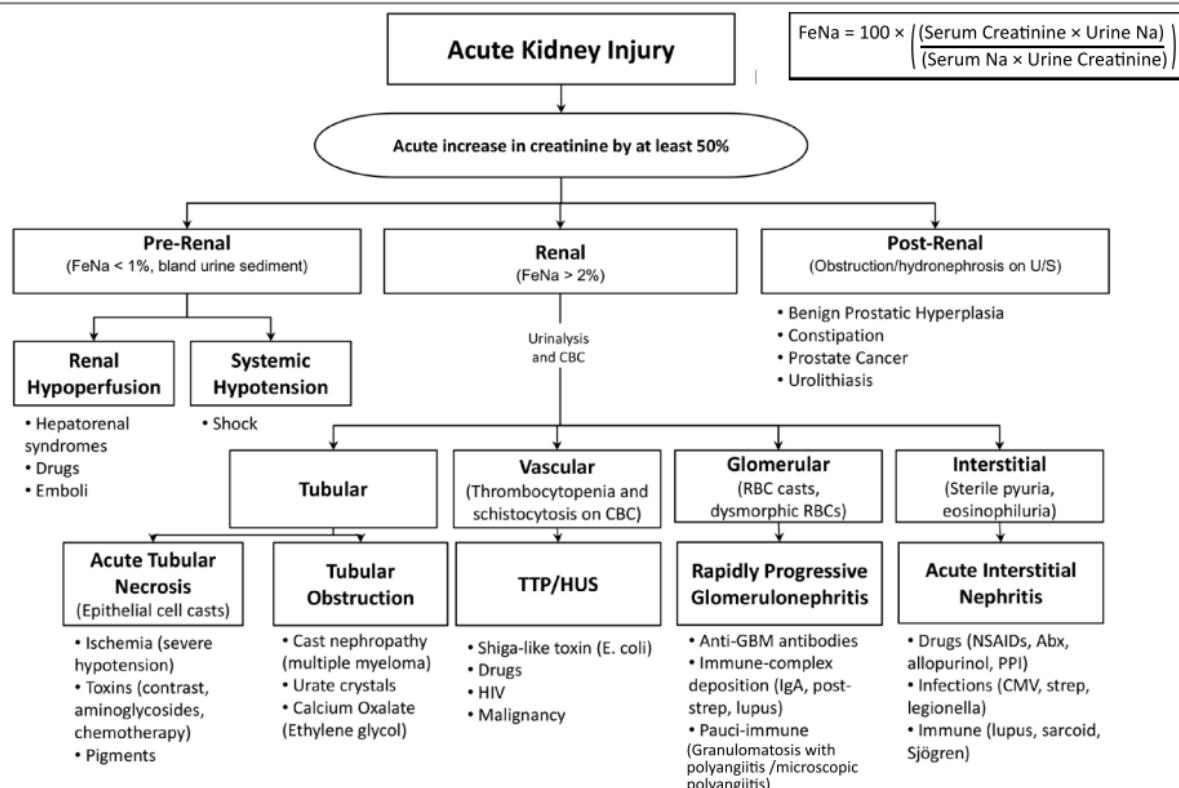
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Mark Elliot (*Co-editor*)

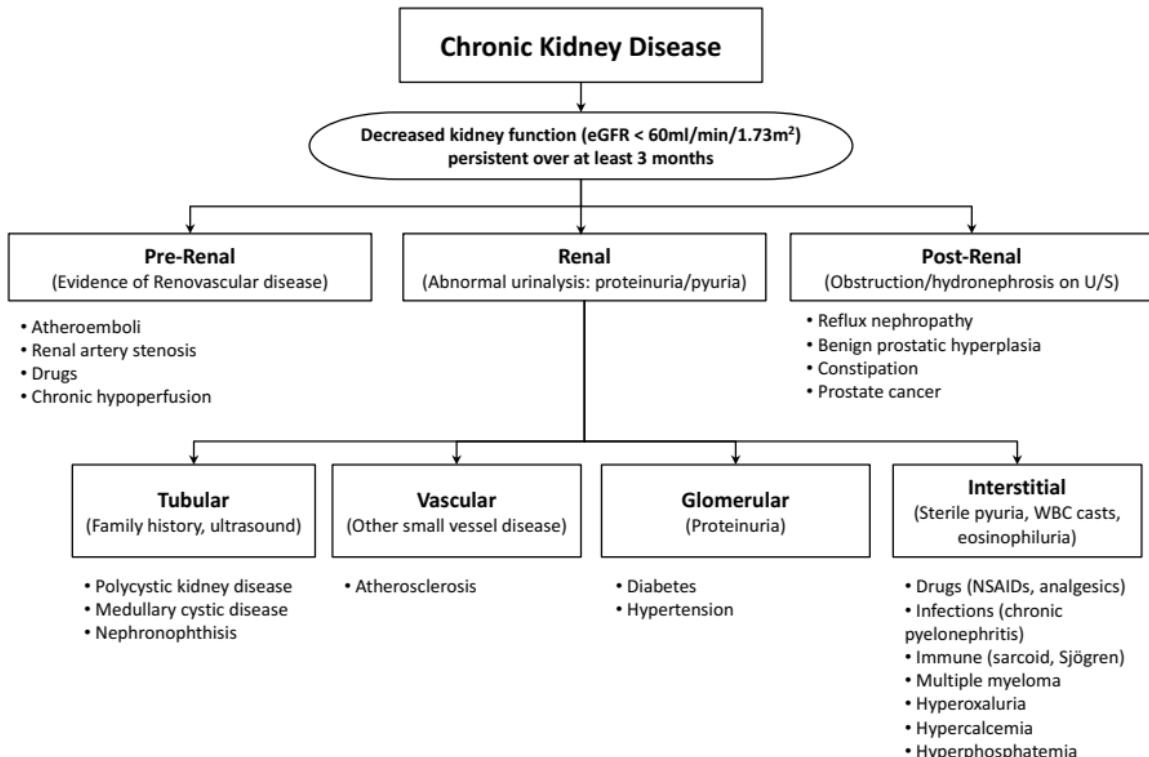
***Faculty Editor***

Dr. Kevin McLaughlin

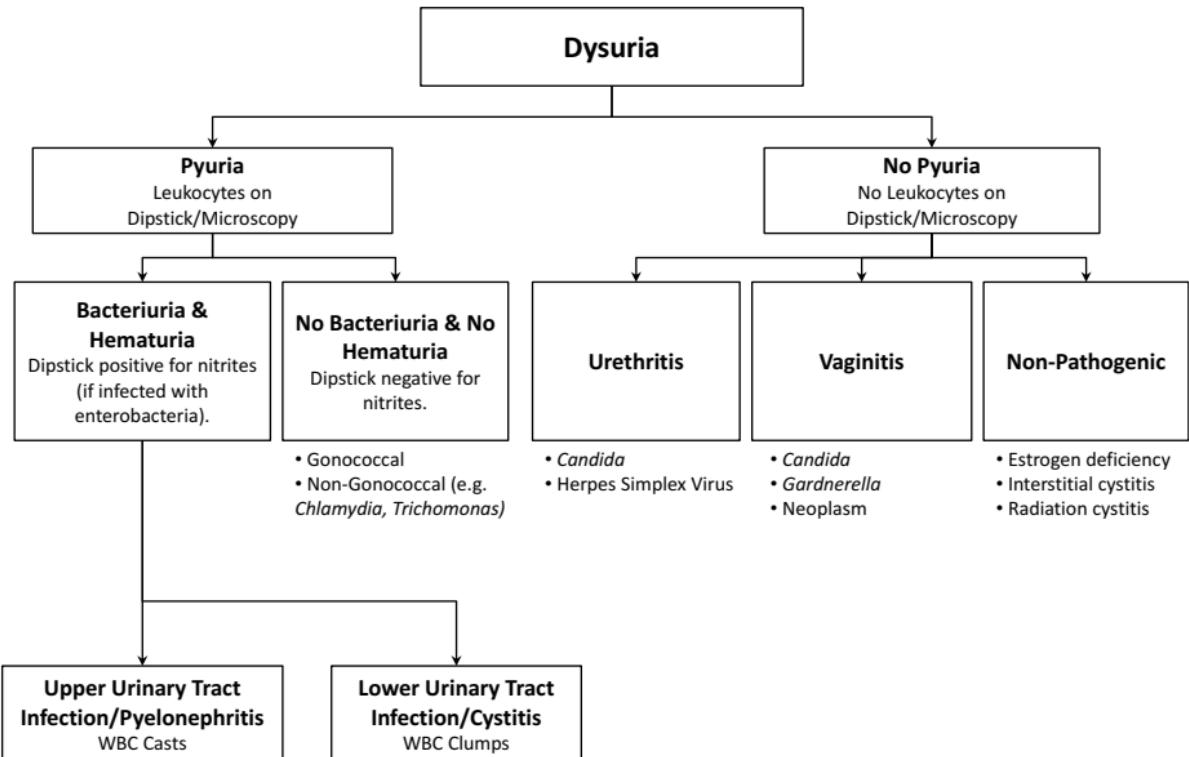
# Acute Kidney Injury



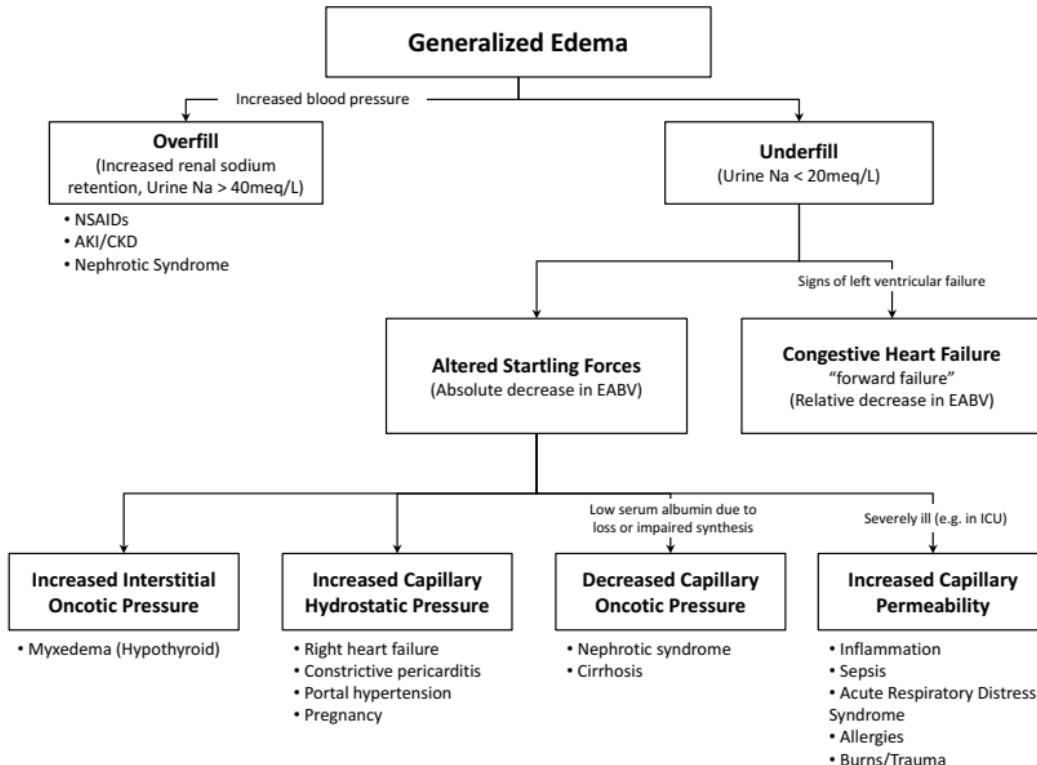
# Chronic Kidney Disease



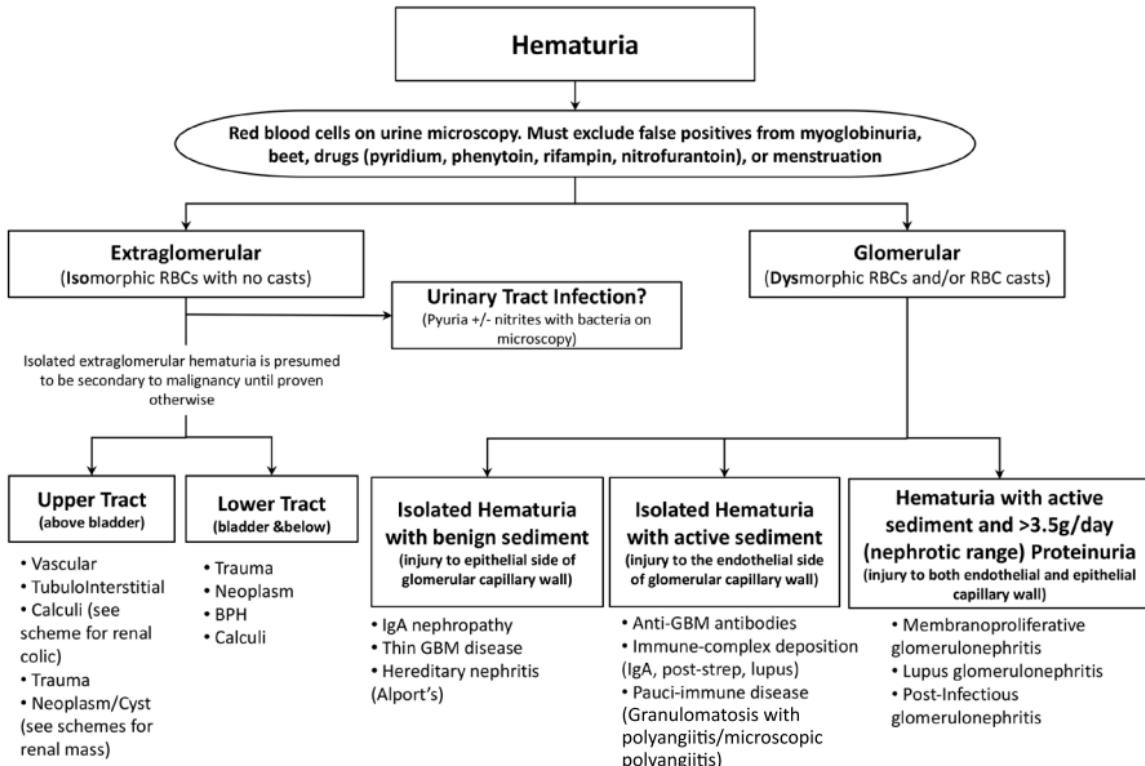
# Dysuria



# Generalized Edema

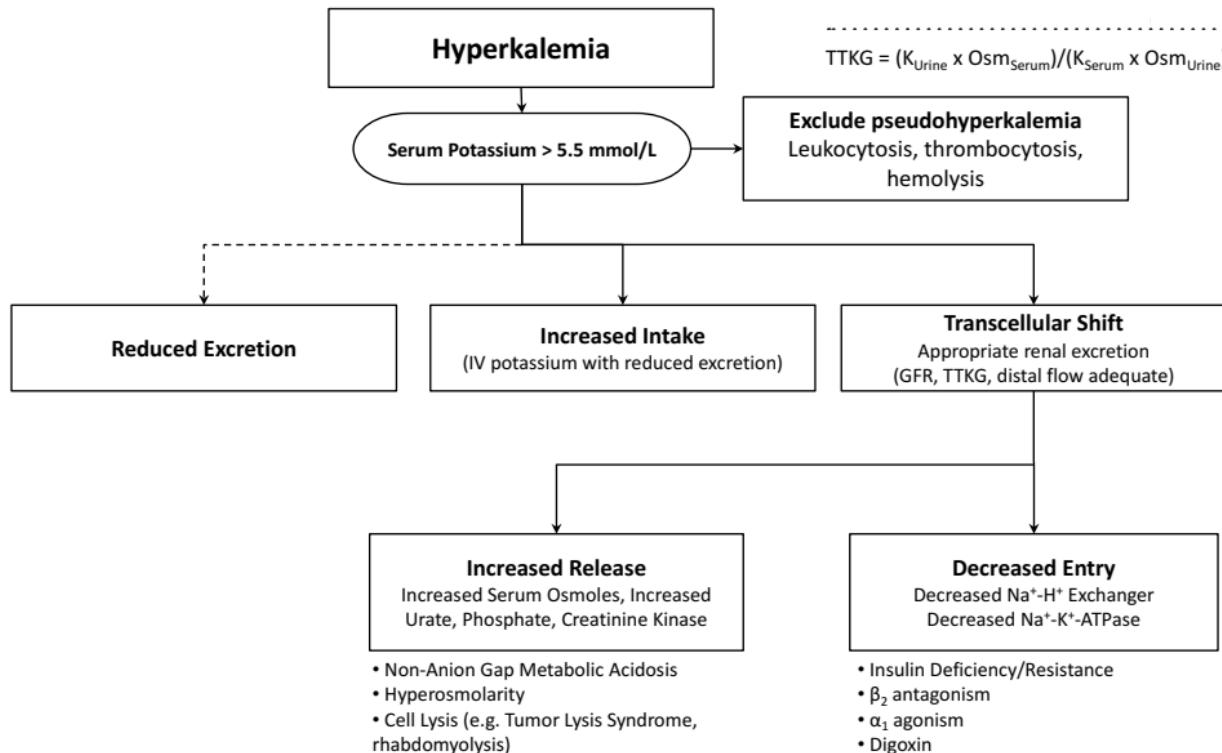


# Hematuria



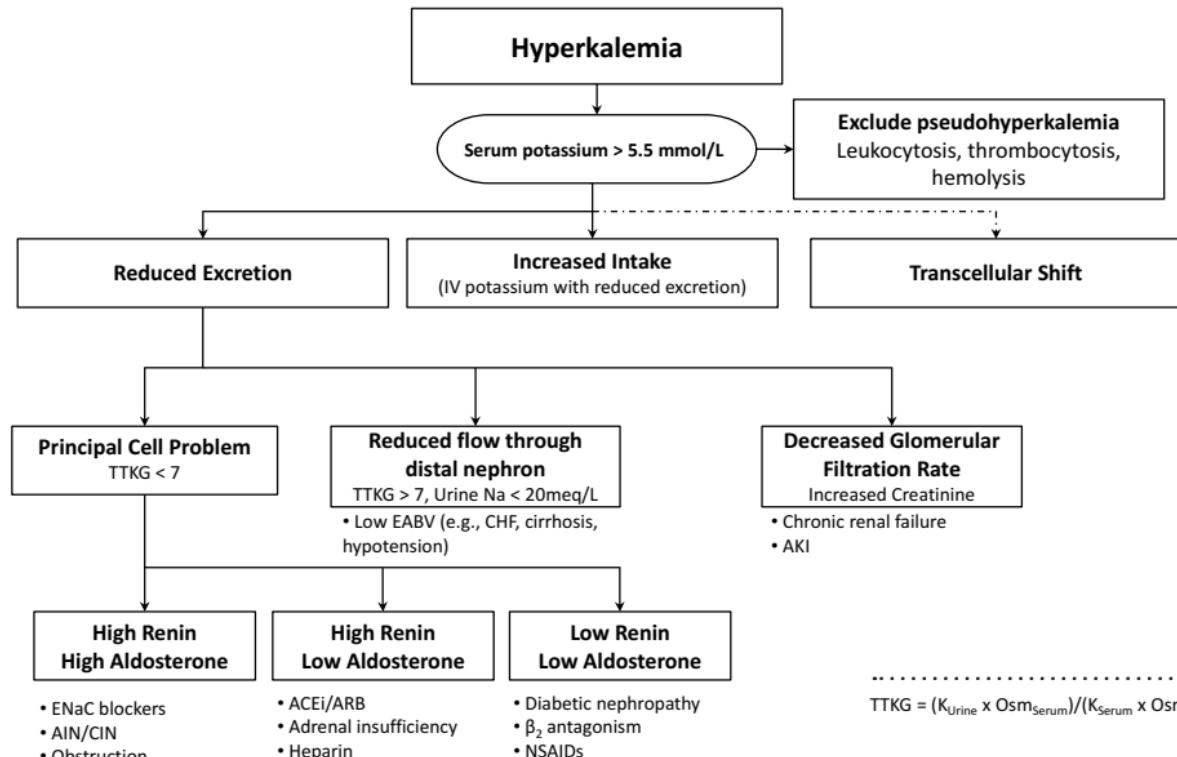
# Hyperkalemia

Intercellular Shift

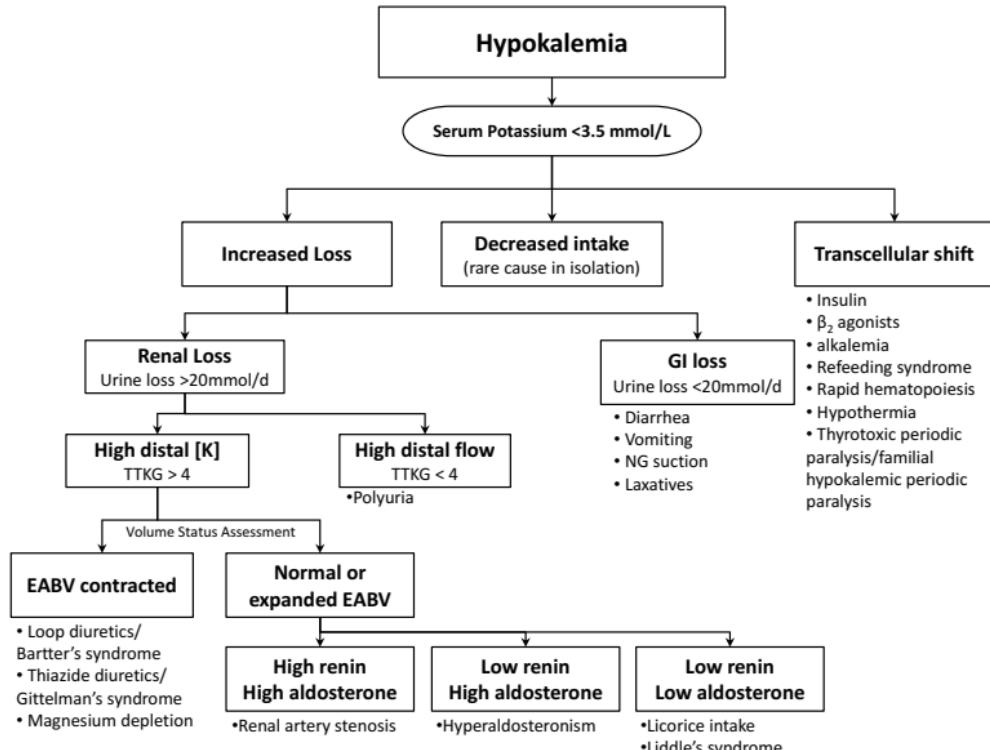


# Hyperkalemia

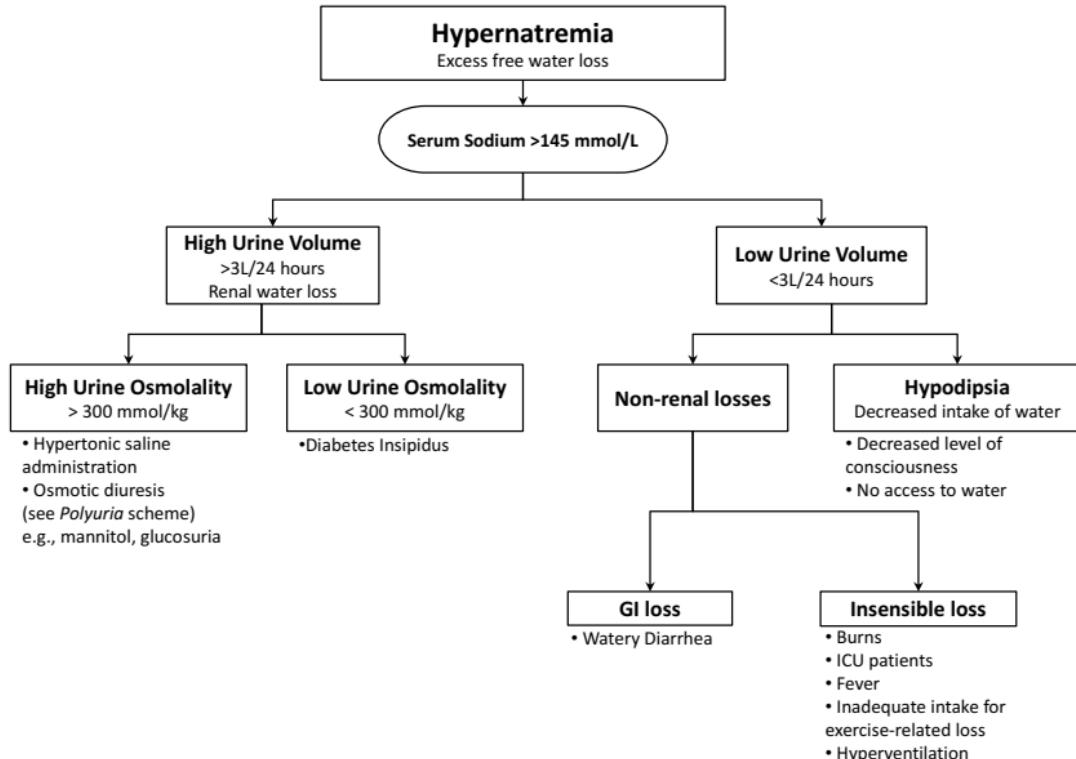
Reduced Excretion



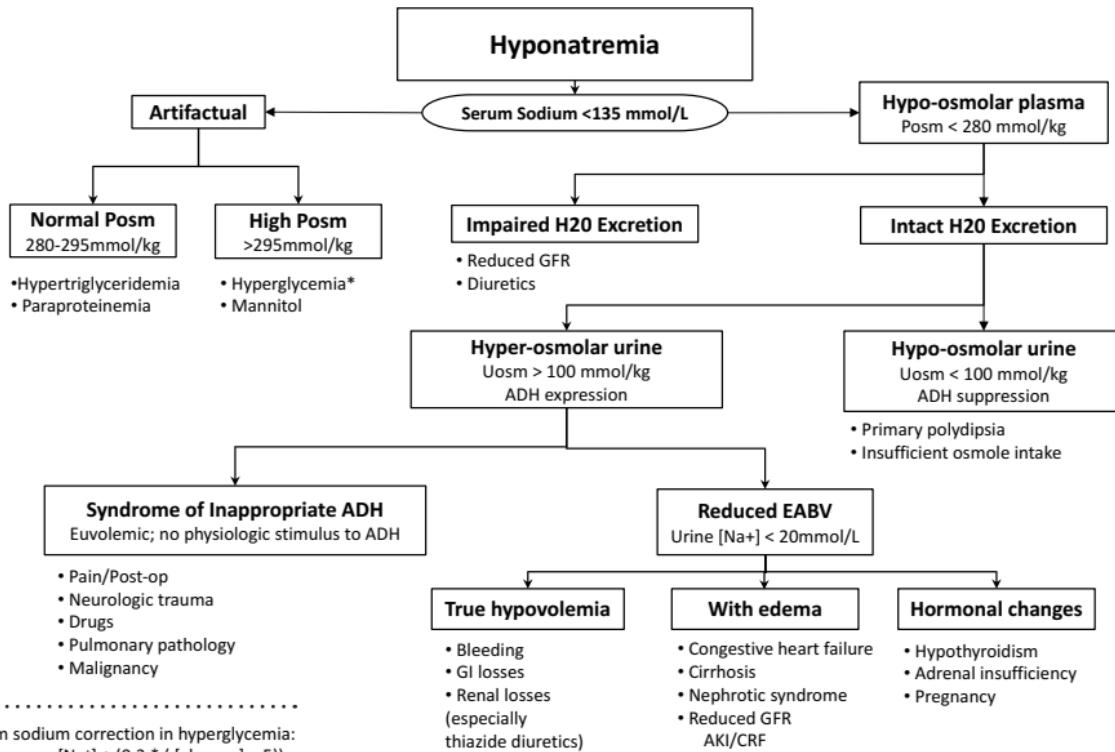
# Hypokalemia



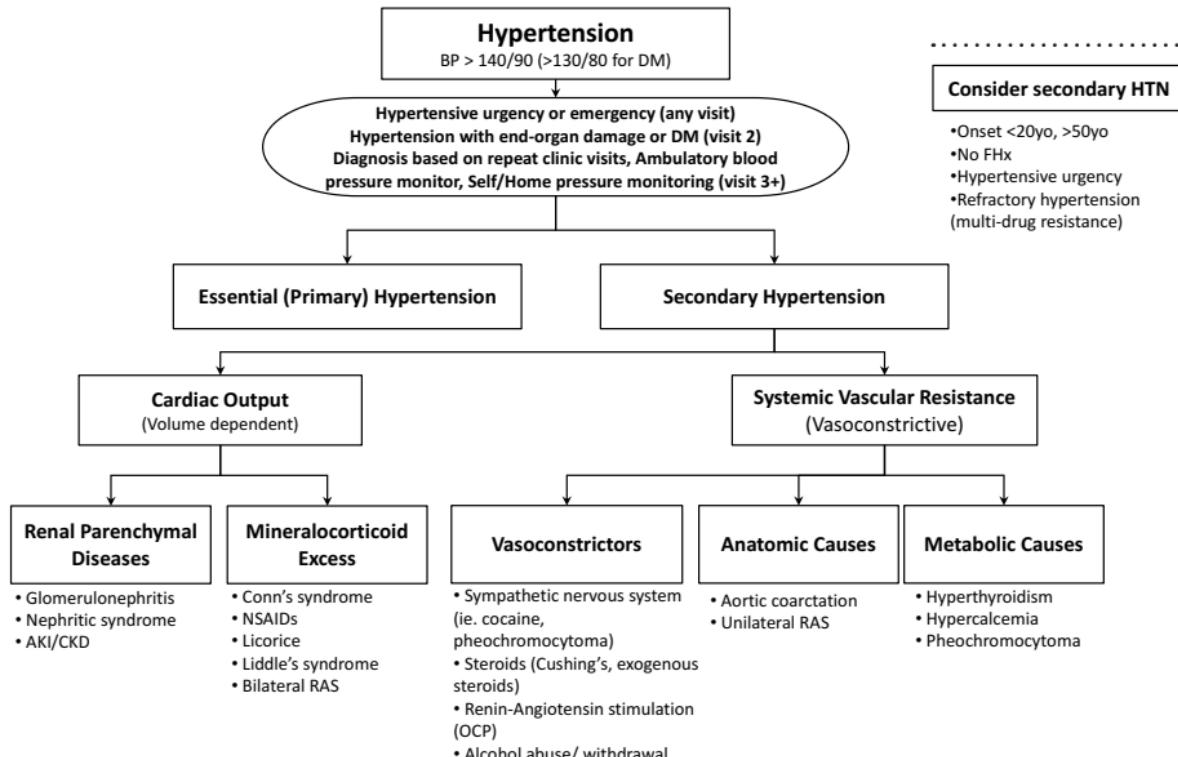
# Hypernatremia



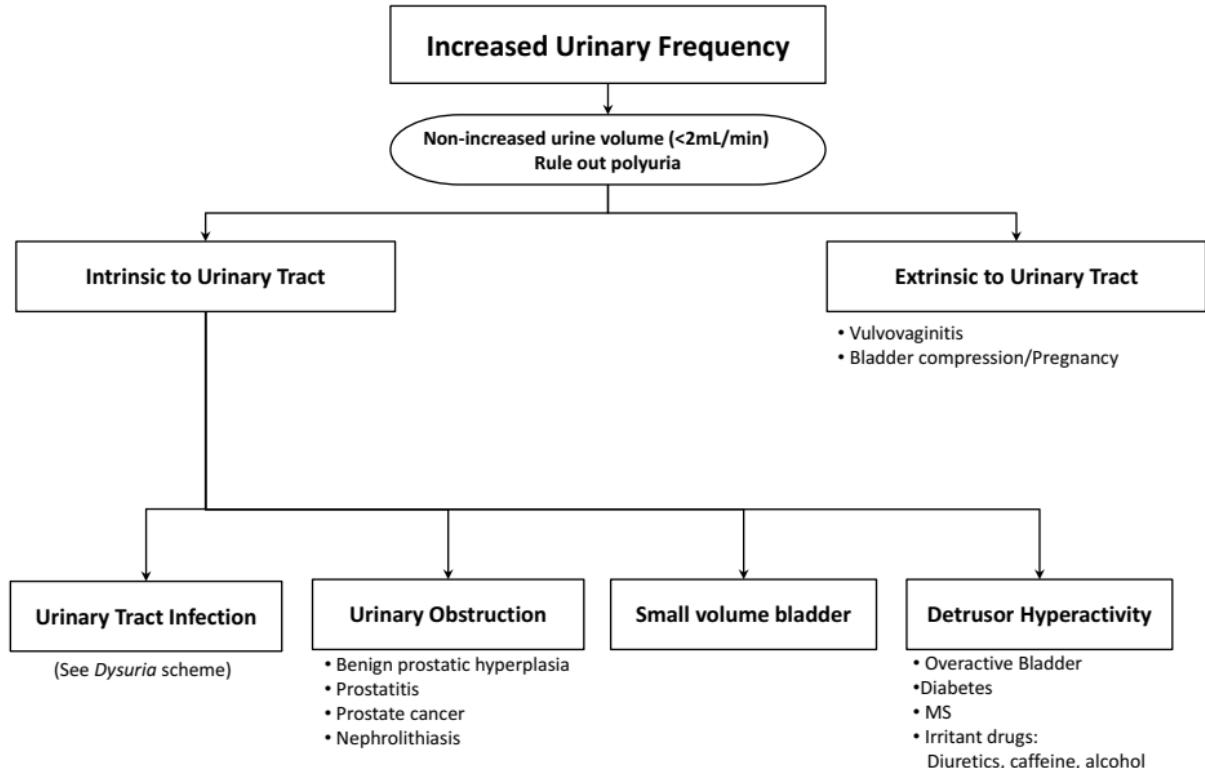
# Hyponatremia



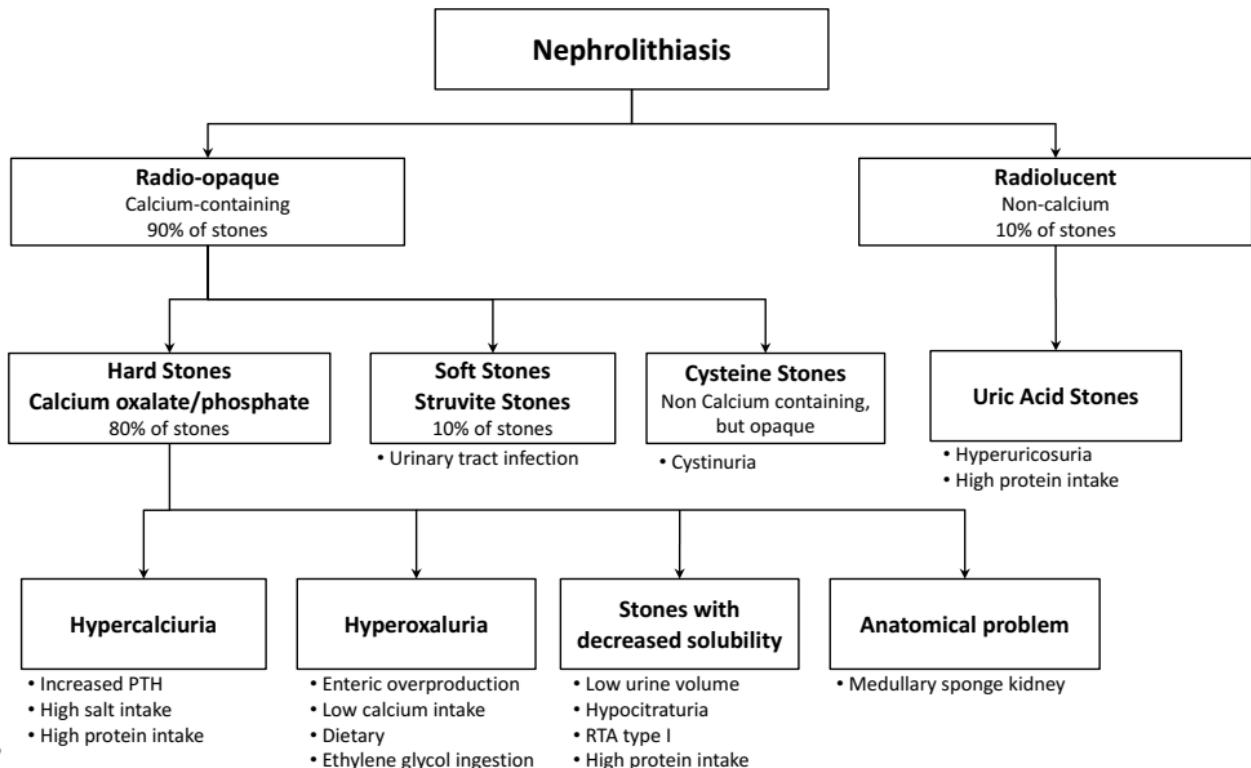
# Hypertension



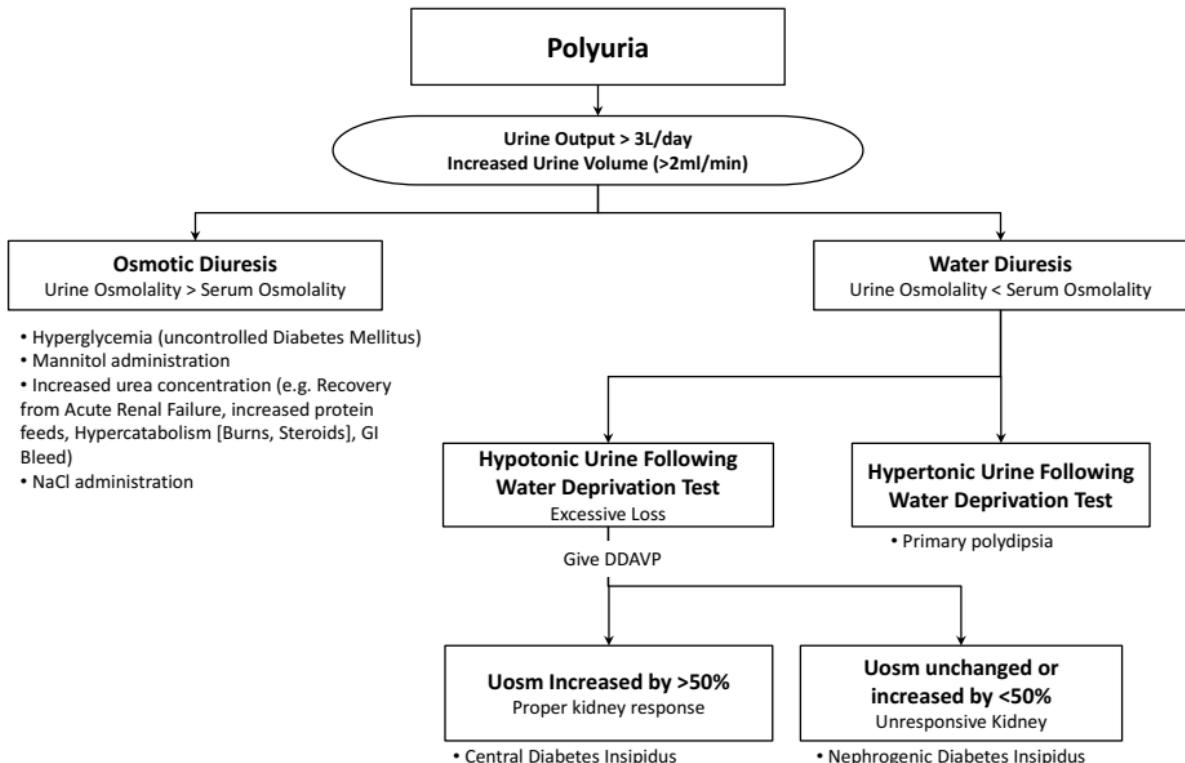
# Increased Urinary Frequency



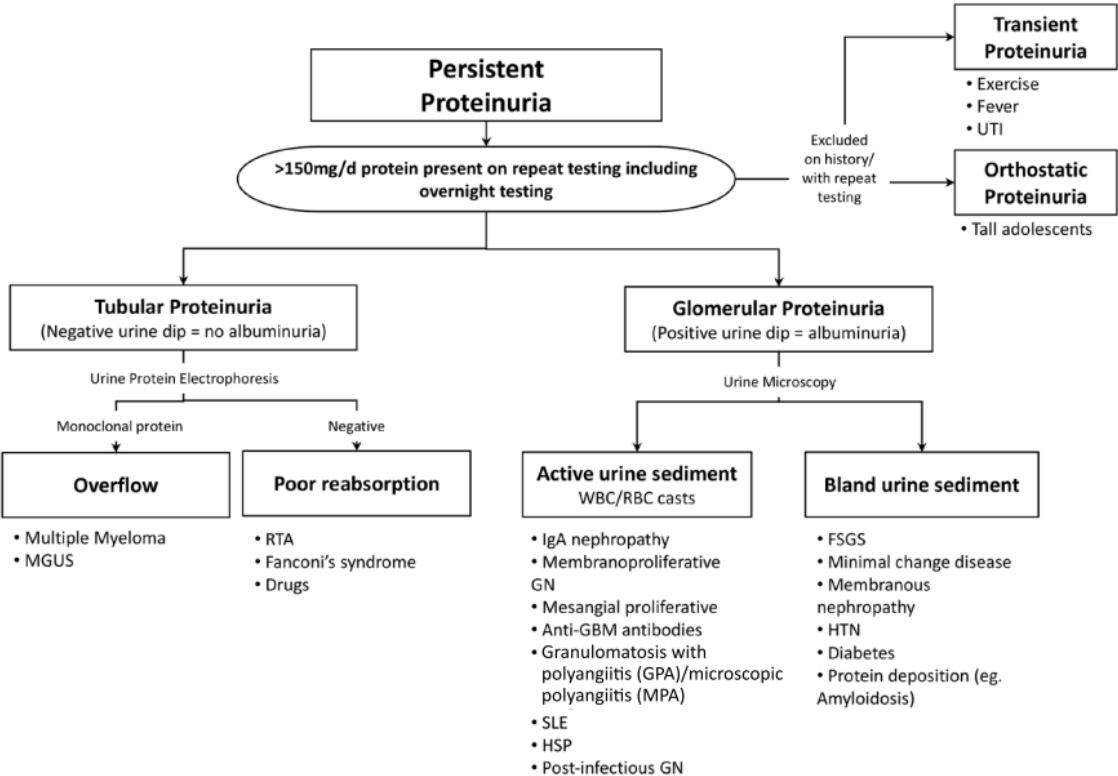
# Nephrolithiasis



# Polyuria

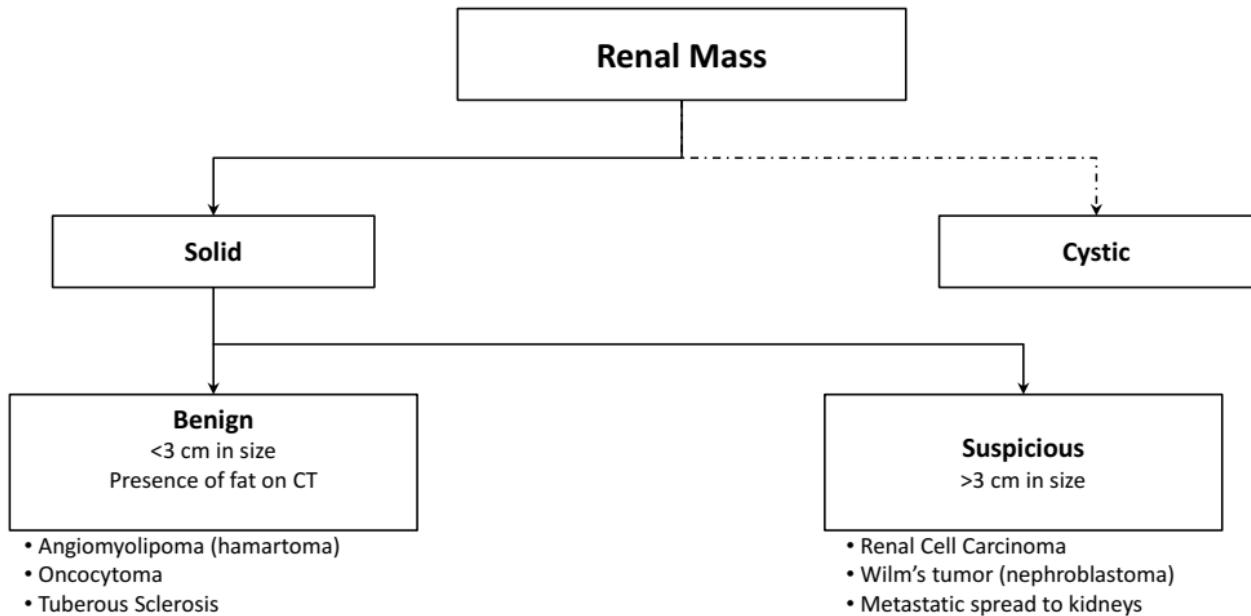


# Proteinuria



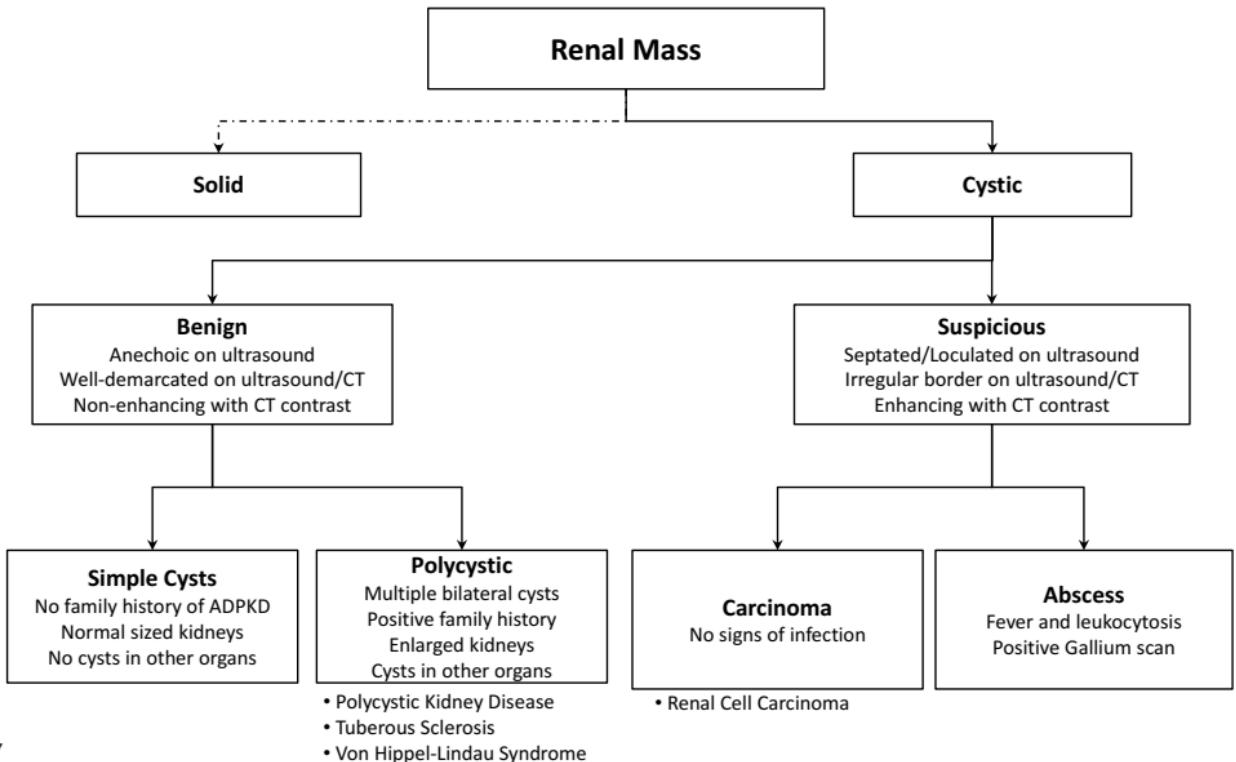
# Renal Mass

Solid

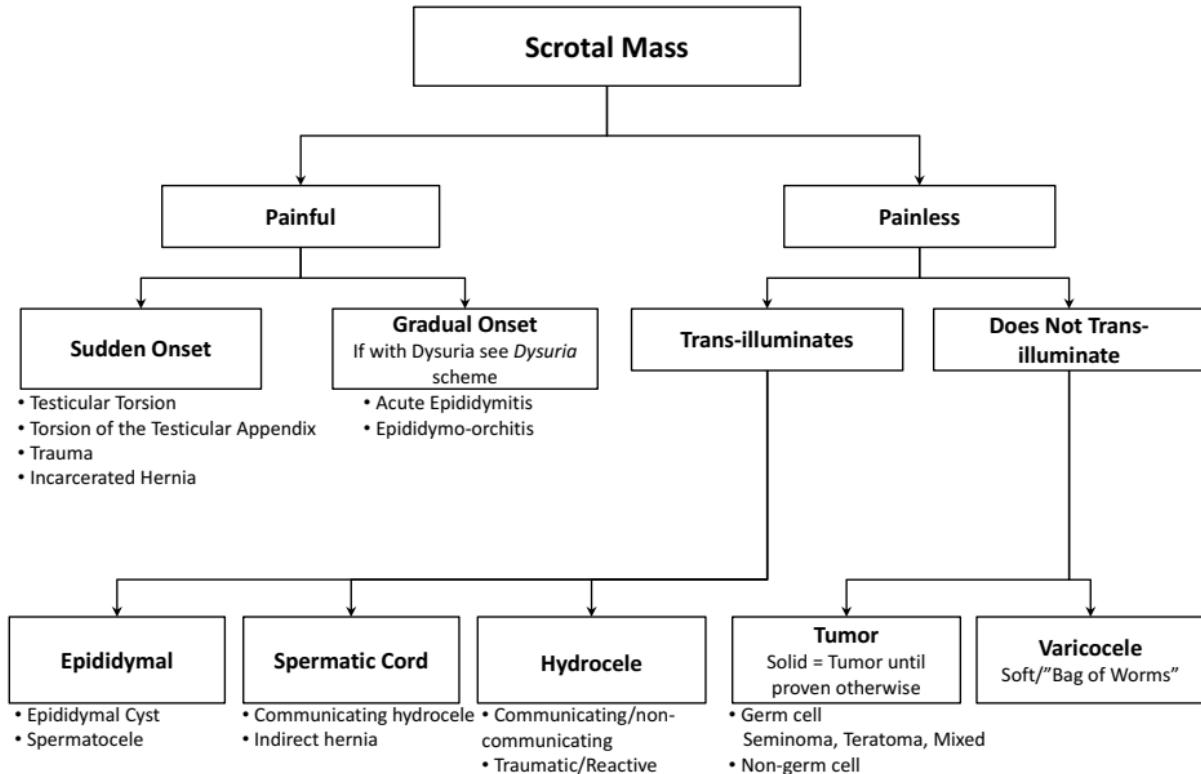


# Renal Mass

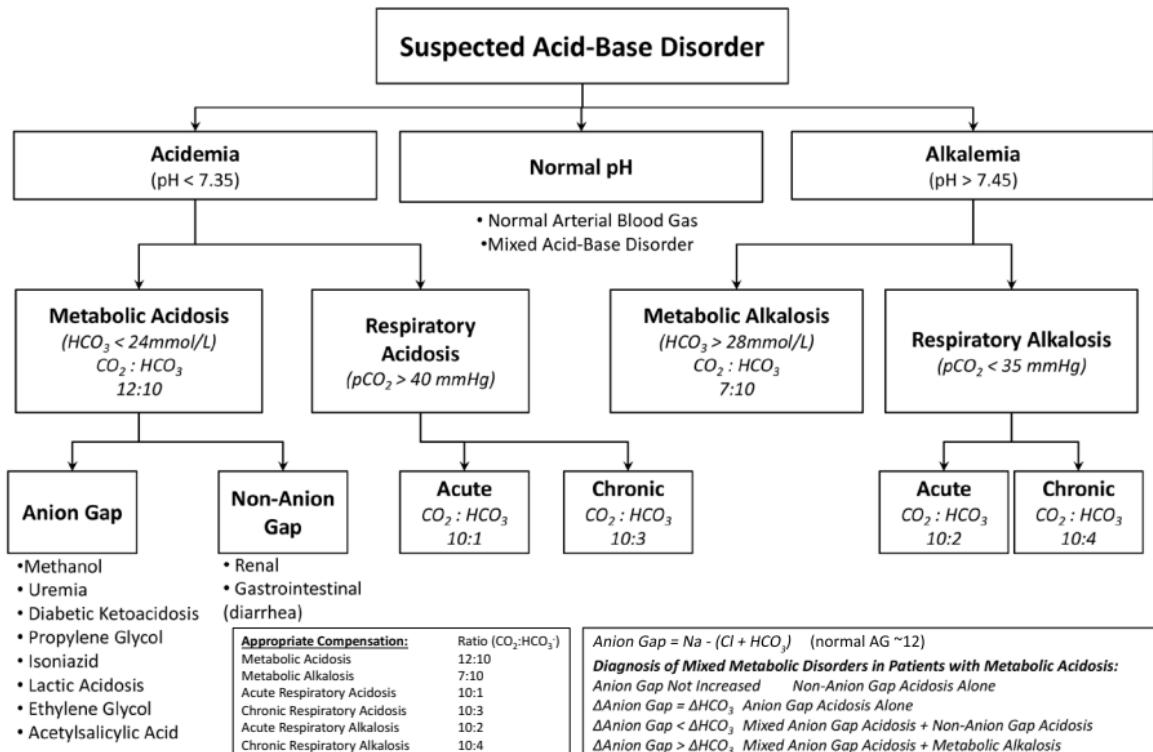
Cystic



# Scrotal Mass



# Suspected Acid-Base Disturbance



# Metabolic Acidosis

Elevated Anion Gap

$$\text{Anion Gap} = \text{Na} - (\text{Cl} + \text{HCO}_3^-) \quad (\text{normal AG } \sim 12)$$

*Diagnosis of Mixed Metabolic Disorders in Patients with Metabolic Acidosis:*  
Anion Gap Not Increased Non-Anion Gap Acidosis Alone  
 $\Delta\text{Anion Gap} = \Delta\text{HCO}_3^-$ , Anion Gap Acidosis Alone  
 $\Delta\text{Anion Gap} < \Delta\text{HCO}_3^-$ , Mixed Anion Gap Acidosis + Non-Anion Gap Acidosis  
 $\Delta\text{Anion Gap} > \Delta\text{HCO}_3^-$ , Mixed Anion Gap Acidosis + Metabolic Alkalosis

## Metabolic Acidosis

Need to correct anion gap for albumin: For every drop of 10 for albumin (from 40) add 2.5 to the anion gap

Elevated Anion Gap ( $>12$ )  
(Gain of  $\text{H}^+$ )

Normal Anion Gap ( $\leq 12$ )  
(Loss of  $\text{HCO}_3^-$ )

Excess acid addition

Decreased  $\text{NH}_4^+$  production  
and anion secretion

• AKI/CKD

Positive serum  
salicylate level

Salicylate poisoning

Elevated  
serum lactate

Lactic acidosis

Positive serum  
ketones

Ketosis

Elevated  
osmolar gap

Toxic alcohol  
ingestion

Other ingestion

- Shock
- Drugs
- Inborn errors

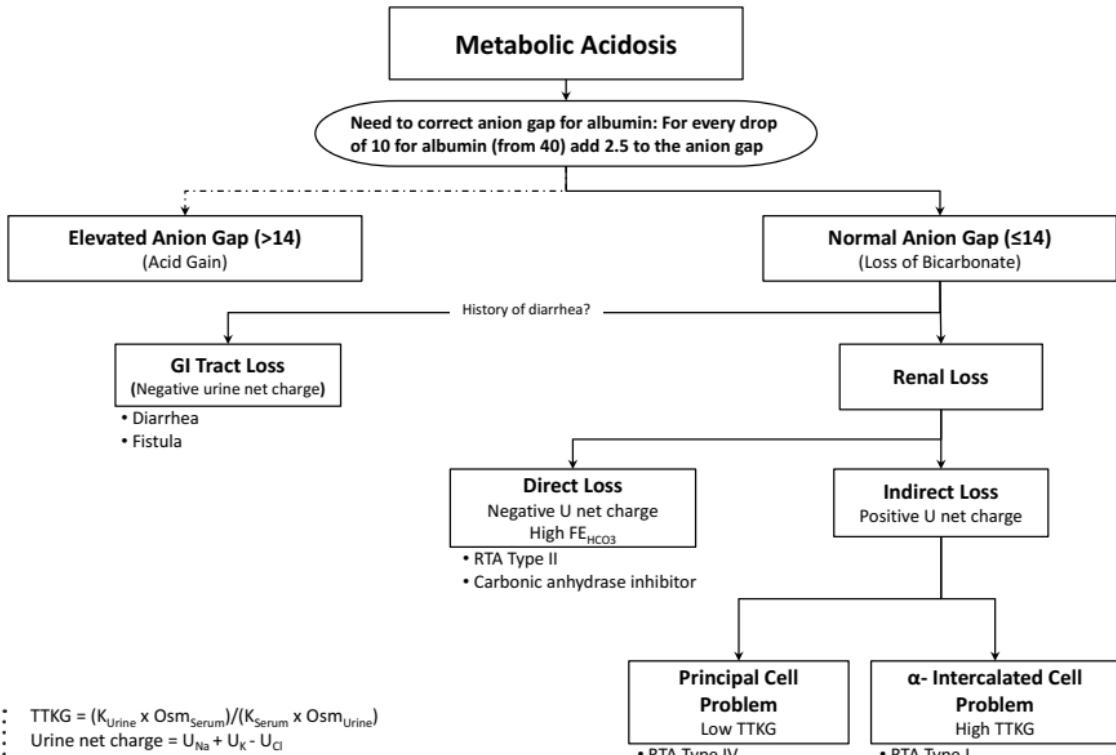
- Diabetic ketoacidosis
- Starvation/alcoholic ketosis

- Ethylene/Propylene glycol
- Methanol

- Paraldehyde, Iron, Isoniazid, Toluene, Cyanide

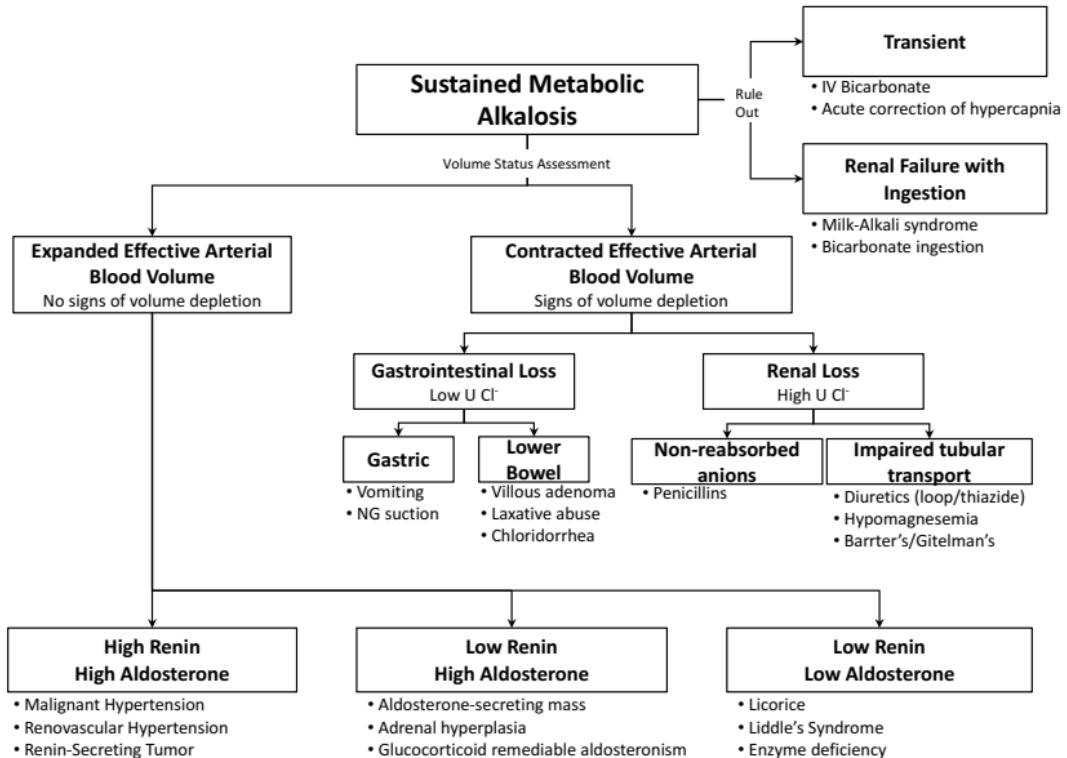
# Metabolic Acidosis

Normal Anion Gap

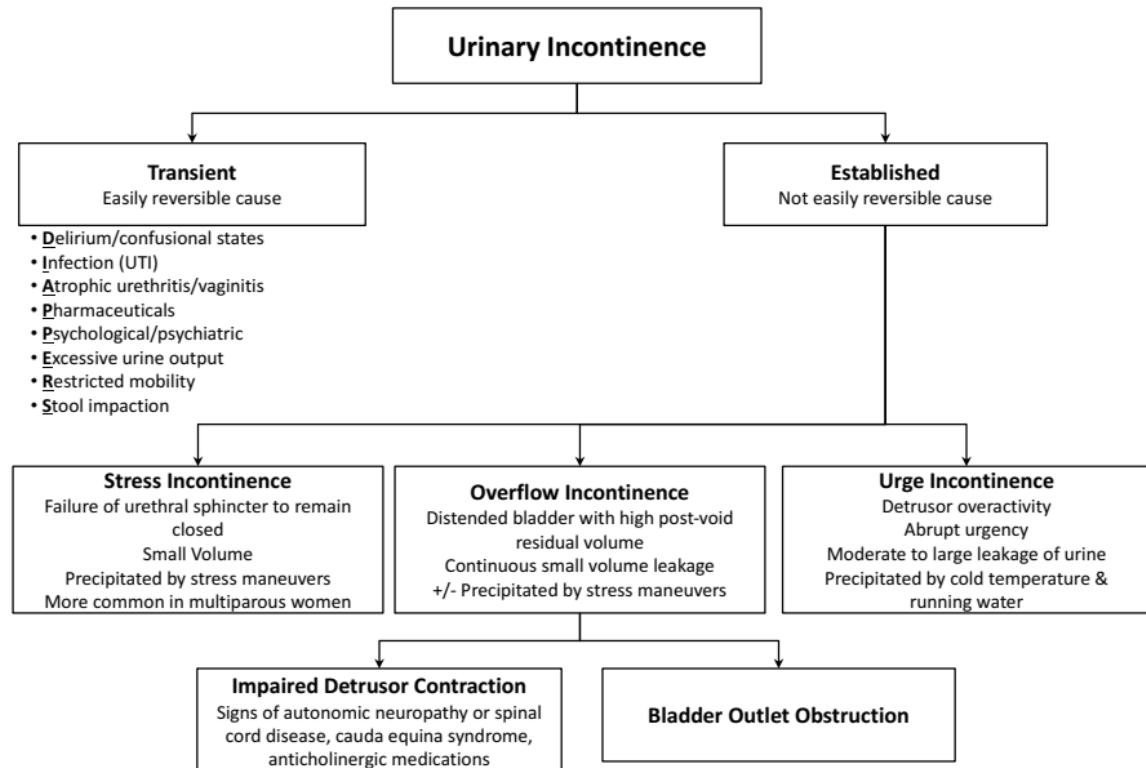


$$TTKG = (\text{K}_{\text{Urine}} \times \text{Osm}_{\text{Serum}}) / (\text{K}_{\text{Serum}} \times \text{Osm}_{\text{Urine}})$$
$$\text{Urine net charge} = \text{U}_\text{Na} + \text{U}_\text{K} - \text{U}_\text{Cl}$$

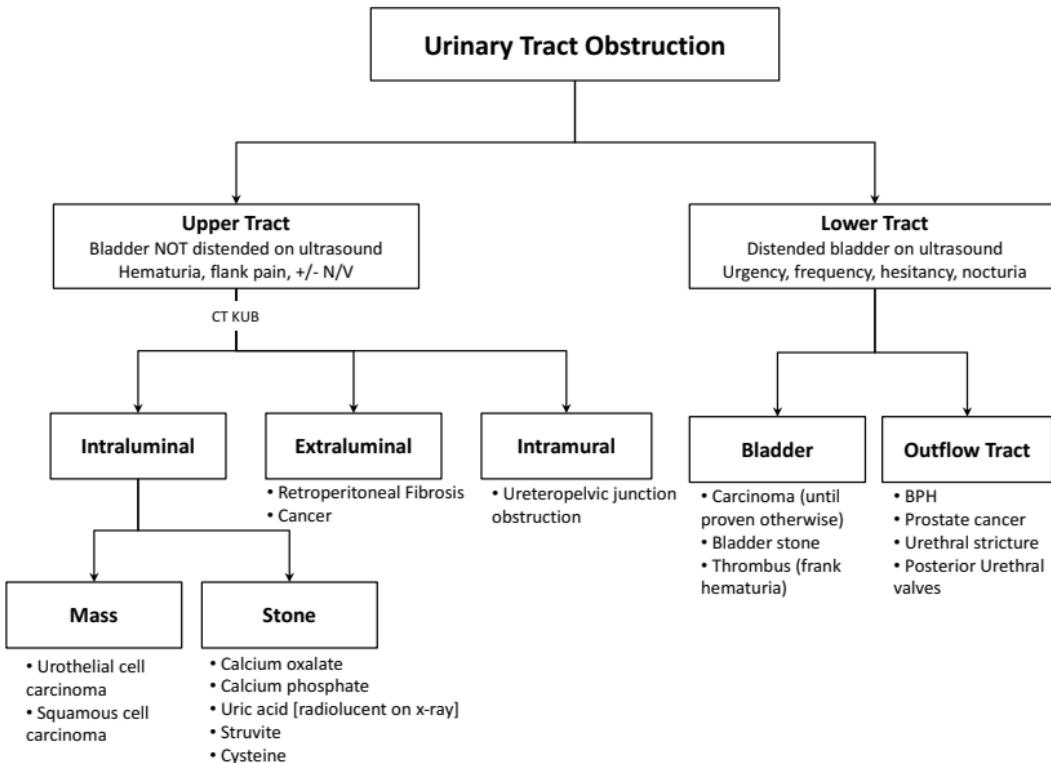
# Metabolic Alkalosis



# Urinary Incontinence



# Urinary Tract Obstruction



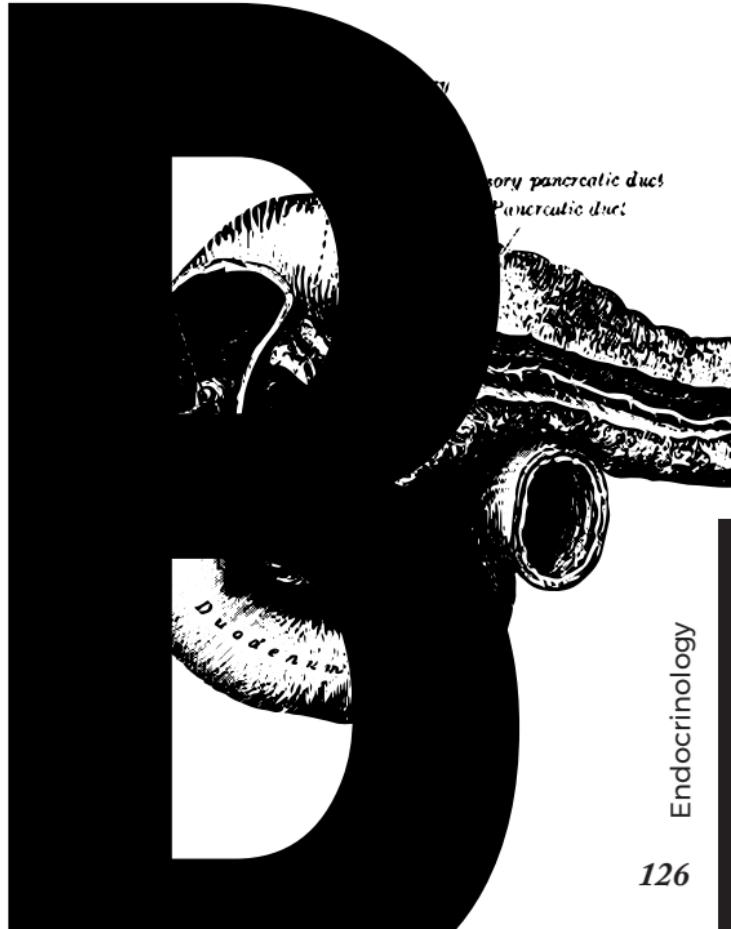
# Endocrinology

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***Historical Editors***

Dr. Andrew Wade

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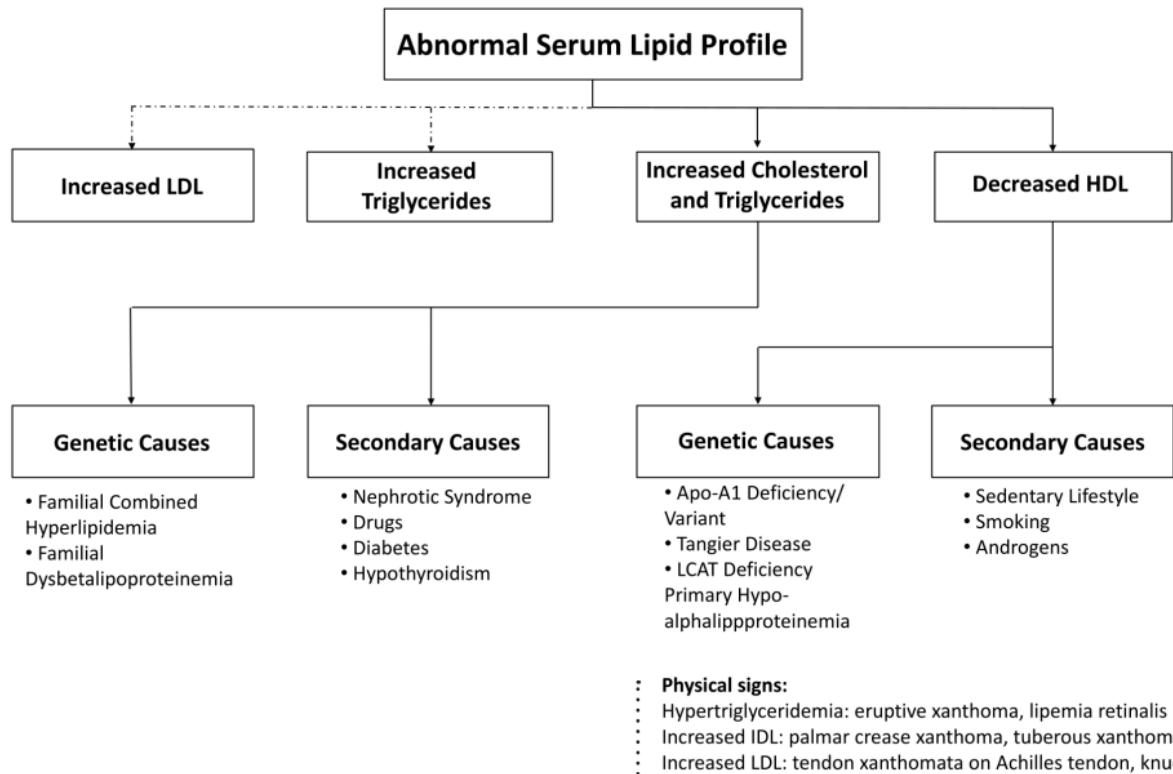
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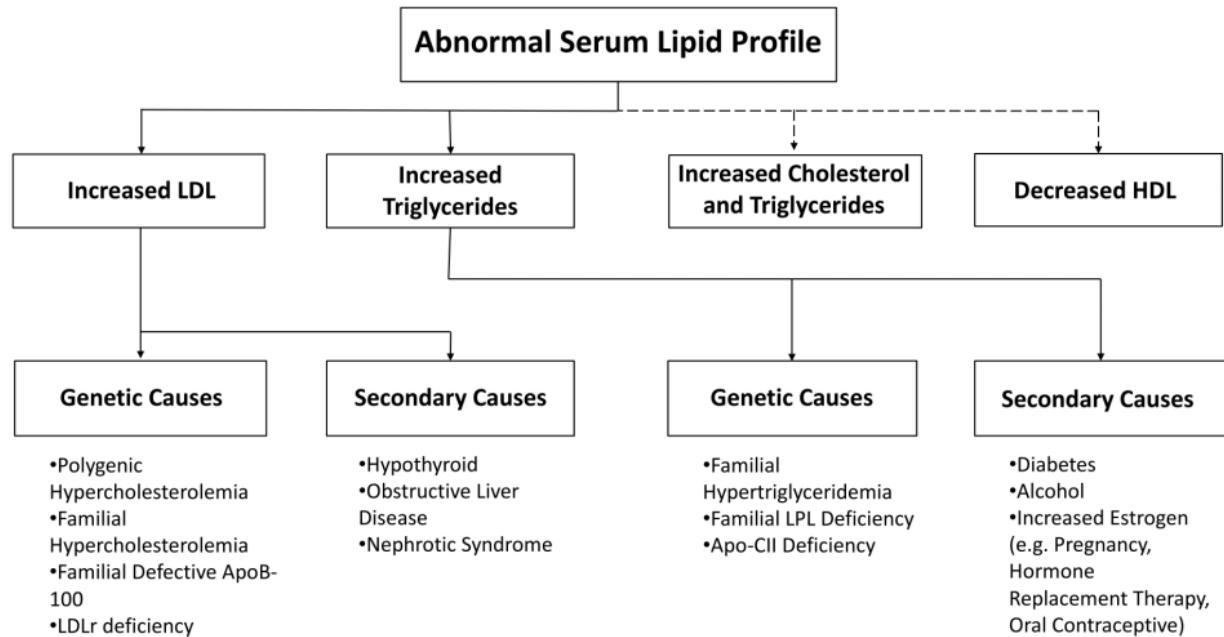
# Abnormal Lipid Profile

Combined & Decreased HDL



# Abnormal Lipid Profile

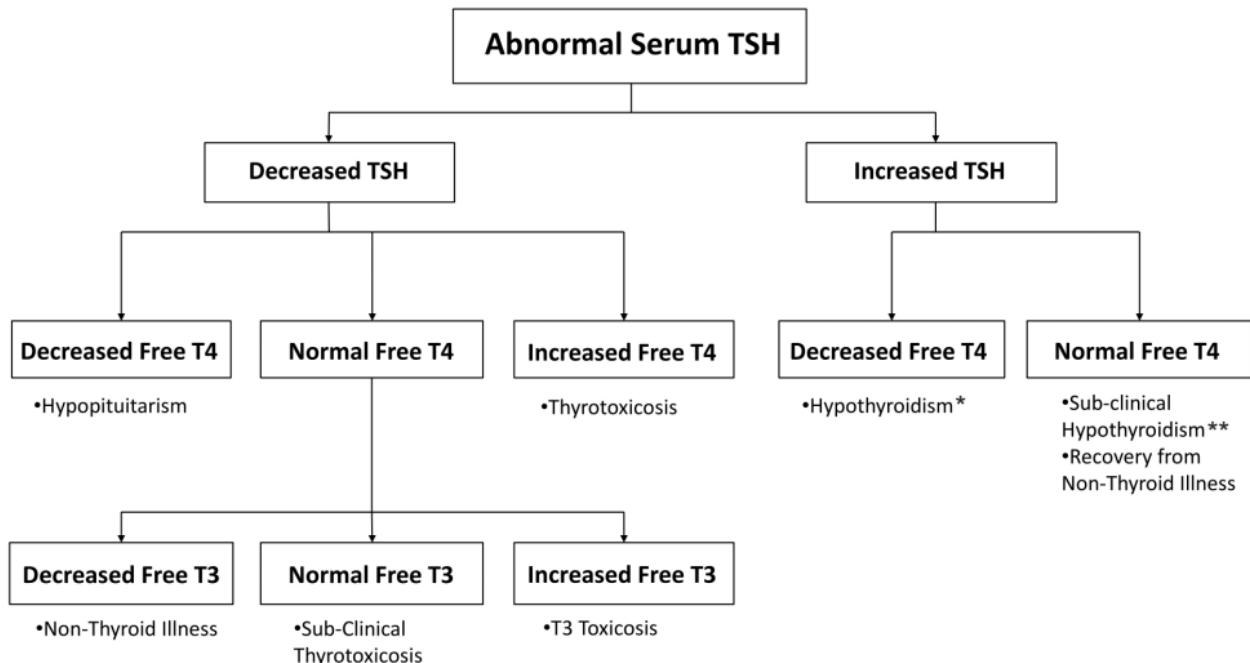
Increased LDL & Increased Triglycerides



## Physical signs:

- Hypertriglyceridemia: eruptive xanthoma, lipemia retinalis
- Increased IDL: palmar crease xanthoma, tuberous xanthoma
- Increased LDL: tendon xanthomata on Achilles tendon, knuckles

# Abnormal Serum TSH

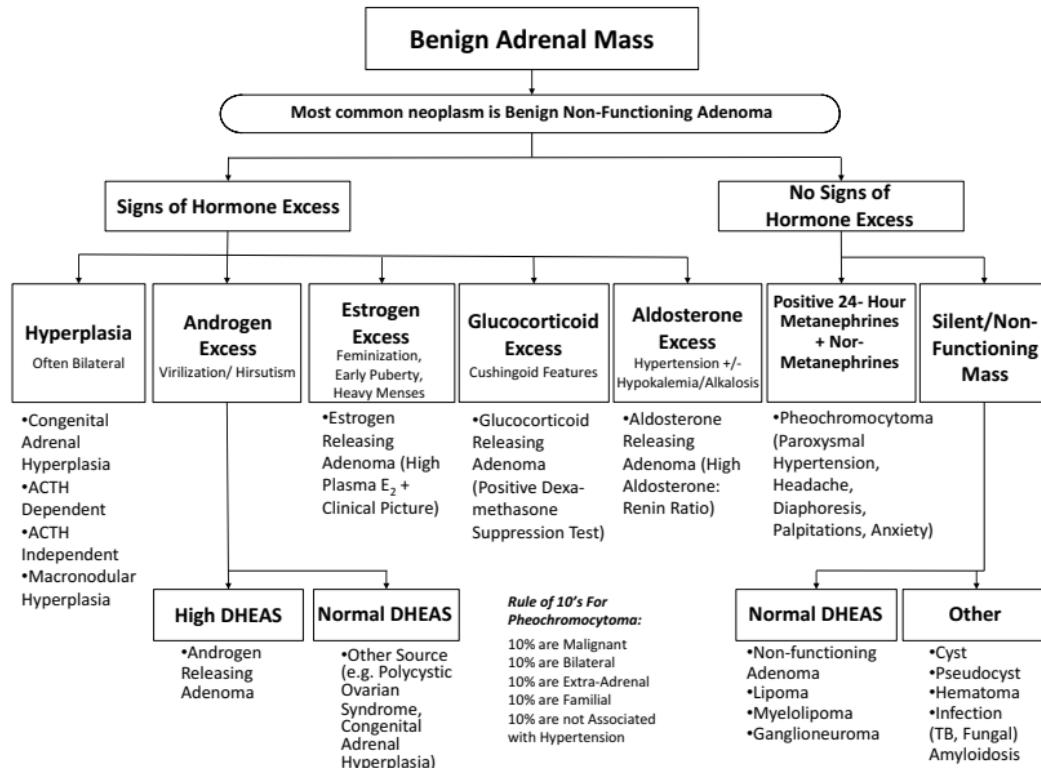


\*Refer to Hyperthyroidism (1) on page 150

\*\*Refer to Hyperthyroidism (2) on page 151

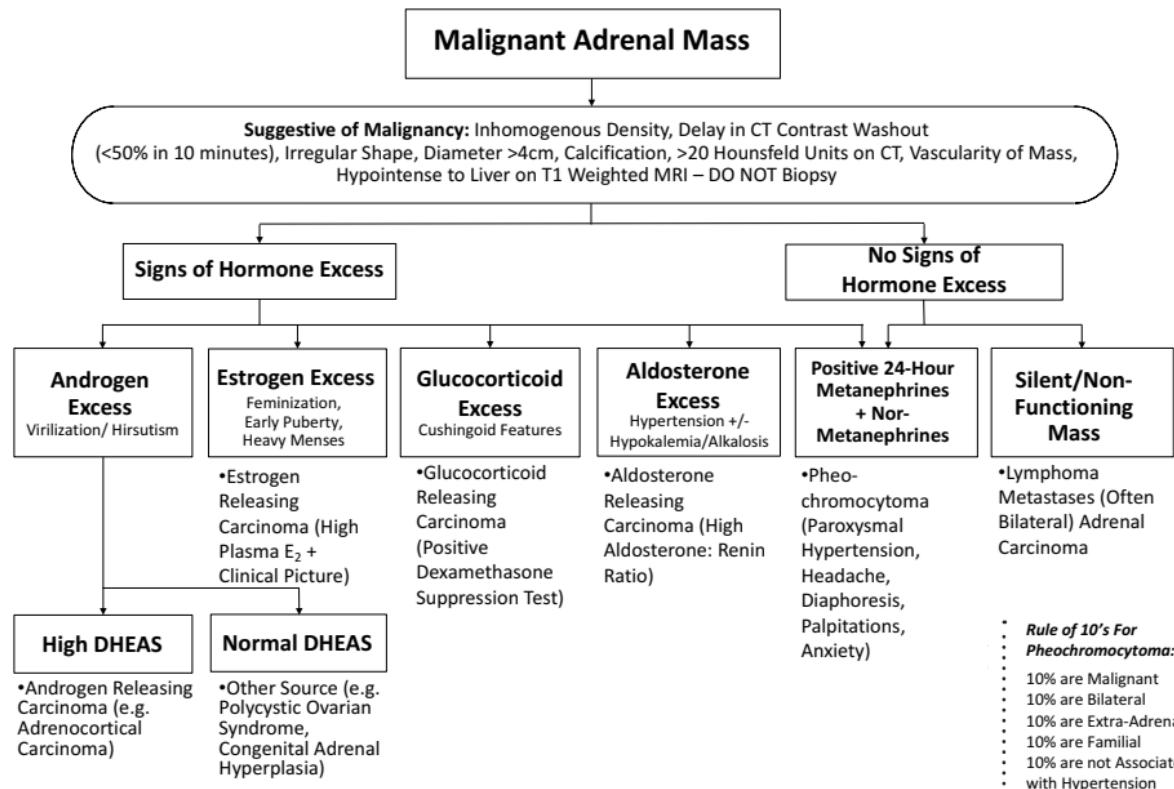
# Adrenal Mass

Benign

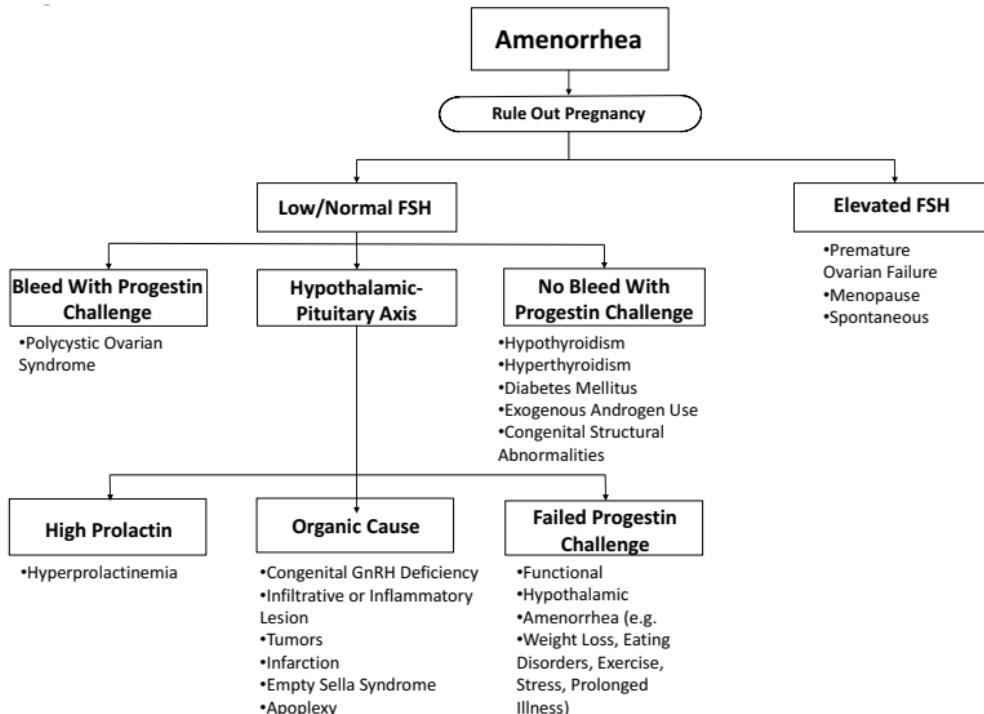


# Adrenal Mass

Malignant



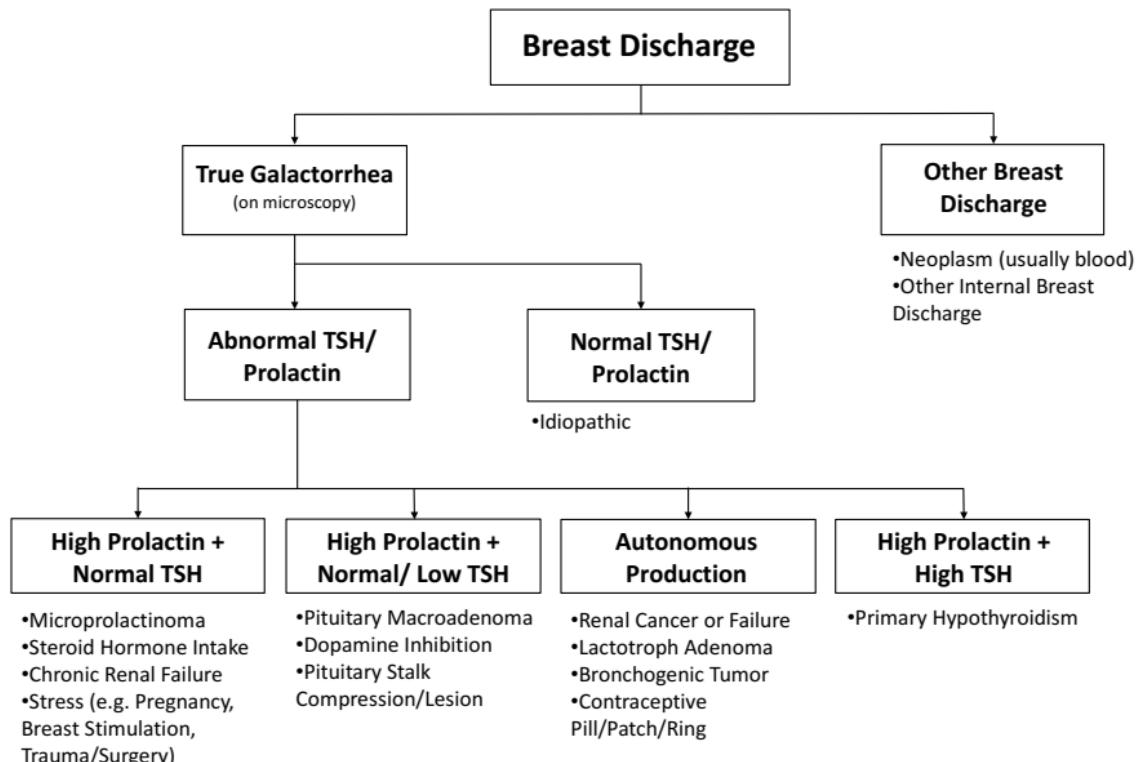
# Amenorrhea



If bleed with progestin challenge = estrogenized

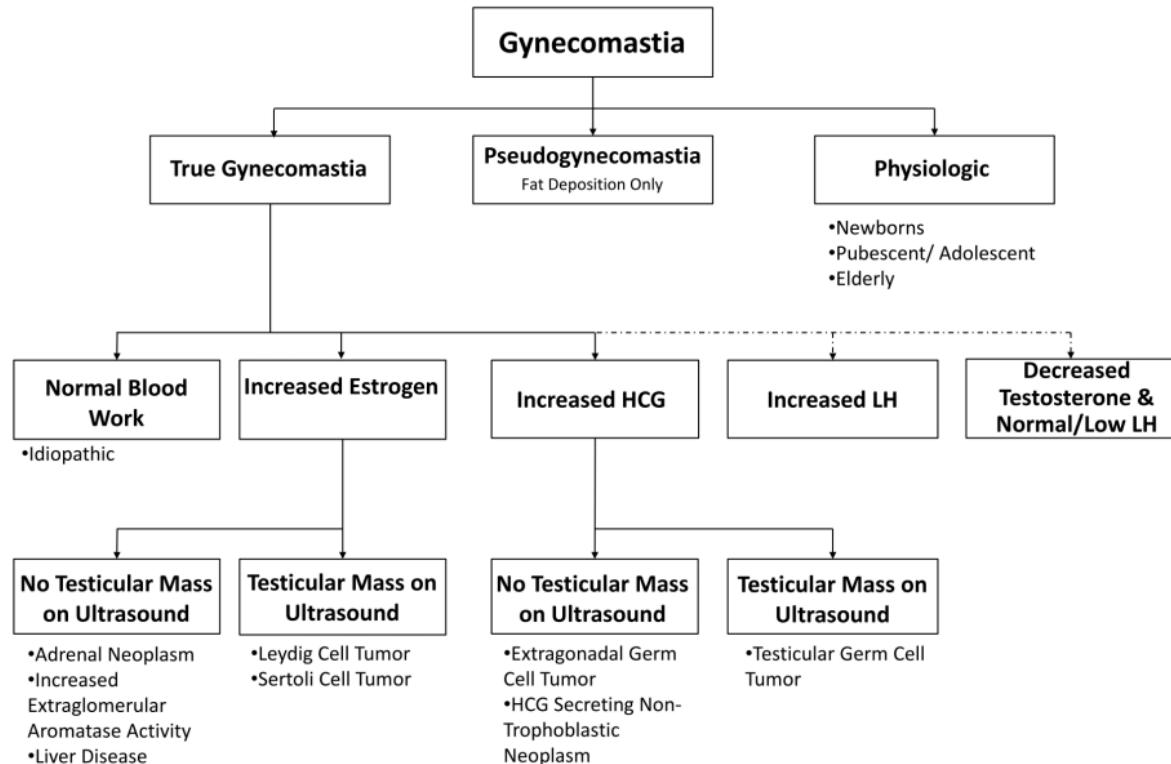
If no bleed with progestin challenge = non-estrogenized

# Breast Discharge



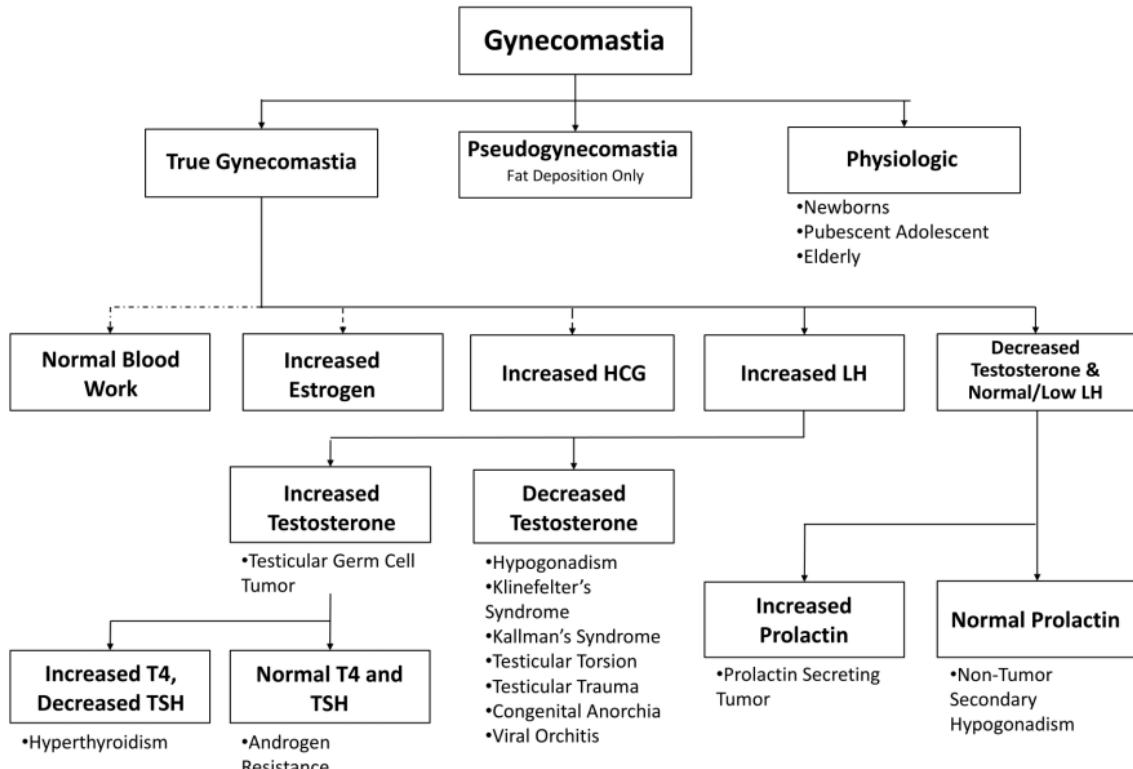
# Gynecomastia

Increased Estrogen & Increased HCG

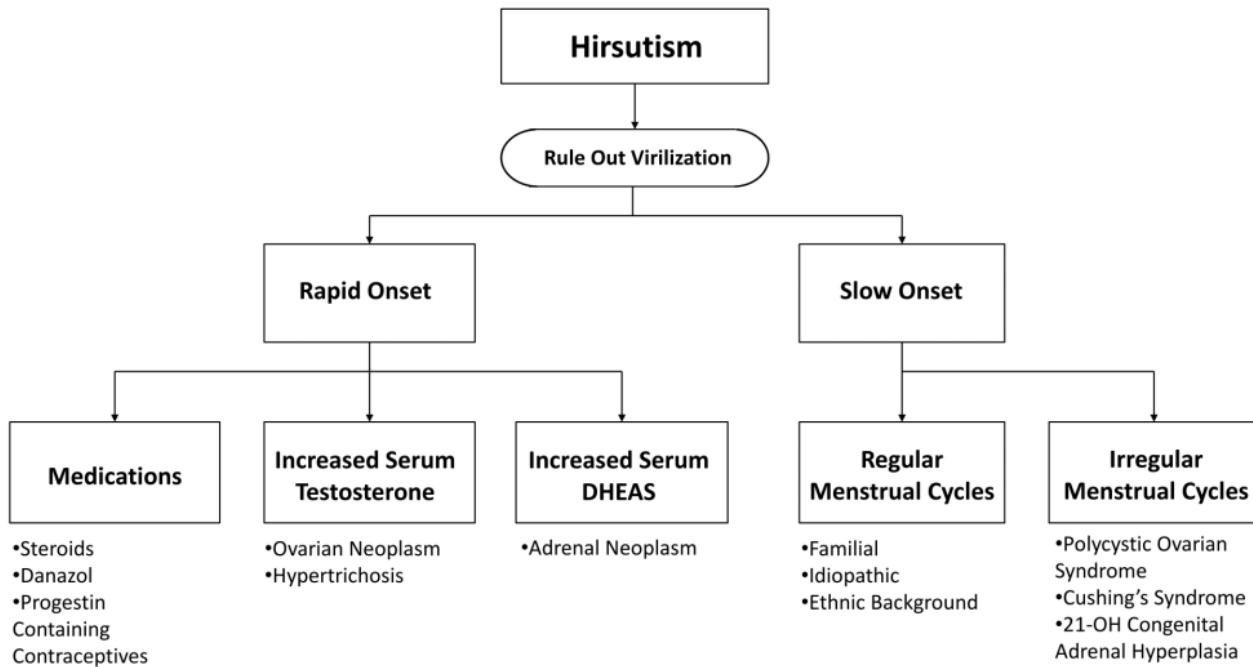


# Gynecomastia

Increased LH & Decreased Testosterone

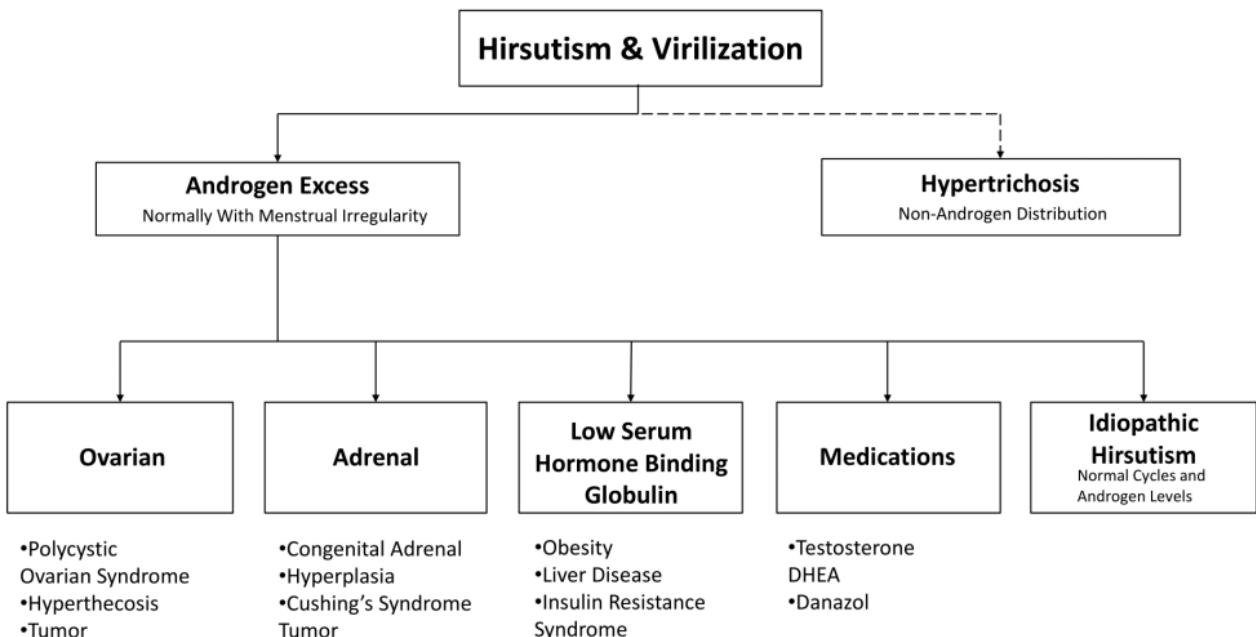


# Hirsutism



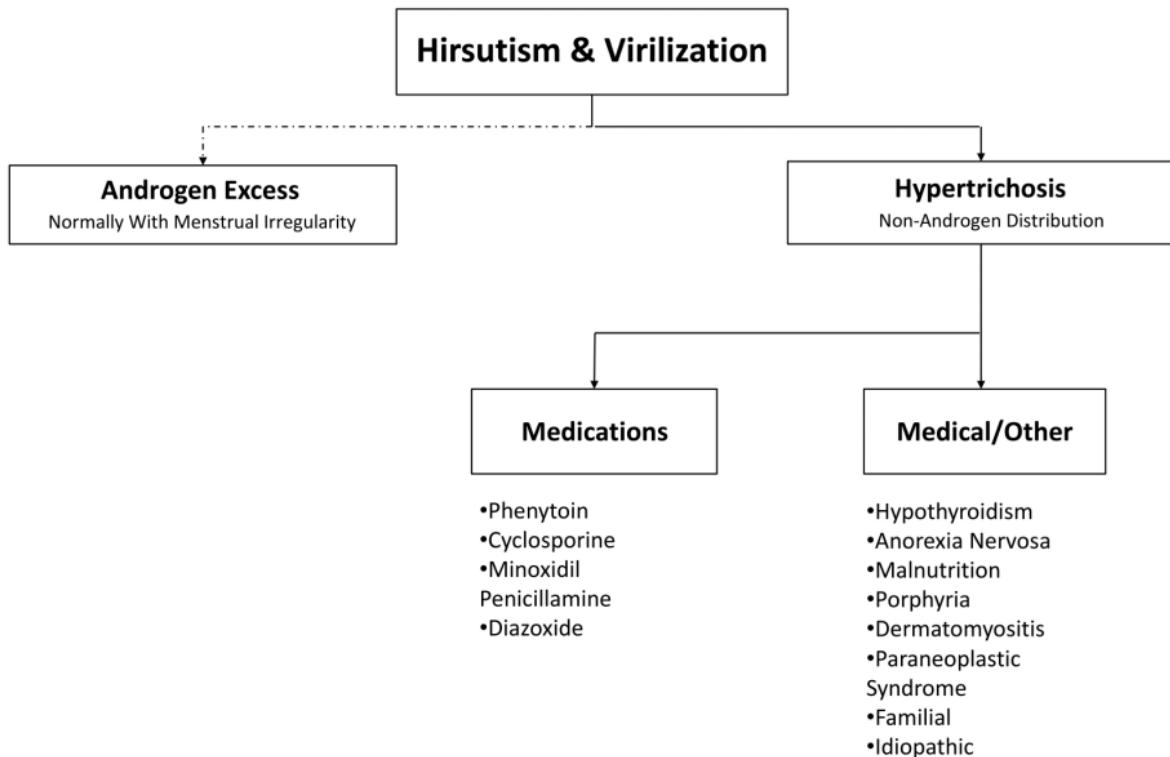
# Hirsutism & Virilization

Androgen Excess



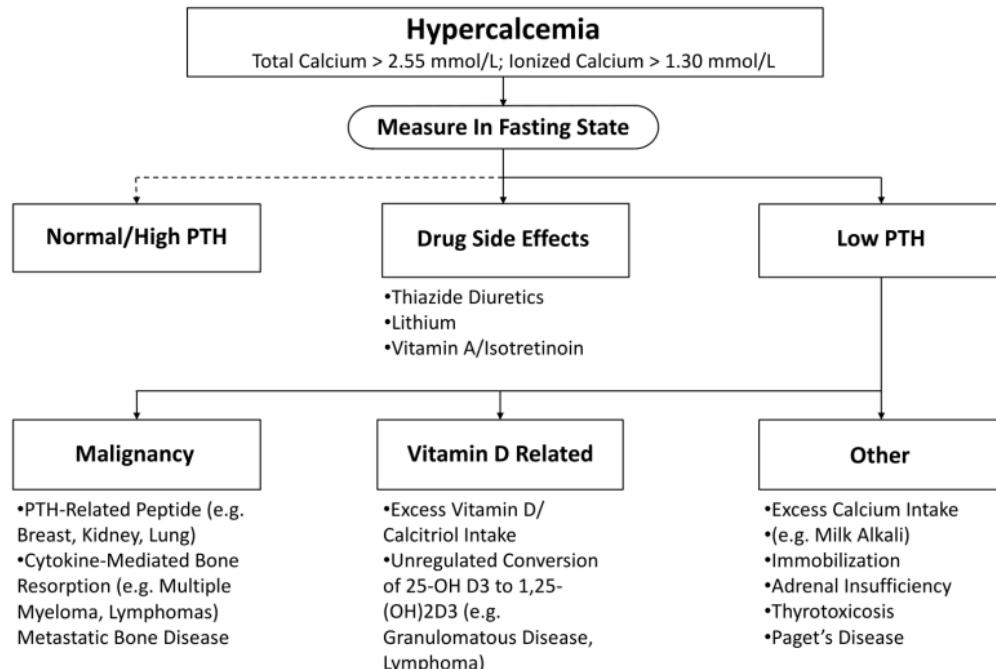
# Hirsutism & Virilization

Hypertrichosis



# Hypercalcemia

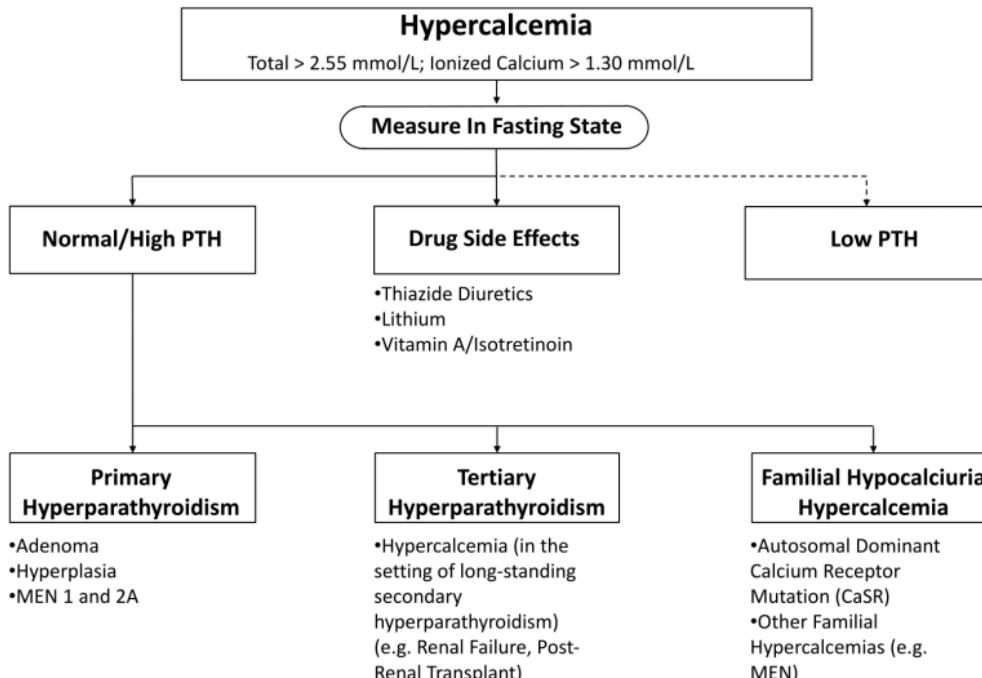
Low PTH



$$\text{Corrected total serum calcium concentration (mmol/L)} = \text{measured total serum calcium concentration (mmol/L)} + 0.02[40 \text{ g/L} - \text{albumin(g/L)}]$$

# Hypercalcemia

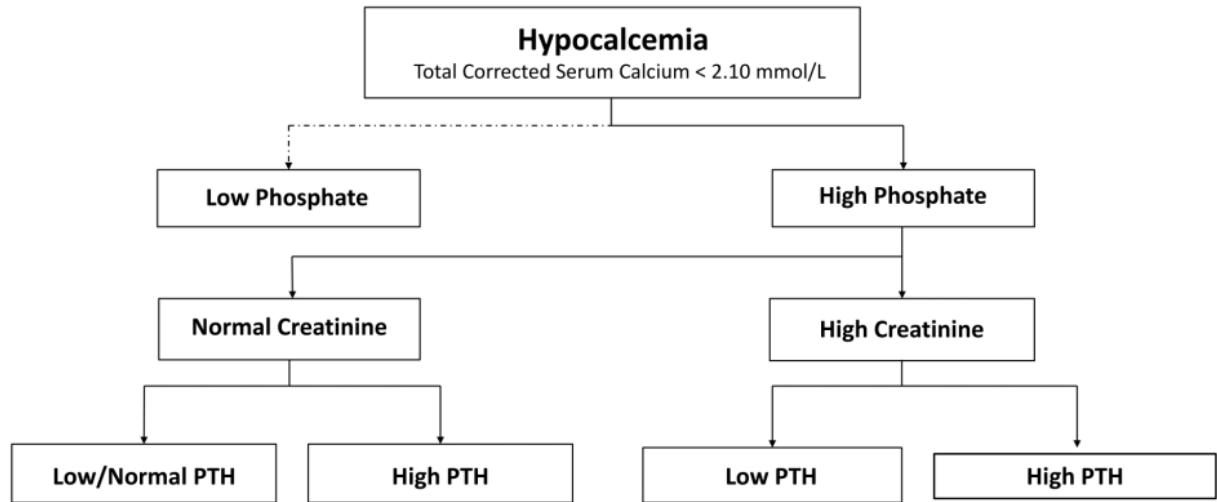
Normal / High PTH



Corrected total serum calcium concentration (mmol/L) =  
measured total serum calcium concentration (mmol/L) + 0.02[40 g/L – albumin(g/L)]

# Hypocalcemia

High Phosphate



- Hypoparathyroidism (e.g. Acquired, Autoimmune, Idiopathic, Congenital, Infiltrative)
- Activating Mutation in Calcium Sensing Receptor (CaSR)
- Hypomagnesemia

- PTH Resistance (Pseudo-hypoparathyroidism)
- Calcium Complexing
- (Citrate Infusion, Pancreatitis)

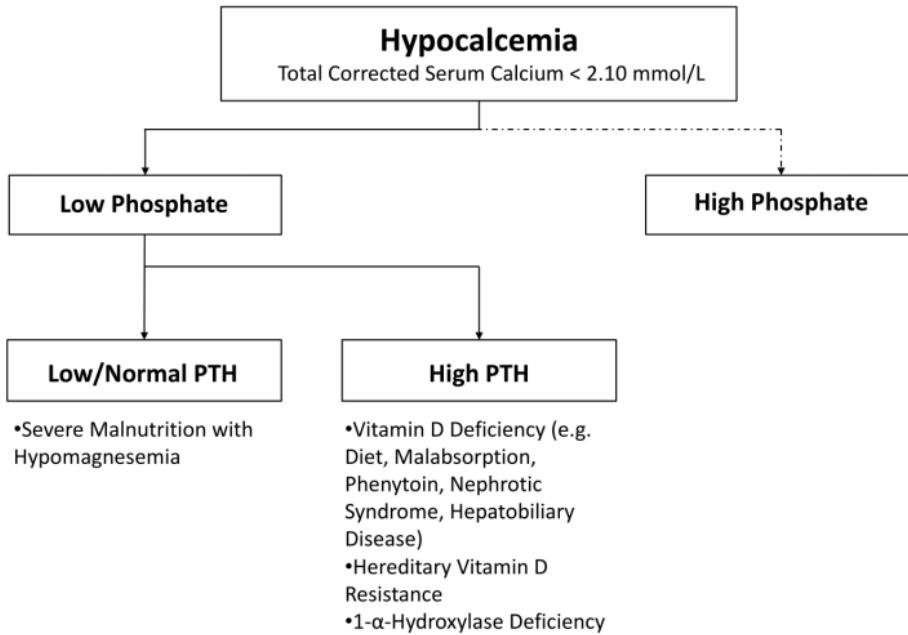
- Hypoparathyroidism with Chronic Kidney Disease

- Secondary Hyperparathyroidism
- Rhabdomyolysis
- Phosphate Poisoning

Corrected total serum calcium concentration (mmol/L) =  
measured total serum calcium concentration (mmol/L) + 0.02[40 g/L - albumin(g/L)]

# Hypocalcemia

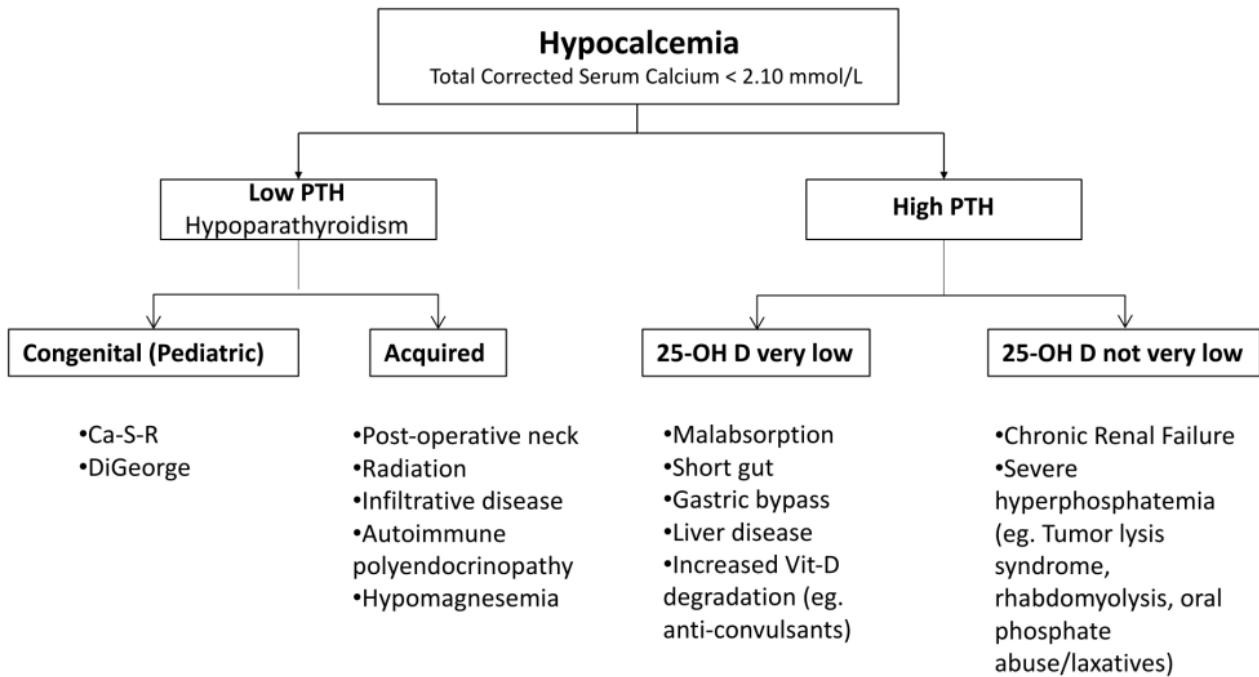
Low Phosphate



Corrected total serum calcium concentration (mmol/L) =  
measured total serum calcium concentration (mmol/L) + 0.02[40 g/L – albumin(g/L)]

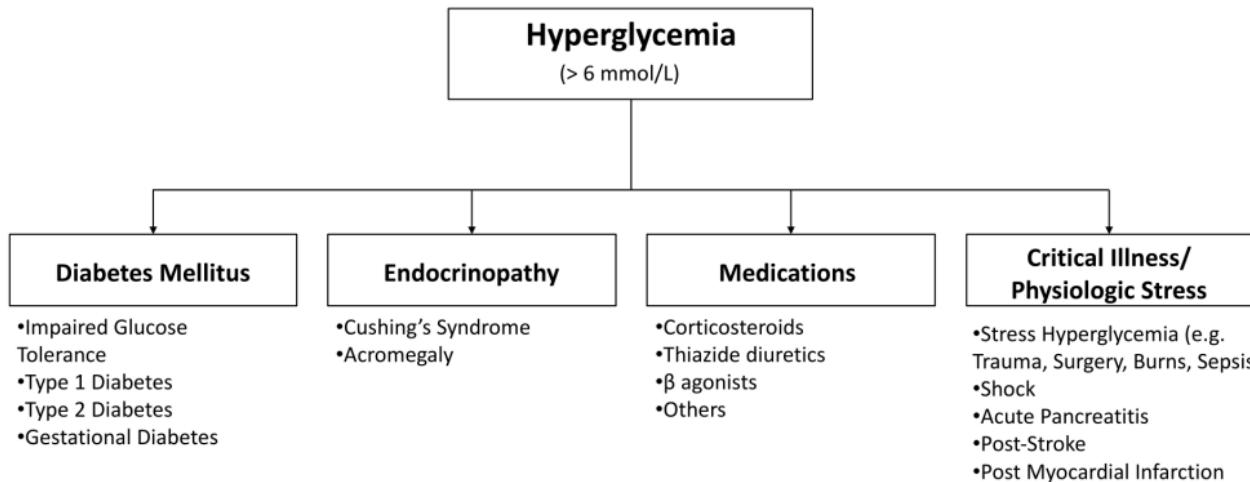
# Hypocalcemia

High / Low PTH



$$\text{Corrected total serum calcium concentration (mmol/L)} = \text{measured total serum calcium concentration (mmol/L)} + 0.02[40 \text{ g/L} - \text{albumin(g/L)}]$$

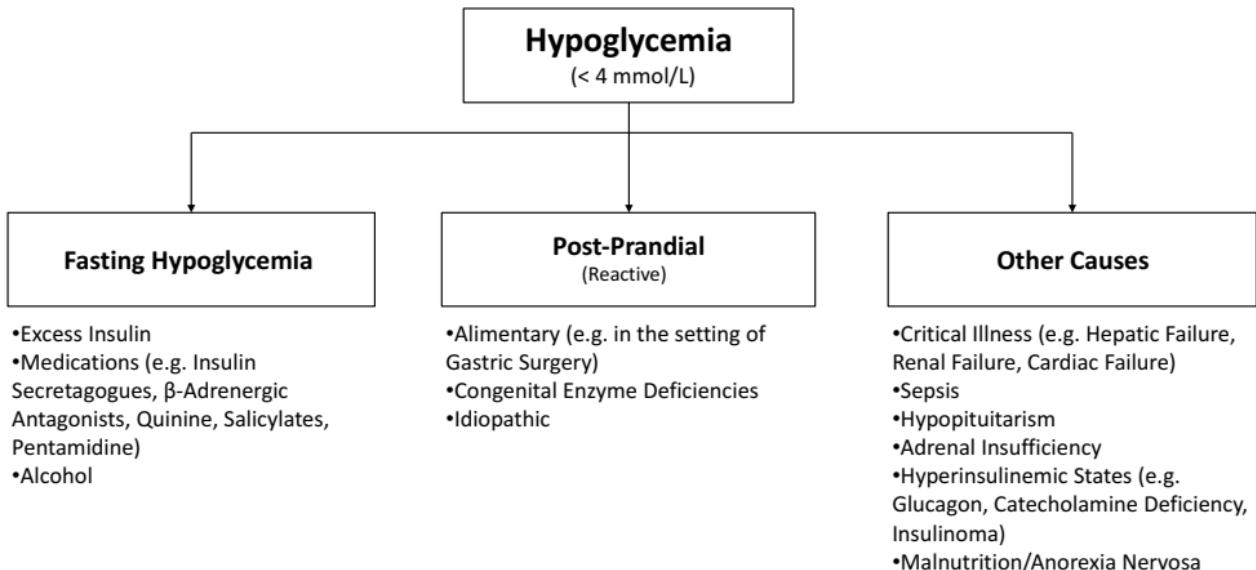
# Hyperglycemia



## Signs/Symptoms of Hyperglycemia:

Polyphagia, polydipsia, polyuria, blurred vision, fatigue and weight loss

# Hypoglycemia

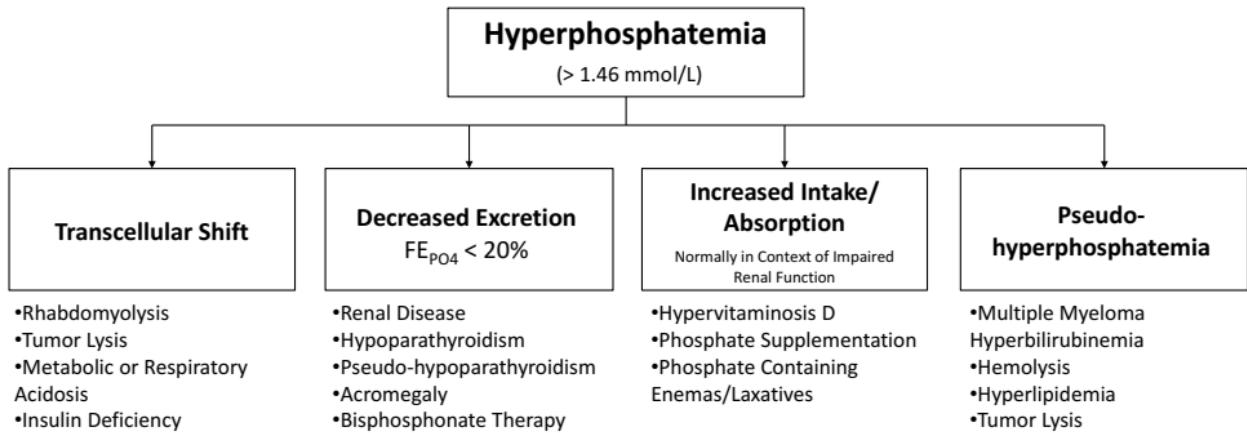


## Signs/Symptoms of Hypoglycemia:

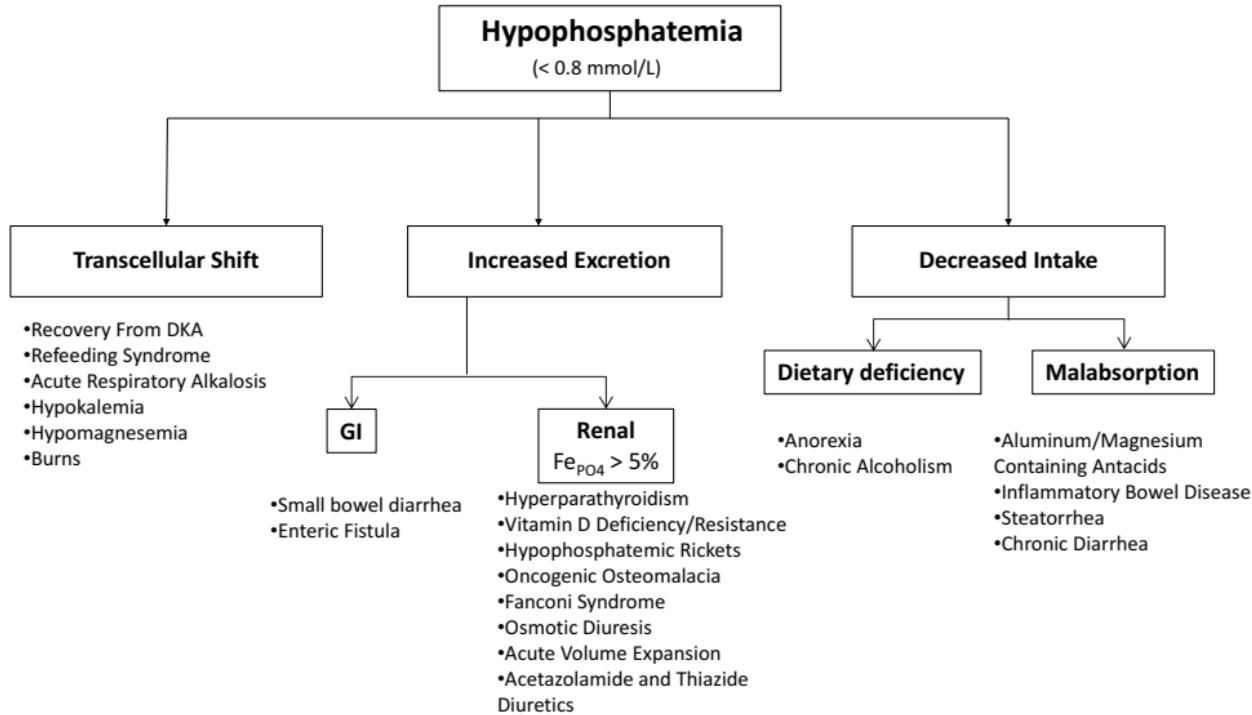
Neurogenic: irritability, tremor, anxiety, palpitations, tachycardia, sweating, pallor, paresthesias

Neuroglycopenia: confusion, lethargy, abnormal behaviour, amnesia, weakness, blurred vision, seizures

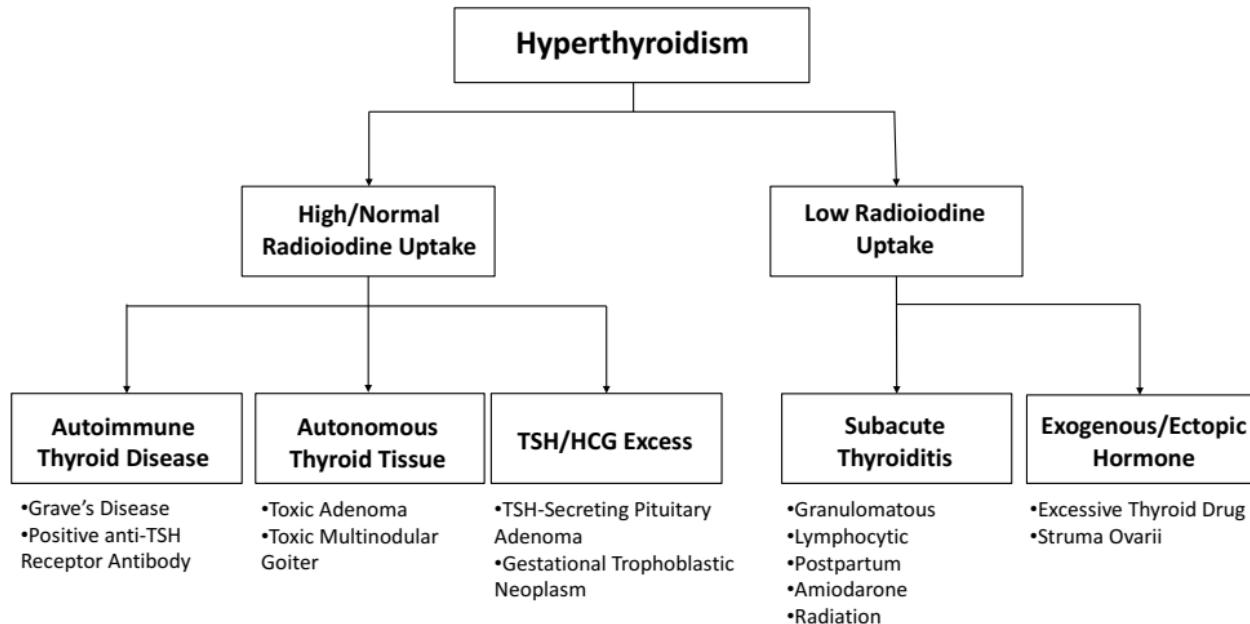
# Hyperphosphatemia



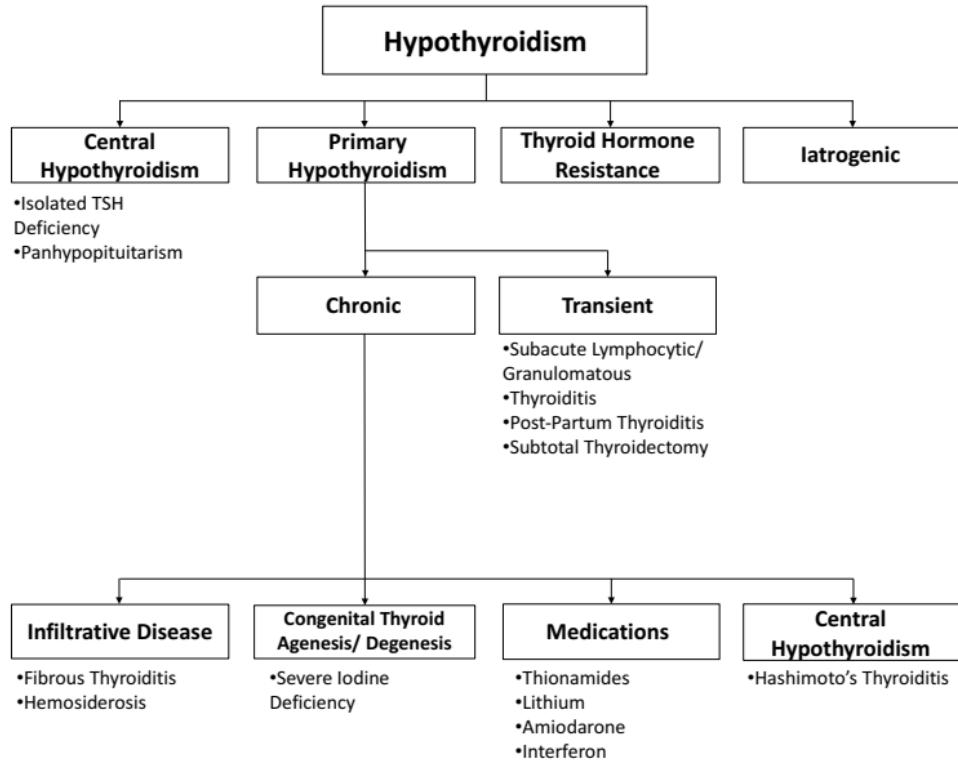
# Hypophosphatemia



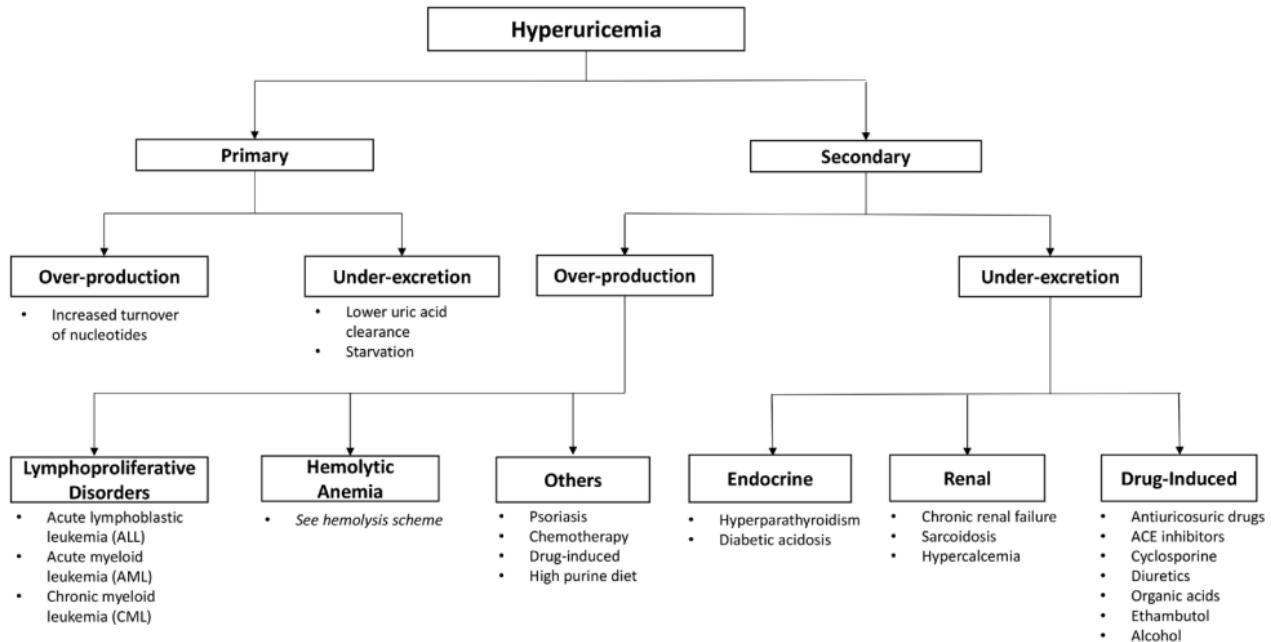
# Hyperthyroidism



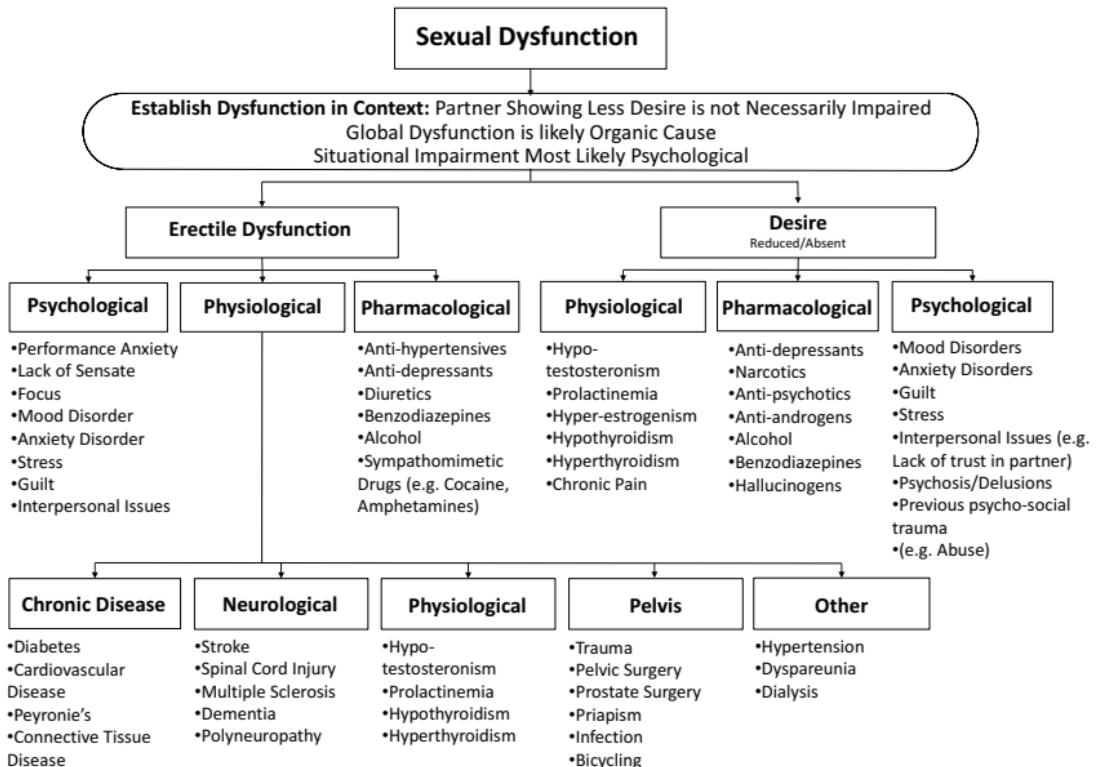
# Hypothyroidism



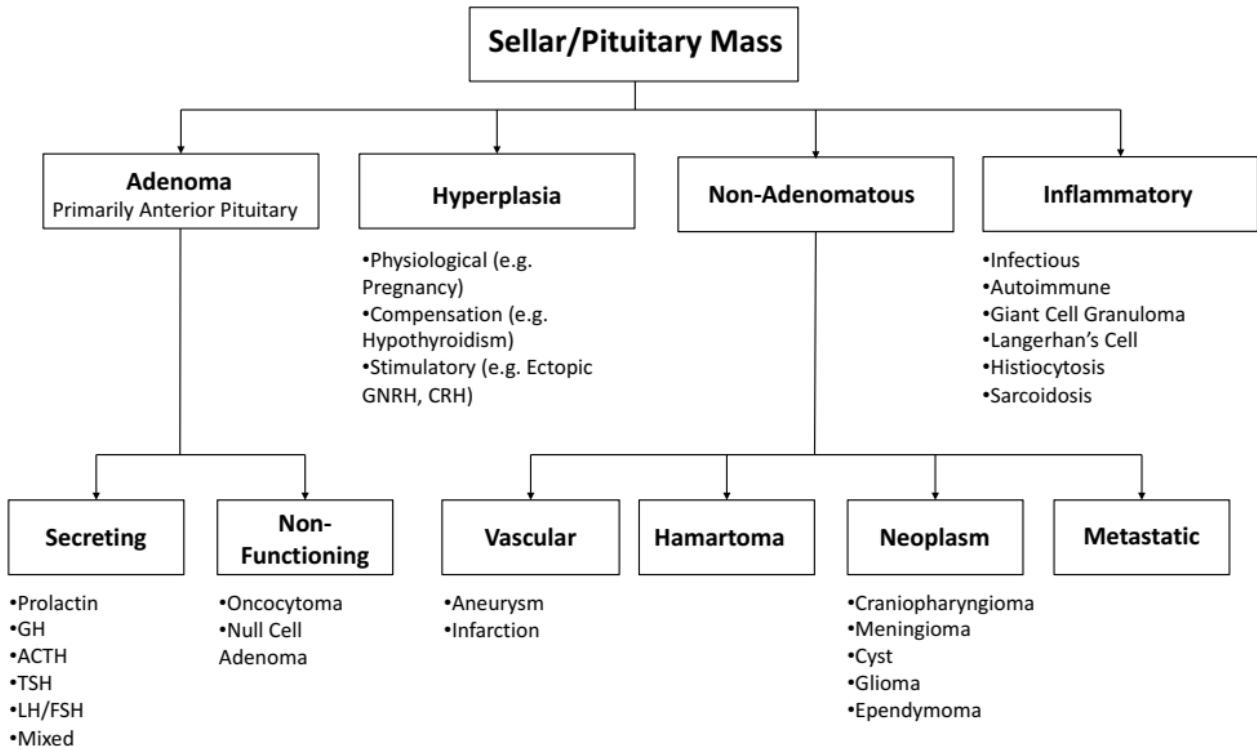
# Hyperuricemia



# Male Sexual Dysfunction



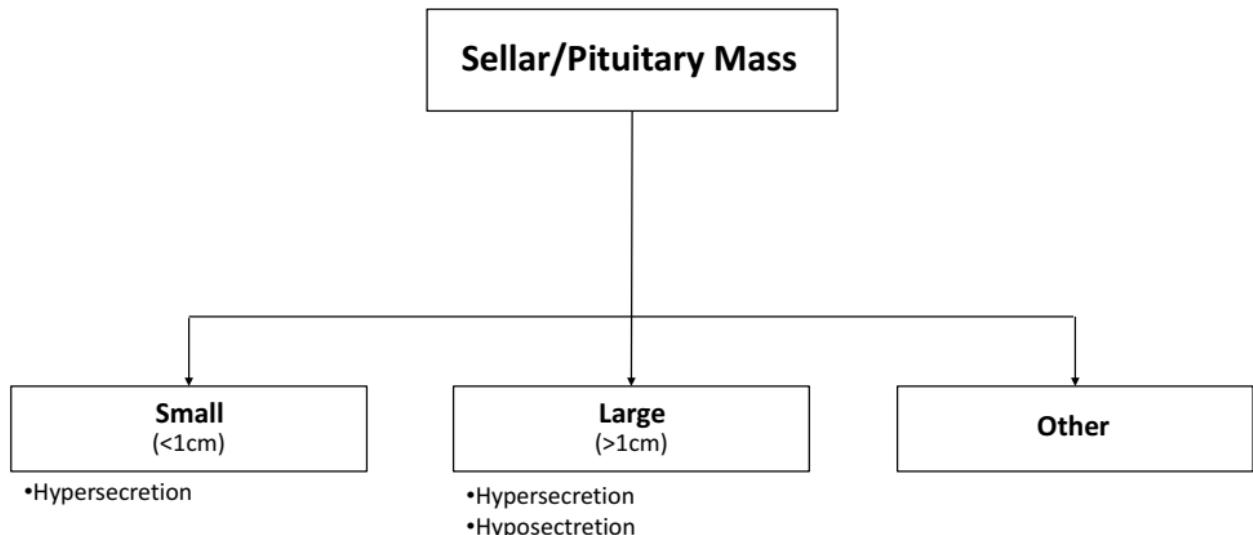
# Sellar / Pituitary Mass



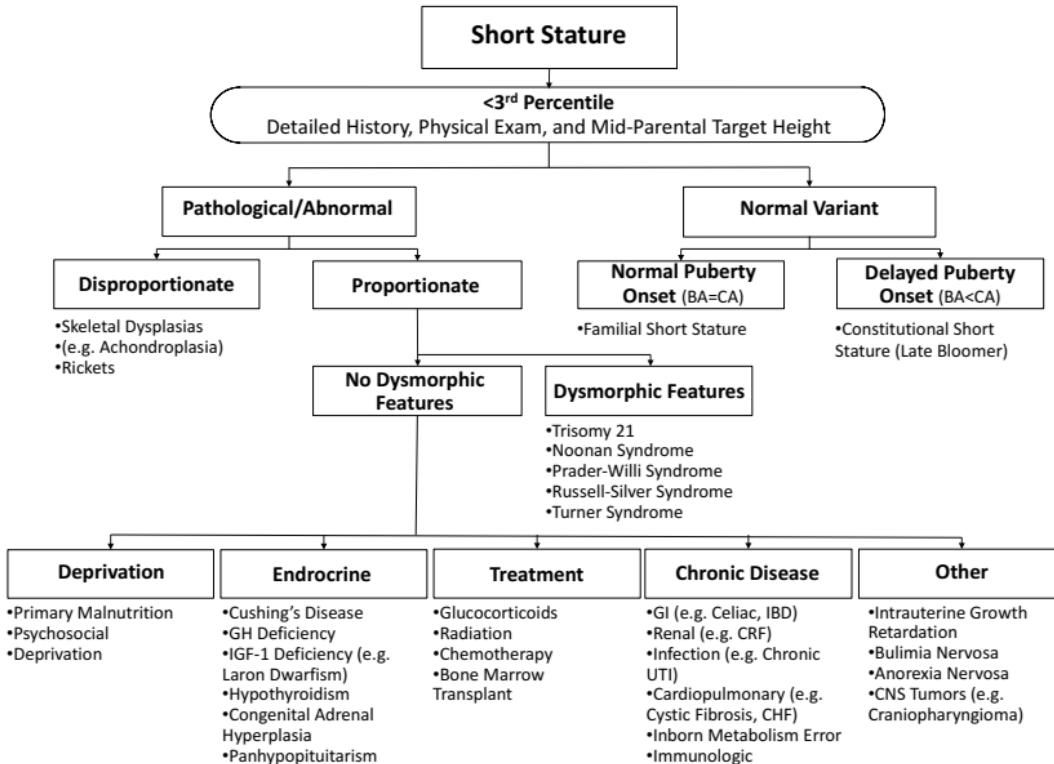
# Sellar / Pituitary Mass

Size

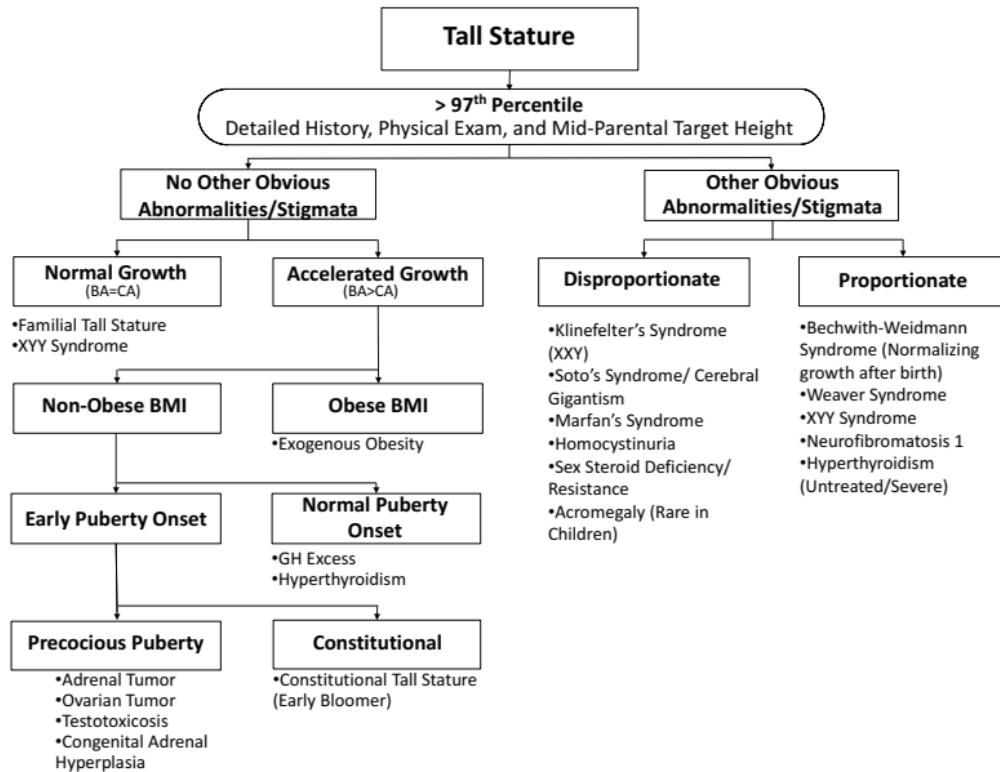
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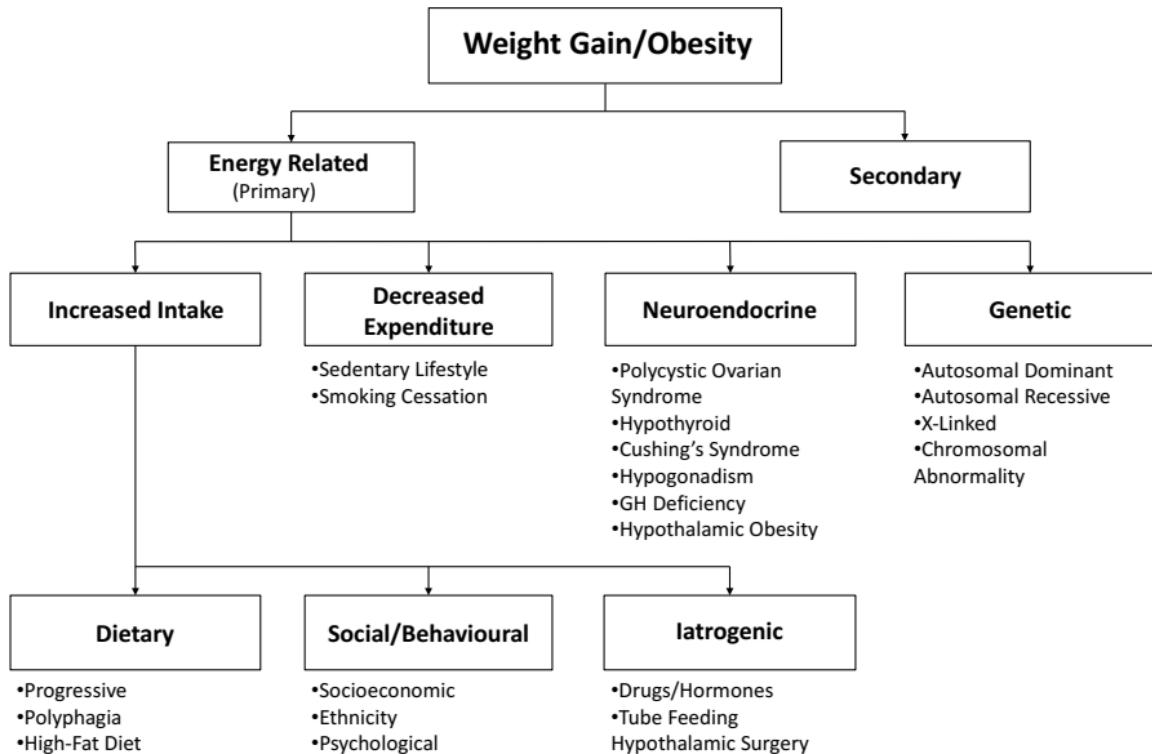
# Short Stature



# Tall Stature



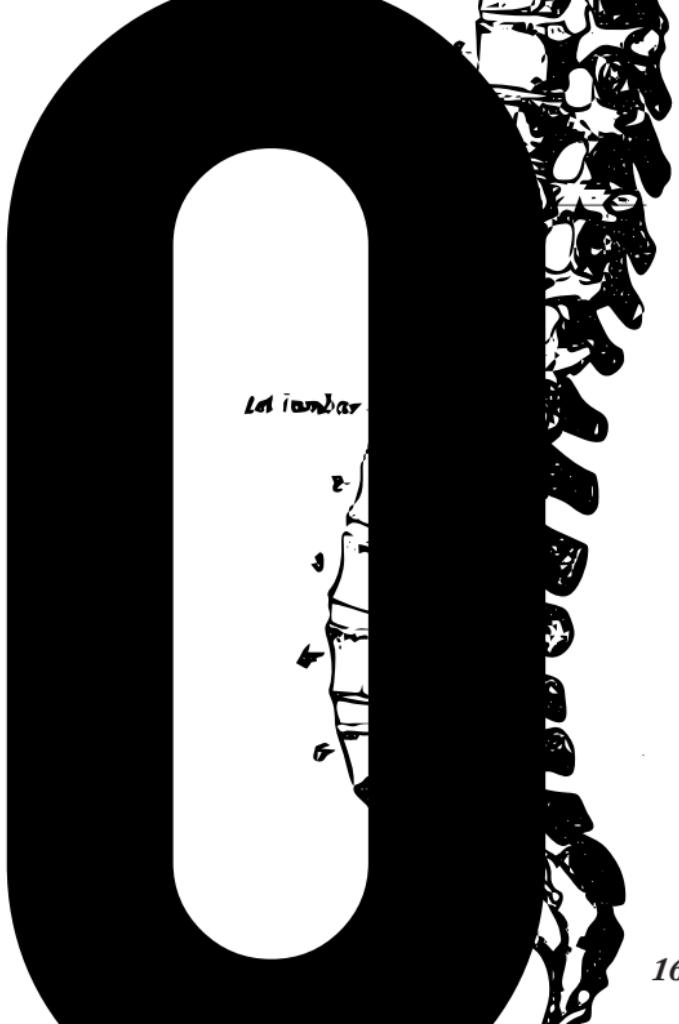
# Weight Gain / Obesity



# Neurologic

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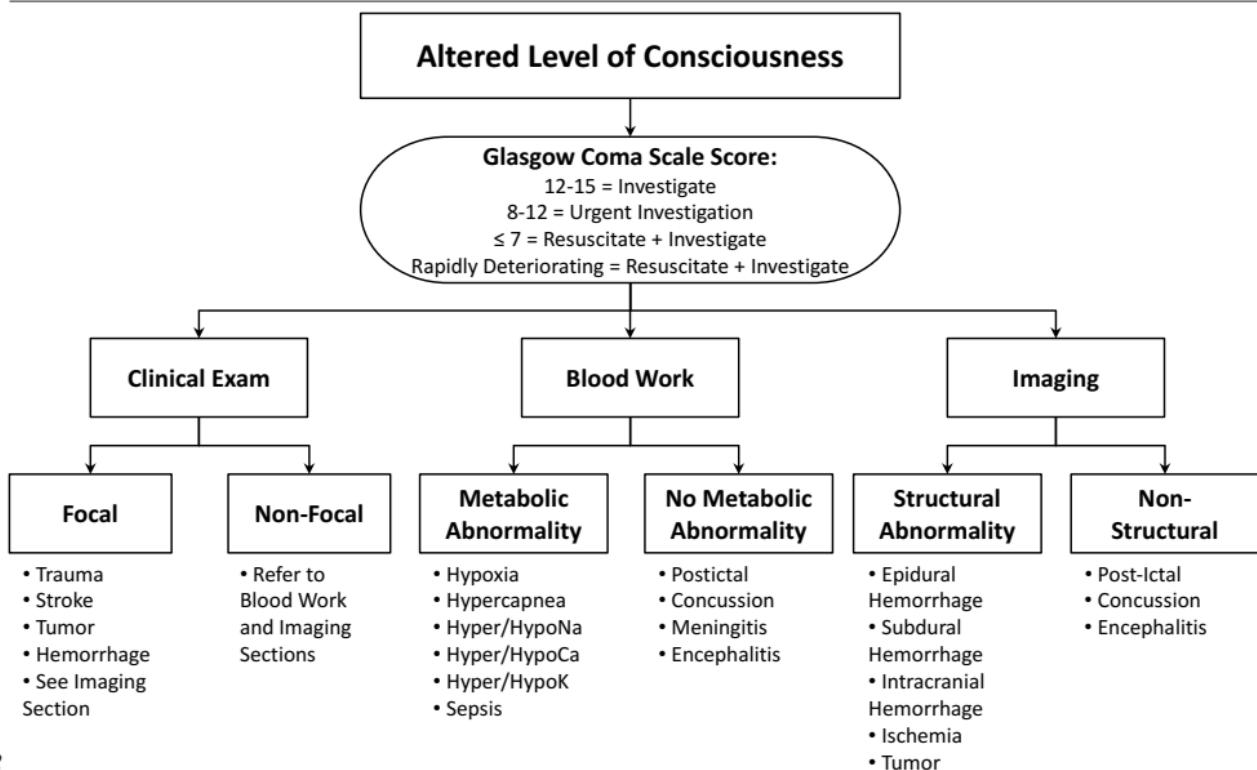
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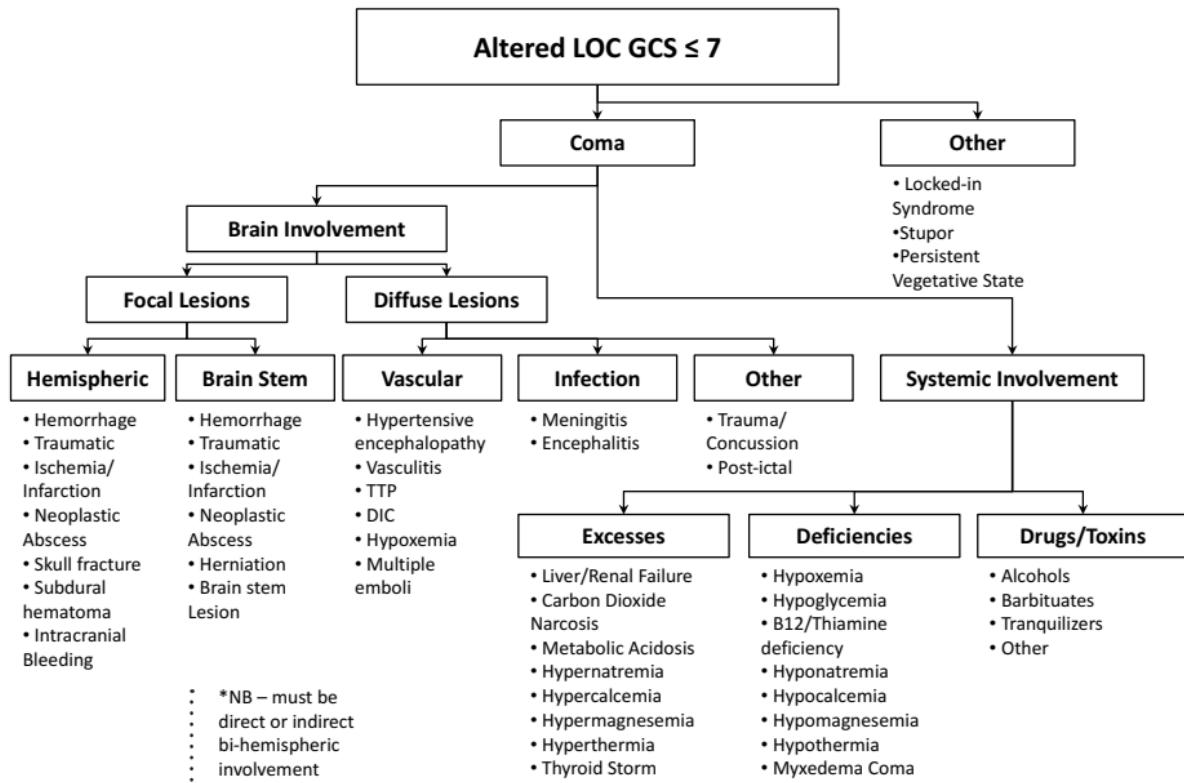
# Altered Level of Consciousness

## Approach



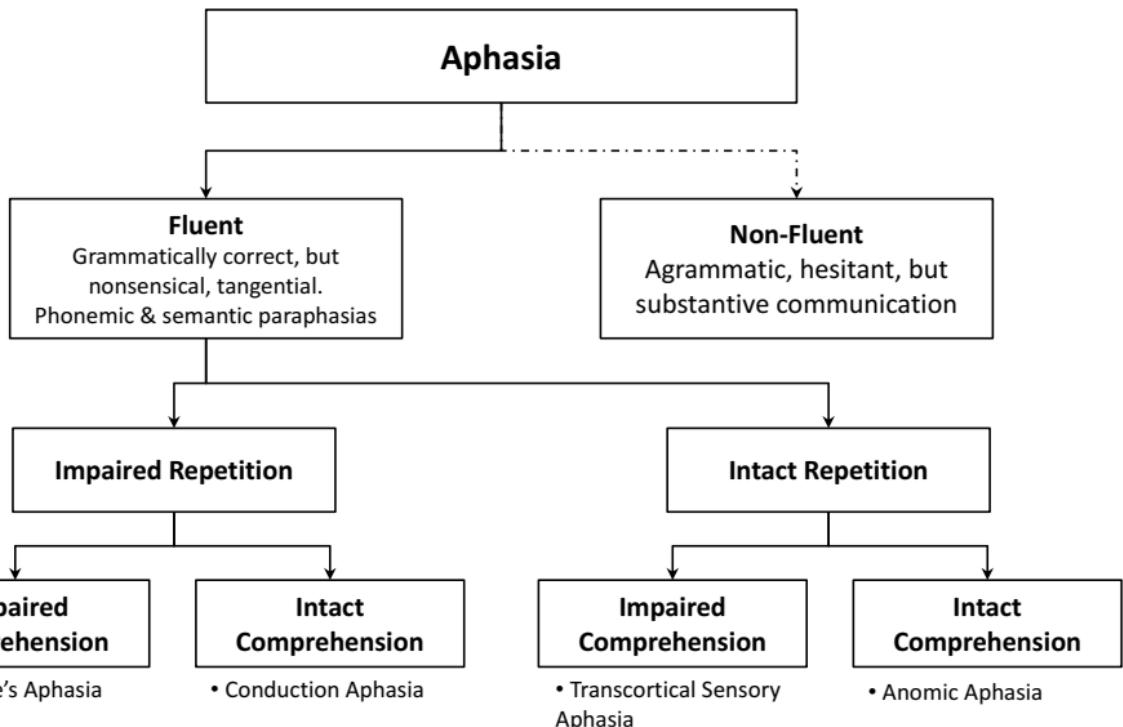
# Altered Level of Consciousness

GCS ≤ 7



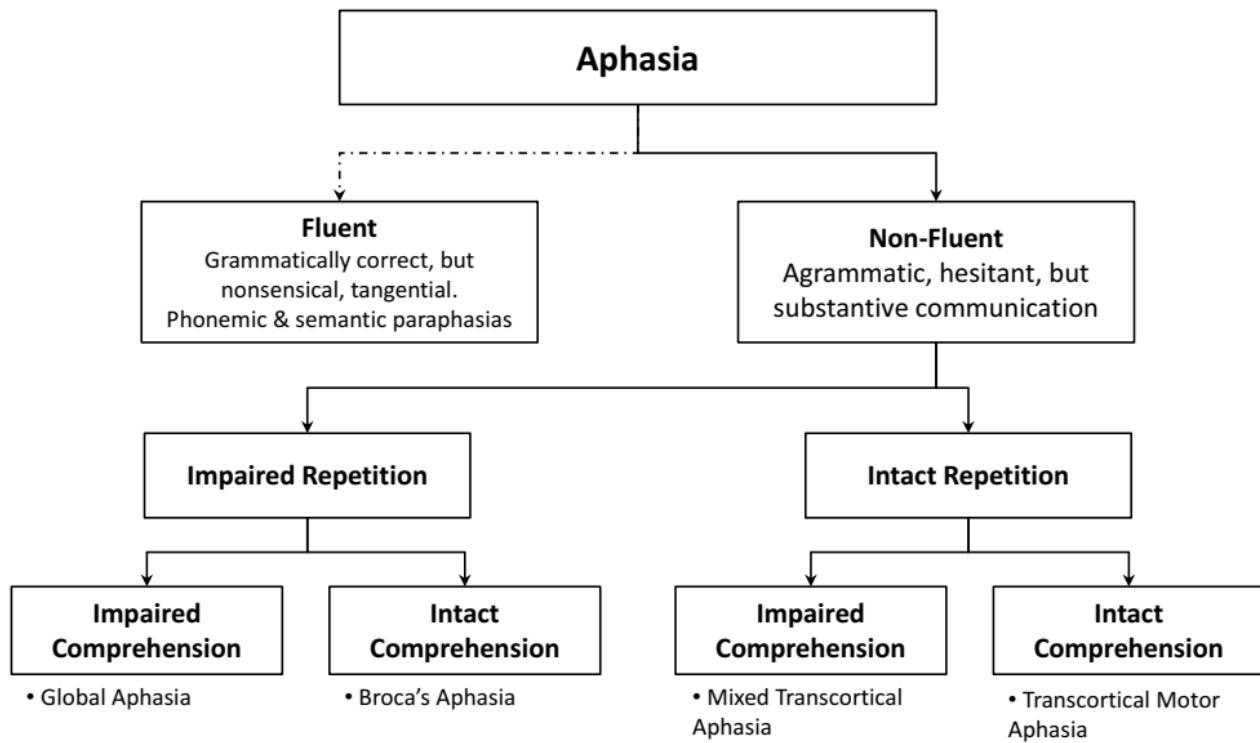
# Aphasia

Fluent

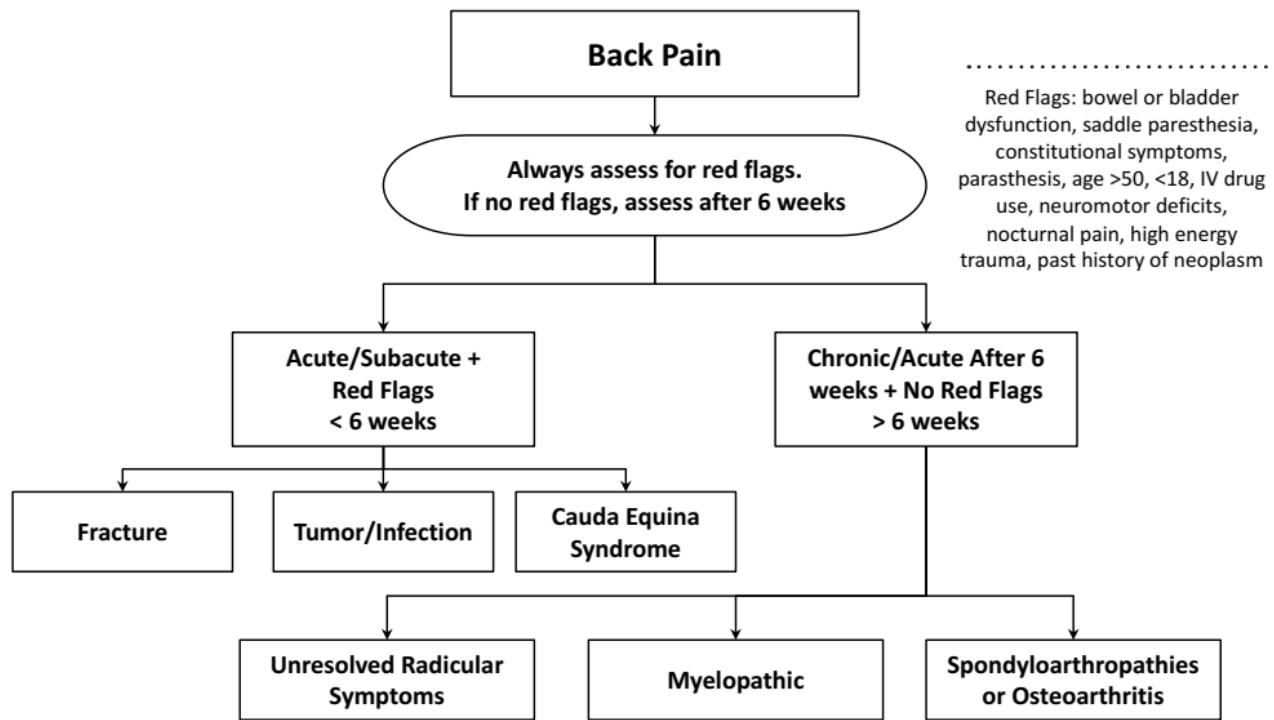


# Aphasia

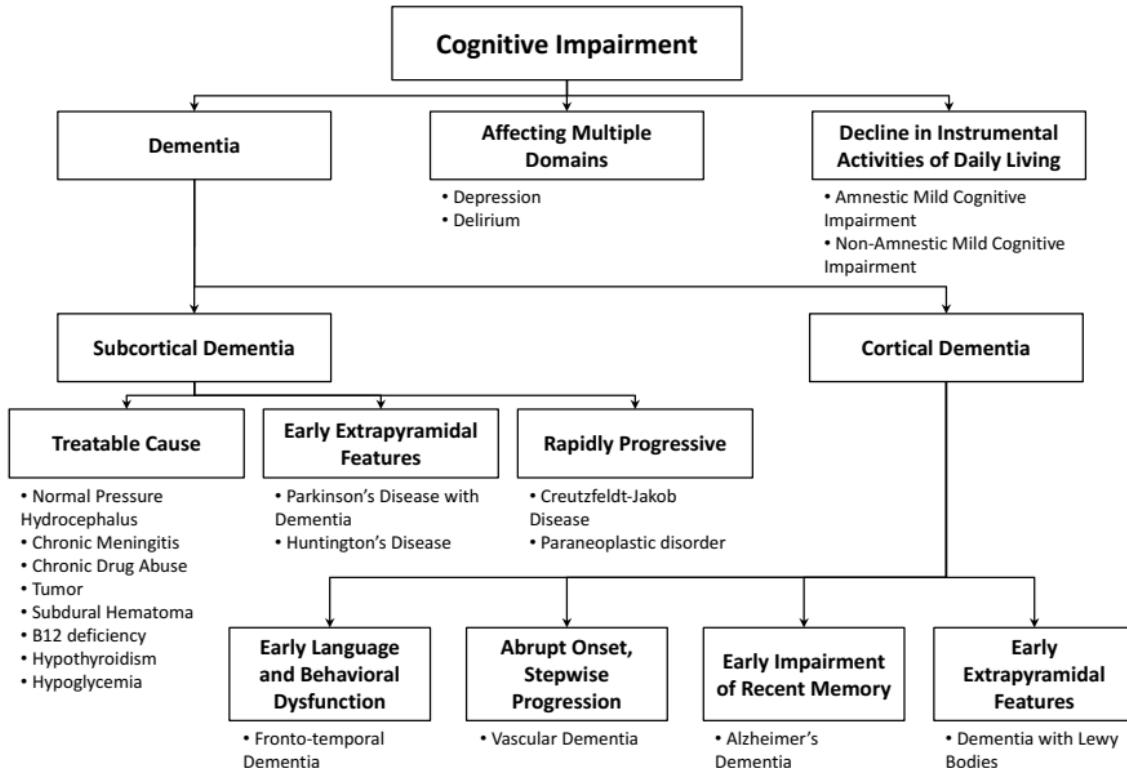
Non-Fluent



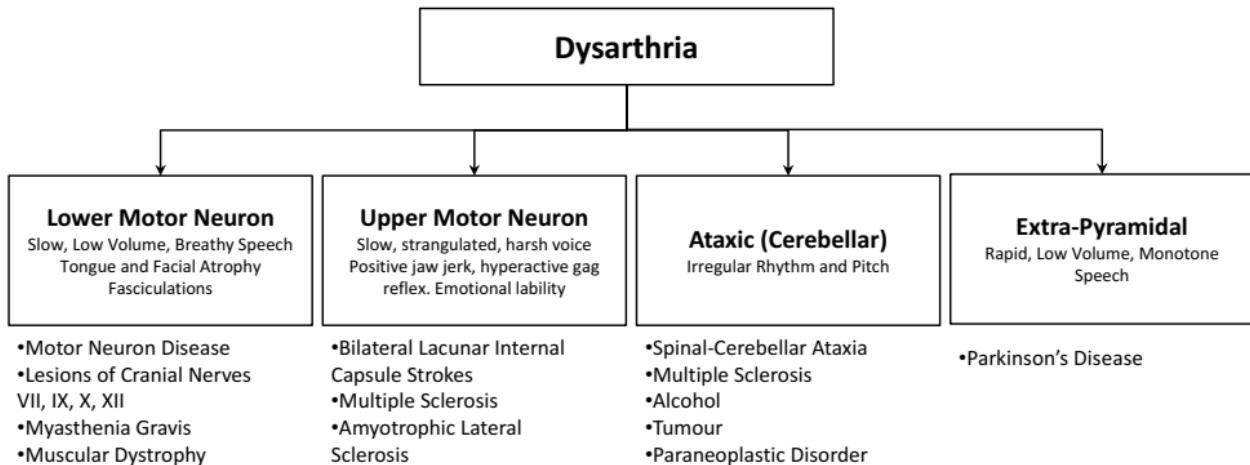
# Back Pain



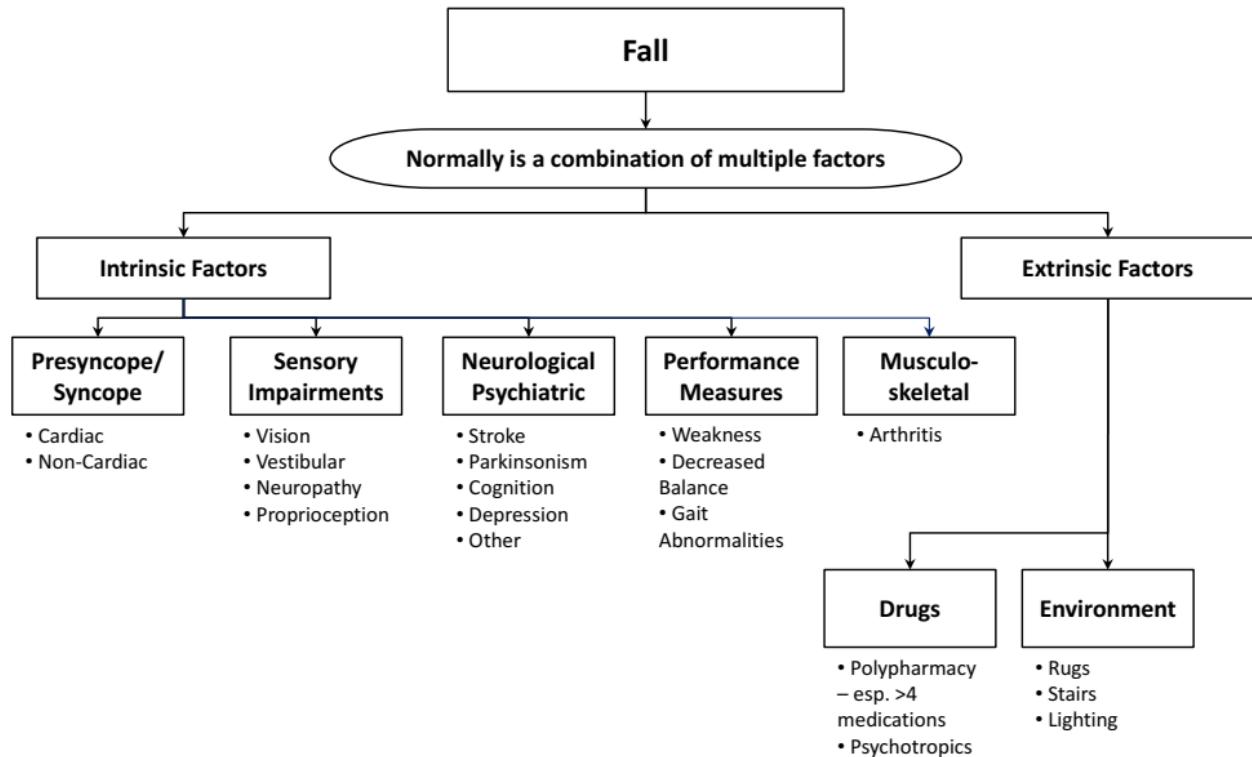
# Cognitive Impairment



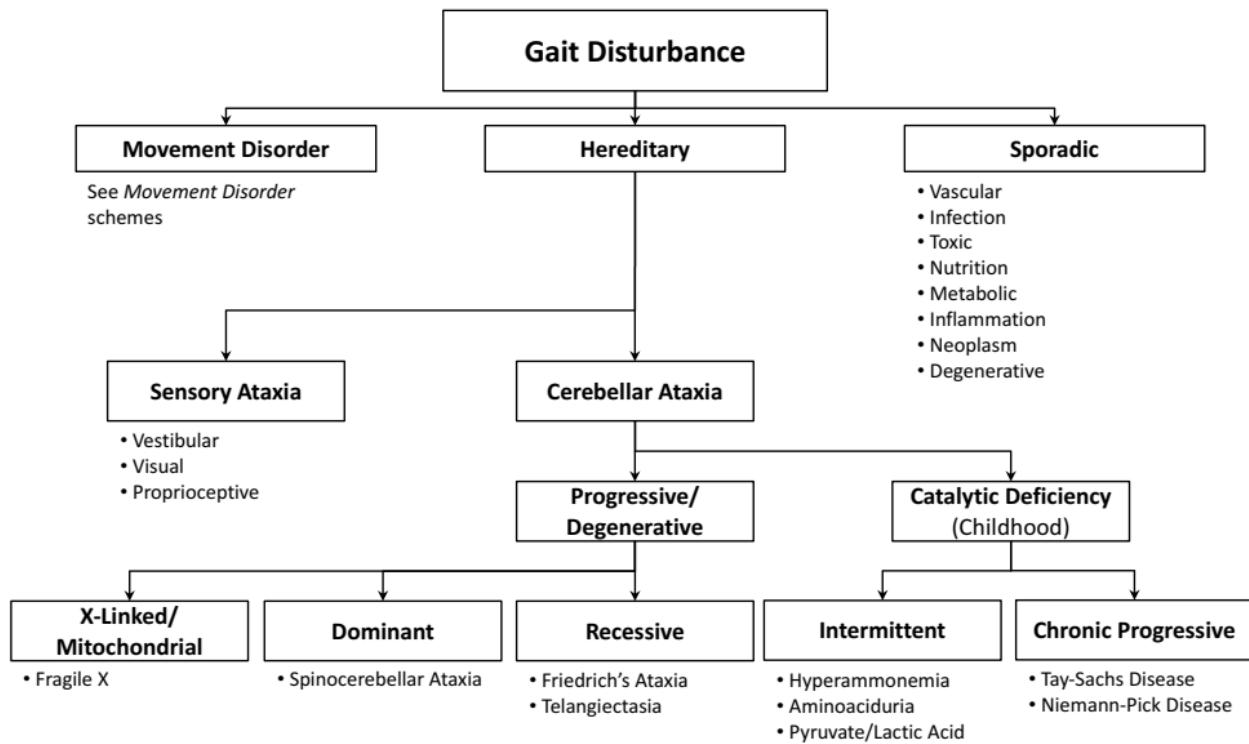
# Dysarthria



# Falls in the Elderly

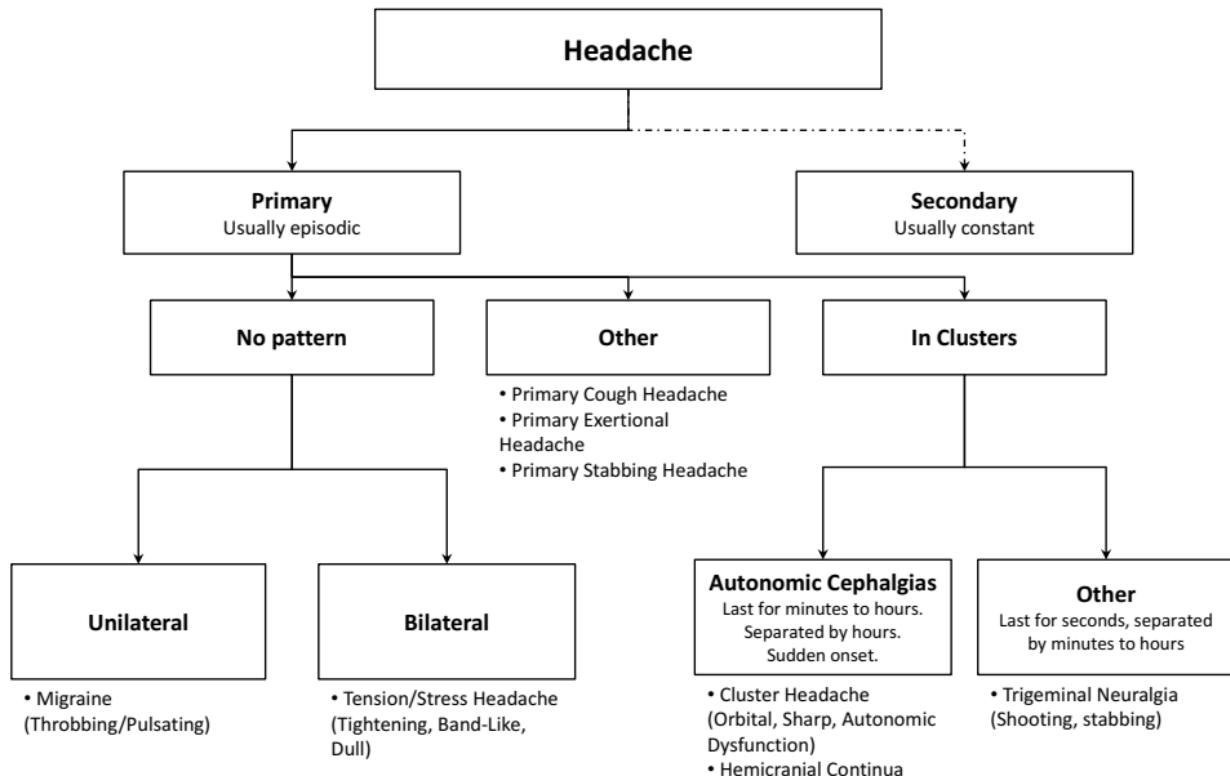


# Gait Disturbance



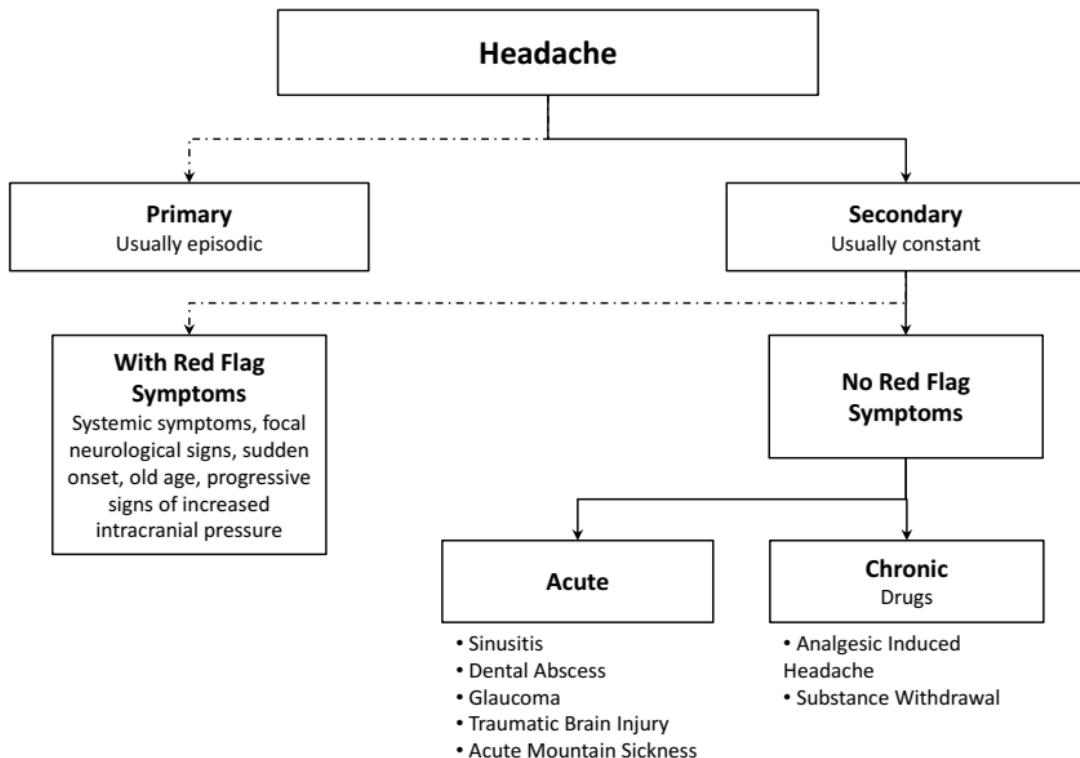
# Headache

Primary

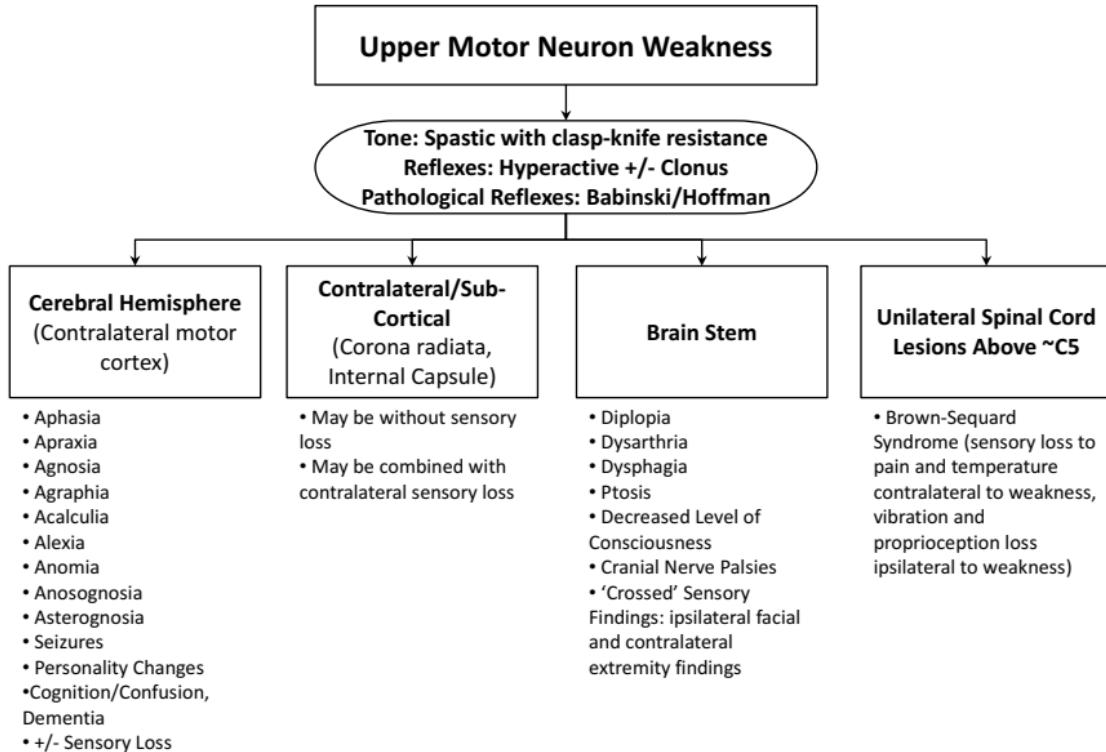


# Headache

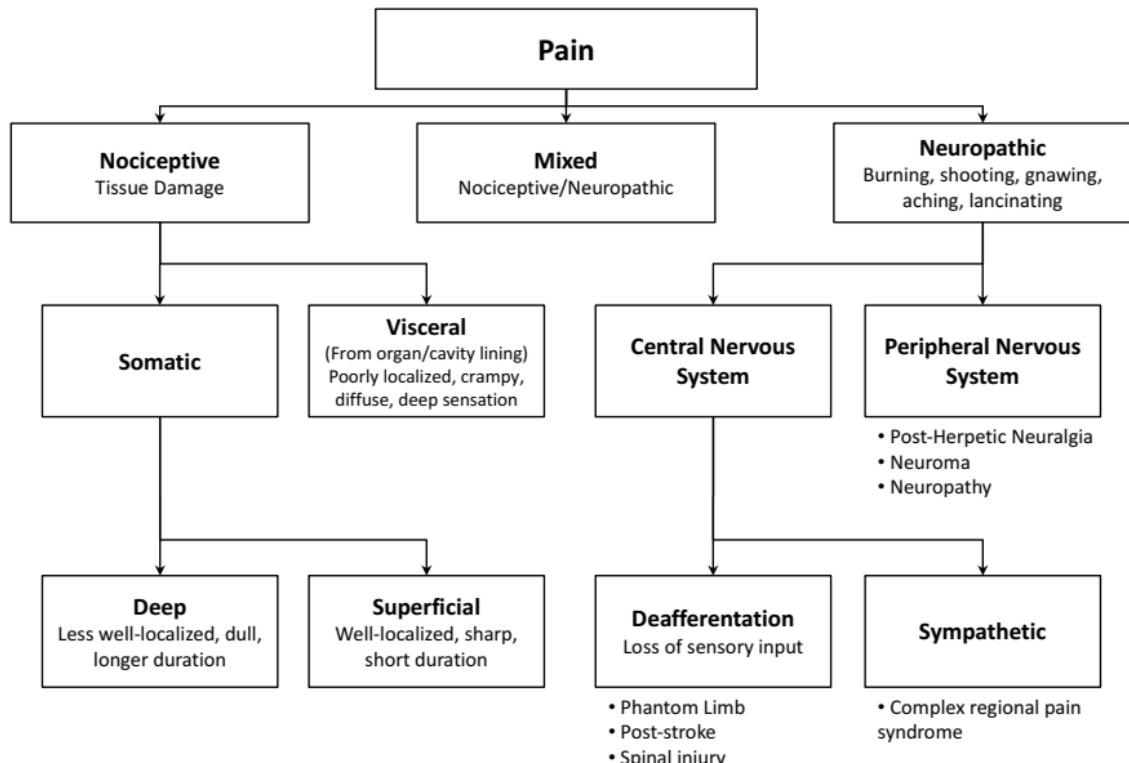
Secondary, without Red Flag Symptoms



# Hemiplegia

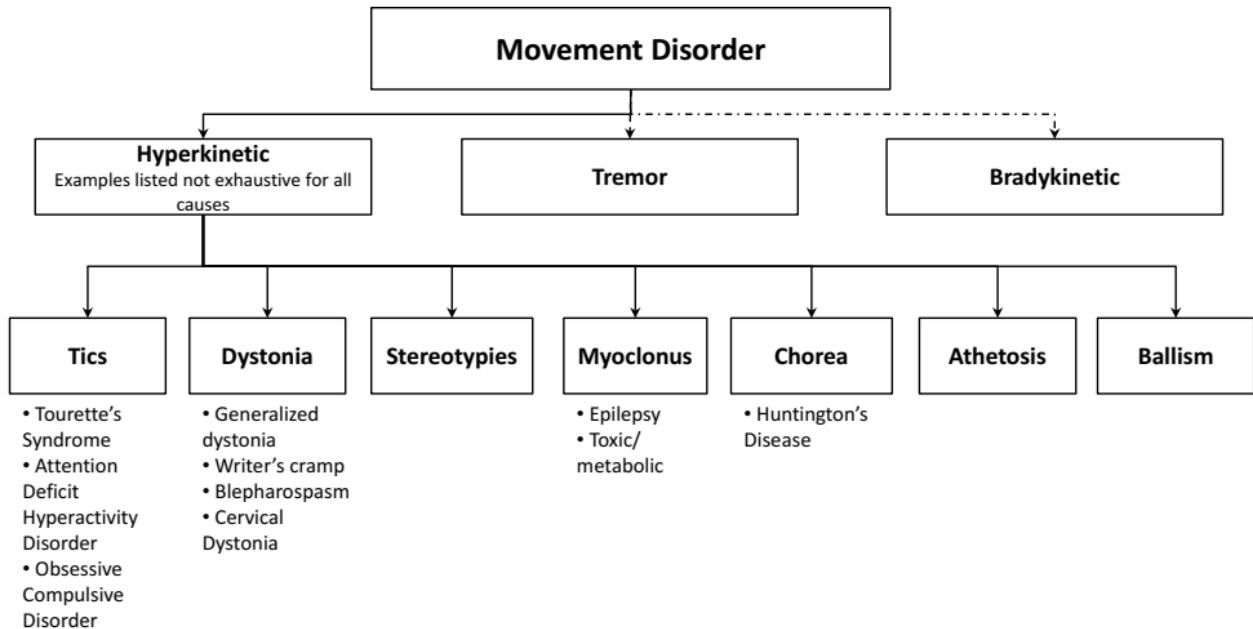


# Mechanisms of Pain



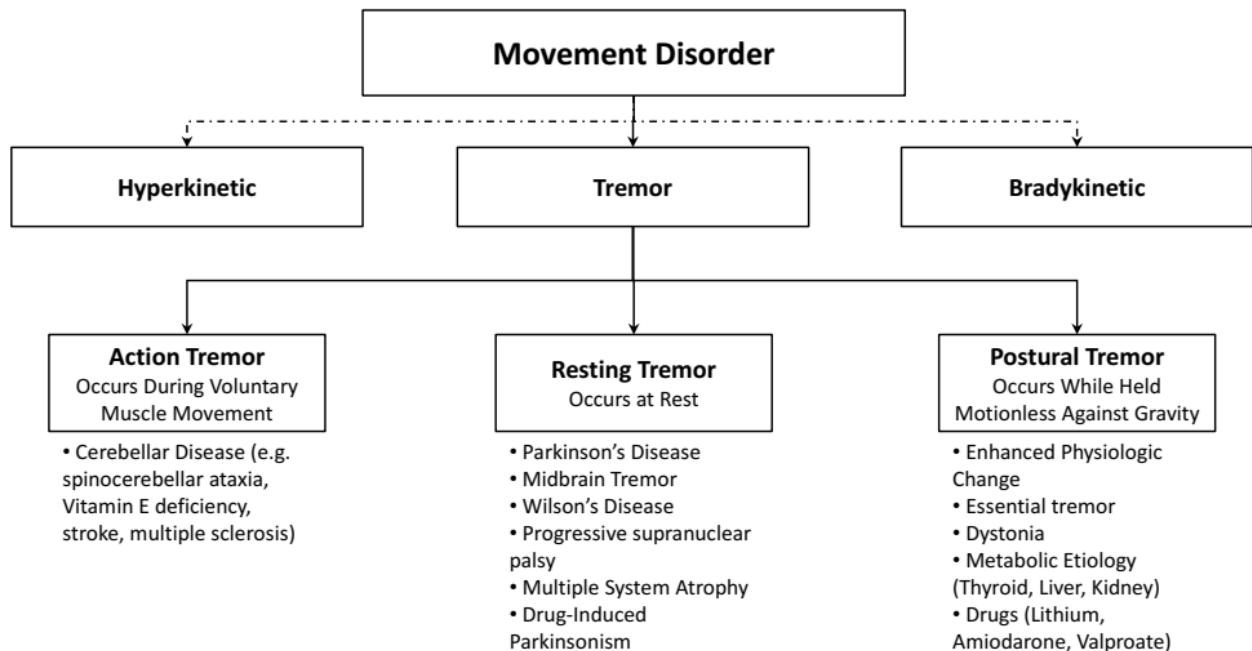
# Movement Disorder

Hyperkinetic



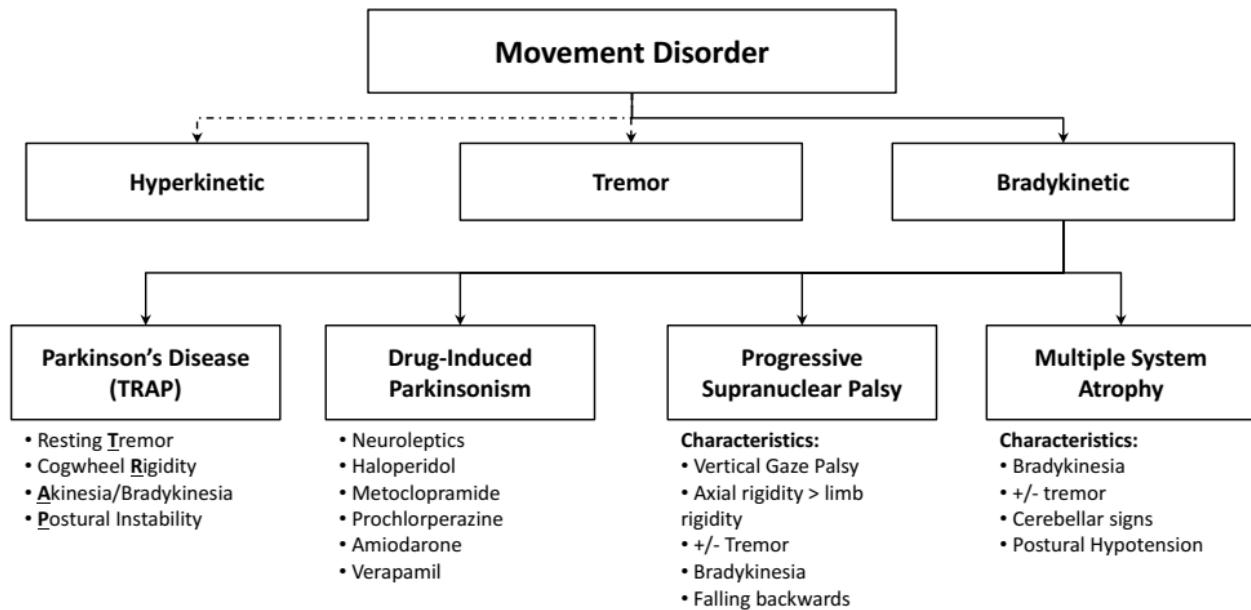
# Movement Disorder

## Tremor

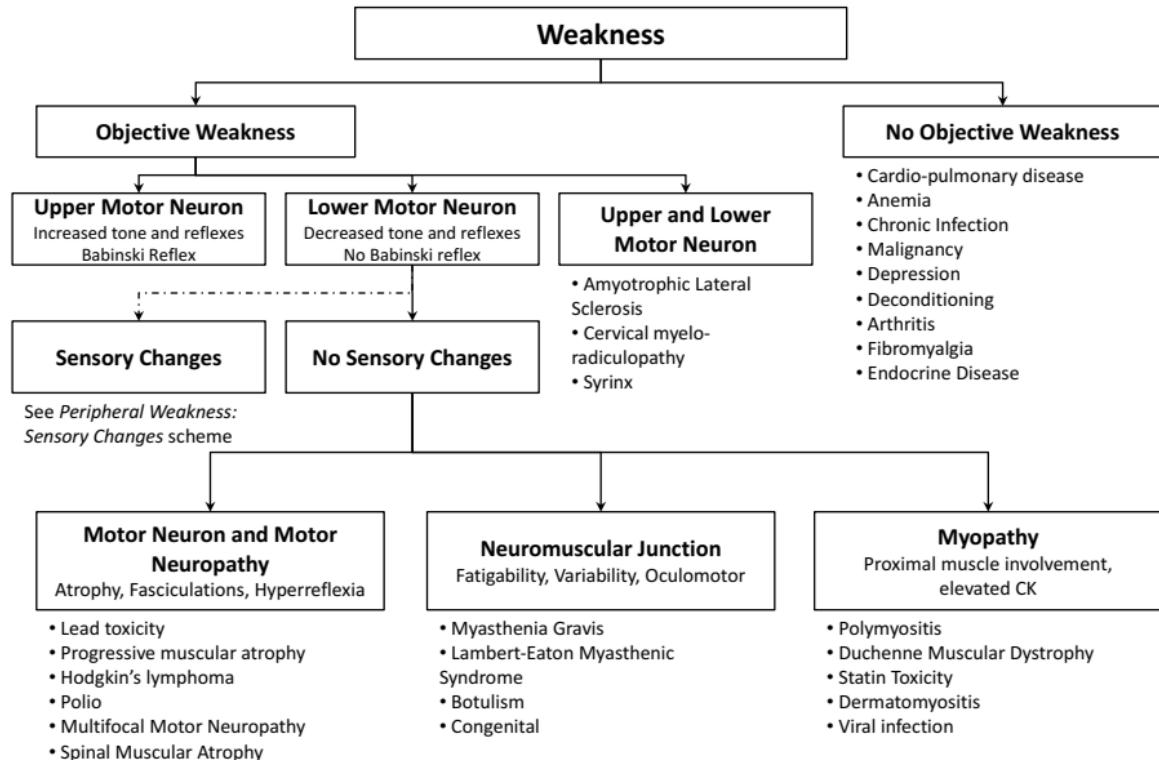


# Movement Disorder

Bradykinetic

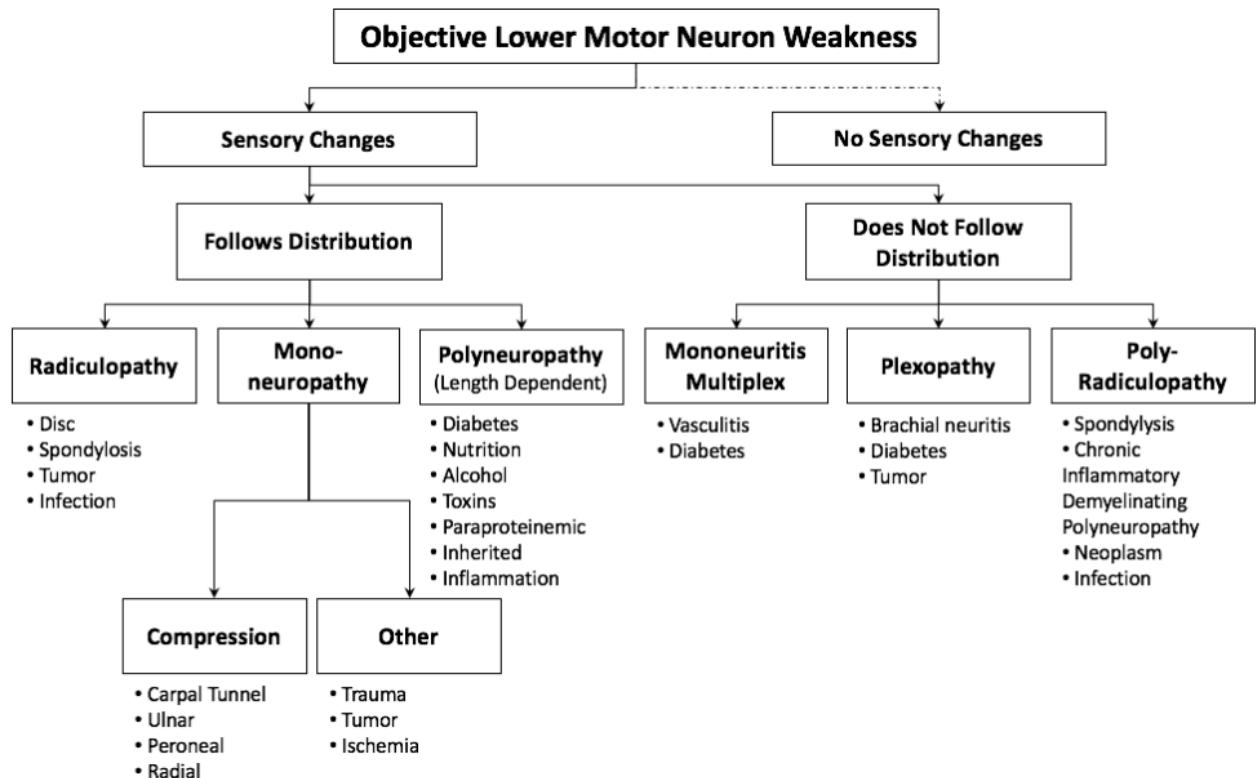


# Peripheral Weakness



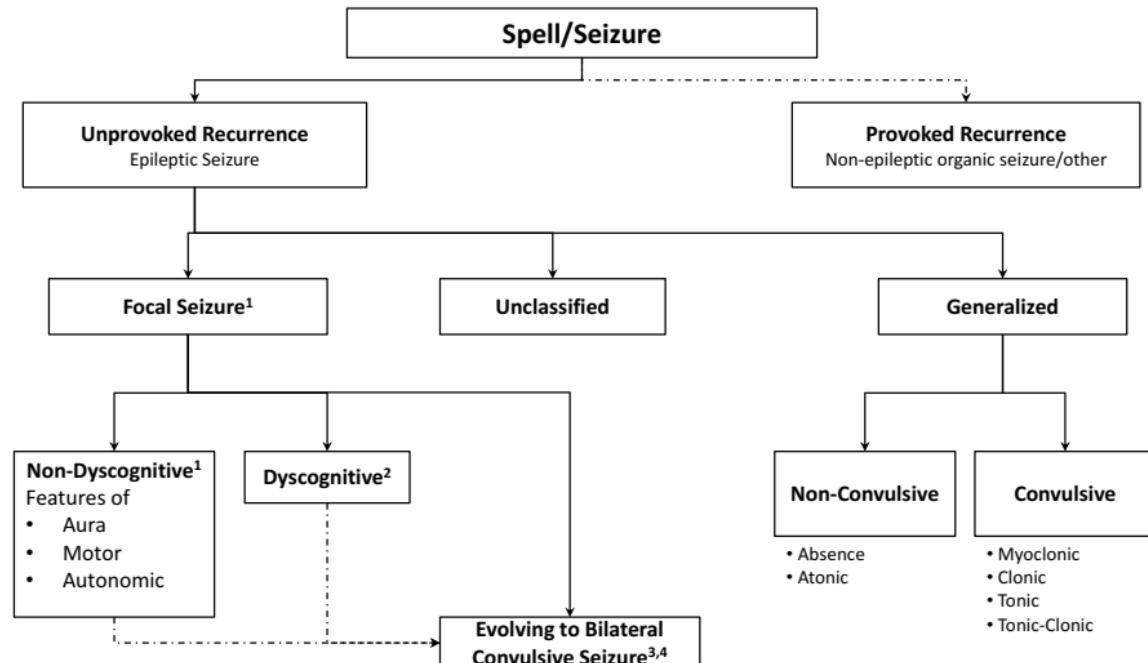
# Peripheral Weakness

Sensory Changes



# Spell / Seizure

## Epileptic Seizure



1 Previously named Simple Partial Seizure

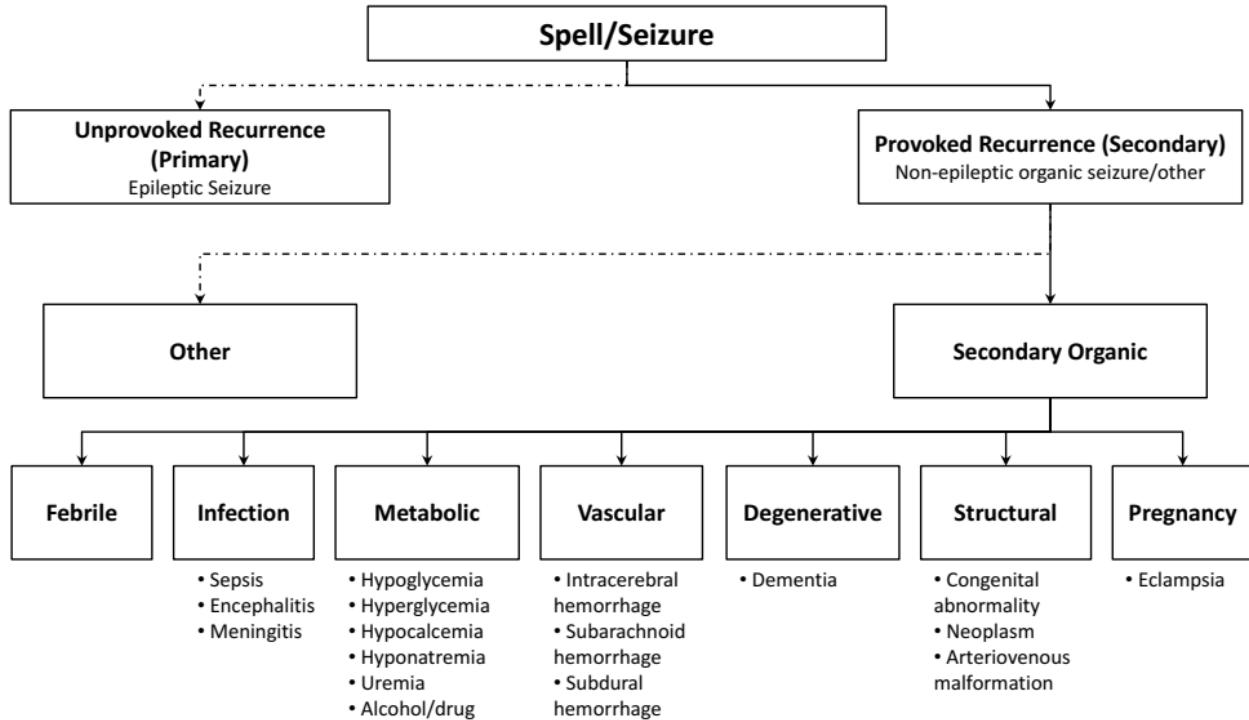
2 Previously named Complex Partial Seizure

3 Previously named Secondary Generalized Tonic-Clonic Seizure

4 A focal seizure may evolve so rapidly to a bilateral convulsive seizure that no initial distinguishing features are apparent.

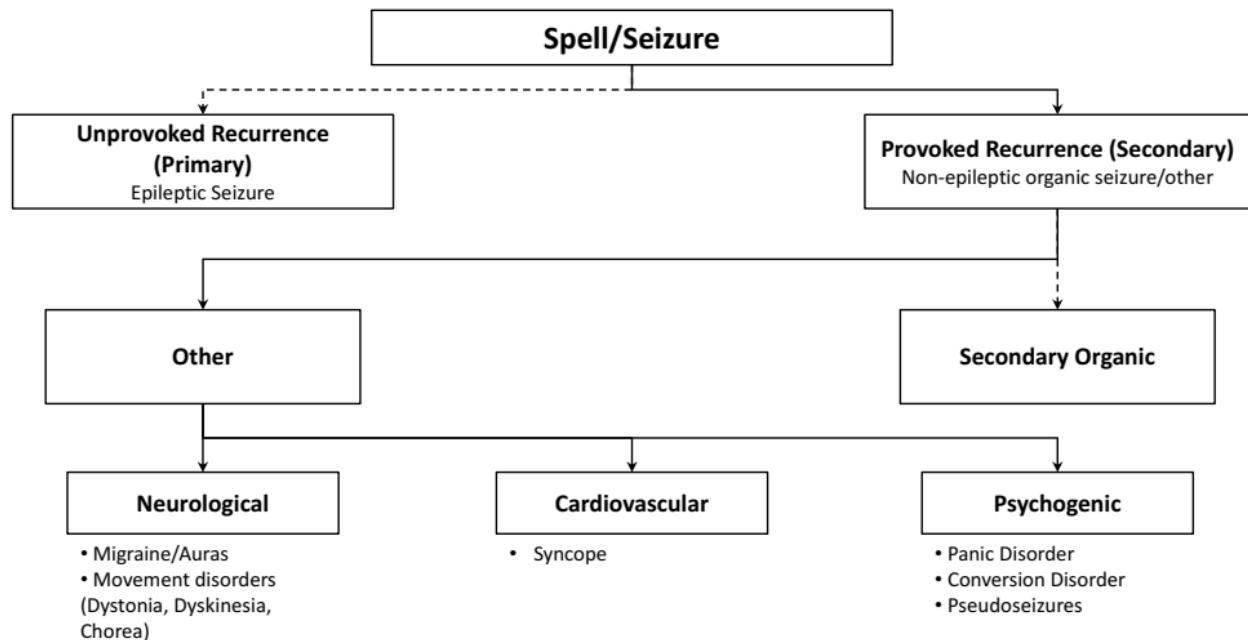
# Spell / Seizure

Secondary Organic



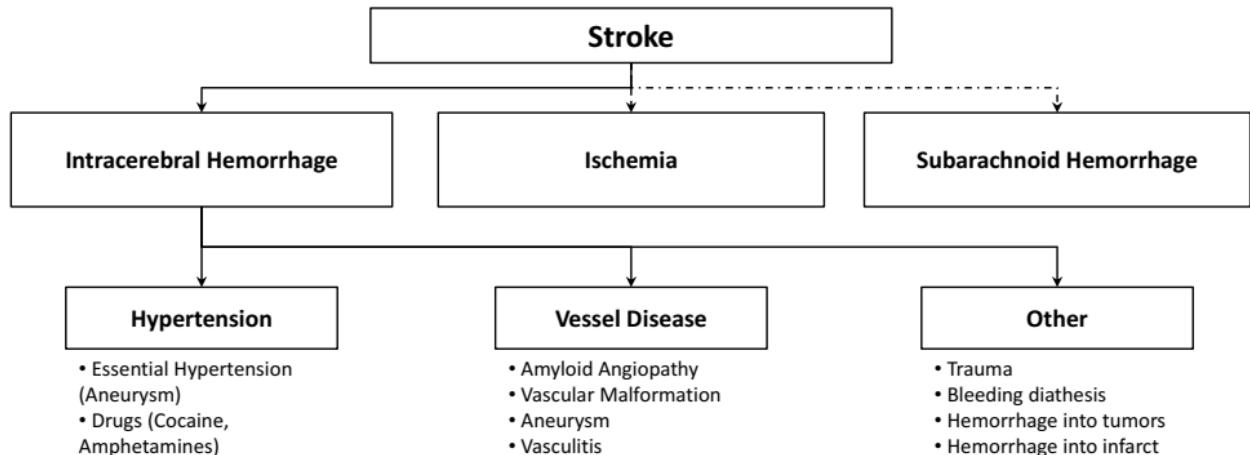
# Spell / Seizure

Other



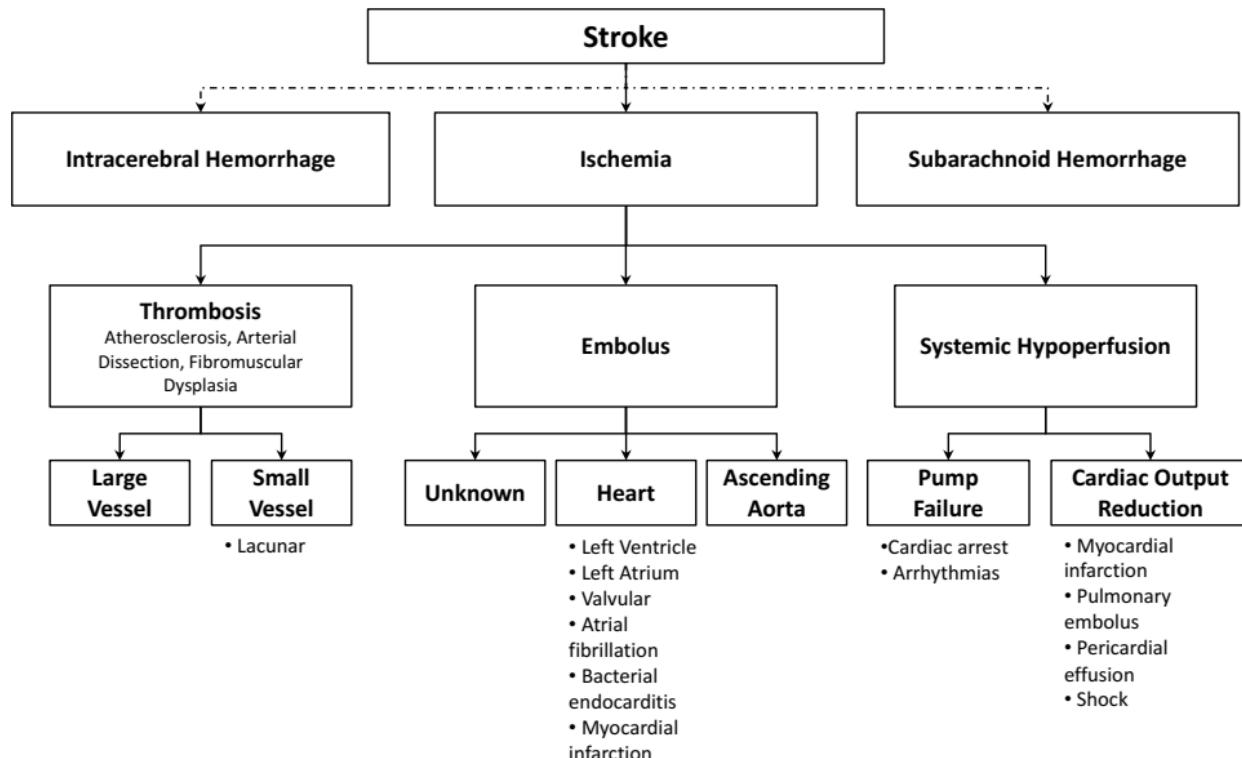
# Stroke

## Intracerebral Hemorrhage



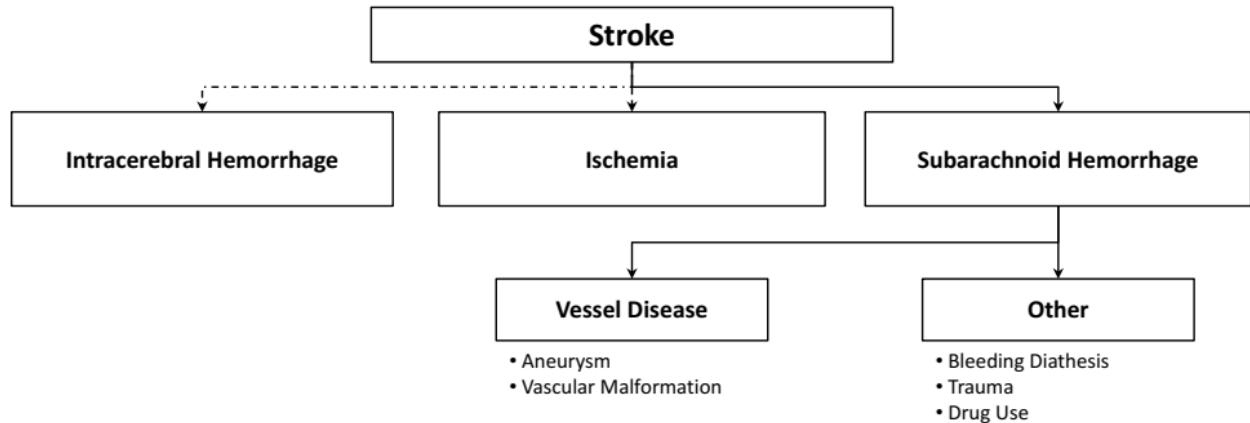
# Stroke

## Ischemia

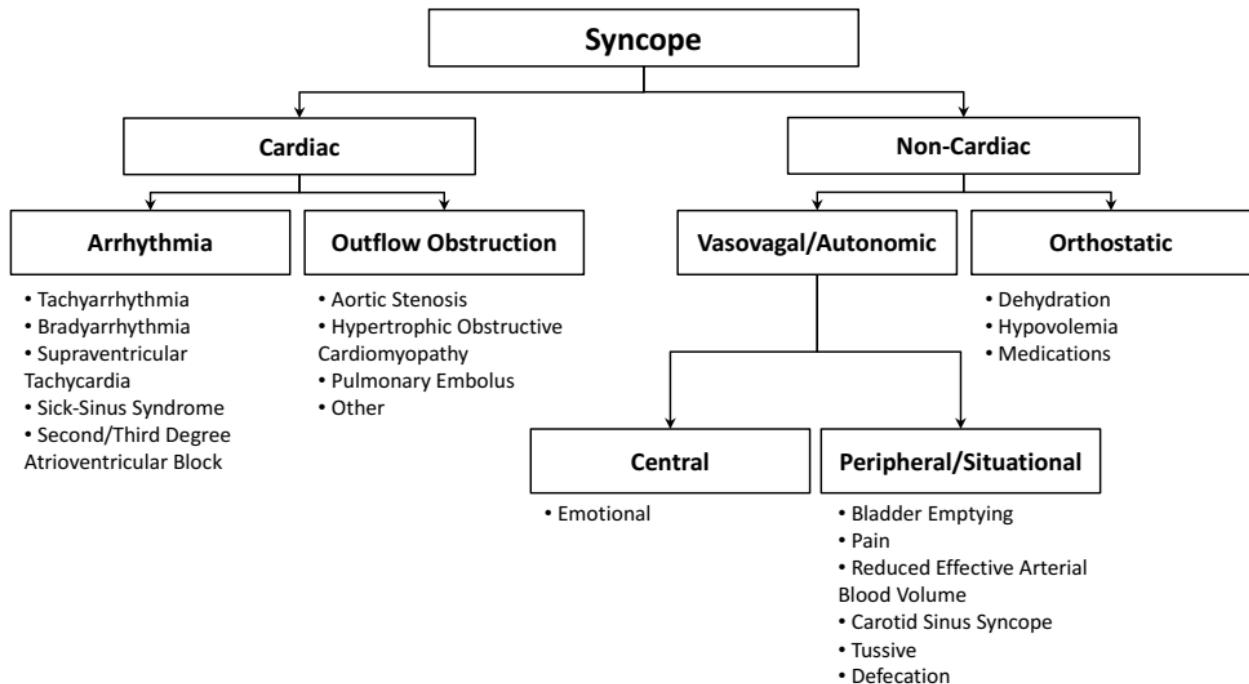


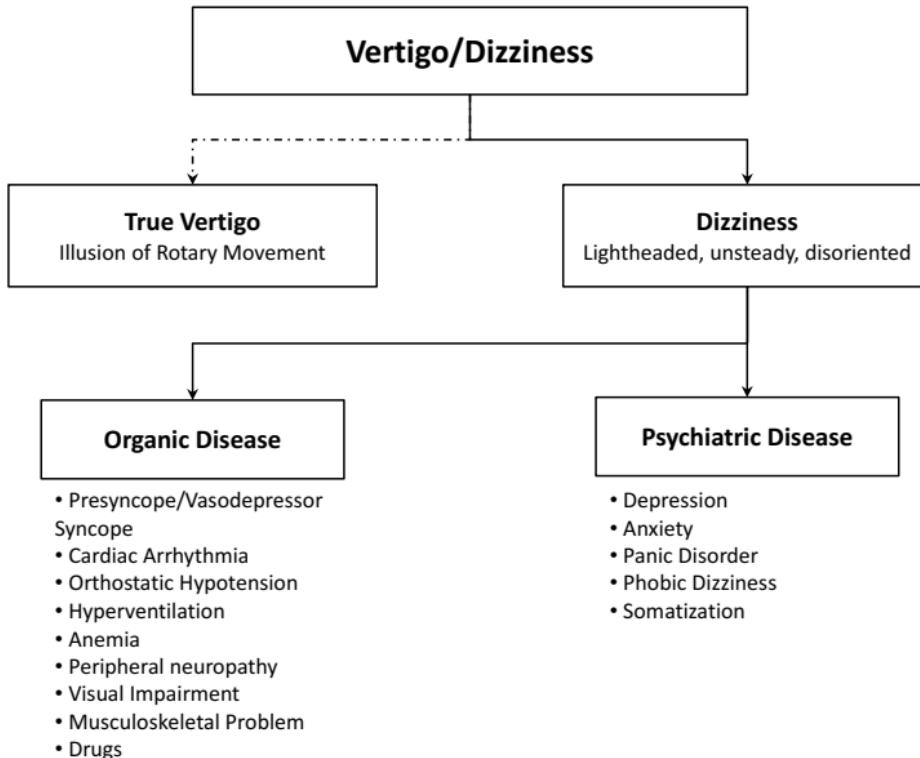
# **Stroke**

## **Subarachnoid Hemorrhage**

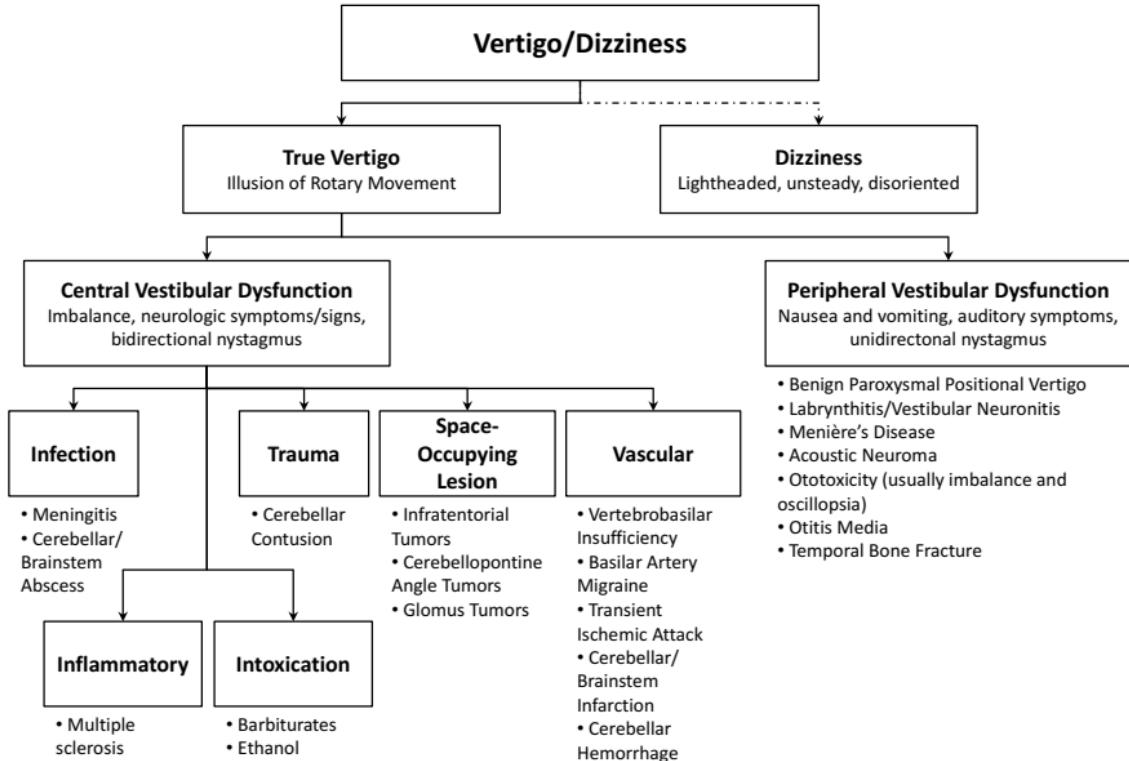


# Syncope





# Vertigo





# Obstetrical & Gynecological

Wall of w

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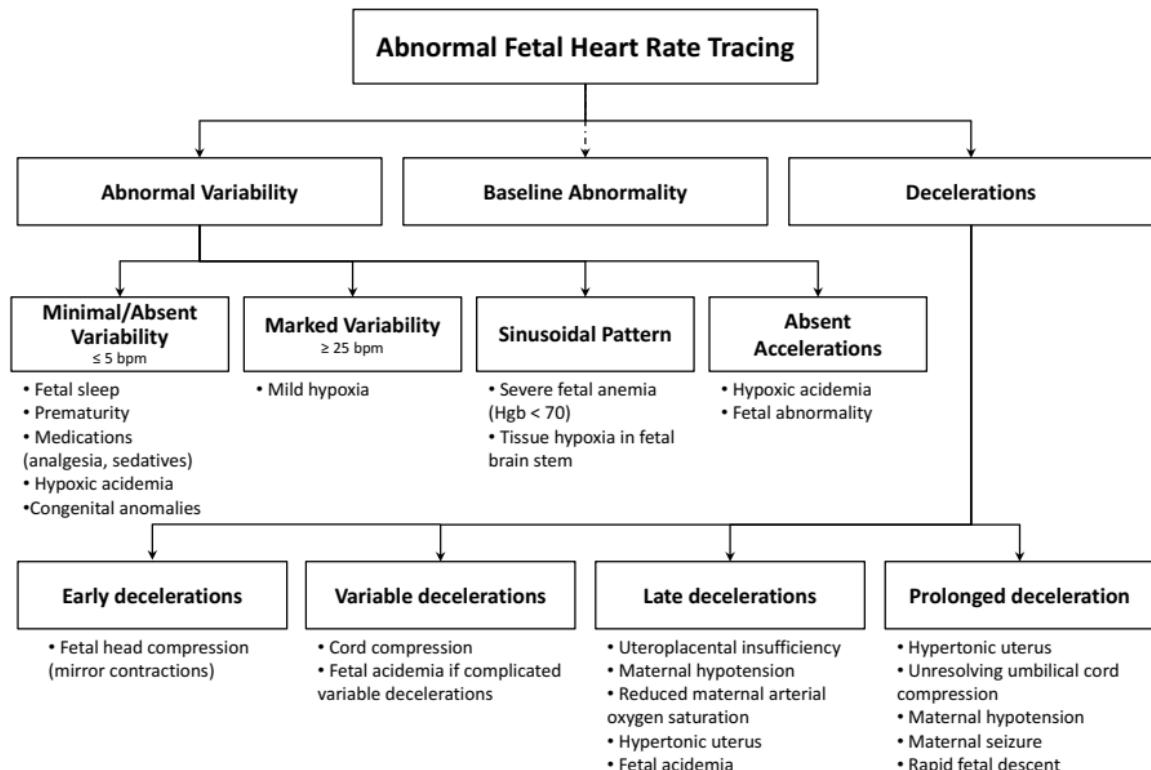
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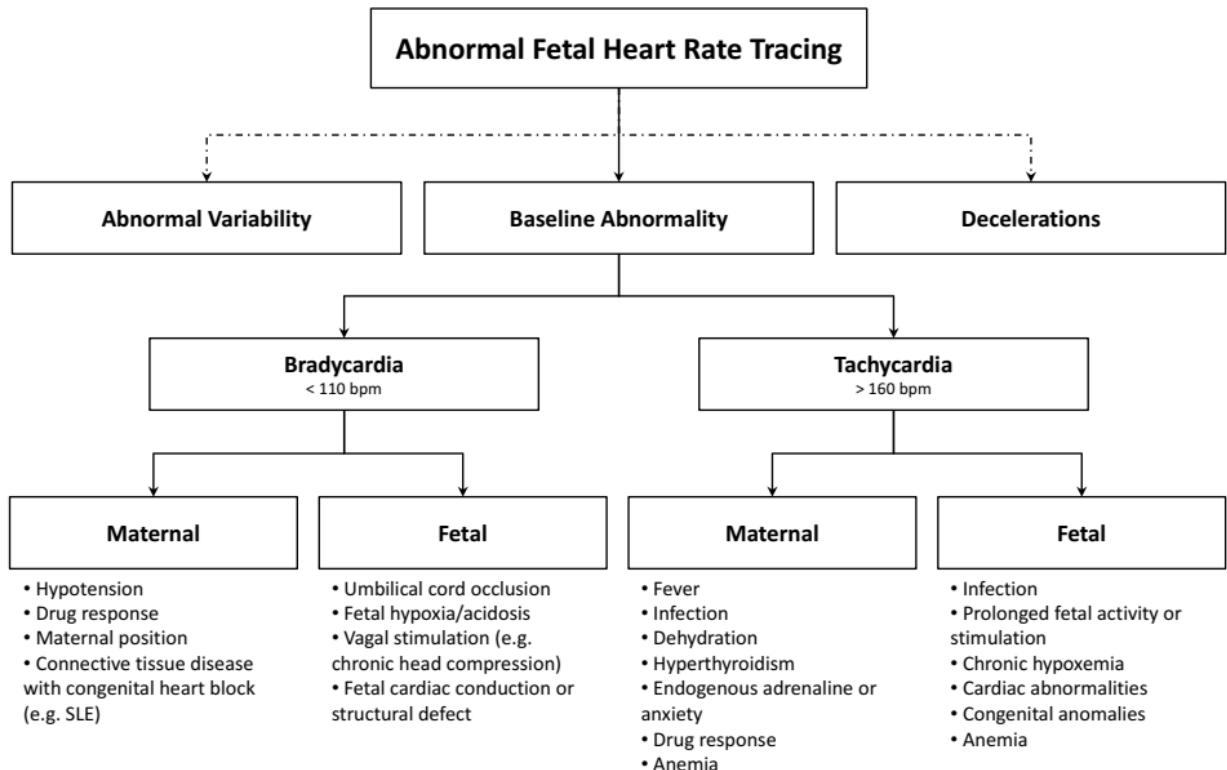
# Intrapartum Abnormal Fetal HR Tracing

## Variability & Decelerations

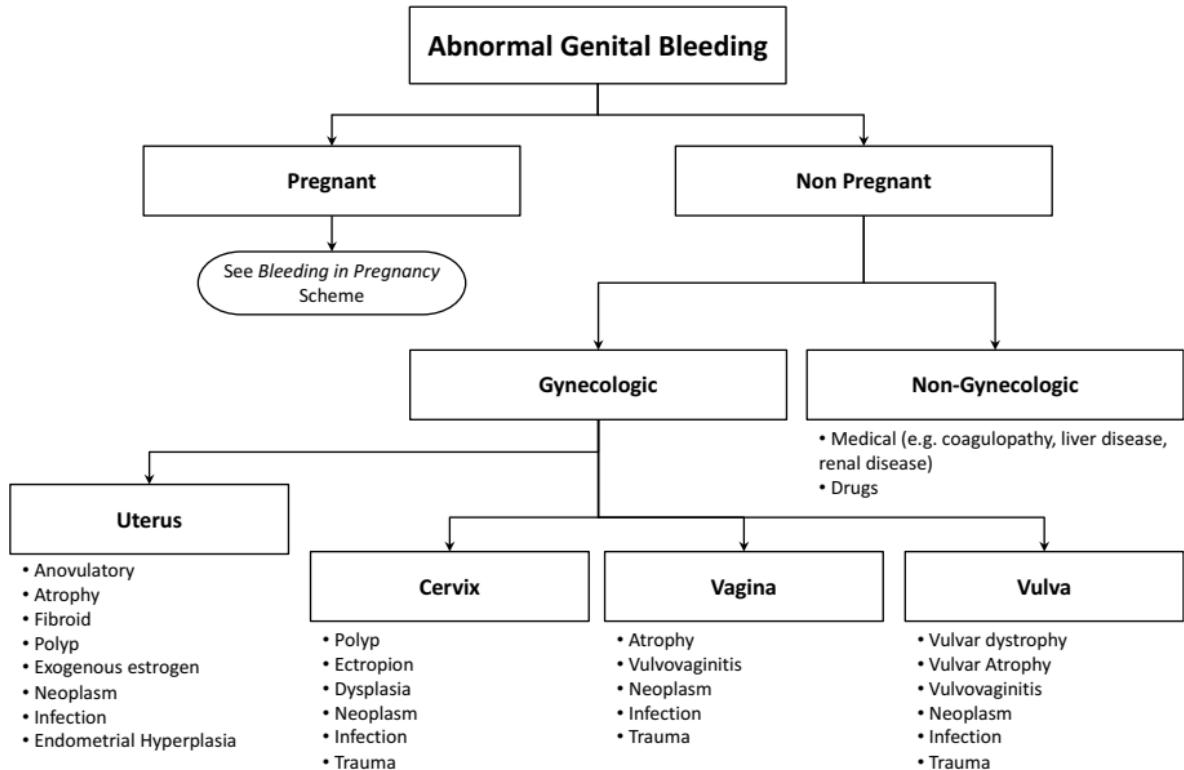


# Intrapartum Abnormal Fetal HR Tracing

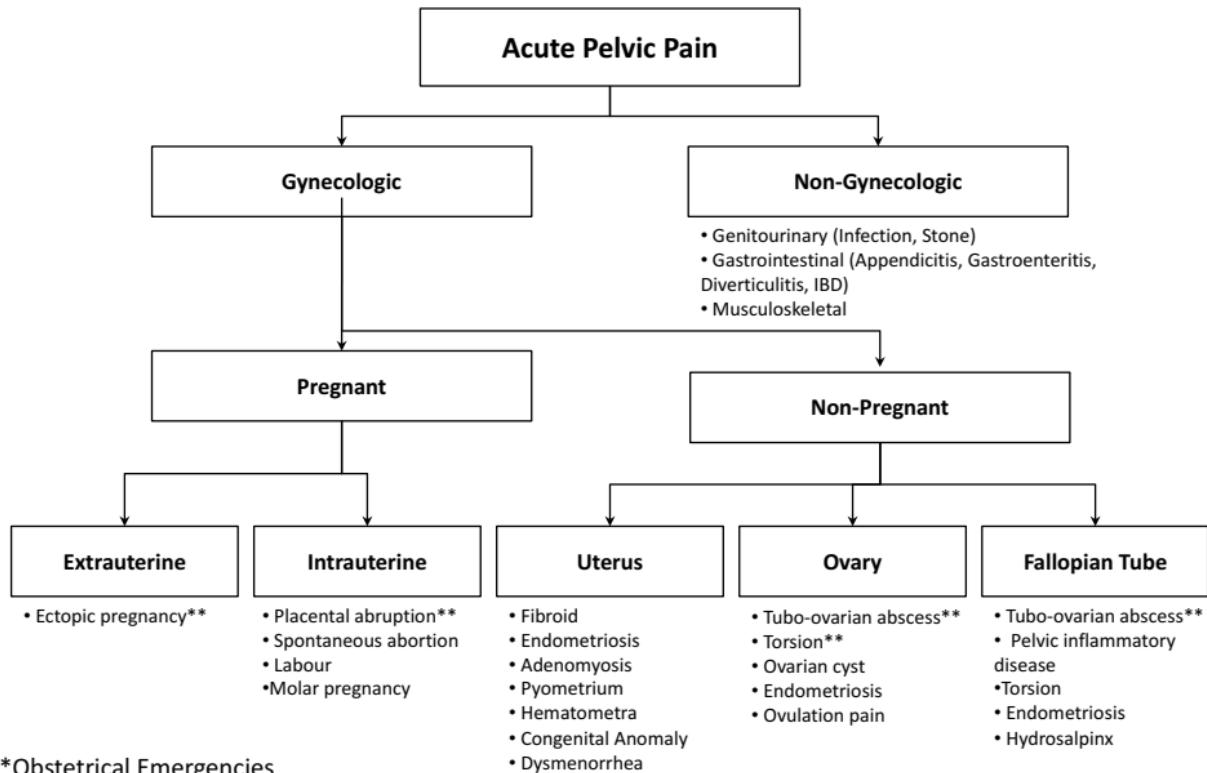
Baseline



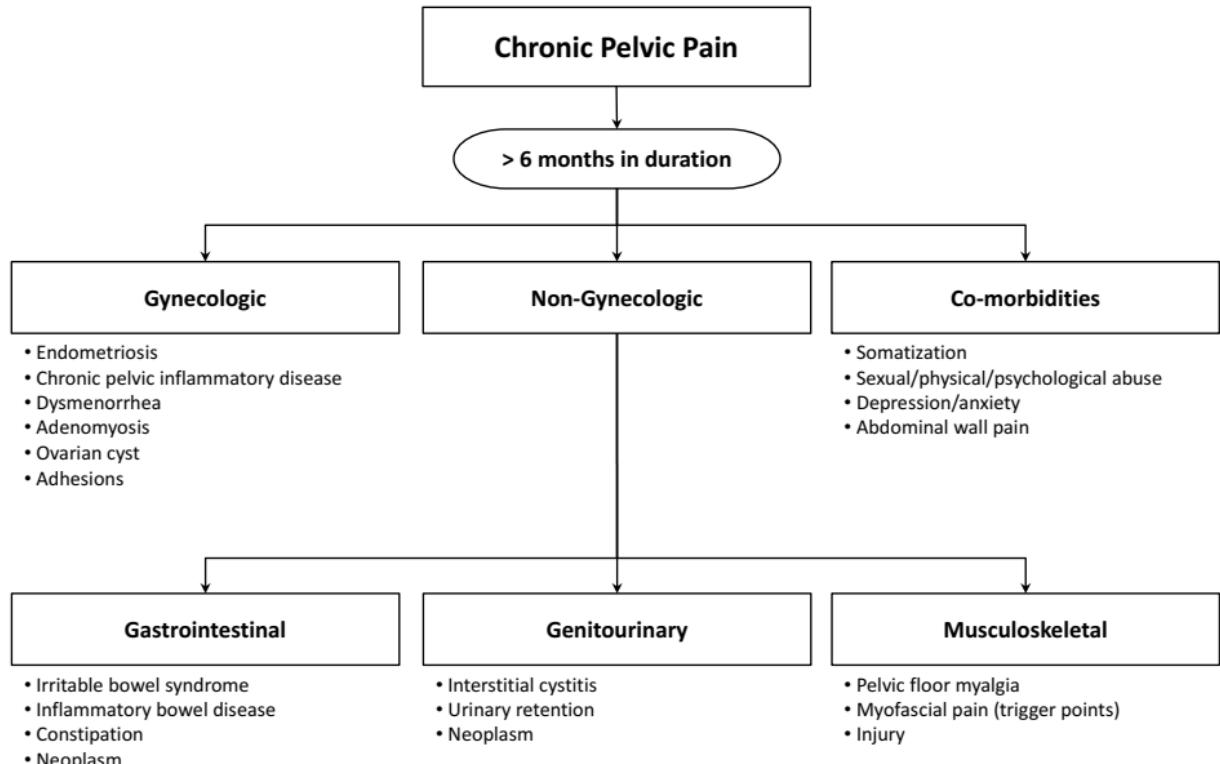
# Abnormal Genital Bleeding



# Acute Pelvic Pain

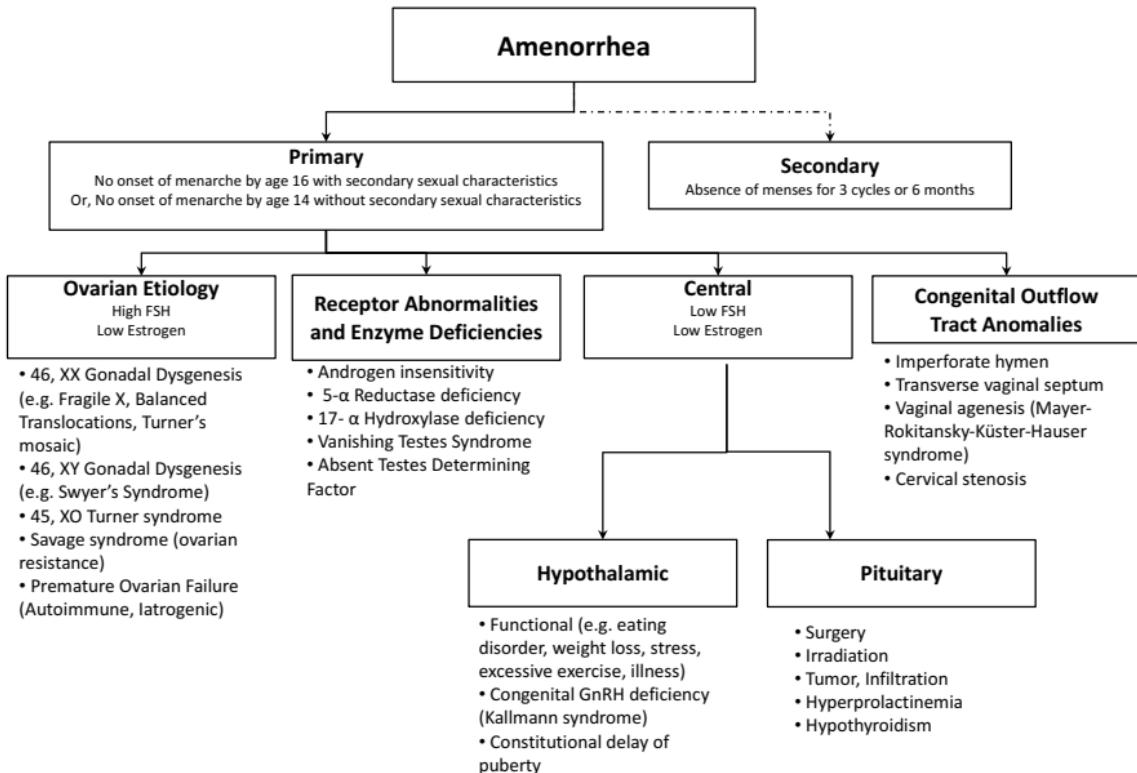


# Chronic Pelvic Pain



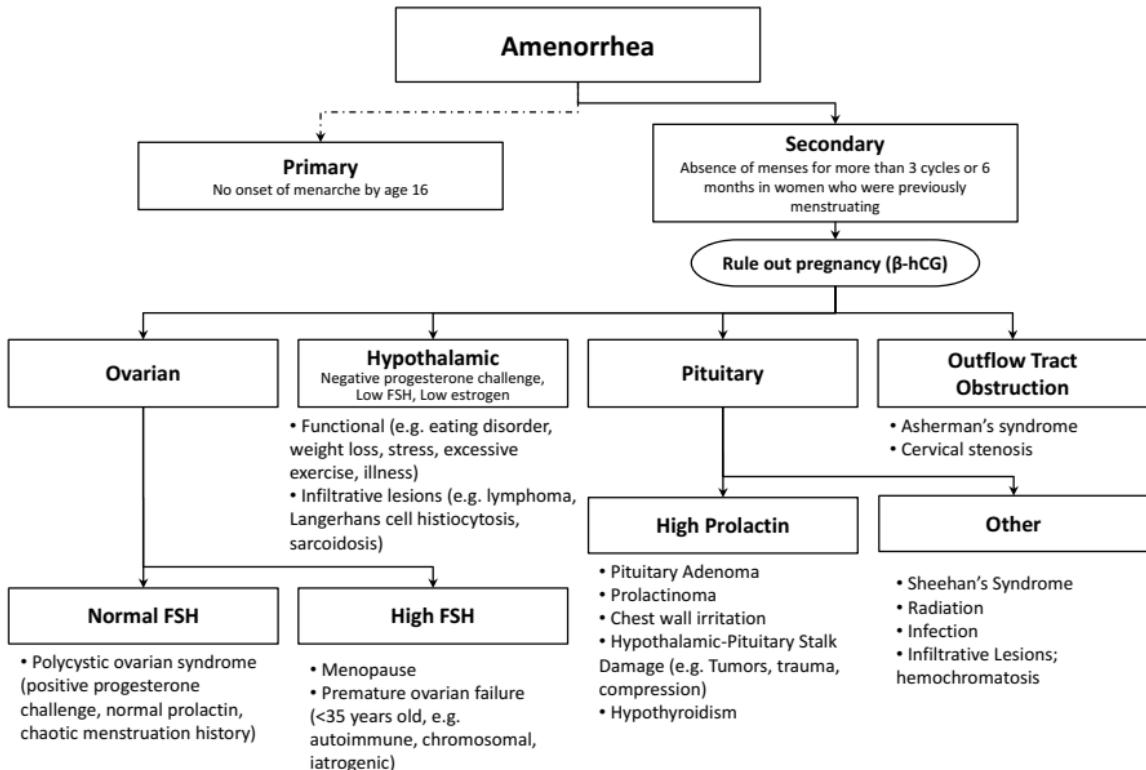
# Amenorrhea

Primary

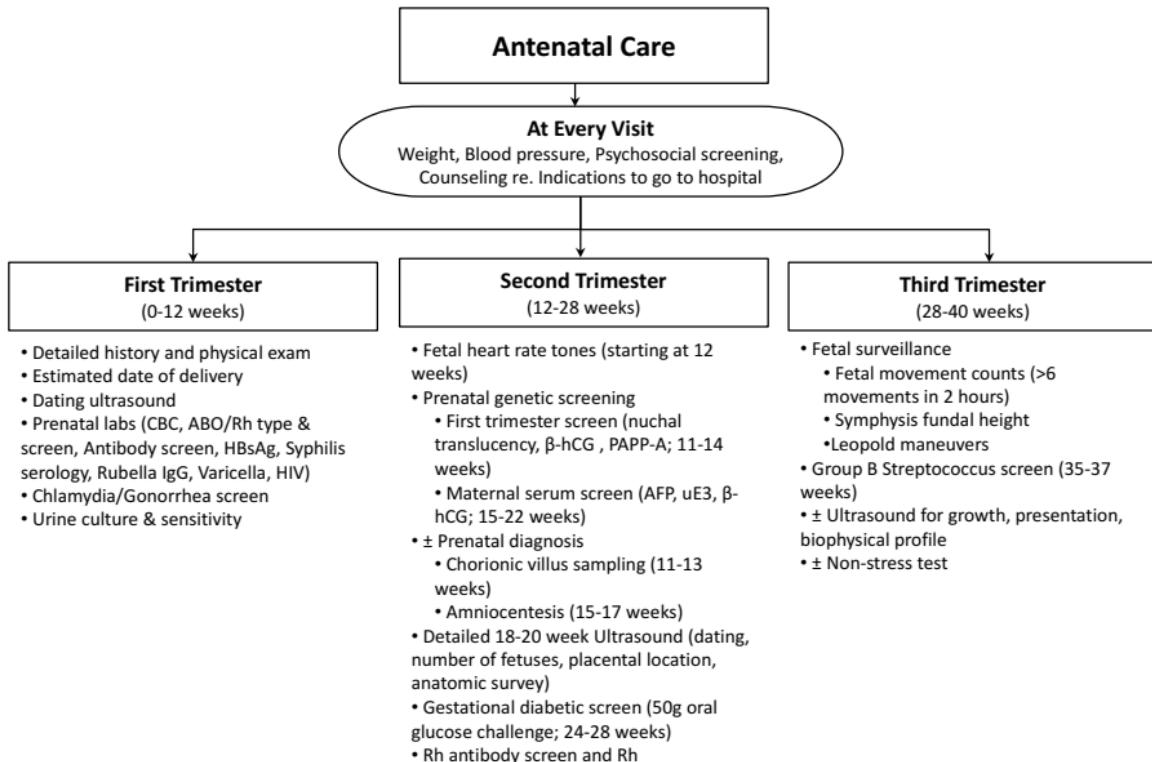


# Amenorrhea

## Secondary

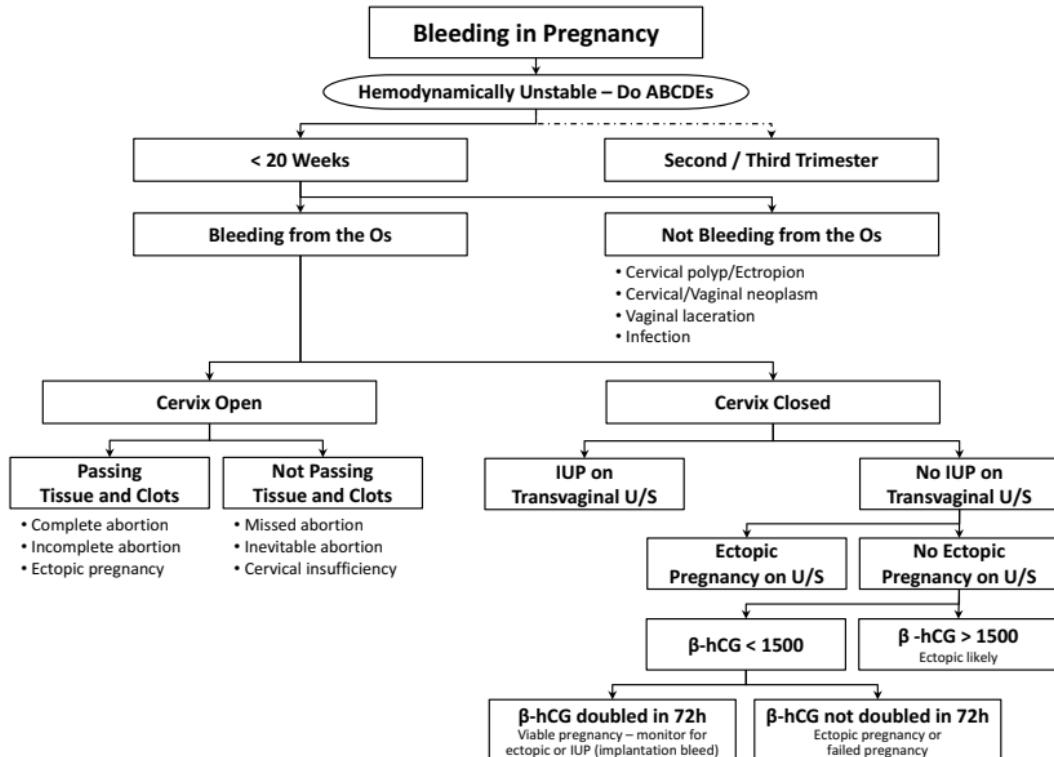


# Antenatal Care



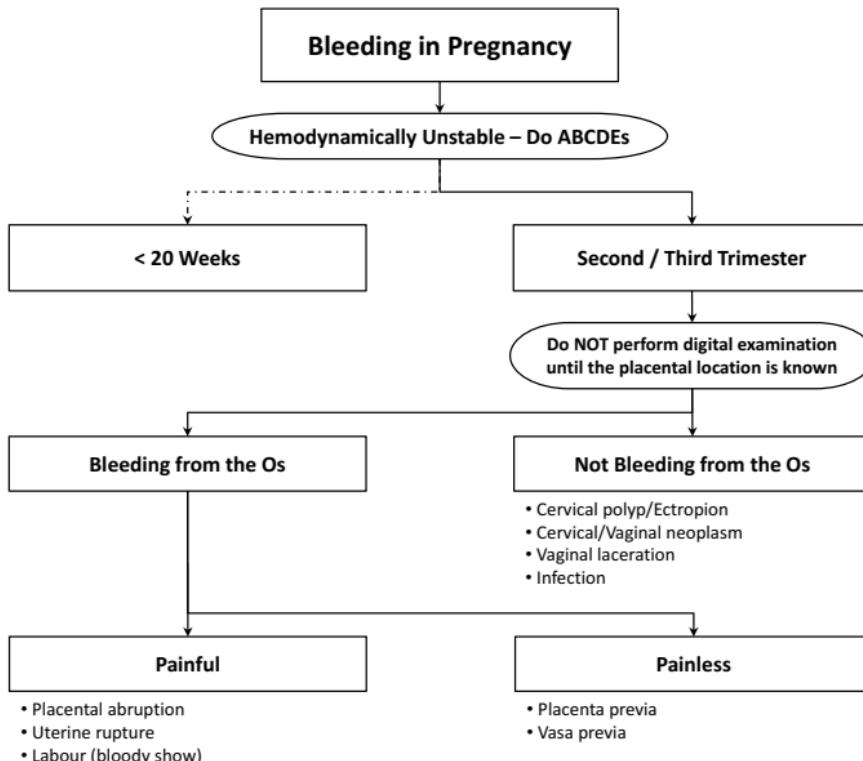
# Bleeding in Pregnancy

< 20 Weeks

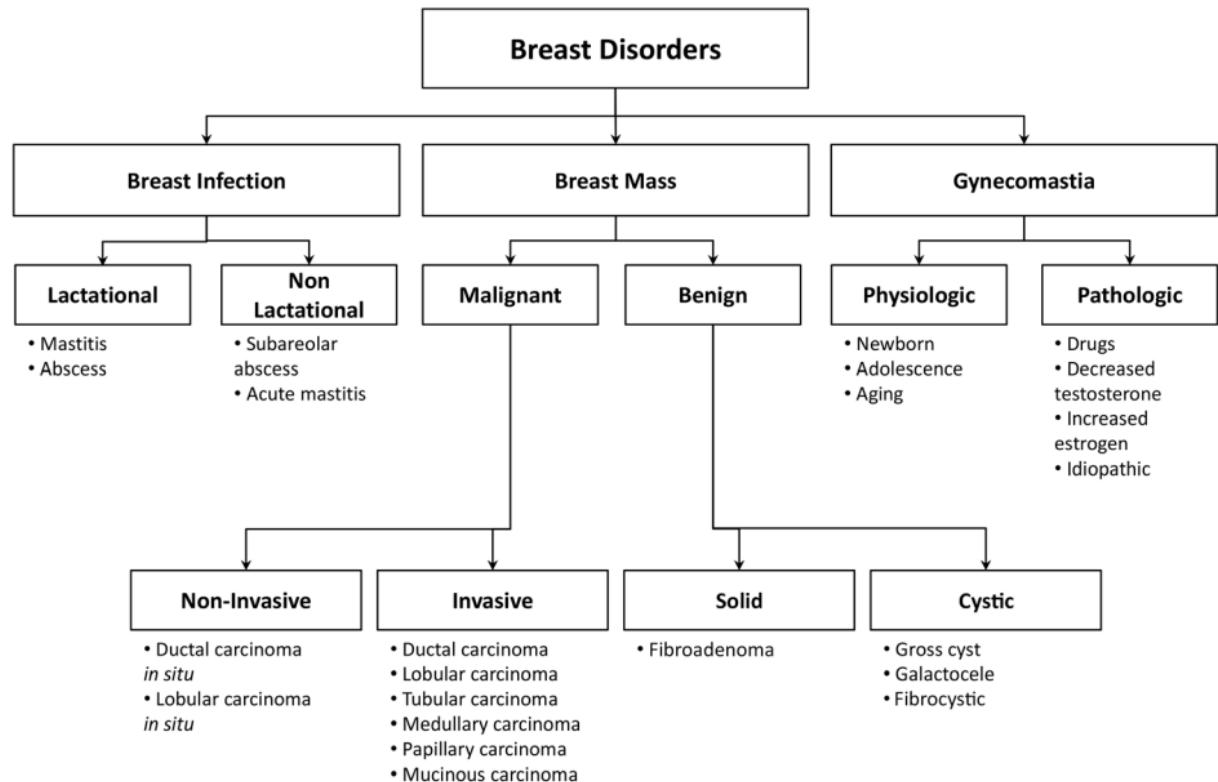


# Bleeding in Pregnancy

2nd & 3rd Trimester

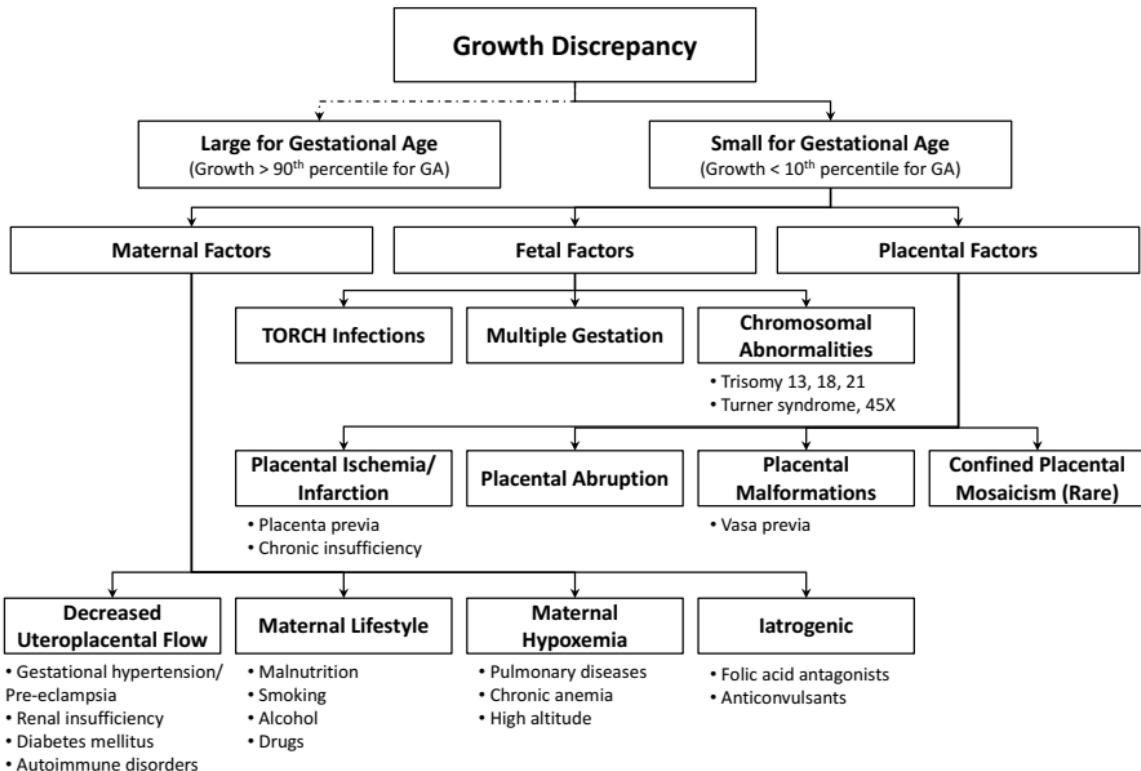


# Breast Disorder



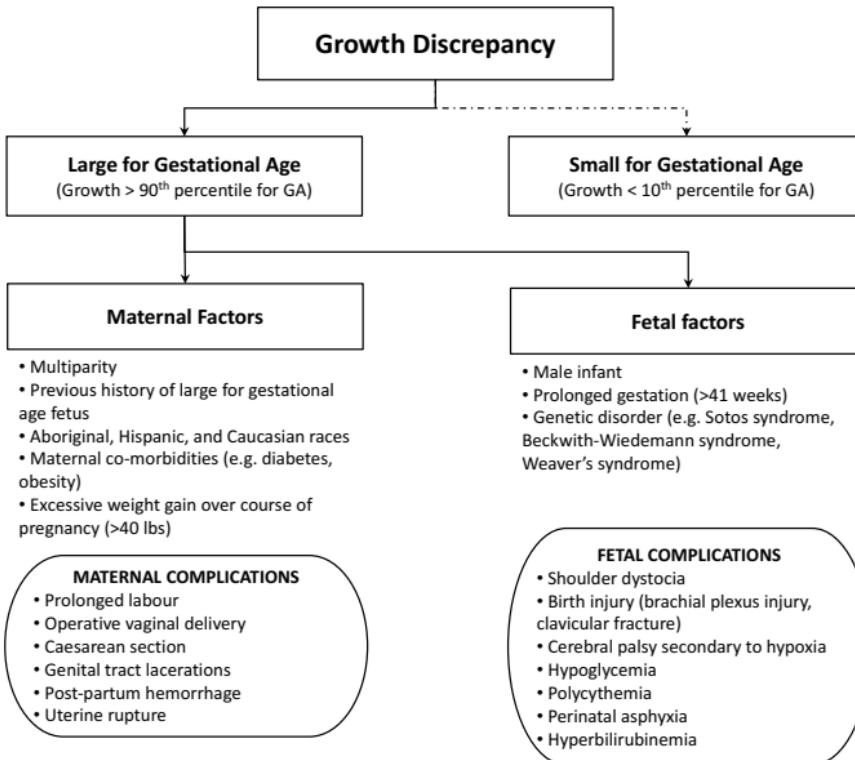
# Growth Discrepancy

Small for Gestational Age / Intrauterine Growth Restriction

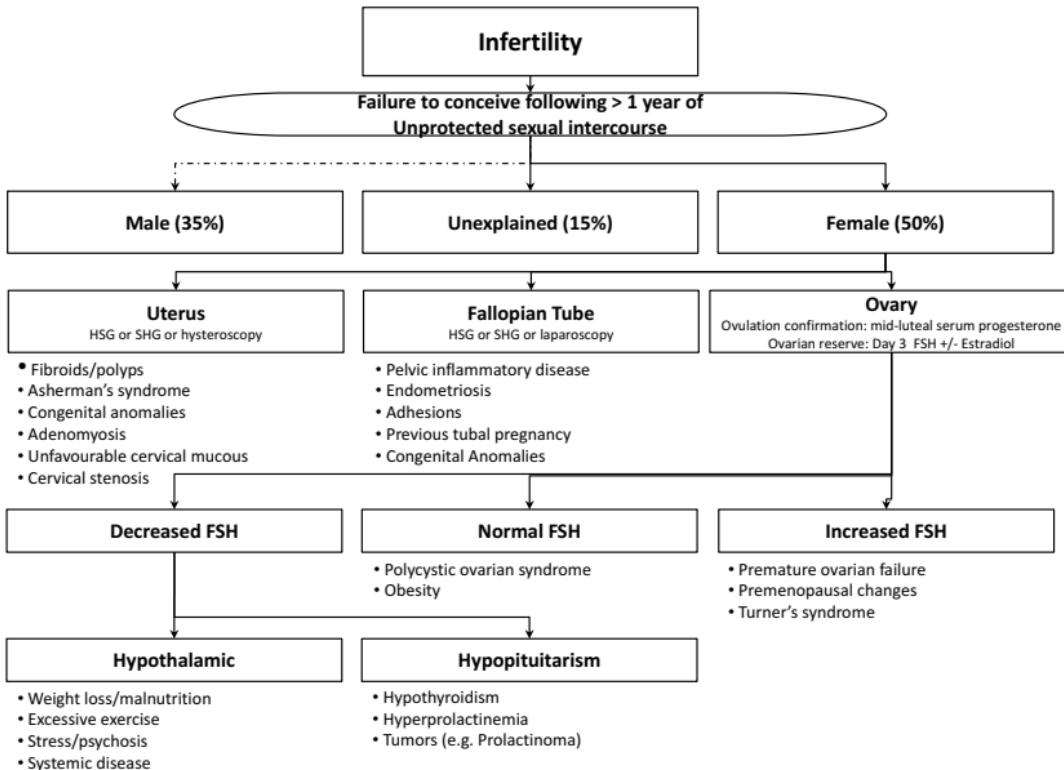


# Growth Discrepancy

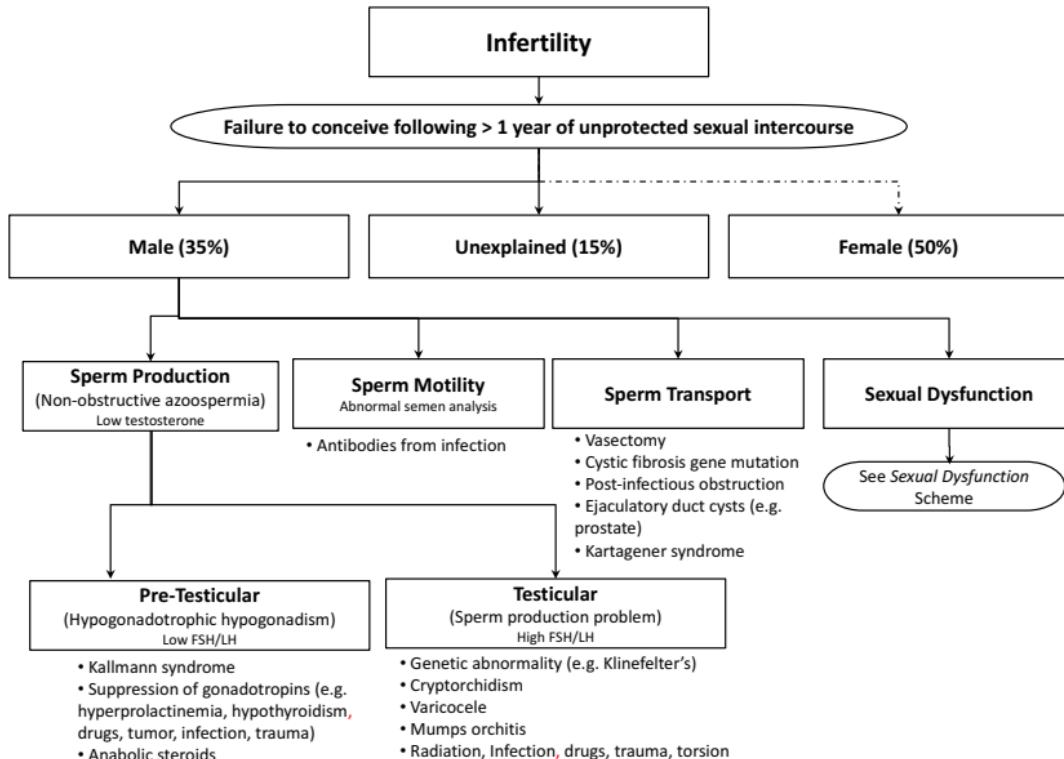
Large for Gestational Age



# Infertility (Female)

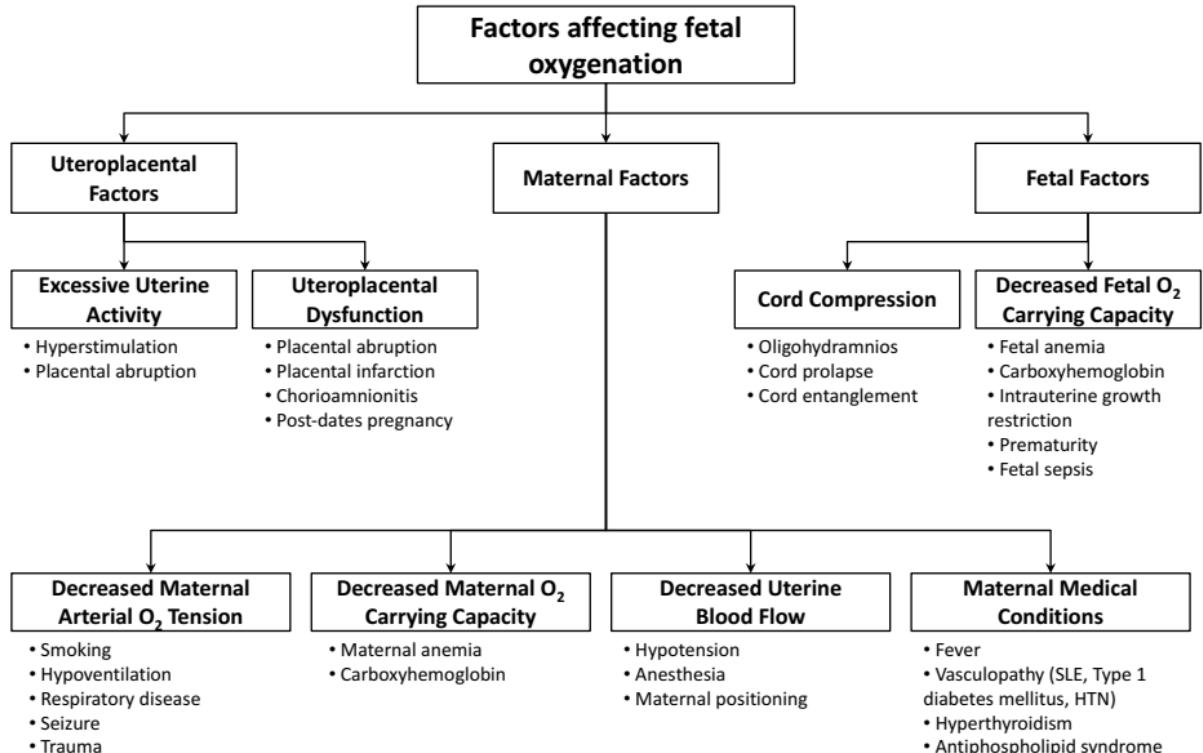


# Infertility (Male)

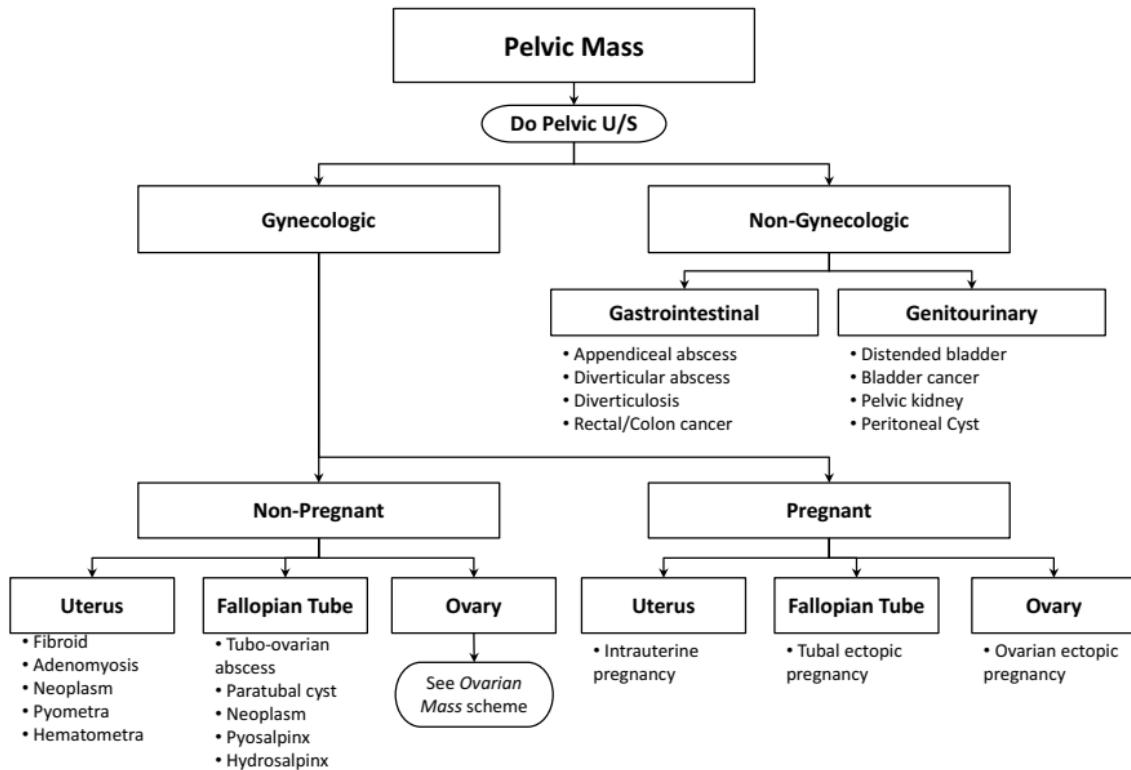


# Intrapartum

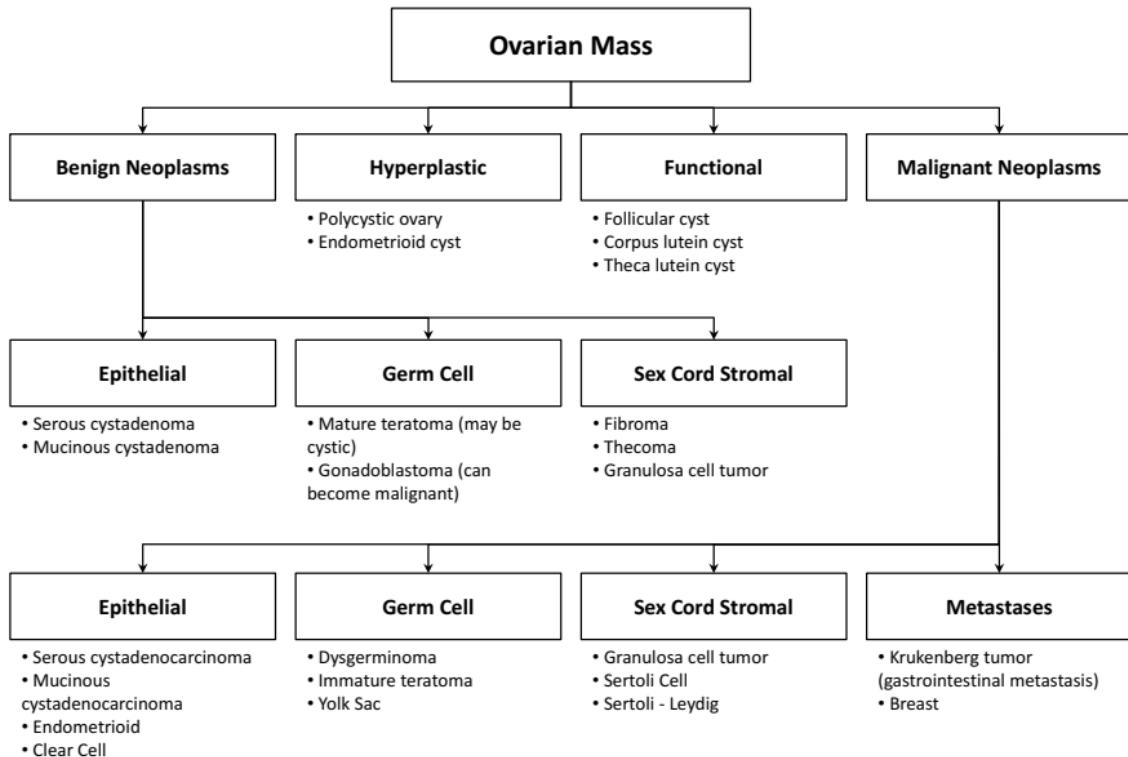
## Factors that May Affect Fetal Oxygenation



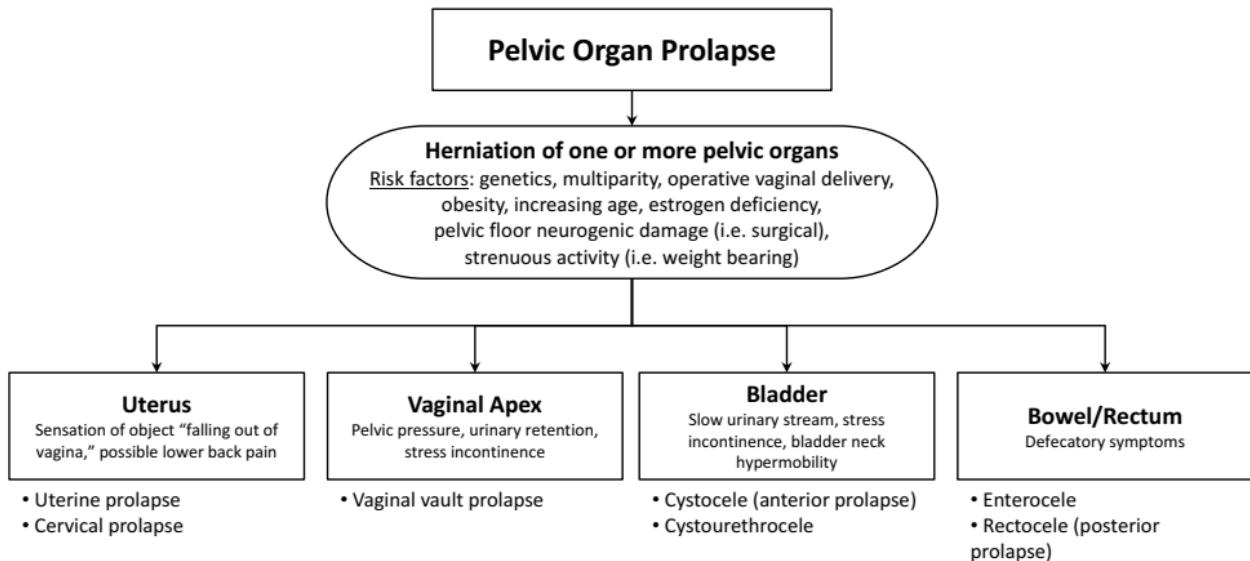
# Pelvic Mass



# Ovarian Mass



# Pelvic Organ Prolapse



# Post-Partum Fever

## 6 W's for causes of PPF

Wind: pneumonia, atelectasis

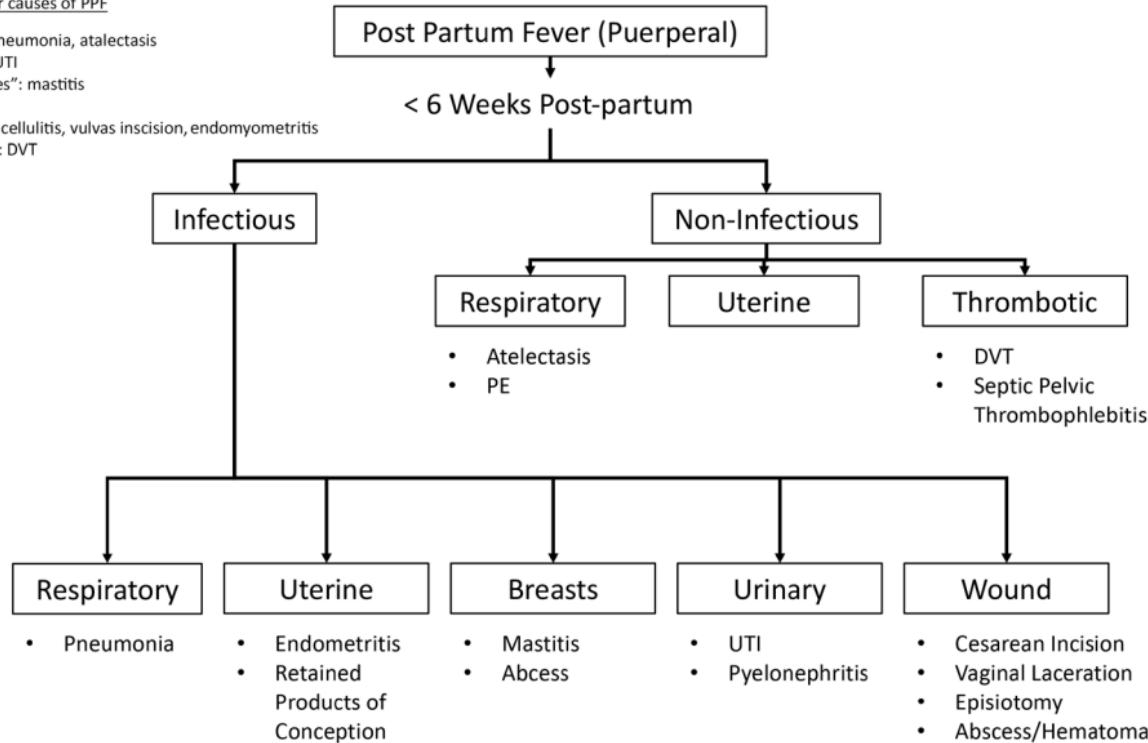
Water: UTI

"Woobies": mastitis

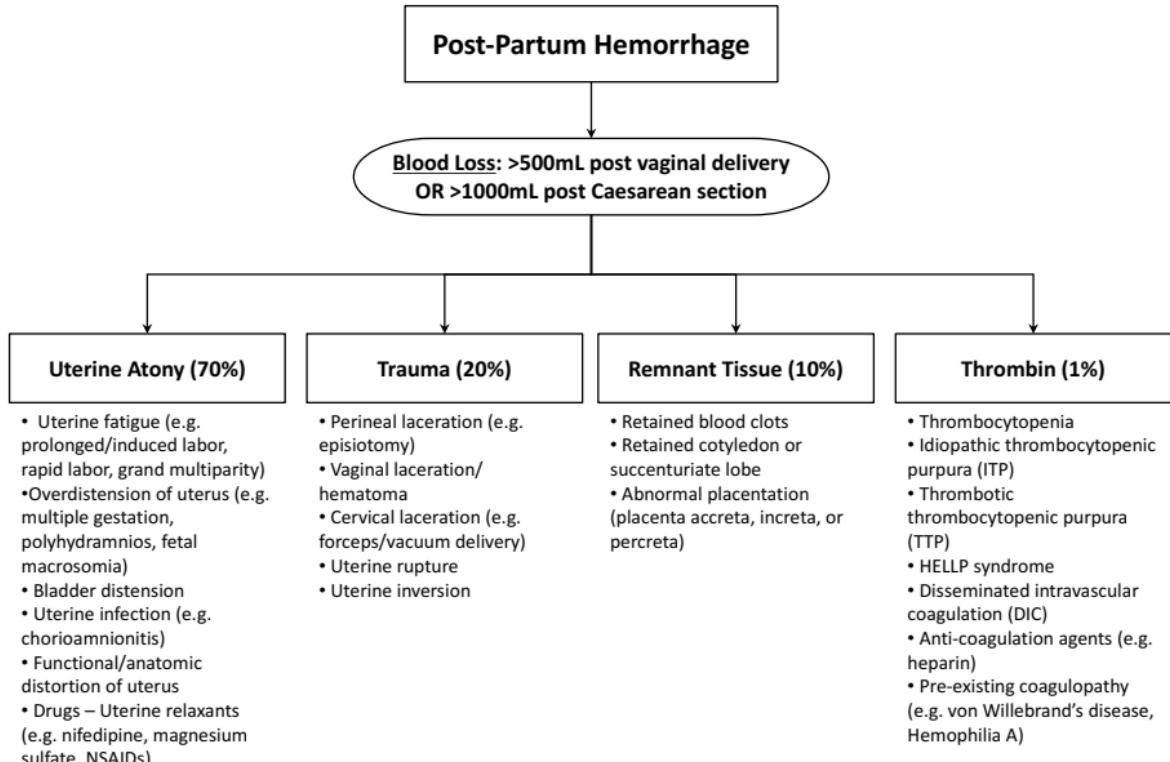
Womb

Wound: cellulitis, vulvas incision, endomyometritis

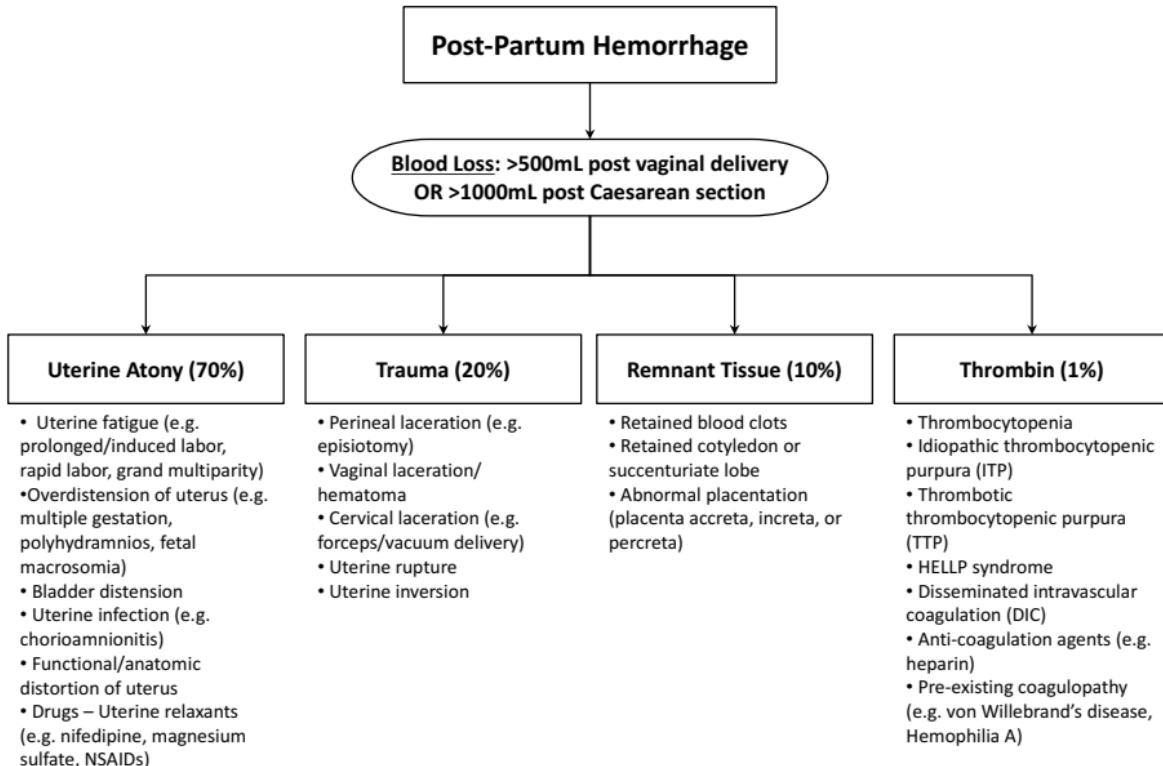
Walking: DVT



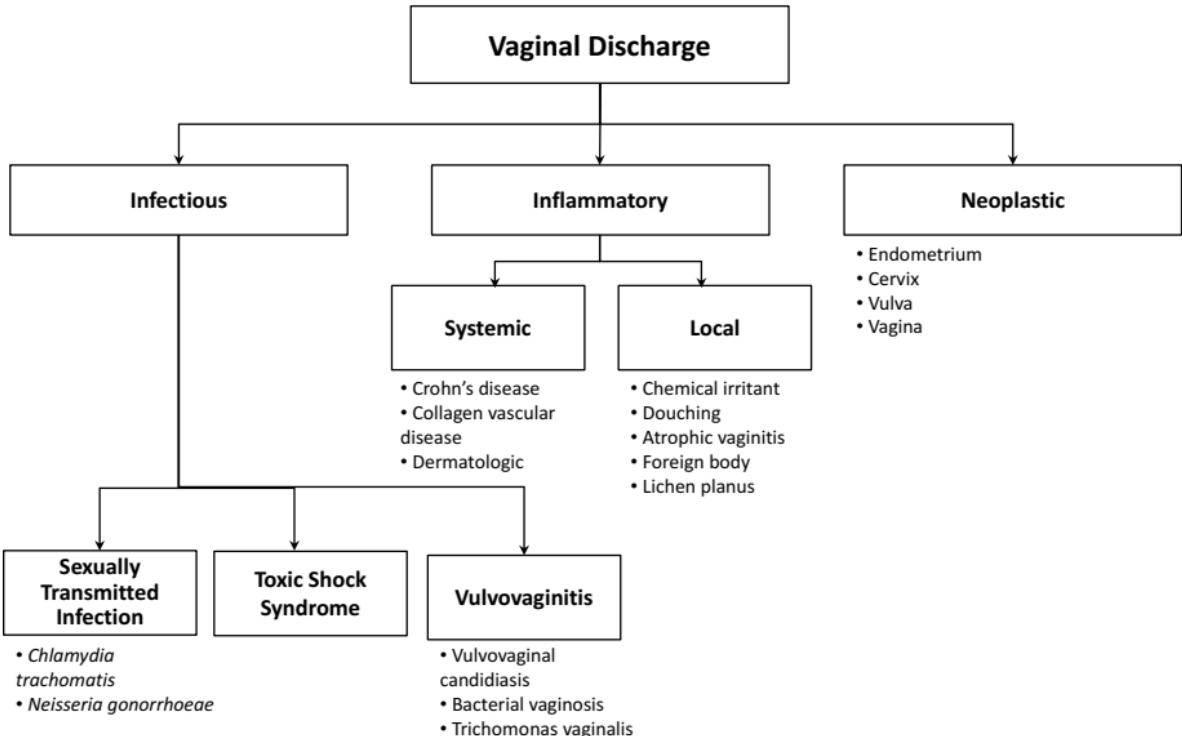
# Post-Partum Hemorrhage



# Recurrent Pregnancy Loss



# Vaginal Discharge





# Dermatologic

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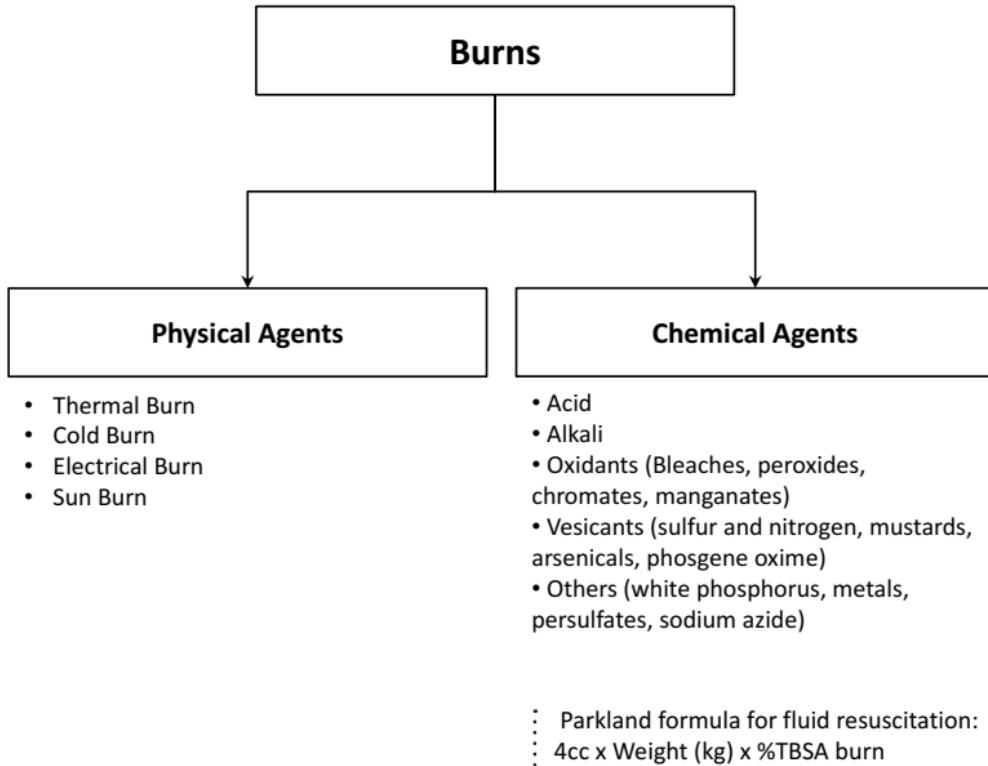
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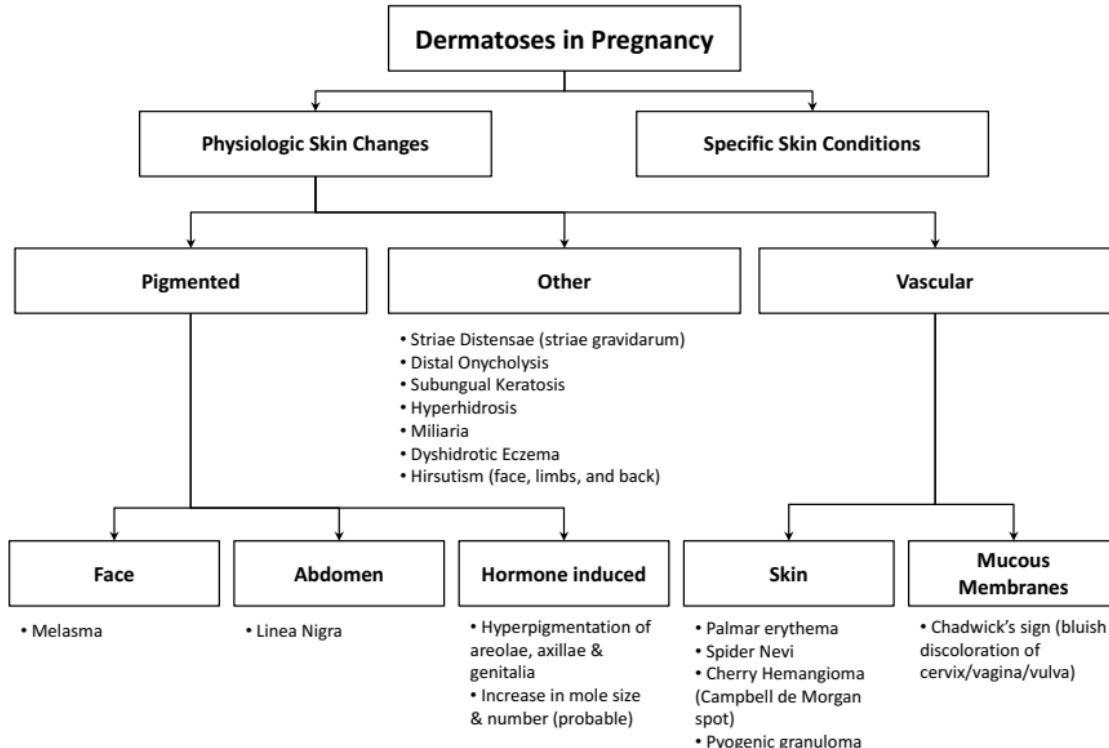


# Burns



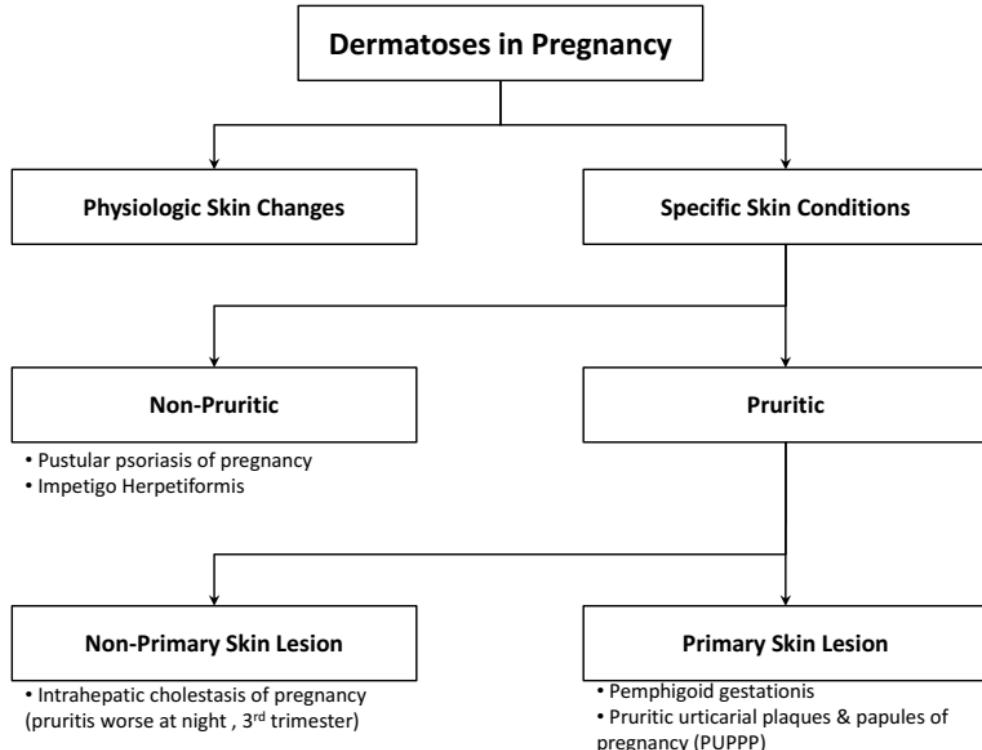
# Dermatoses in Pregnancy

## Physiologic Changes



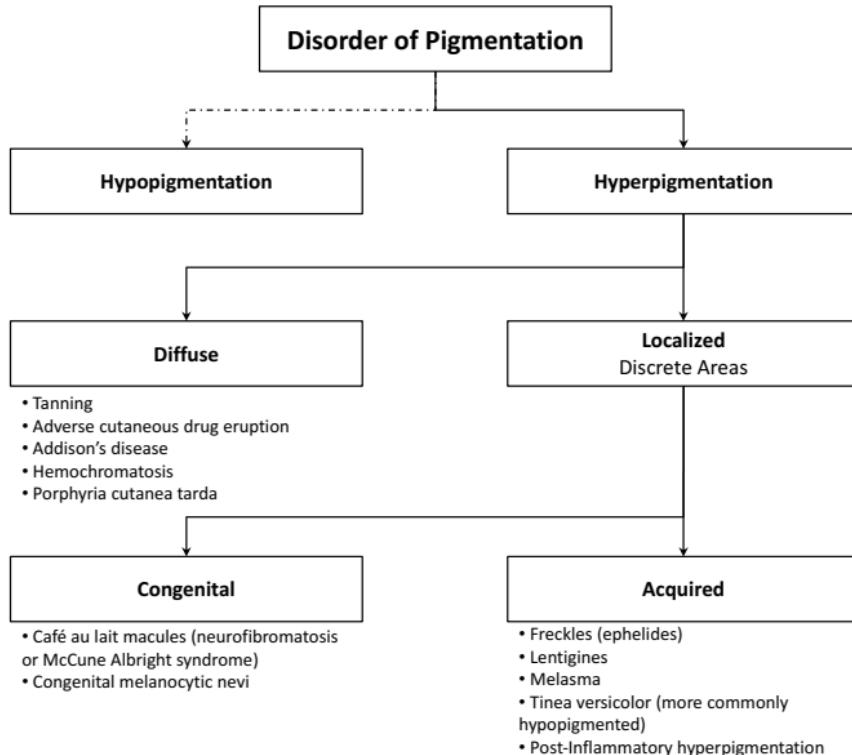
# Dermatoses in Pregnancy

## Specific Skin Conditions



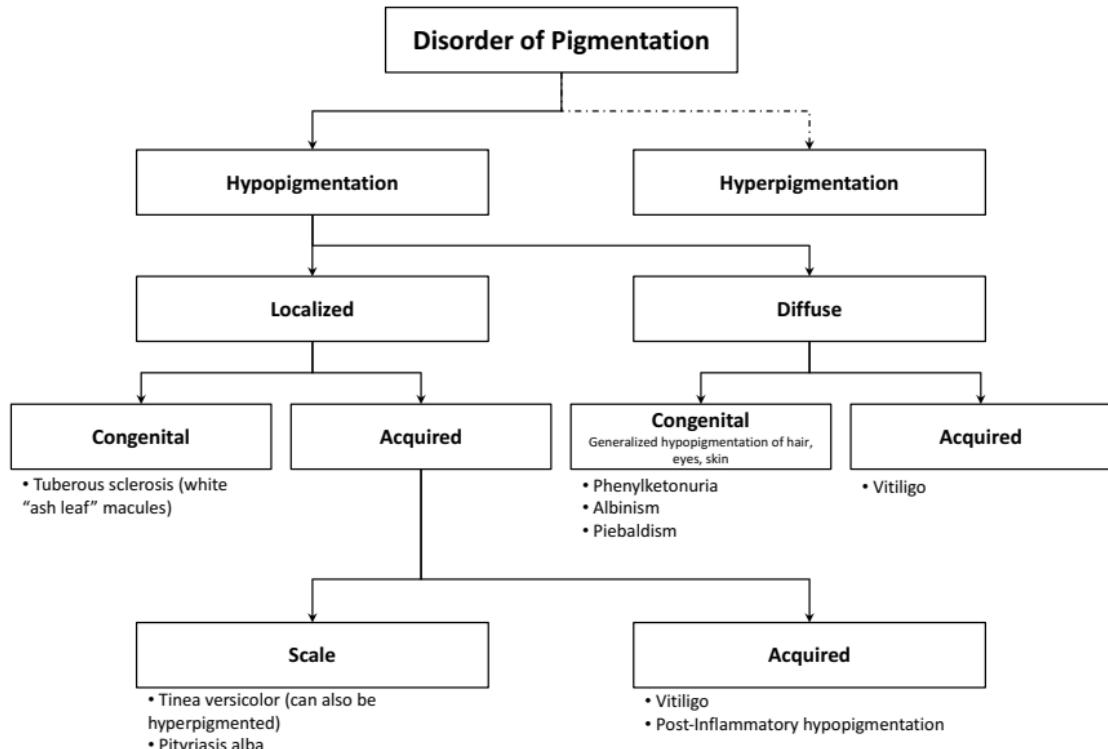
# Disorders of Pigmentations

Hyperpigmentation

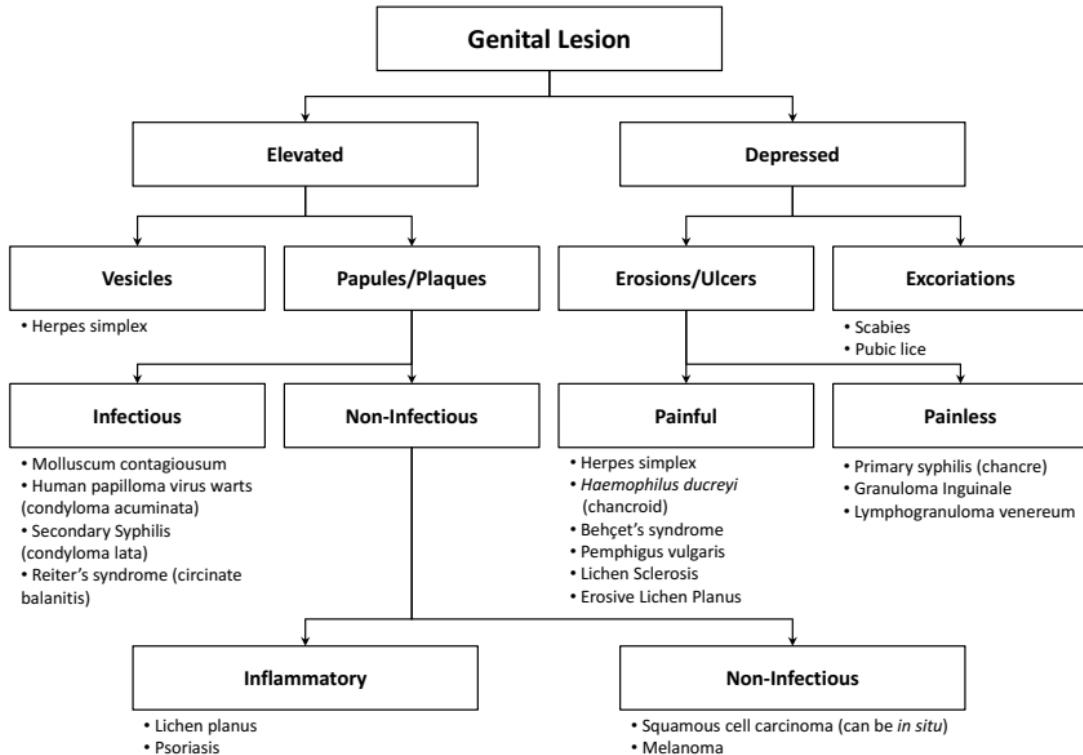


# Disorders of Pigmentations

## Hypopigmentation

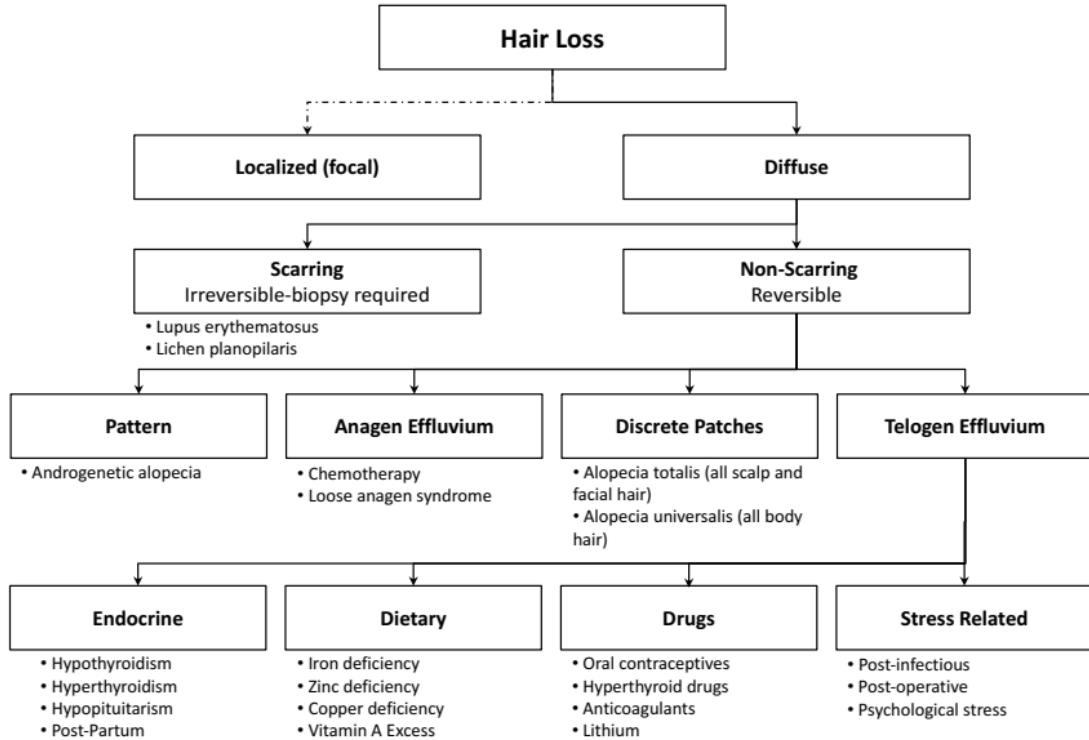


# Genital Lesion



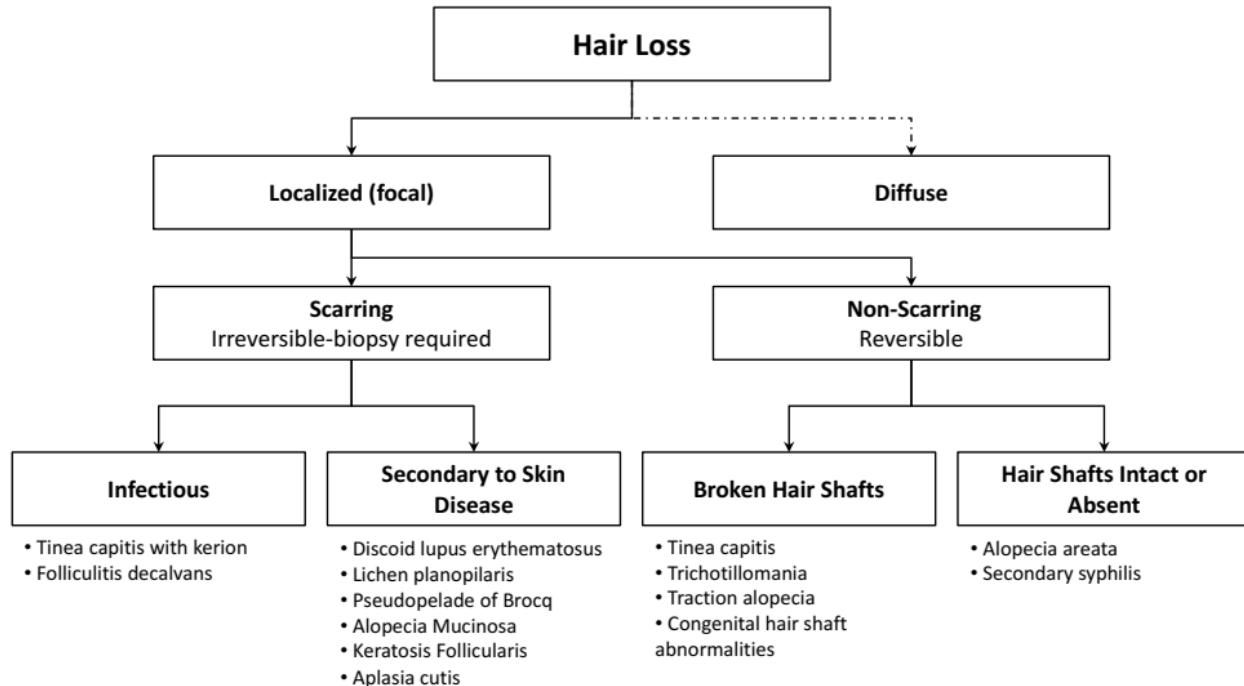
# Hair Loss (Alopecia)

Diffuse



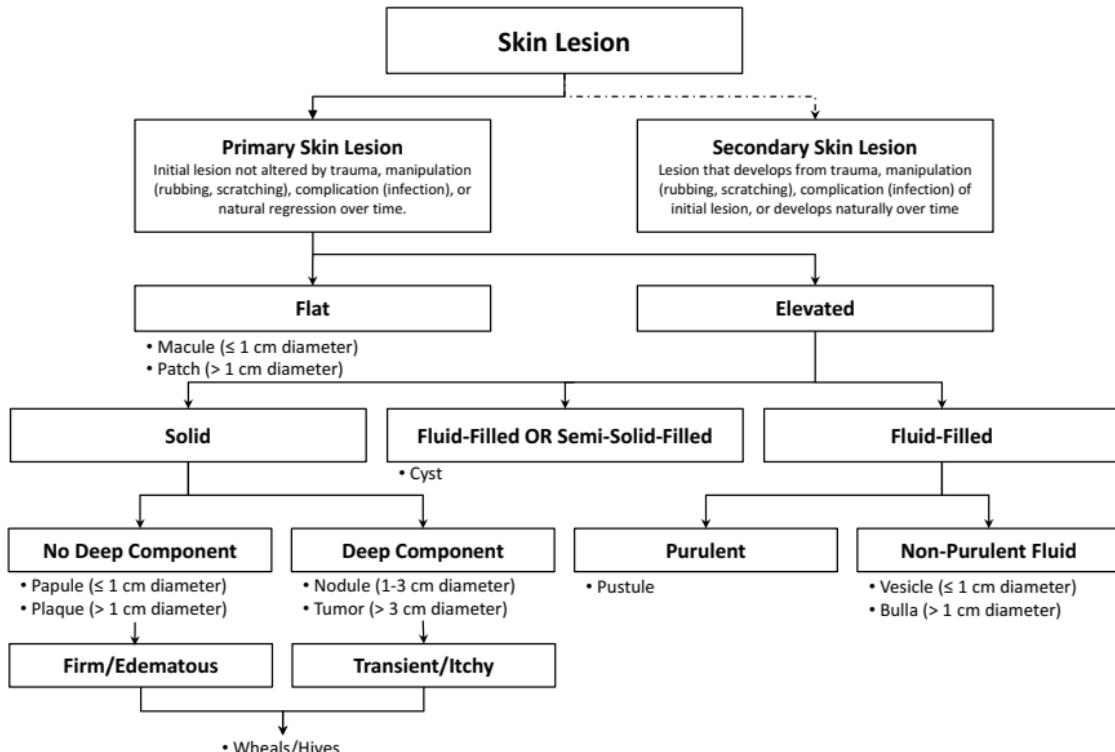
# Hair Loss (Alopecia)

Localized



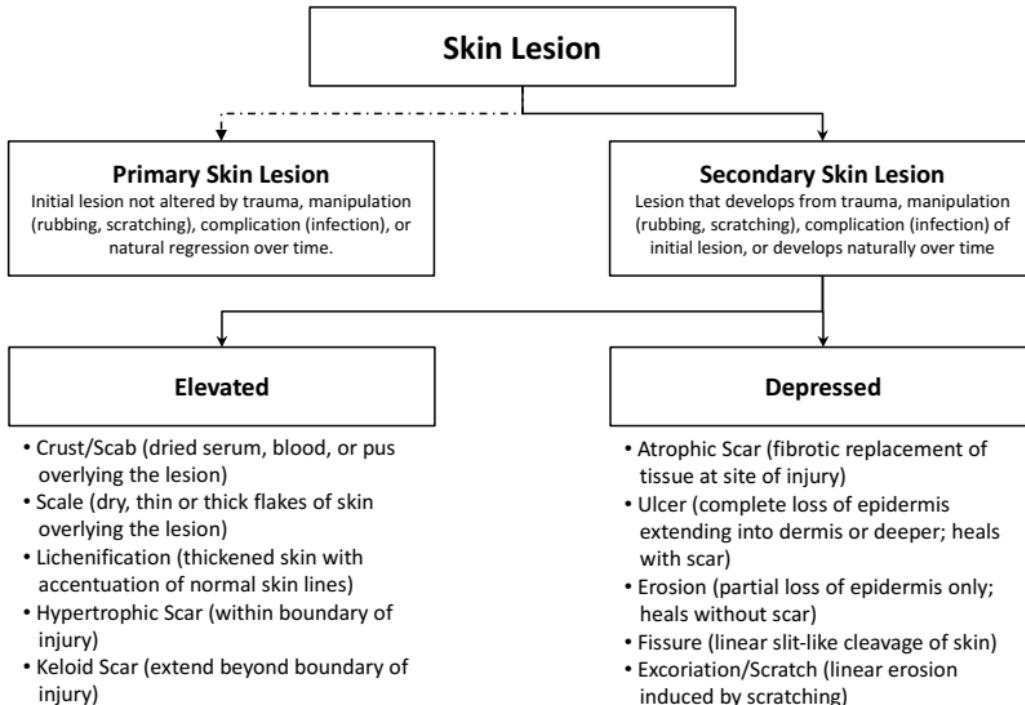
# Morphology of Skin Lesions

## Primary Skin Lesions



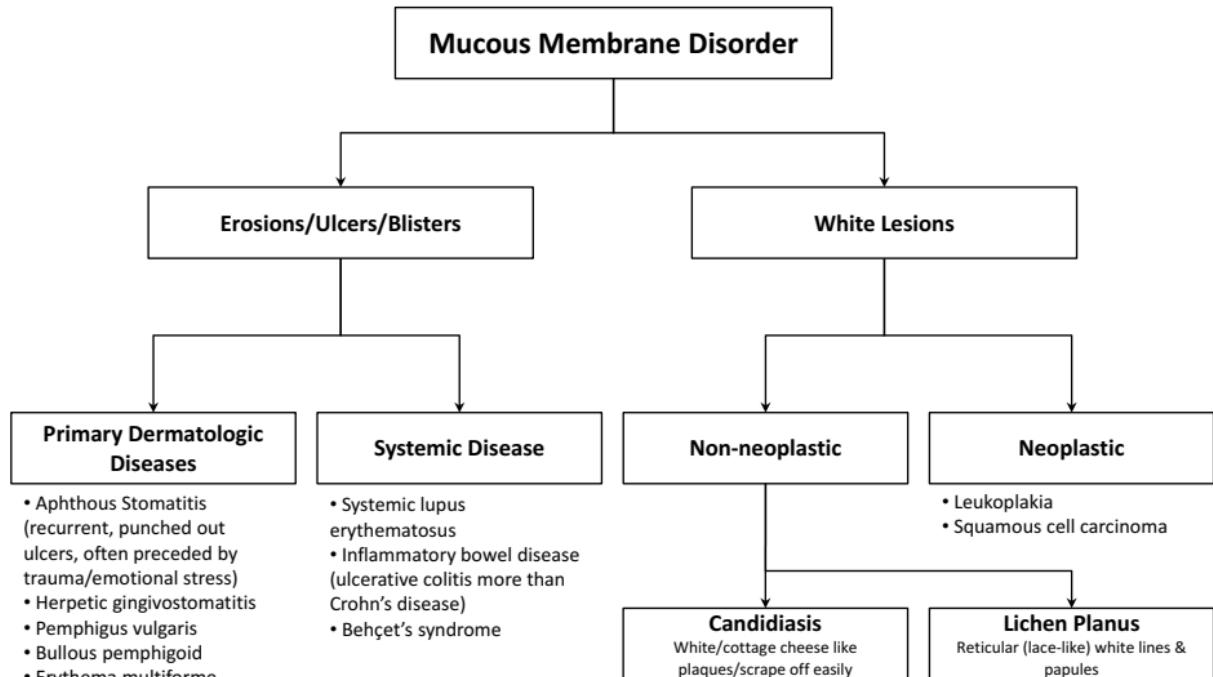
# Morphology of Skin Lesions

## Secondary Skin Lesions



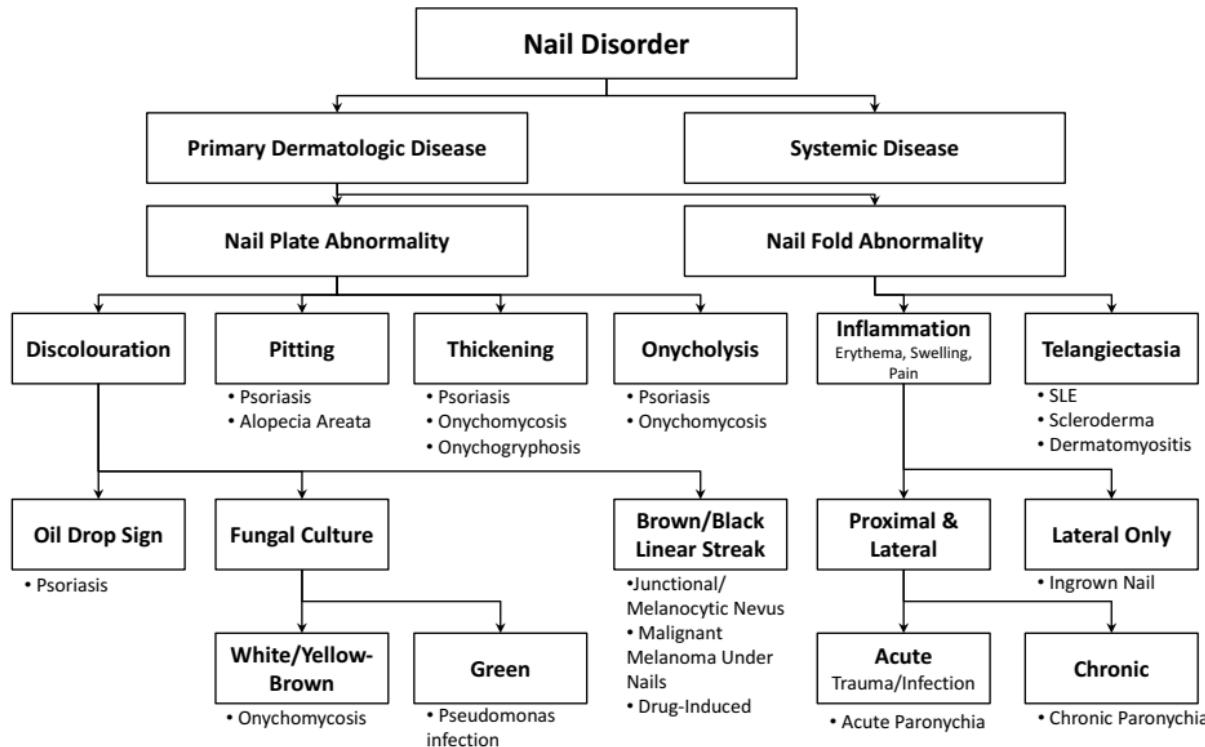
# Mucous Membrane Disorder

Oral Cavity



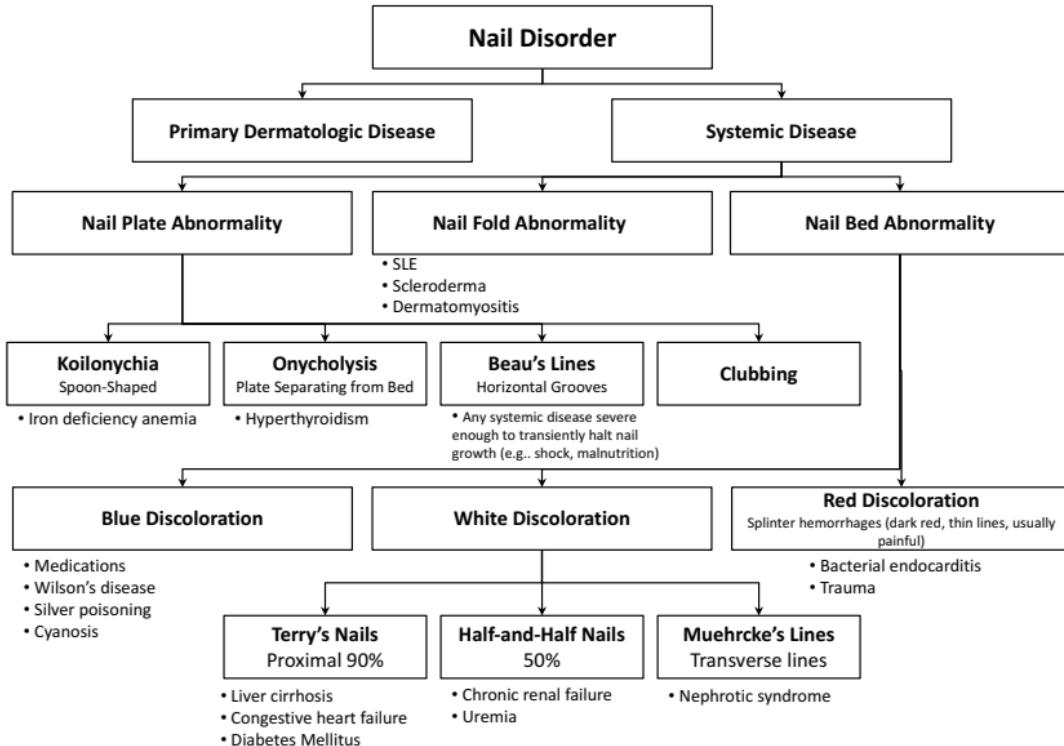
# Nail Disorders

Primary Dermatologic Disease



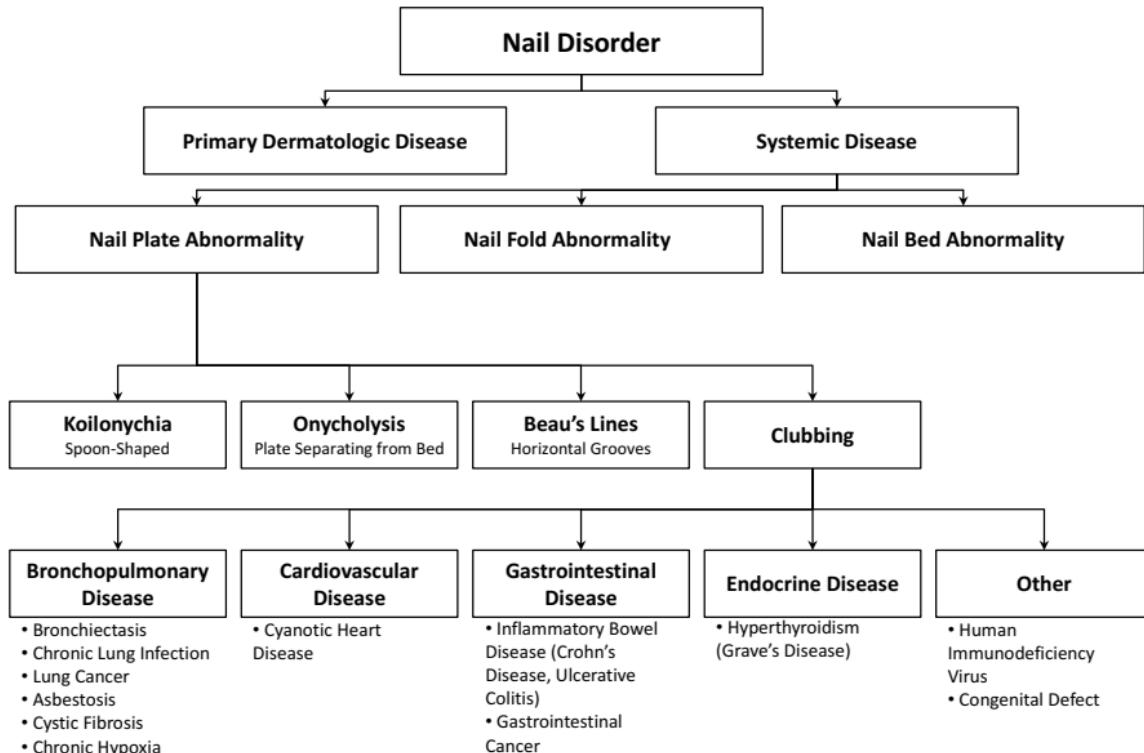
# Nail Disorders

## Systemic Disease



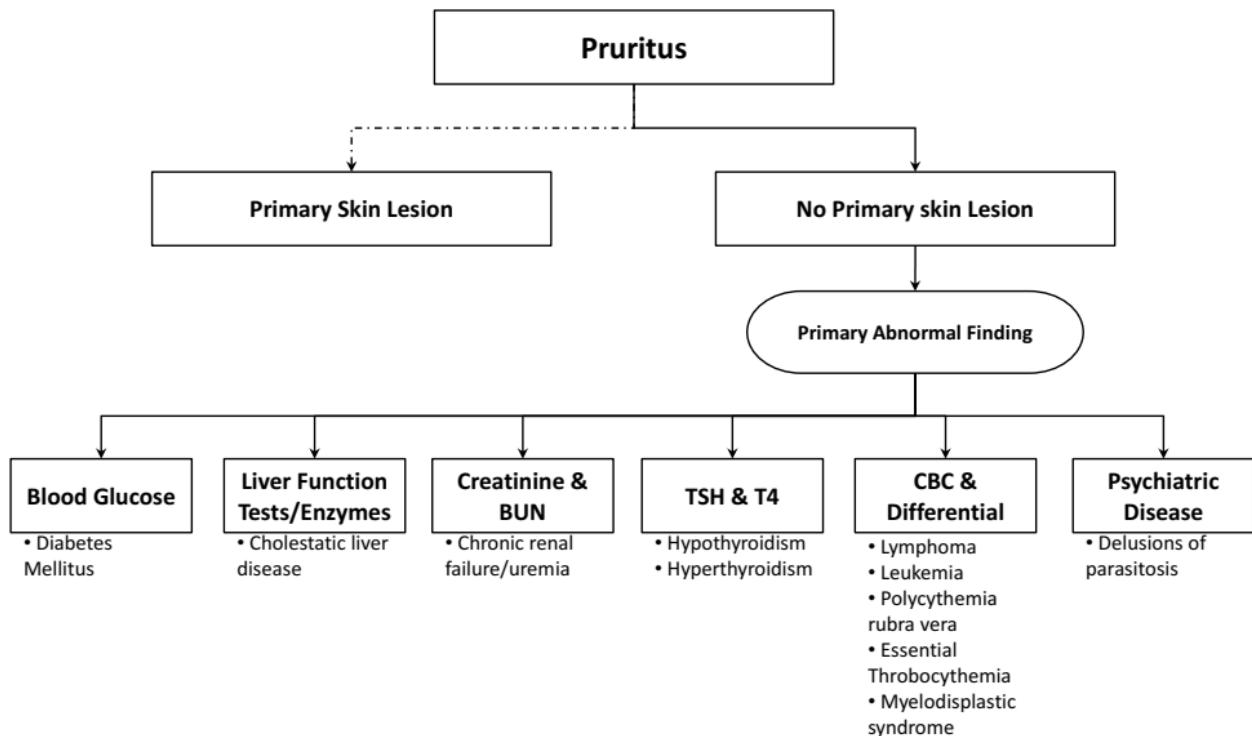
# Nail Disorders

## Systemic Disease - Clubbing



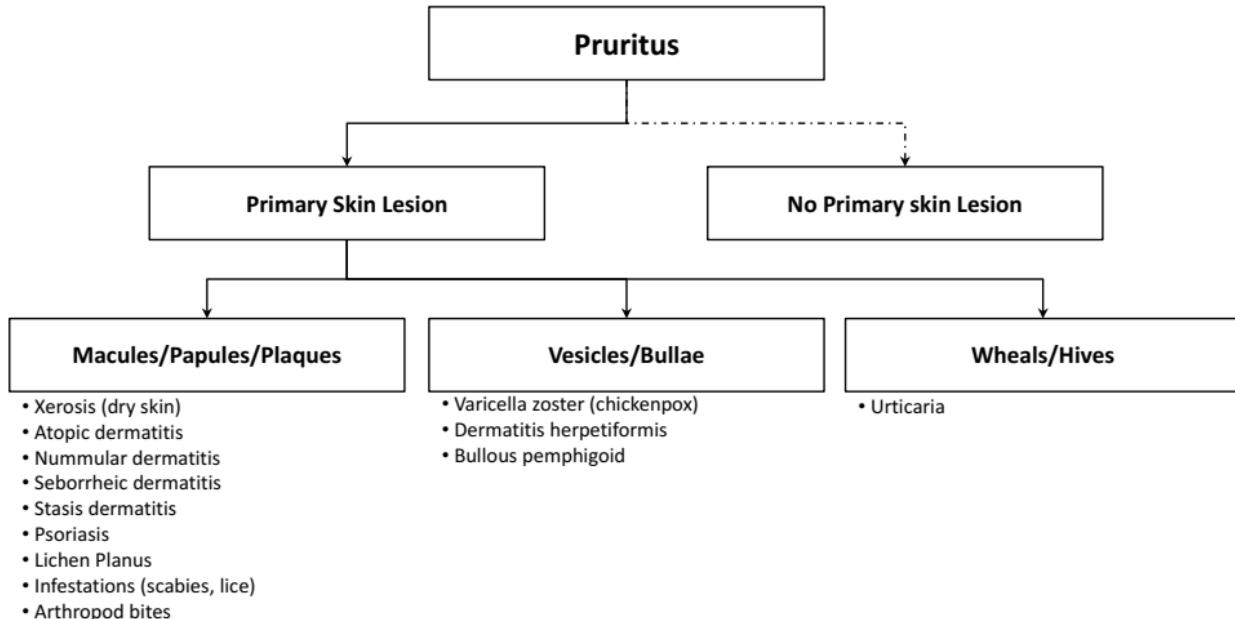
# Pruritus

No Primary Skin Lesion



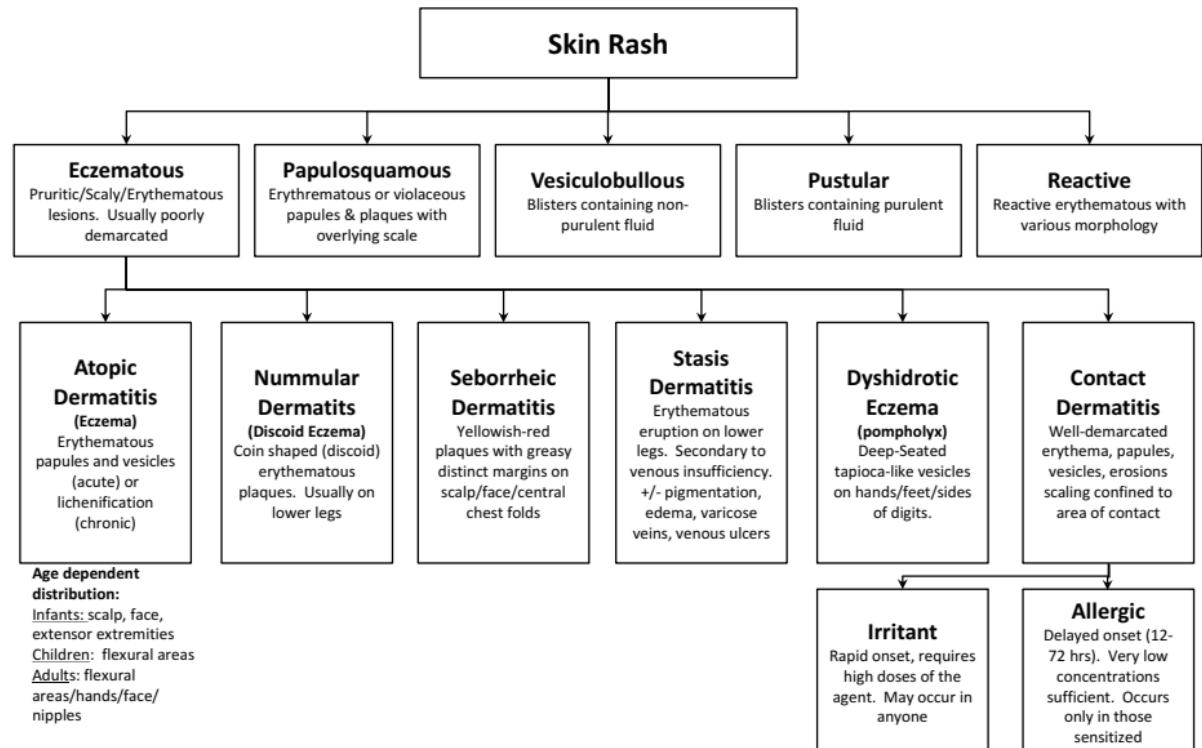
# Pruritus

## Primary Skin Lesion



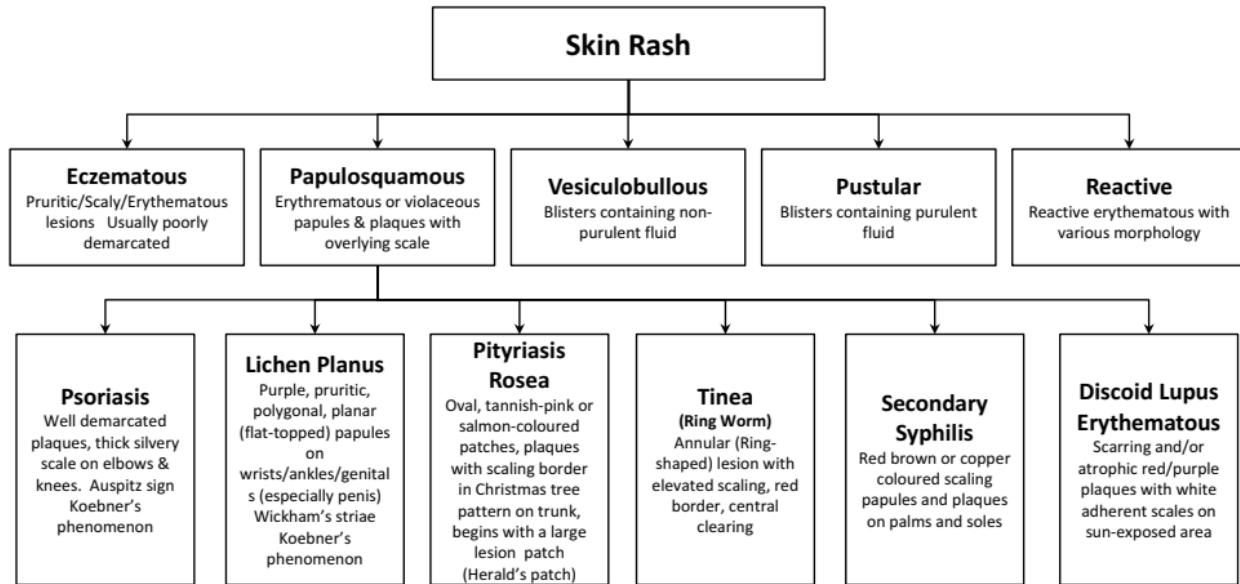
# Skin Rash

## Eczematous



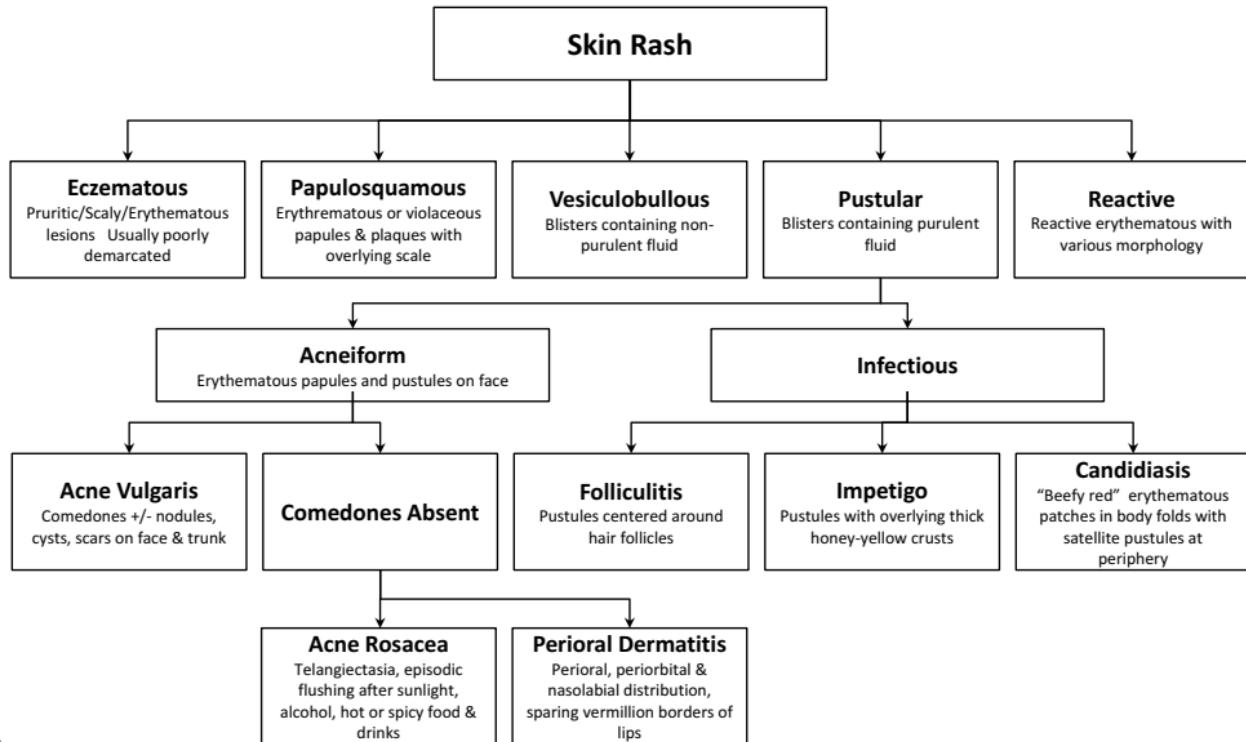
# Skin Rash

## Papulosquamous



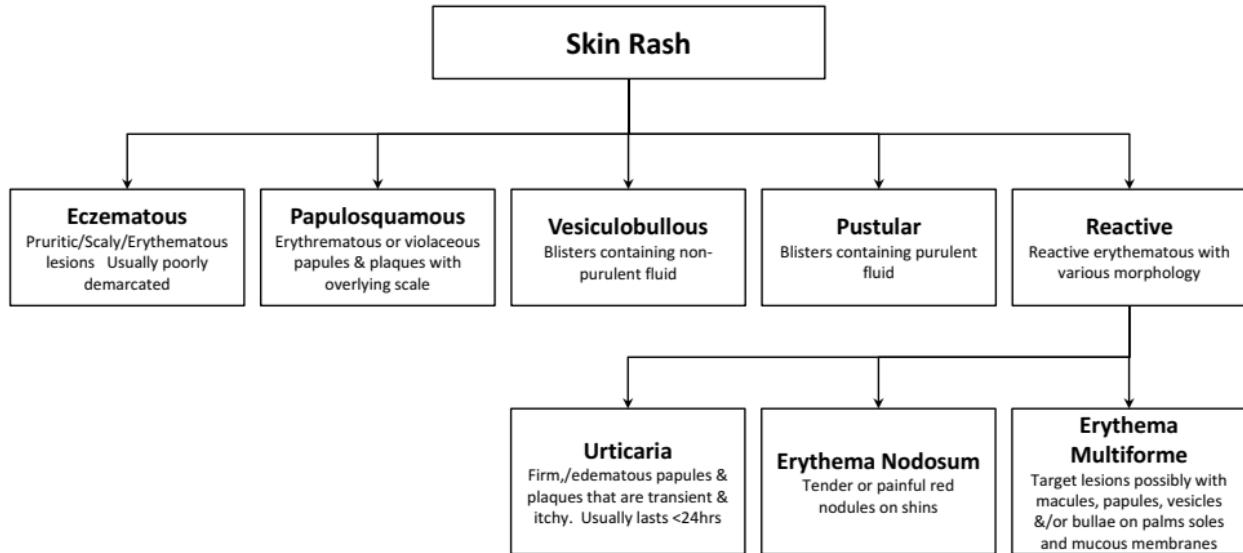
# Skin Rash

Pustular



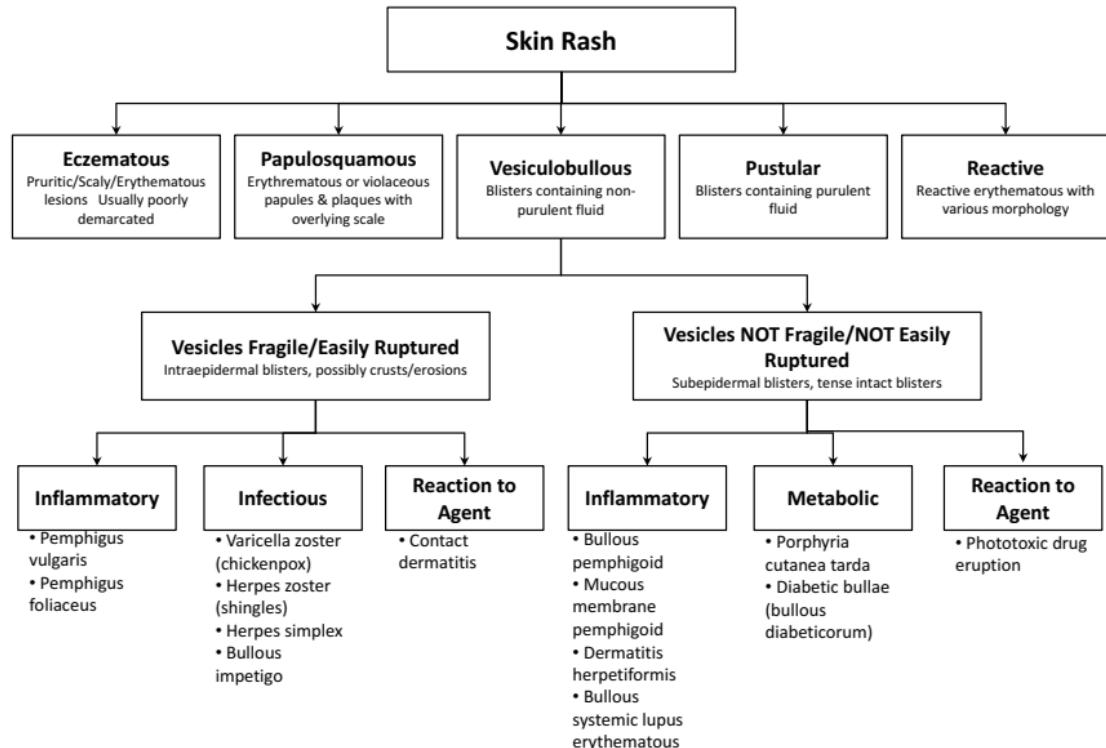
# Skin Rash

Reactive

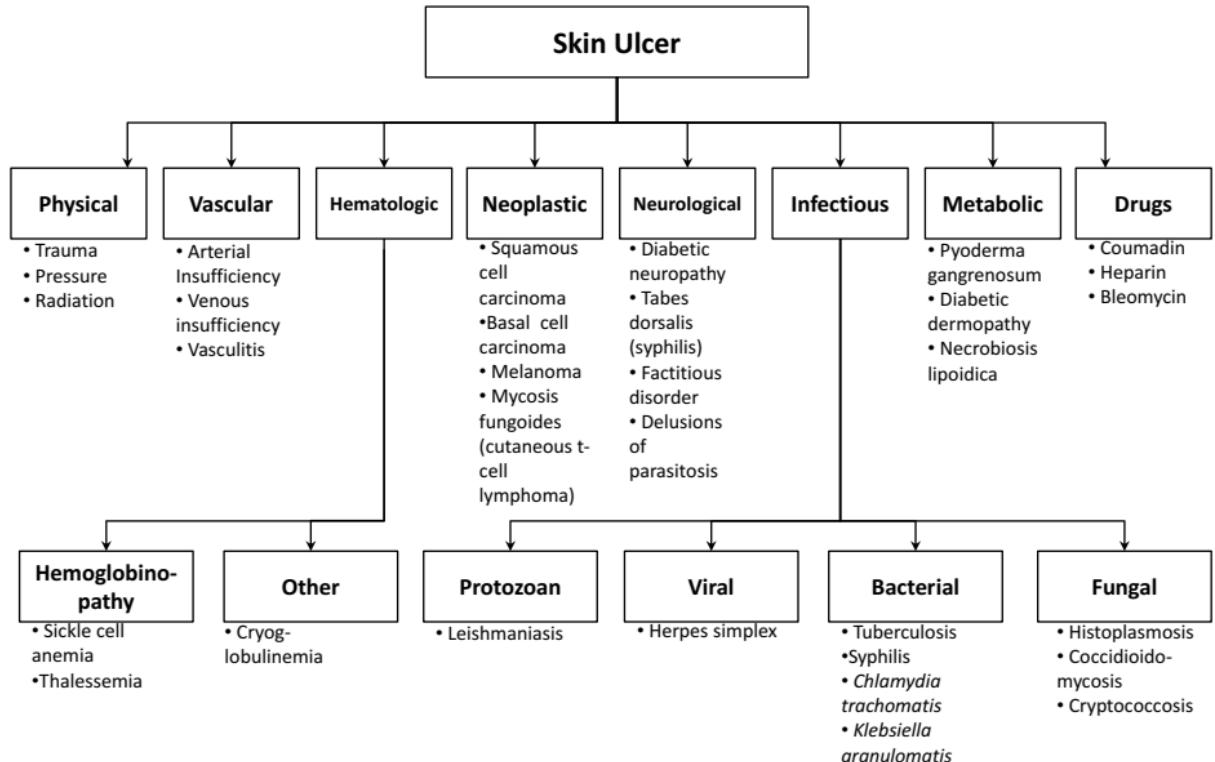


# Skin Rash

## Vesiculobullous

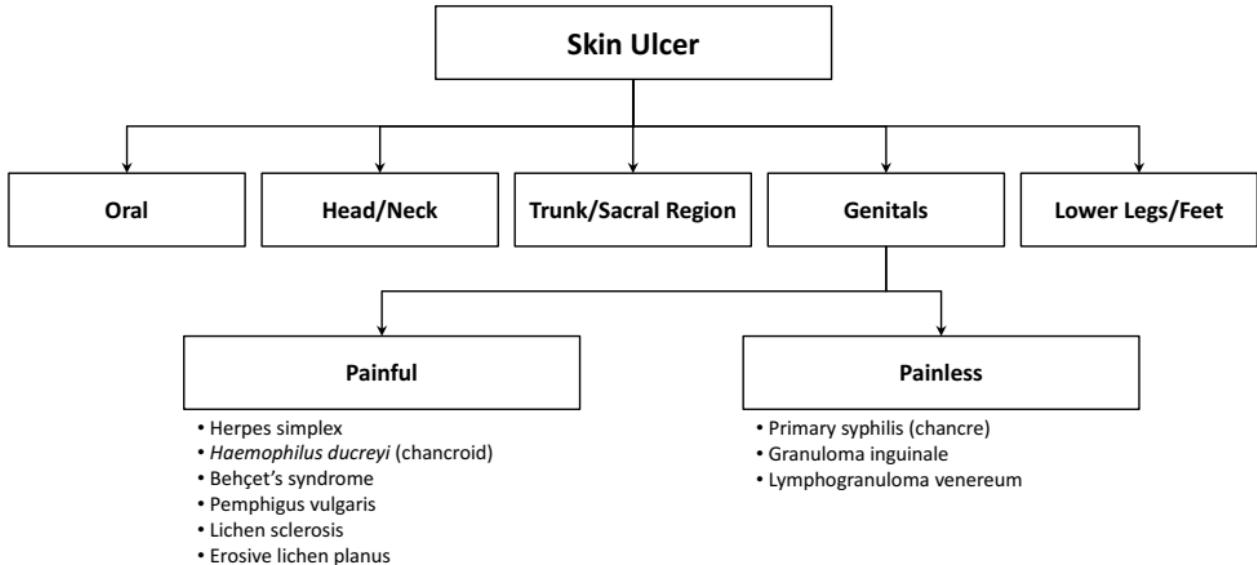


# Skin Ulcer by Etiology



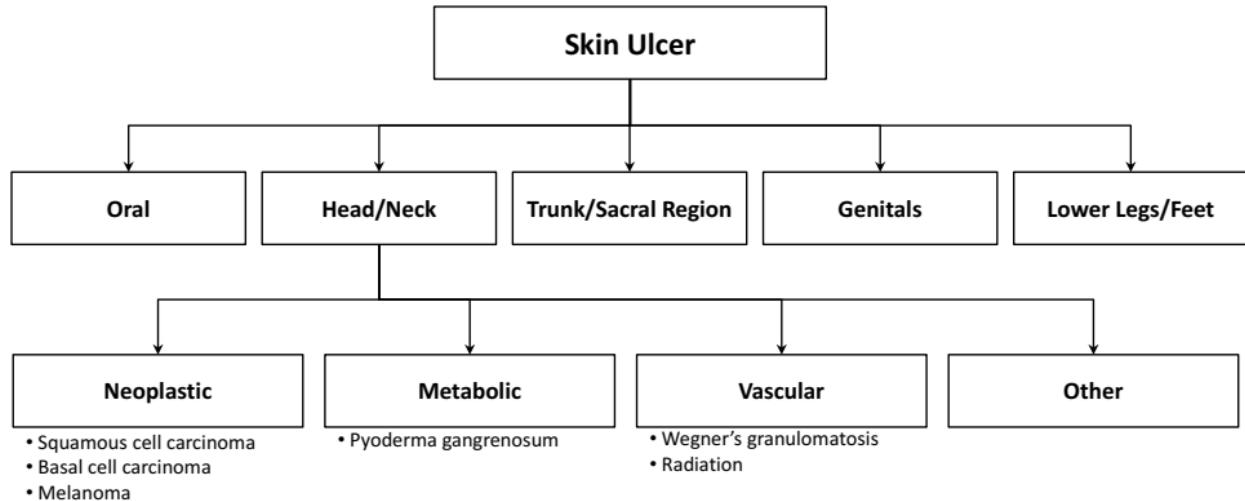
# Skin Ulcer by Location

Genitals



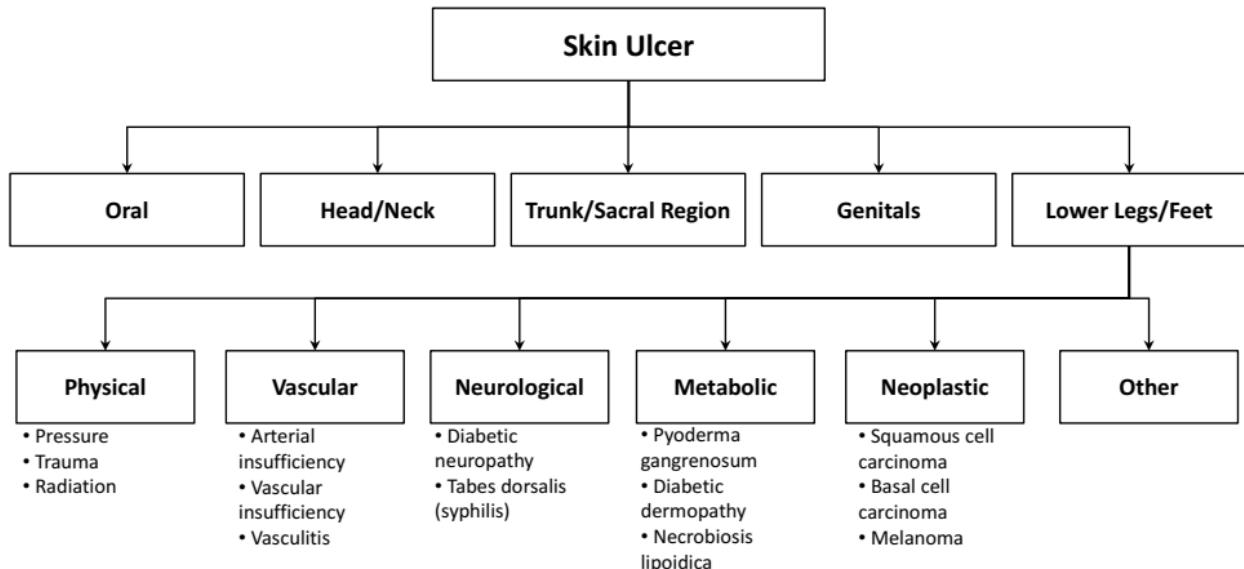
# Skin Ulcer by Location

Head & Neck



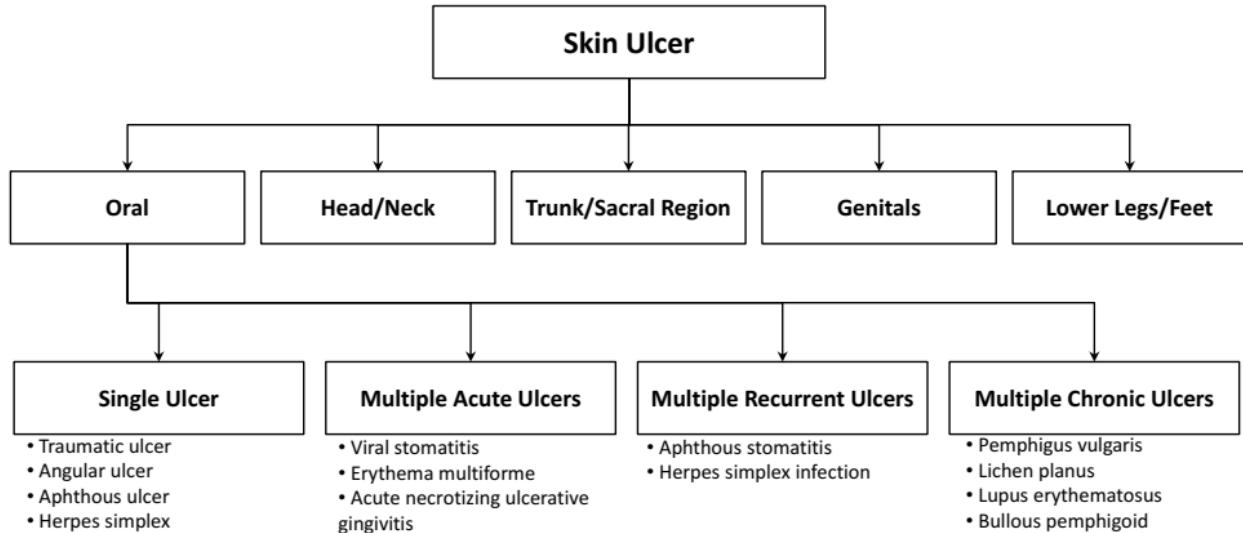
# Skin Ulcer by Location

Lower Legs / Feet



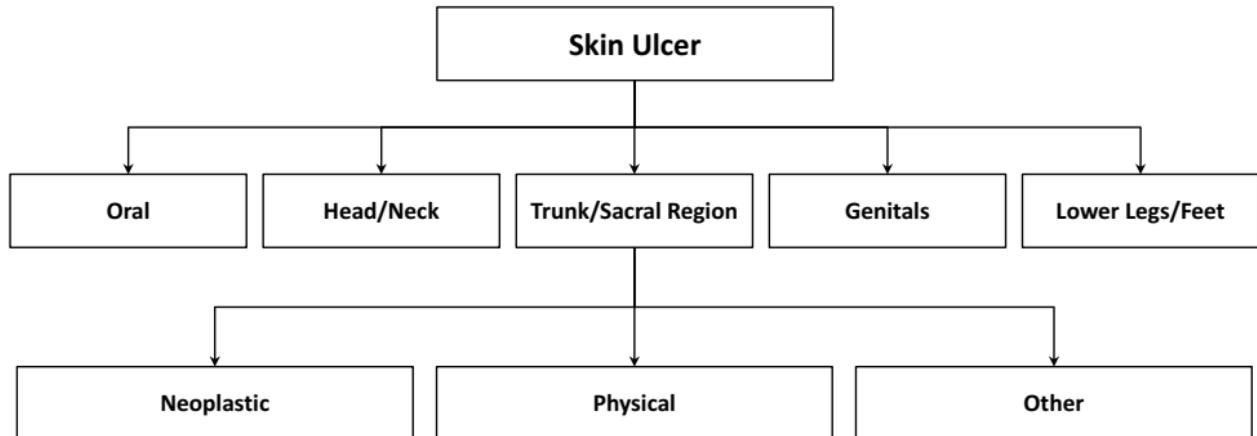
# Skin Ulcer by Location

Oral Ulcers



# Skin Ulcer by Location

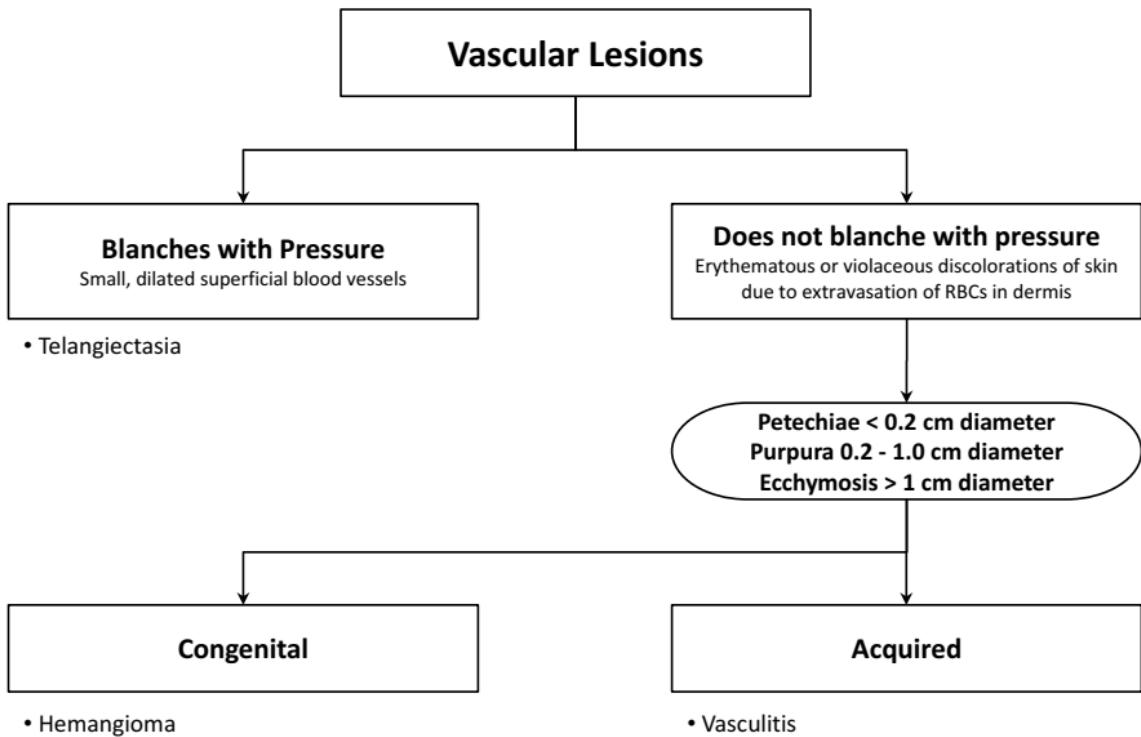
Trunk / Sacral Region



- Squamous cell carcinoma
- Basal cell carcinoma
- Melanoma
- Mycosis fungoides (cutaneous t-cell lymphoma)

- Physical
- Trauma
- Radiation

# Vascular Lesions



# Musculoskeletal

---

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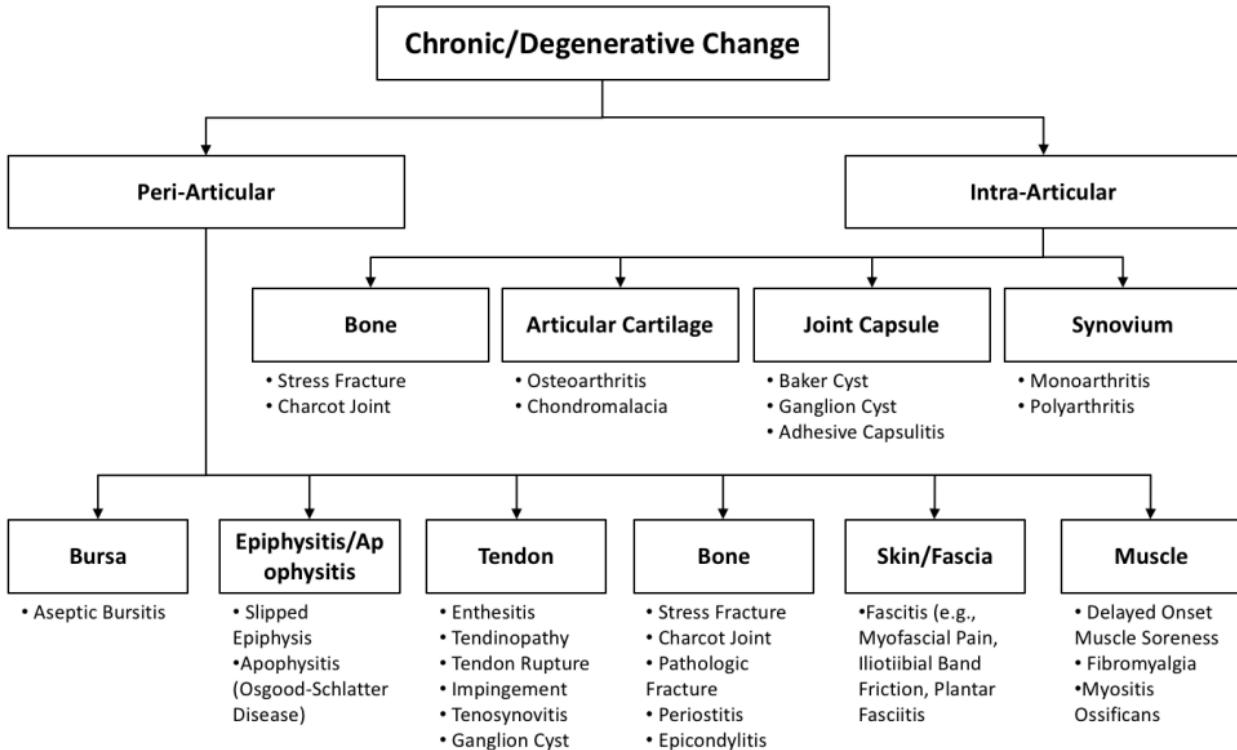
# Acute Joint Pain

Vitamin CD

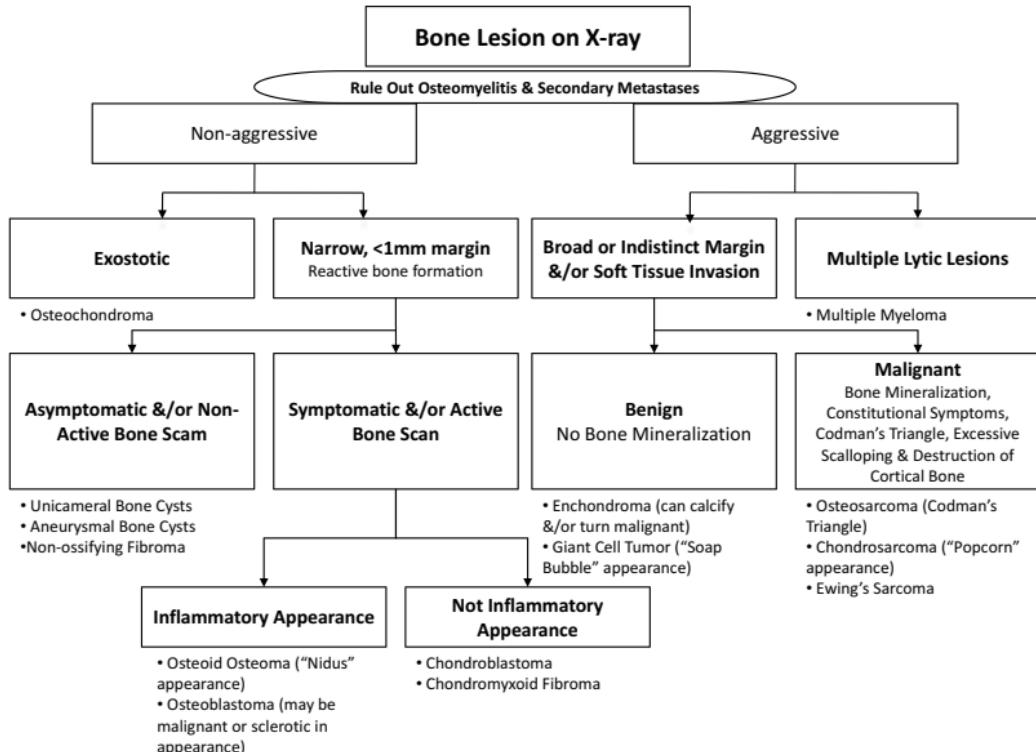
---

Vascular	- See <i>vascular joint pain</i>
Infectious	- See <i>infectious joint pain</i>
Trauma	- Multiple injury sites, Open Fracture, Infectious joint pain
Autoimmune	- See <i>inflammatory joint pain</i>
Metabolic	- See <i>pathologic fractures</i>
Iatrogenic	- Hx of prior surgery
Neoplastic	- See <i>Tumour</i>
Congenital	- Scoliosis, Talipes Equinovarus, Meta tarsus adductus, Bow leg, Knock-Knee'd
Degenerative	- Degenerative Disc Disease, Osteoarthritis, Osteoporosis

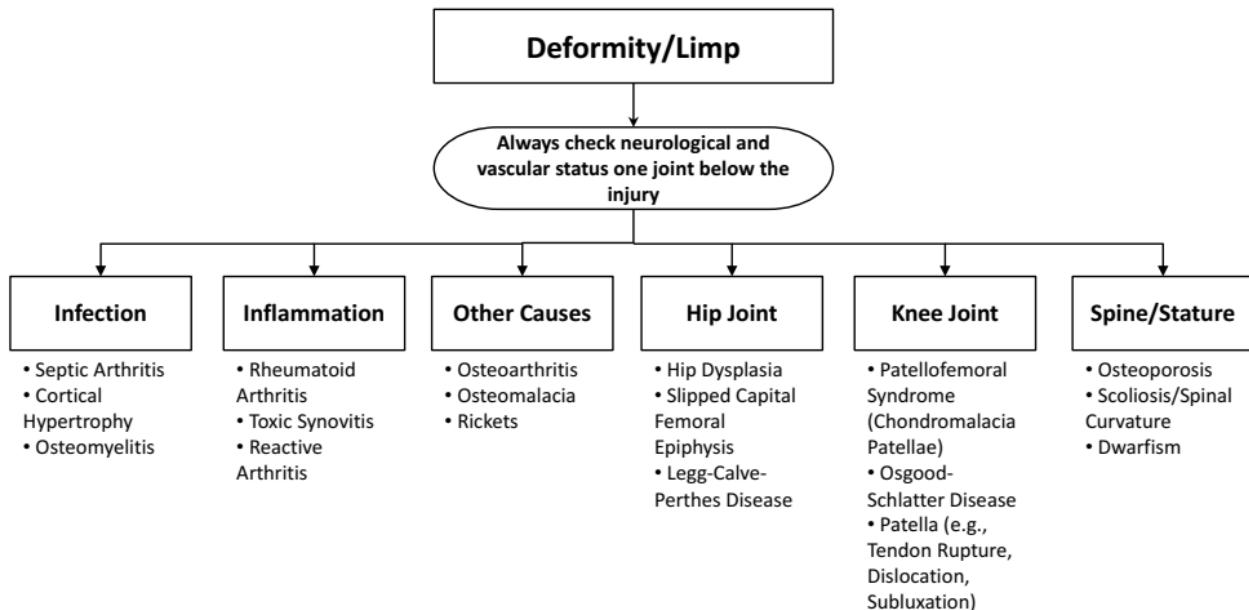
# Chronic Joint Pain



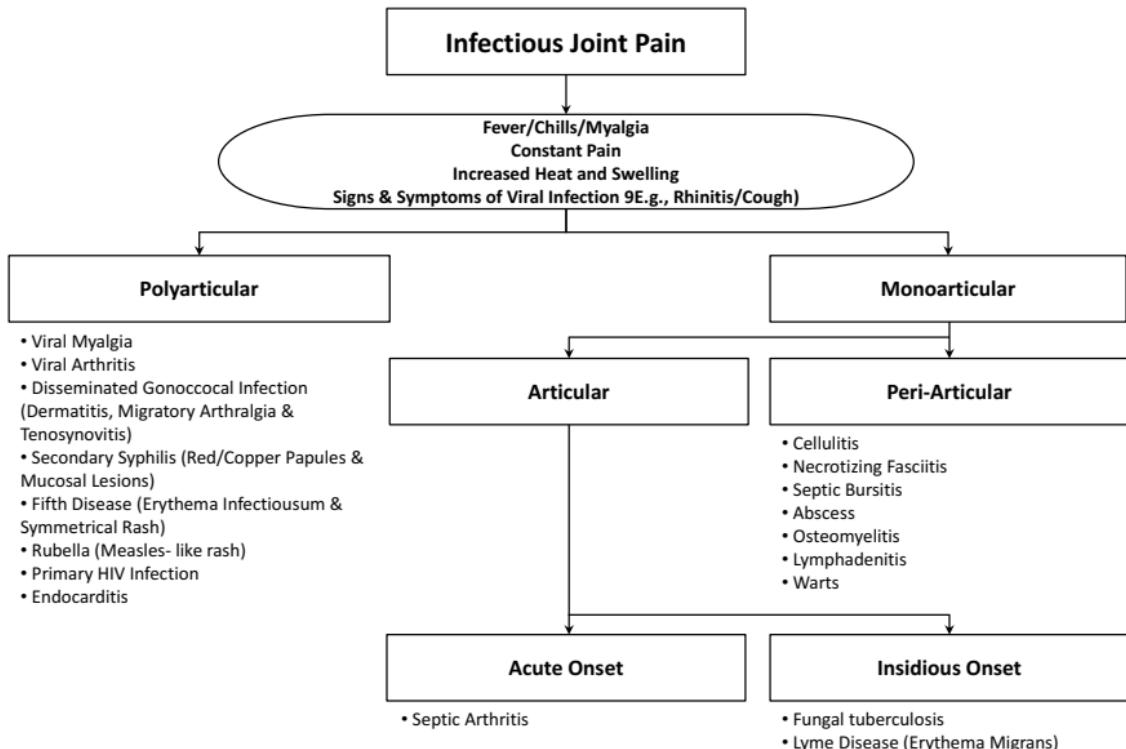
# Bone Lesion



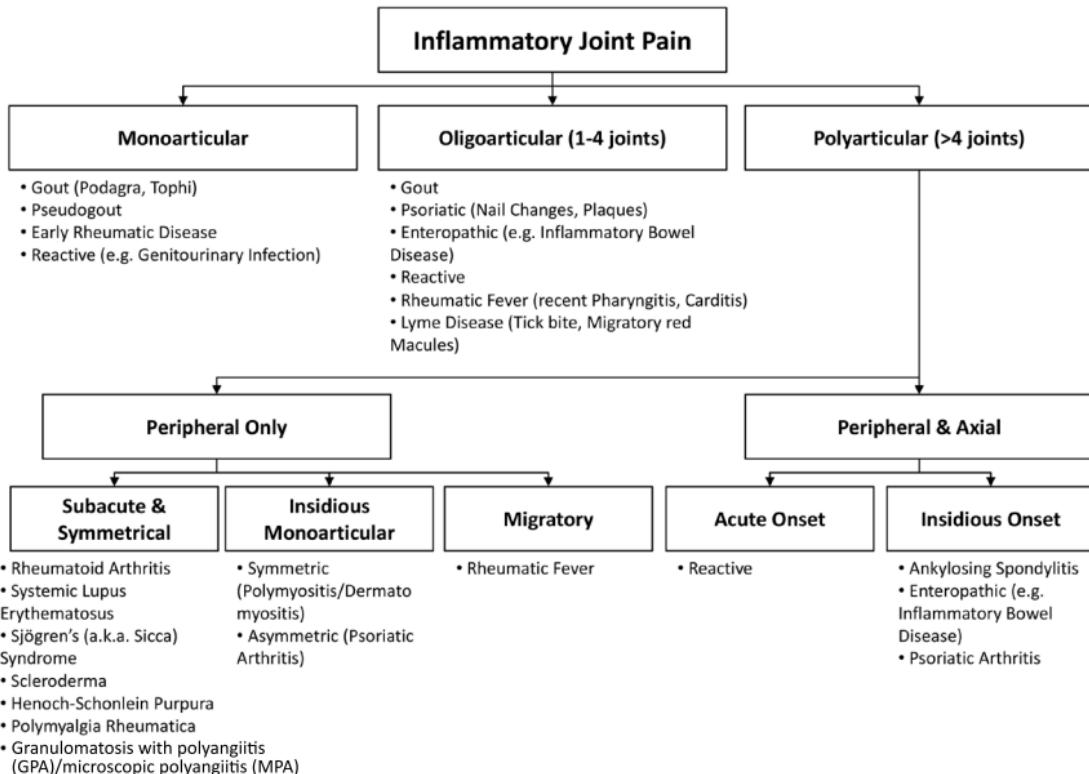
# Deformity / Limp



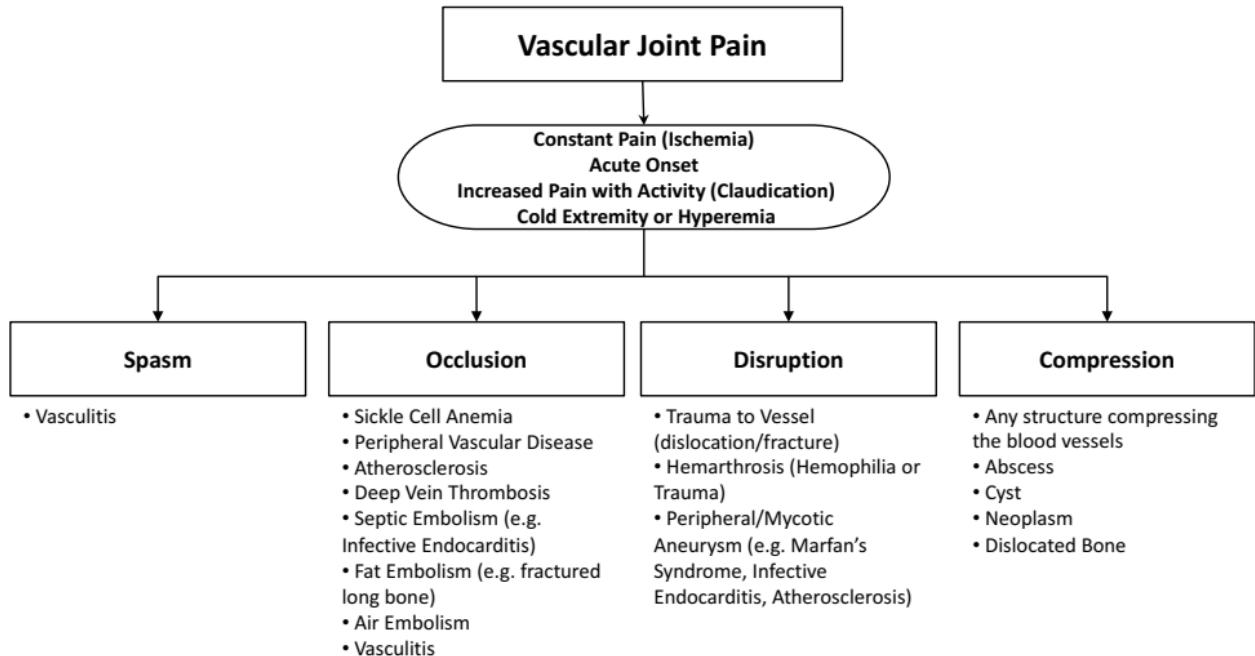
# Infectious Joint Pain



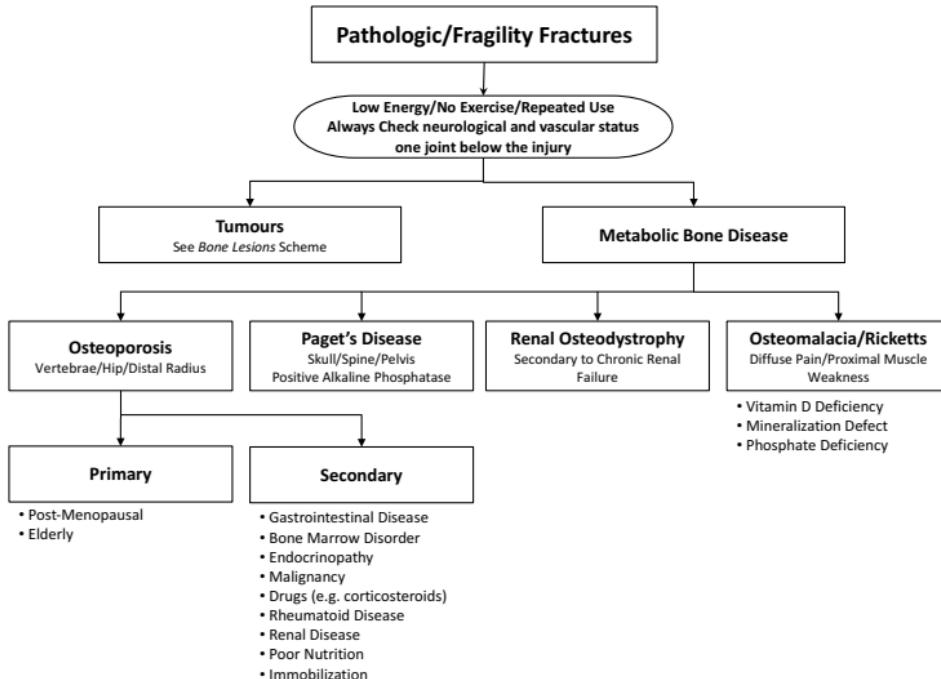
# Inflammatory Joint Pain



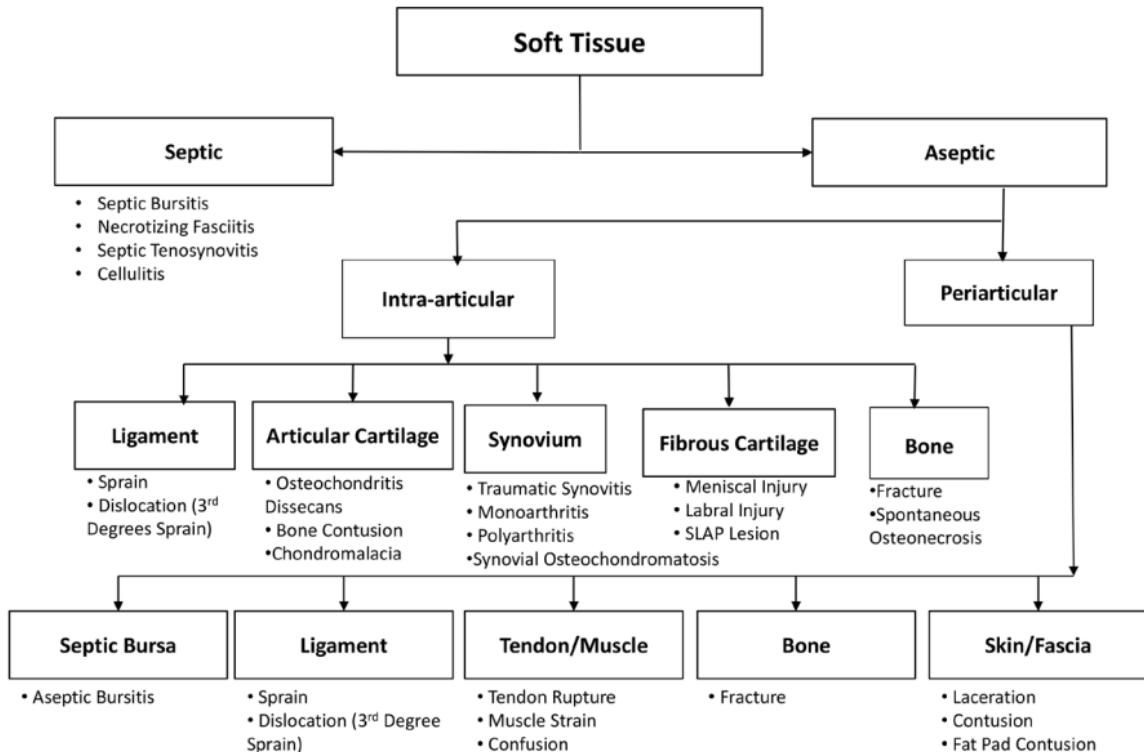
# Vascular Joint Pain



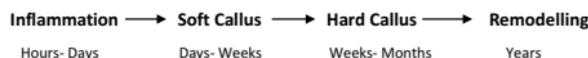
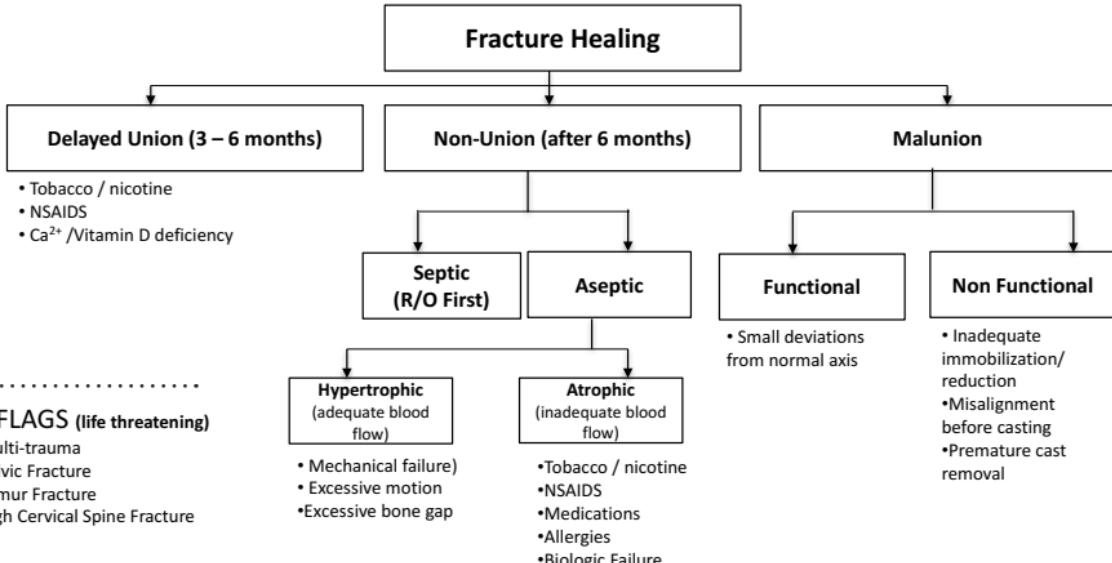
# Pathologic Fractures



# Soft Tissue

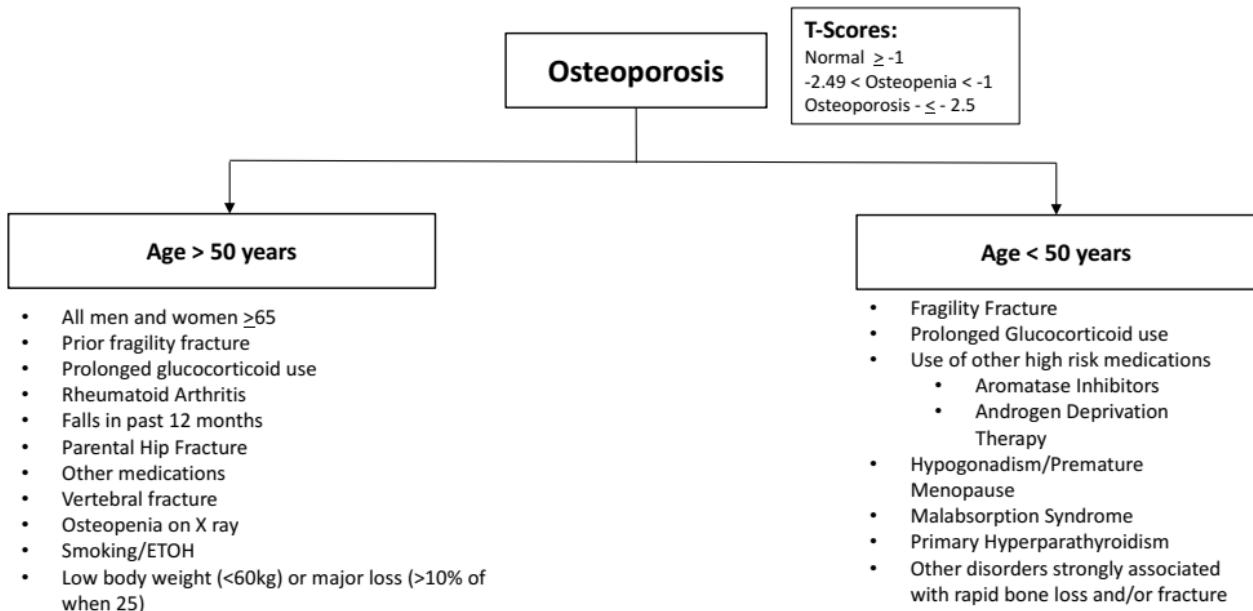


# Fracture Healing

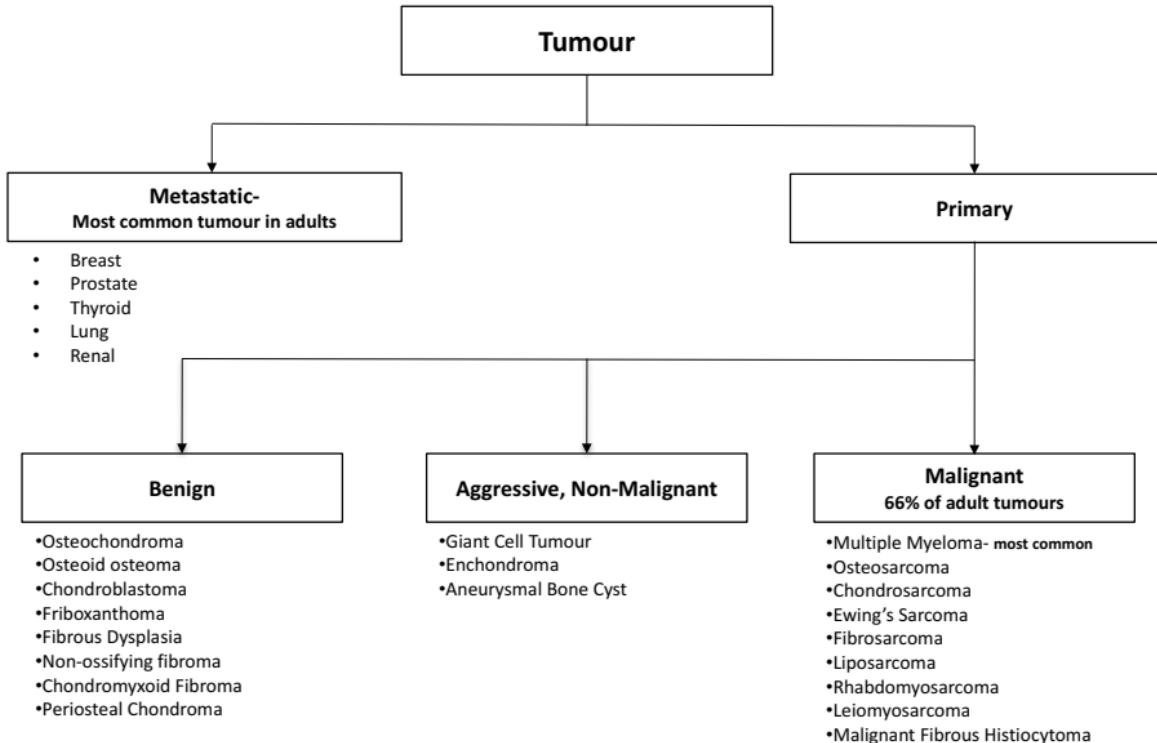


# Osteoporosis

## BMD Testing



# Tumour



# Myotomes

## Segmental Innervation of Muscles

<u>Muscle Group</u>	<u>Action</u>	<u>Myotome</u>	<u>Peripheral Nerve</u>
Shoulder	Abduction	C5	Axillary Nerve
	Adduction	C6-C8	Thoracodorsal Nerve
Elbow	Flexion	C5	Musculocutaneous Nerve
	Extension	C7	Radial Nerve
Wrist	Extension	C6	Radial Nerve
Fingers	Flexion	C8	Median Nerve
	Abduction	T1	Ulnar Nerve
Hip	Flexion	L2	Nerve to Psoas
	Extension	S1	Inferior Gluteal Nerve
Knee	Abduction	L5	Superior Gluteal Nerve
	Flexion	L5	Tibial Nerve
Ankle	Extension	L3	Femoral Nerve
	Dorsiflexion	L4	Deep Peroneal Nerve
	Plantarflexion	S1	Tibial Nerve

# Guide to Spinal Cord Injury

<u>Spinal Root</u>	<u>Sensory</u>	<u>Motor</u>	<u>Reflex</u>
C4	Acromioclavicular Joint	Respiration	None
C5	Radial Antecubital Fossa	Elbow Flexion	Biceps Reflex
C6	Dorsal Thumb	Wrist Extension	Brachioradialis Reflex
C7	Dorsal Middle Finger	Elbow Extension	Triceps Reflex
C8	Dorsal Little Finger	Finger Flexion	None
T1	Ulnar Antecubital Fossa	Finger Abduction	None
T7-12	See Dermatomes	Abdominal Muscles	Abdominal Reflex
L2	Anterior Medial Thigh	Hip Flexion	Cremasteric Reflex
L3	Medial Femoral Condyle	Knee Extension	None
L4	Medial Malleolus	Ankle Dorsiflexion	Knee Jerk Reflex
L5	First Web Space (1 <sup>st</sup> /2 <sup>nd</sup> MTP)	Big Toe Extension	Hamstring Reflex
S1	Lateral Calcaneus	Ankle Plantarflexion	Ankle Jerk Reflex
S2	Popliteal Fossa	Anal Sphincter	Bulbocavernosus
S3/S4	Perianal Region	Anal Sphincter	None

N.B. There is considerable variability in spinal cord levels for motor and reflex testing. Always test the level above and below the suspected injury

# Psychiatric

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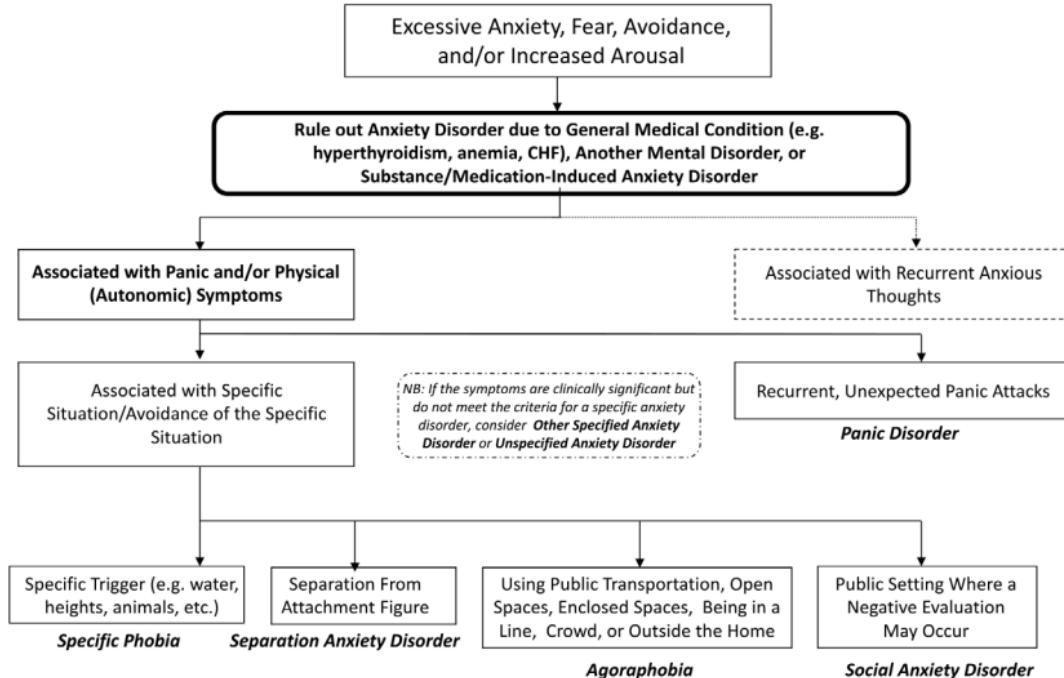
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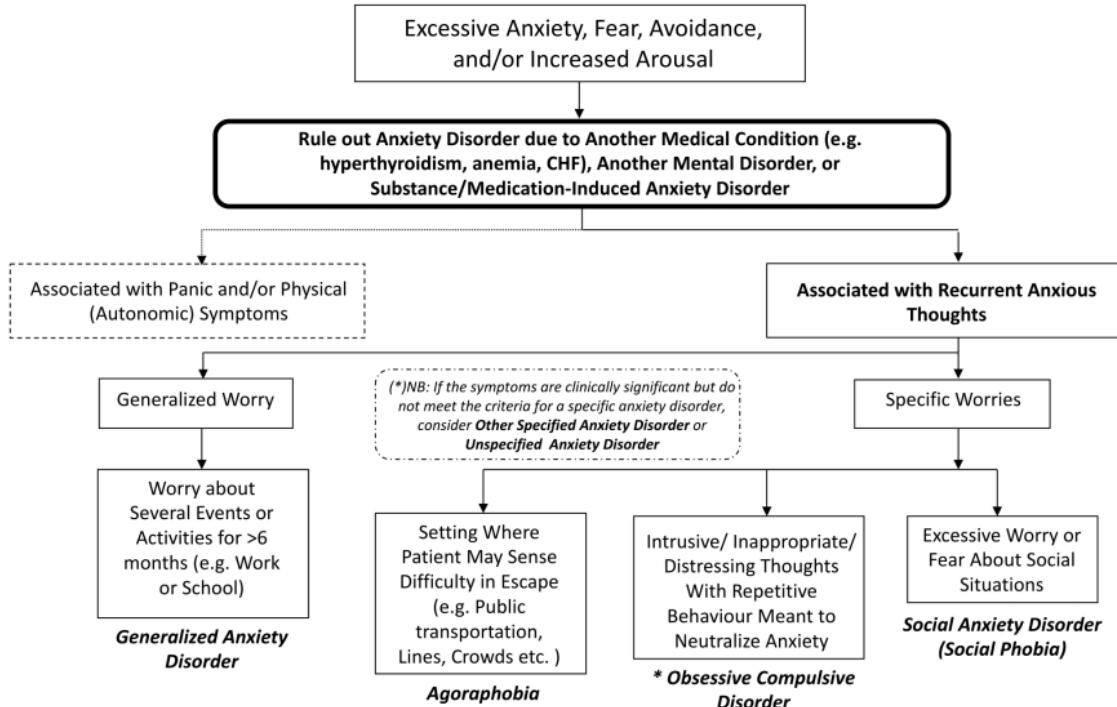
# Anxiety Disorders

Associated with Panic



# Anxiety Disorders

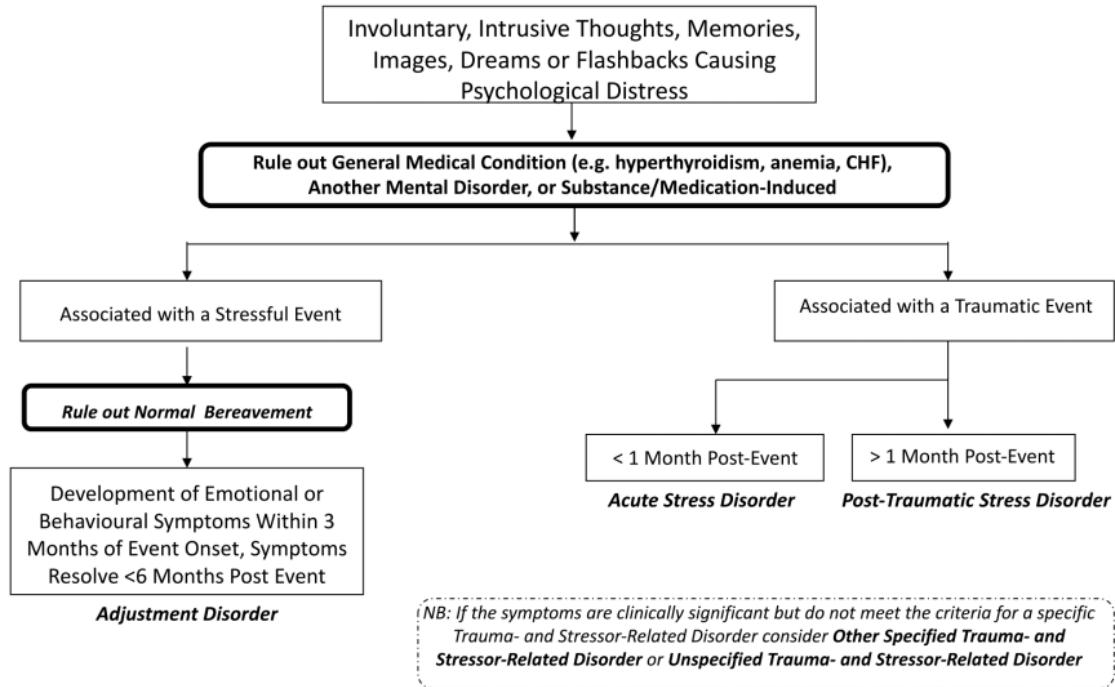
## Recurrent Anxious Thoughts



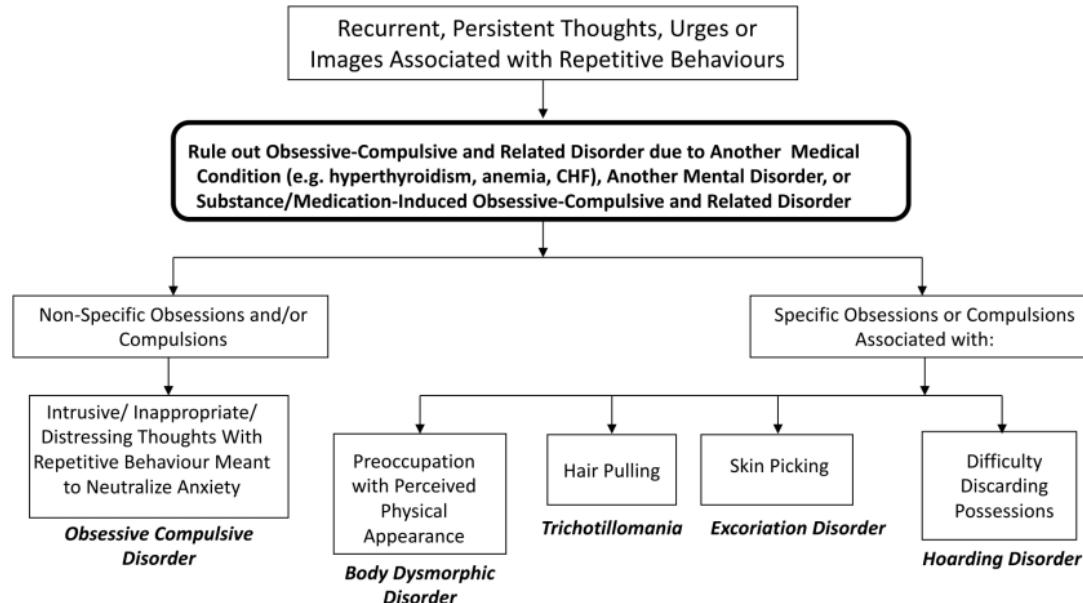
\* Not considered an anxiety disorder according to DSM-V

# Trauma & Stressor

## Related Disorders

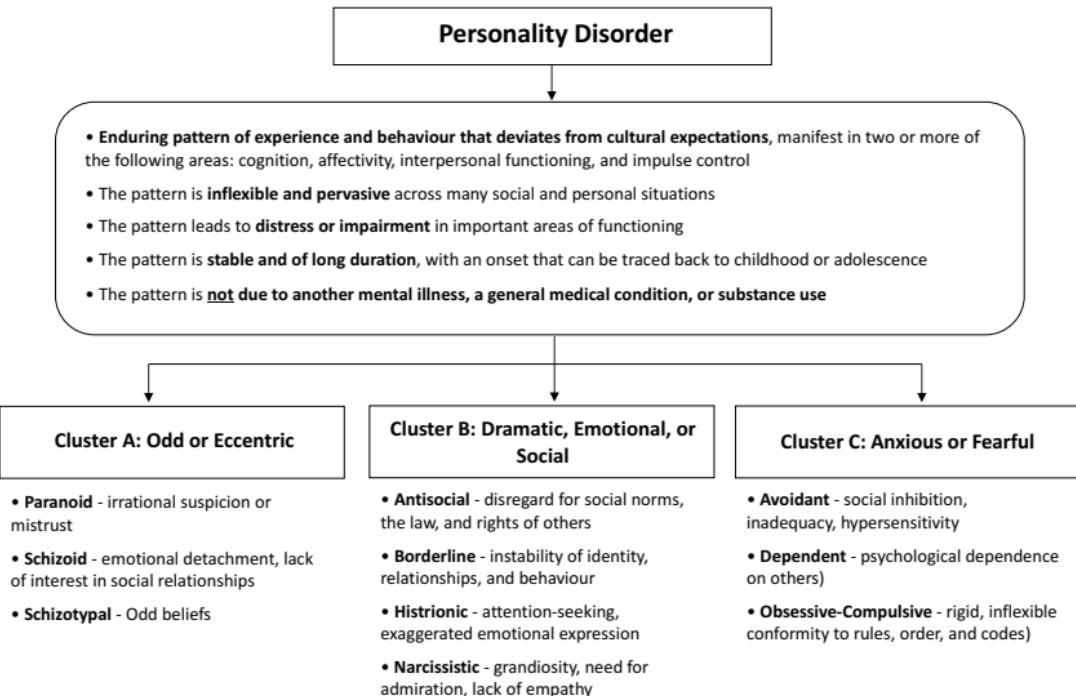


# Obsessive-Compulsive & Related Disorders



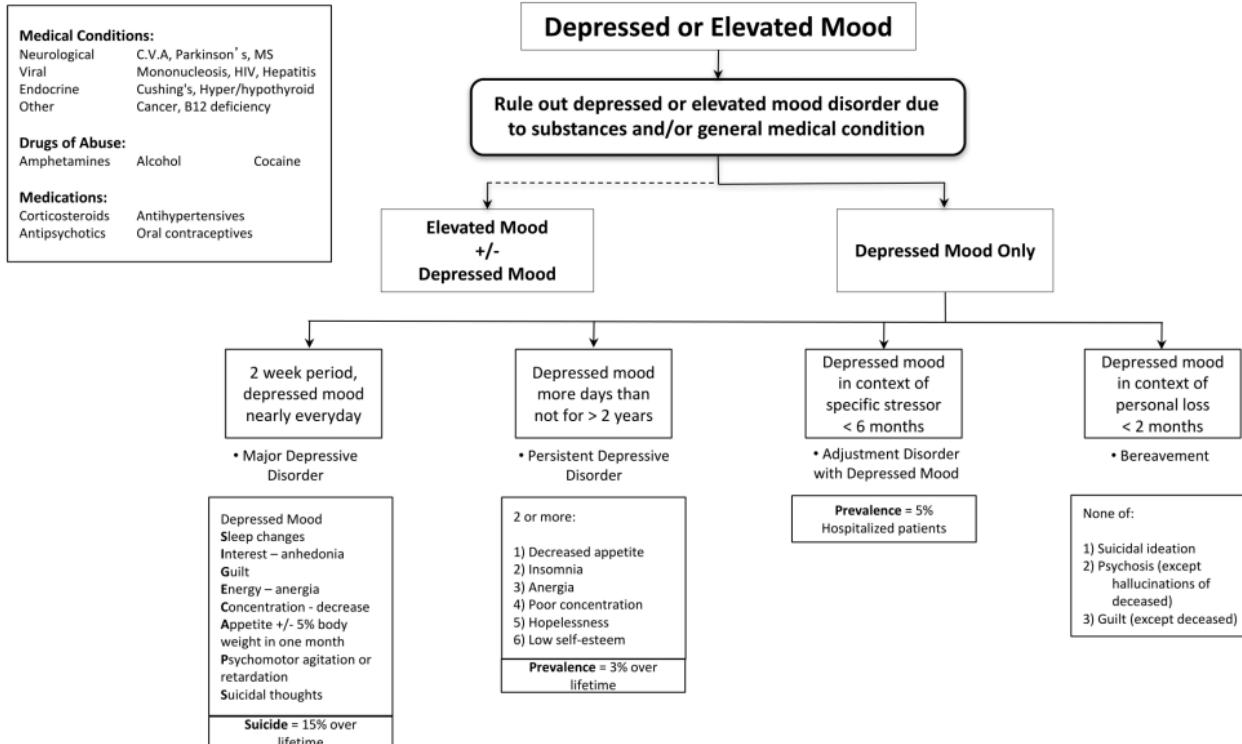
NB: If the symptoms are clinically significant but do not meet the criteria for a specific Obsessive-Compulsive or Related Disorder consider Other Specified Obsessive-Compulsive or Related Disorder or Unspecified Obsessive-Compulsive or Related Disorder

# Personality Disorder



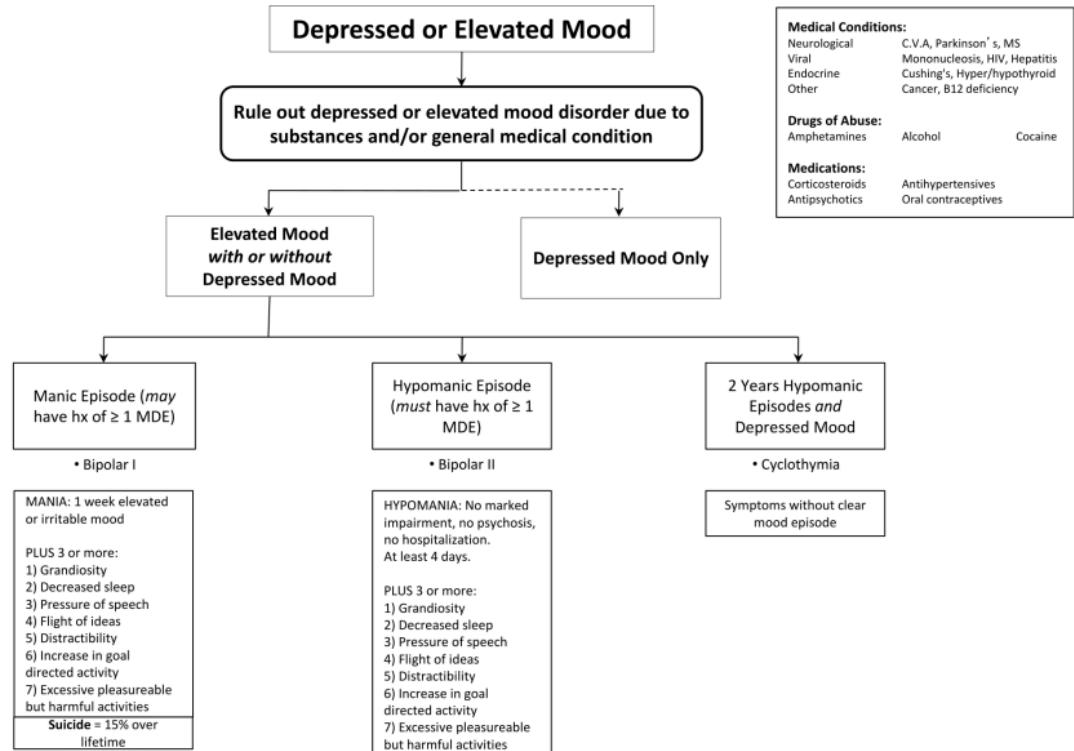
# Mood Disorders

## Depressed Mood



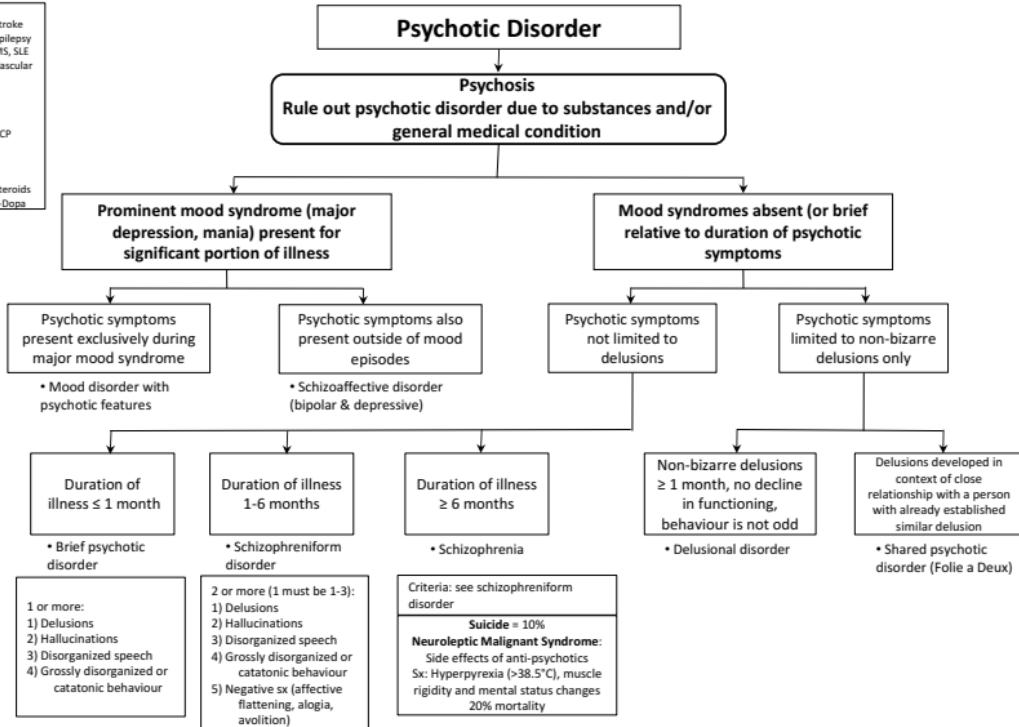
# Mood Disorders

## Elevated Mood

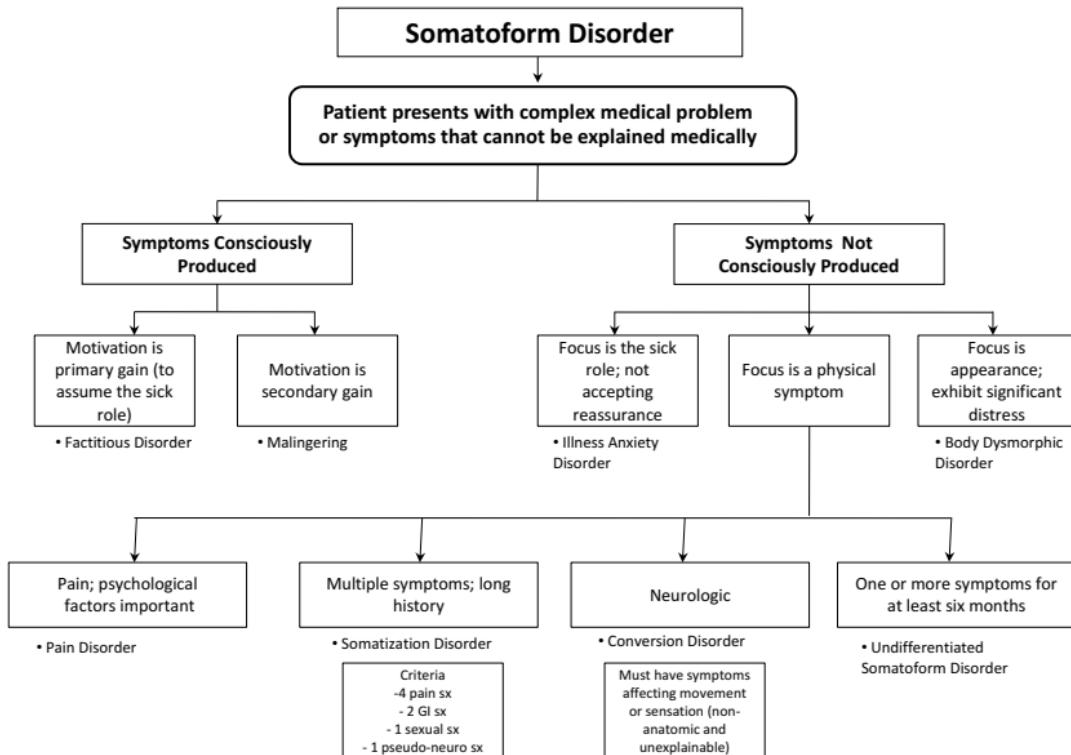


# Psychotic Disorders

<b>Medical Conditions:</b>		
Para/Neoplastic	Brain tumour	Stroke
Parkinson's	AIDS, syphilis	Epilepsy
Infectious	Cushing's	MS, SLE
Degenerative	Endocrine	Vascular
<b>Drugs of Abuse:</b>		
Cocaine	Alcohol (rare)	
Cannabis	Opiates (rare)	
Amphetamines		PCP
Hallucinogens		
<b>Medications:</b>		
Amphetamines	Methylphenidate	Steroids
Dopamine Agonist	Anticholinergic	L-Dopa



# Somatoform Disorders

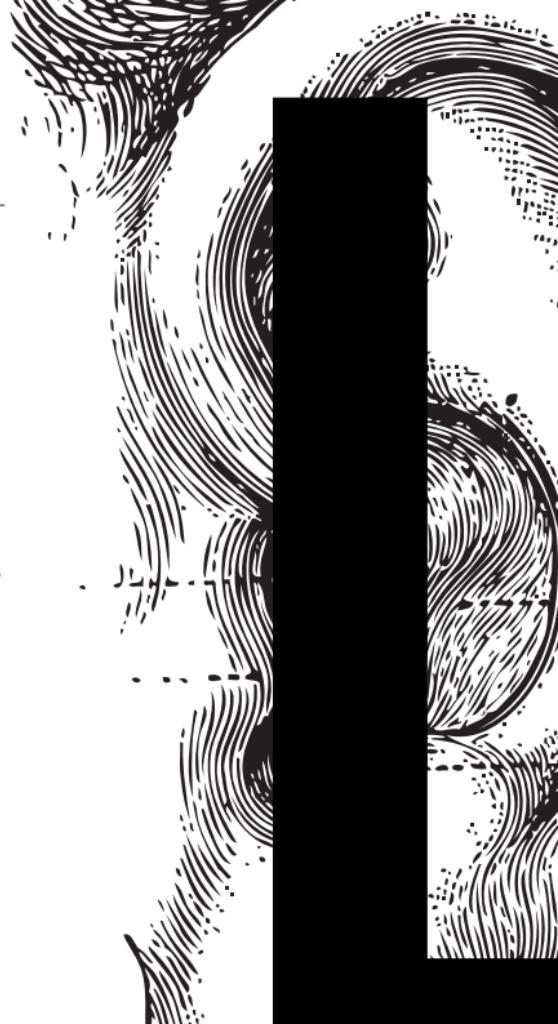




# Otolaryngologic

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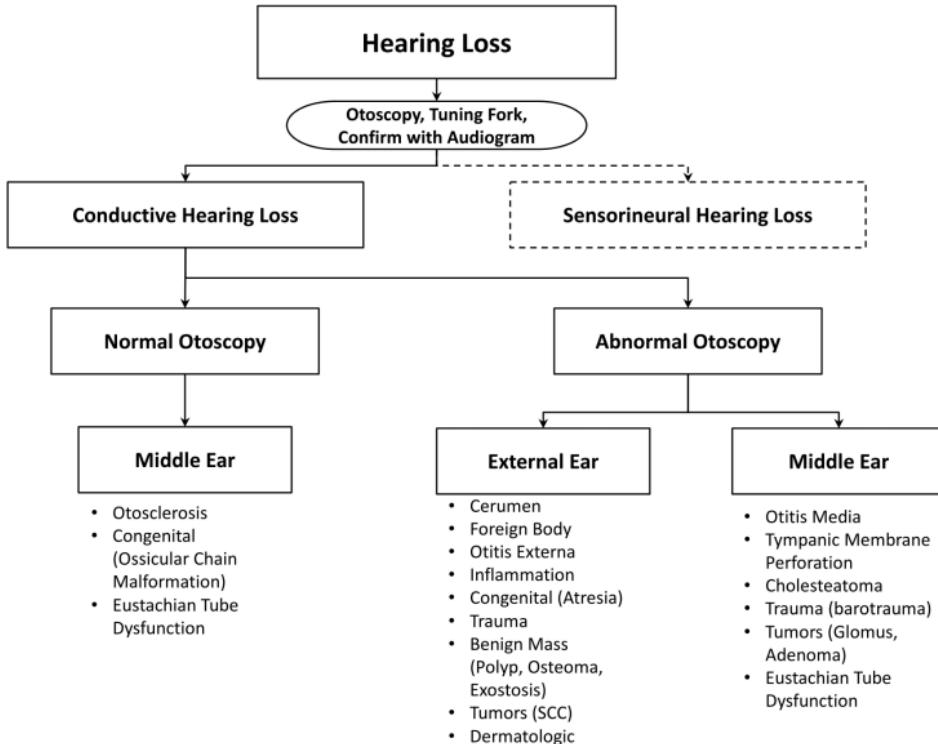
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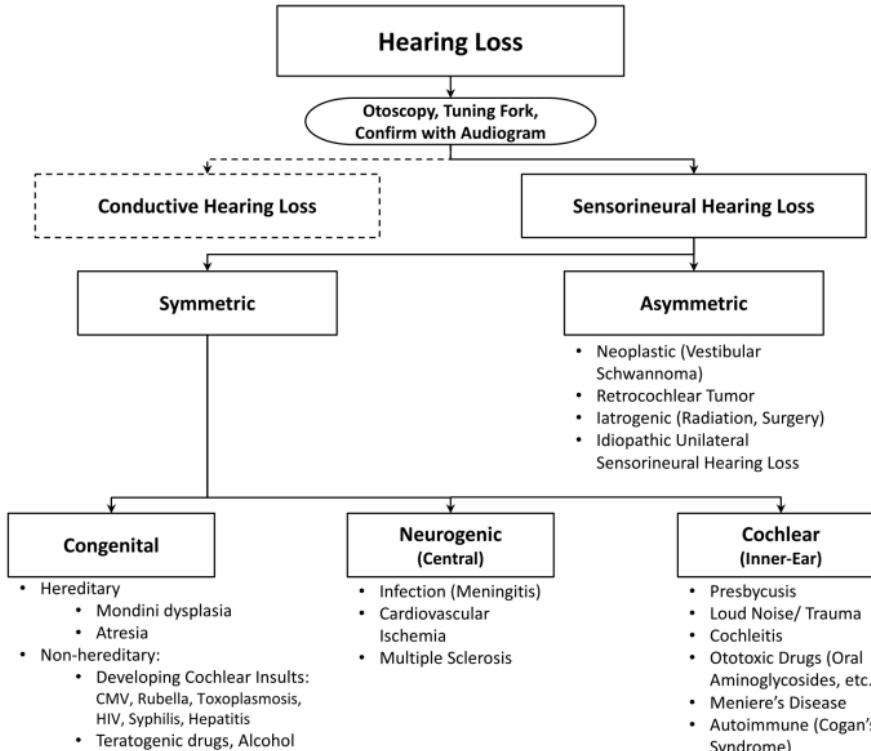
# Hearing Loss

## Conductive



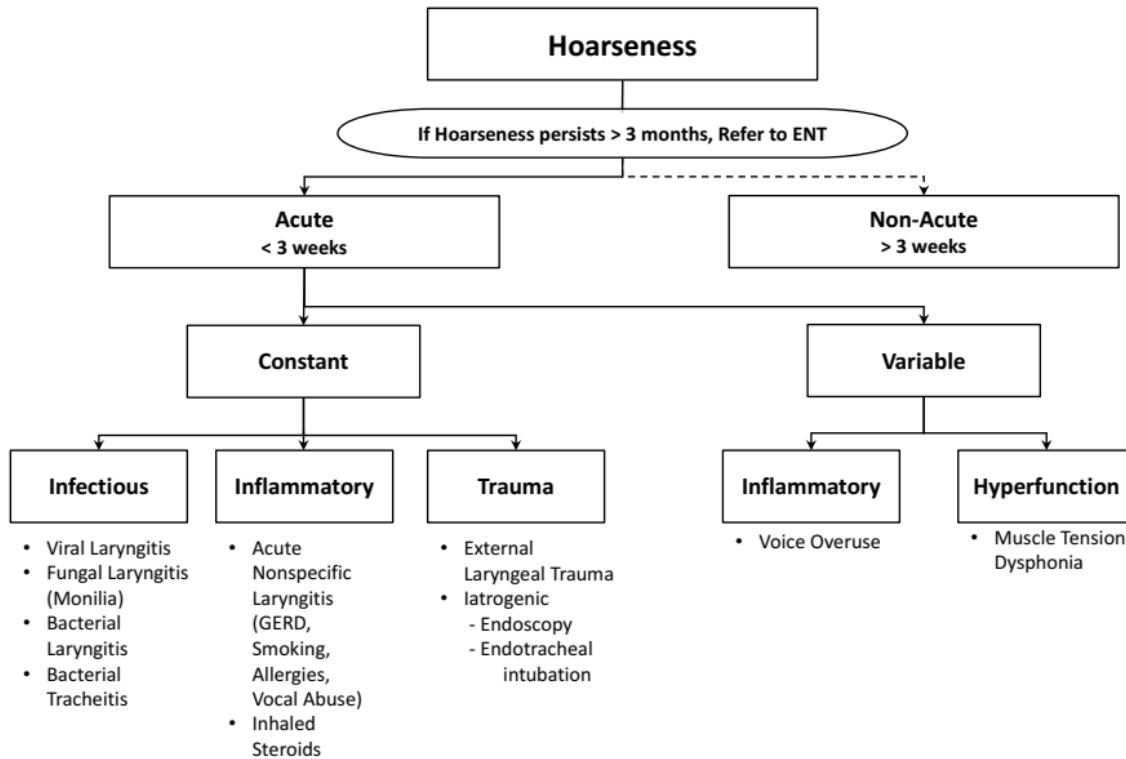
# Hearing Loss

Sensorineural



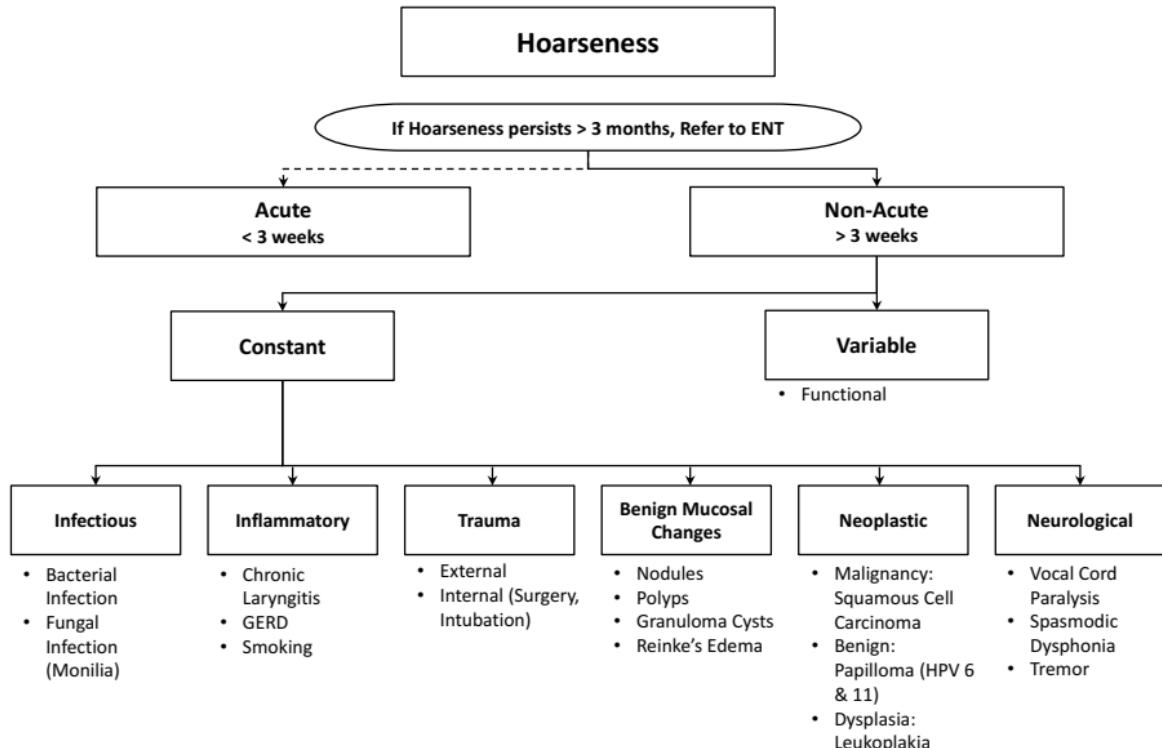
# Hoarseness

Acute

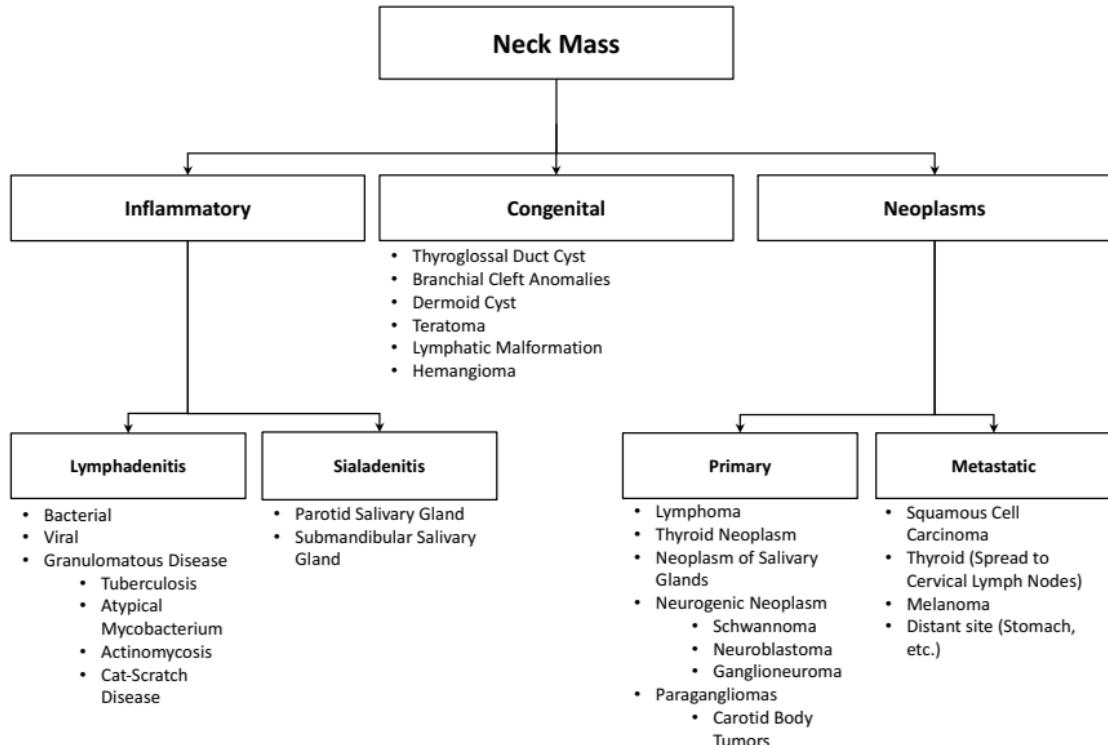


# Hoarseness

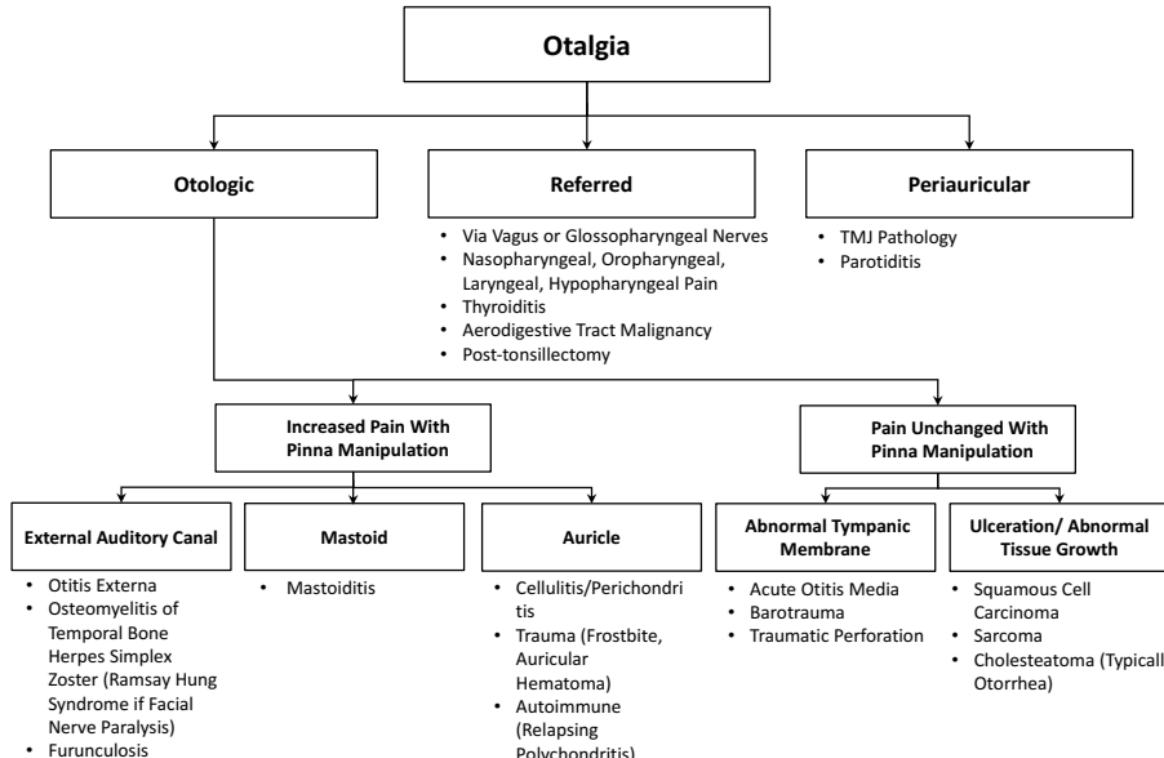
Non-Acute



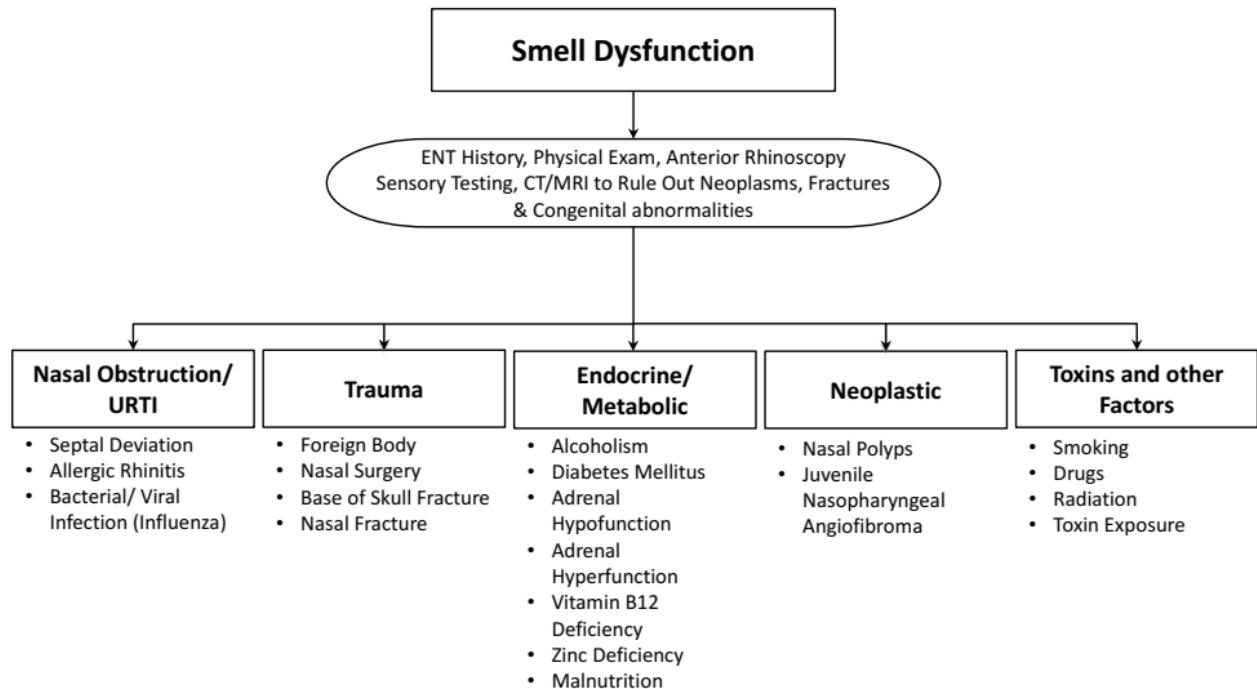
# Neck Mass



# Otaligia

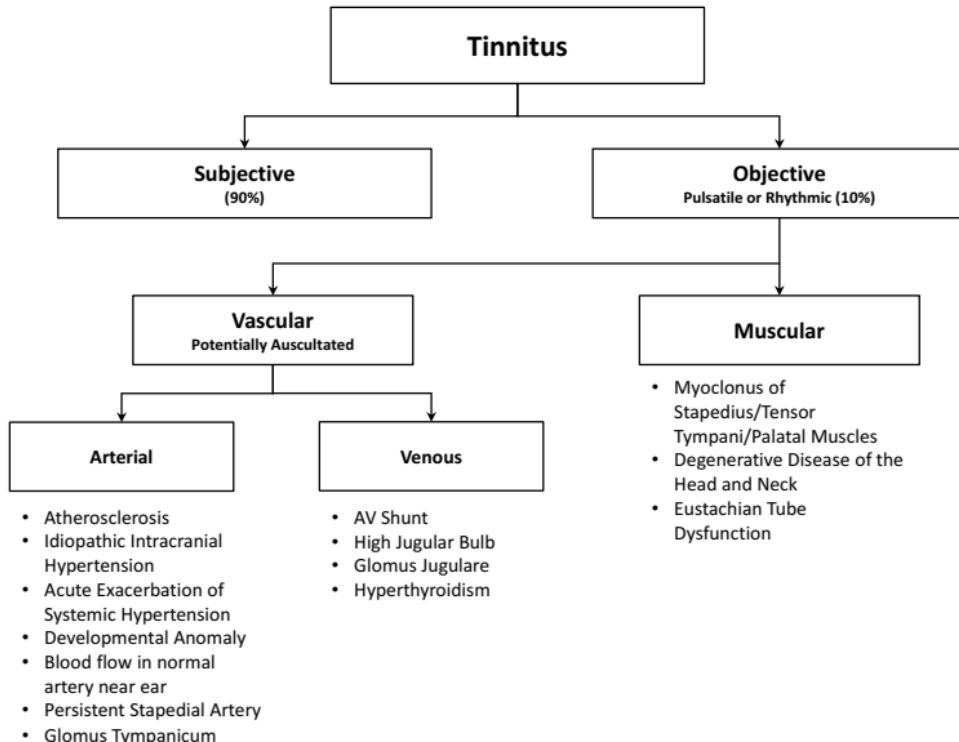


# Smell Dysfunction



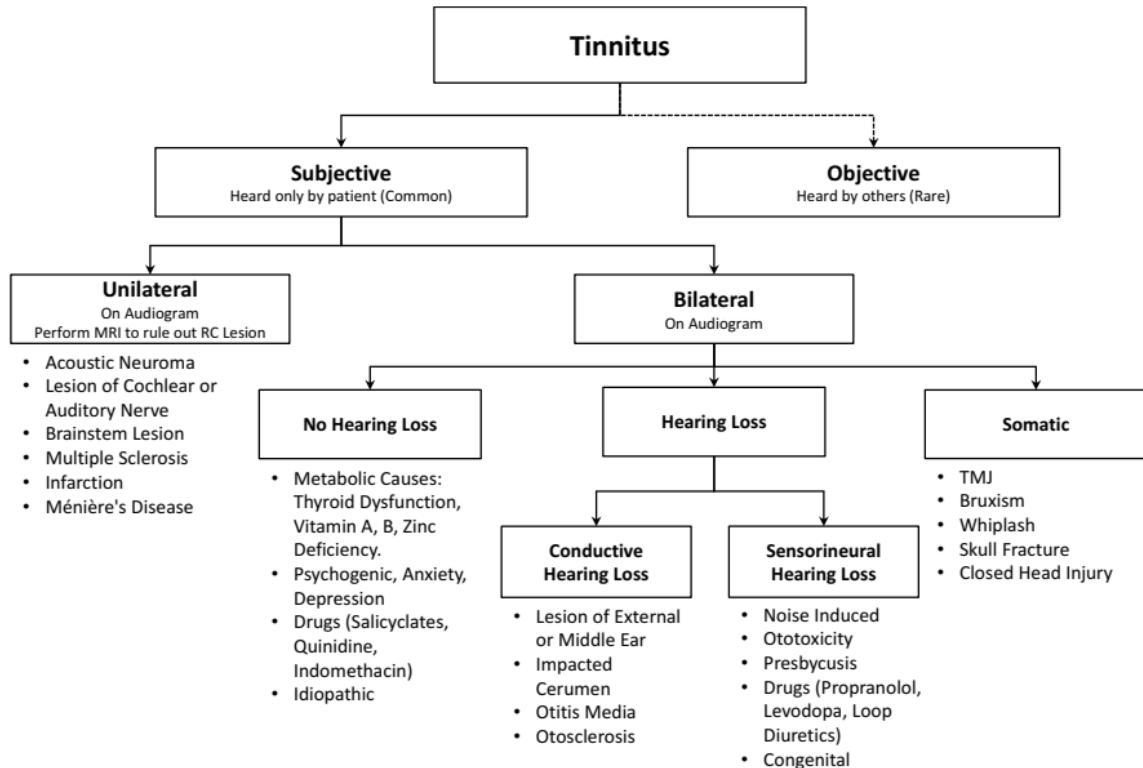
# Tinnitus

## Objective



# Tinnitus

Subjective



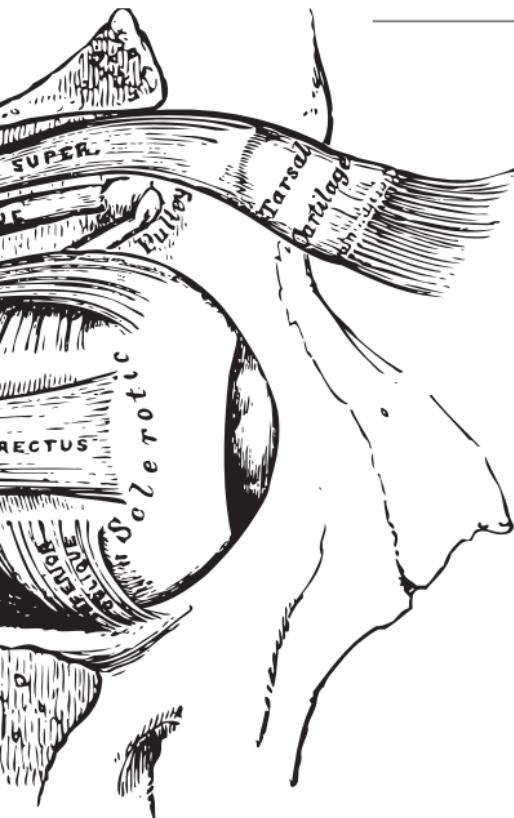


# Ophthalmologic

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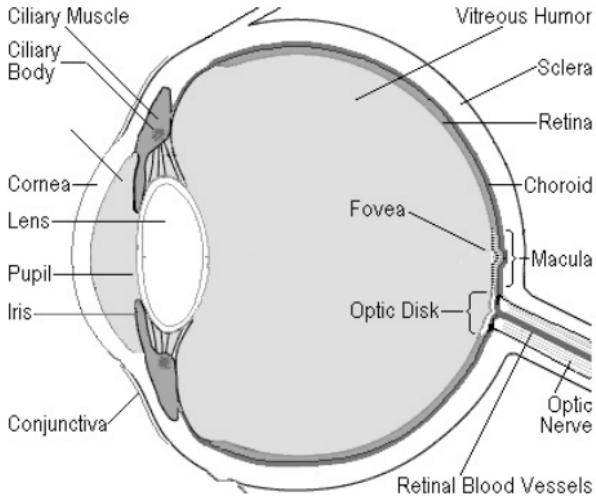
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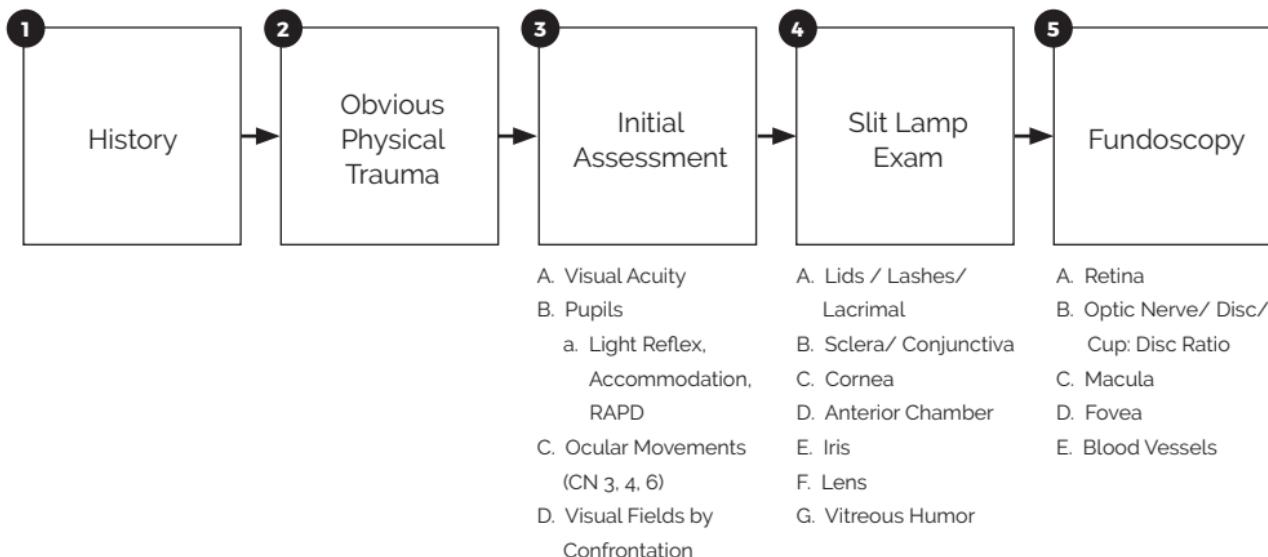
# Cross Section of the Eye & Acronyms



## Ophthalmology Acronyms

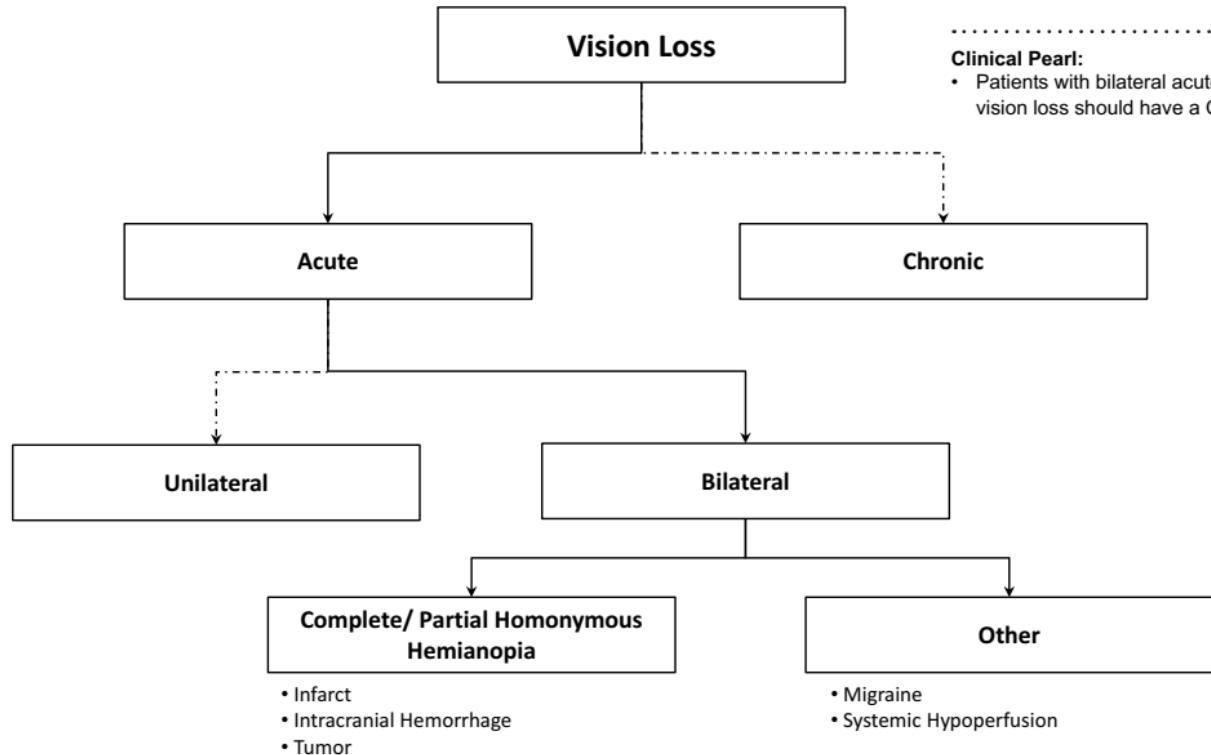
<b>EOM</b>	Extra ocular movements
<b>IOL</b>	Intraocular Lens
<b>IOP</b>	Intraocular Pressure
<b>OD</b>	Oculus Dexter (right eye)
<b>OS</b>	Oculus Sinister (left eye)
<b>OU</b>	Oculus Utterque (both eyes)
<b>PERRLA</b>	Pupils Equal, Round, Reactive to Light & Accommodation
<b>RAPD</b>	Relative Afferent pupillary defect
<b>SLE</b>	Slit Lamp Exam
<b>VA</b>	Visual Acuity

# Approach to an Eye Exam



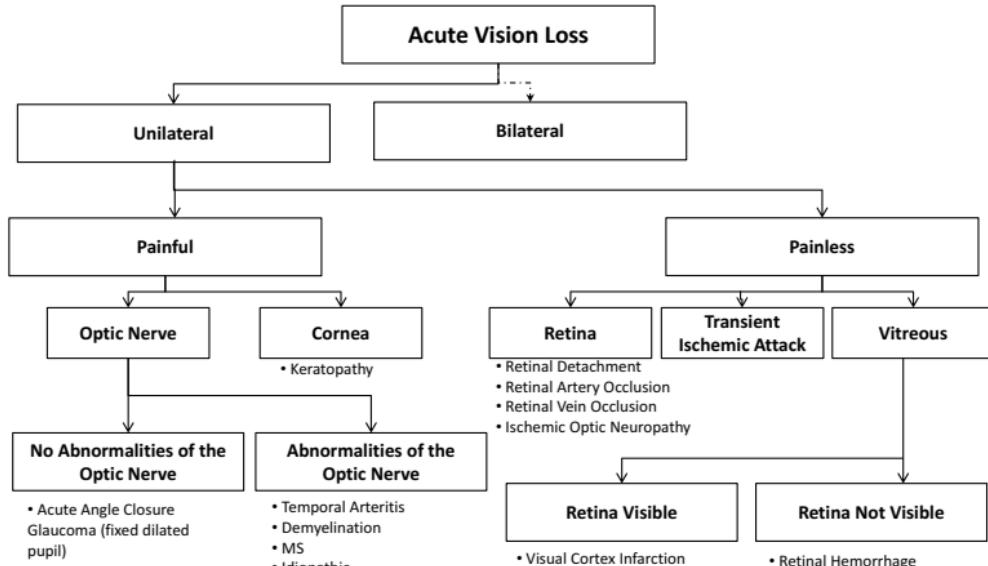
# Acute Vision Loss

Bilateral



# Acute Vision Loss

Unilateral

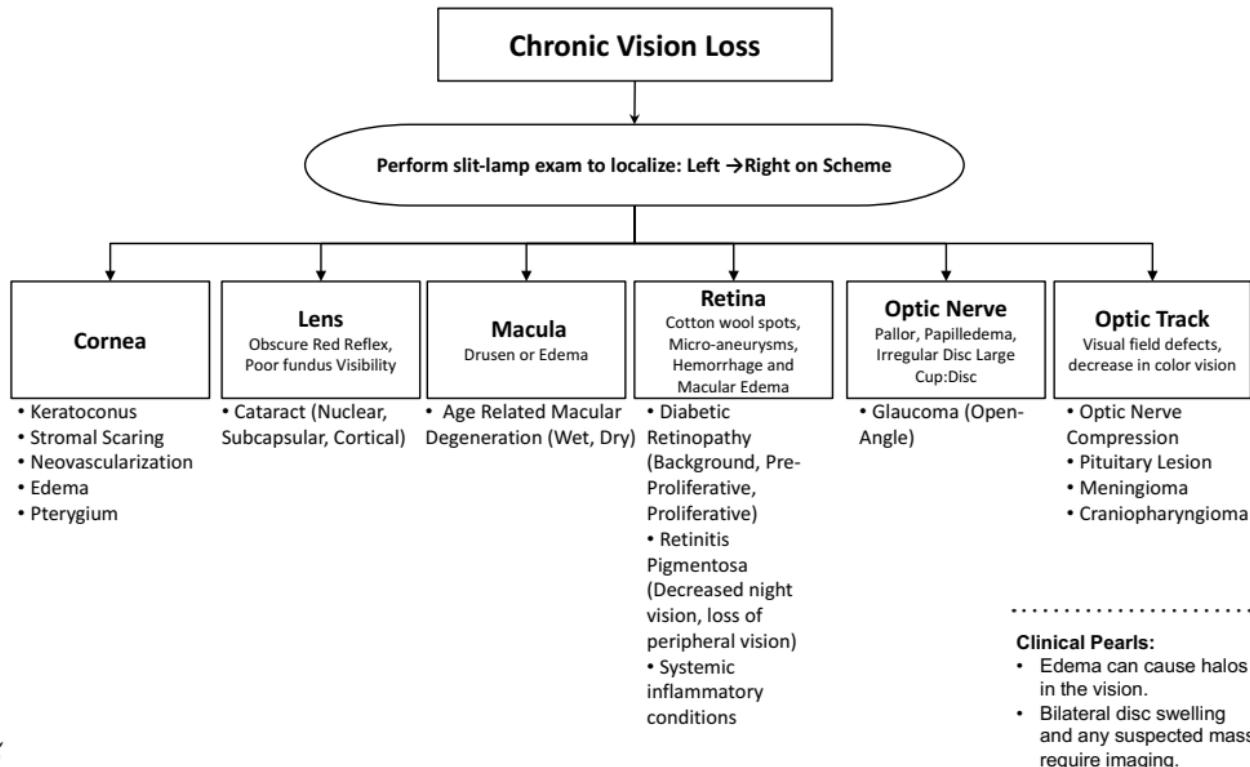


## Clinical Pearls:

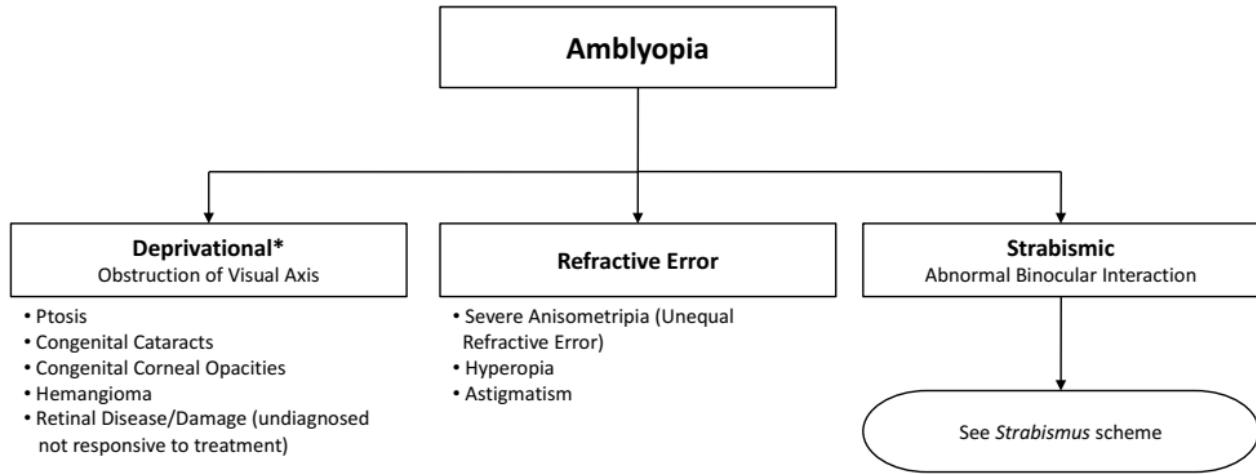
- Optic neuritis causes pain with EOM
- Temporal arteritis causes temporal pain and pain with mastication
- Acute angle closure glaucoma causes high intraocular pressure, unilateral eye pain, mid-dilated pupil and n/v
- Retinal detachment can present as a veil over the vision and with flashes and floaters.
- TIA, vein or artery occlusion requires stroke work-up

# Chronic Vision Loss

## Anatomic



# Amblyopia

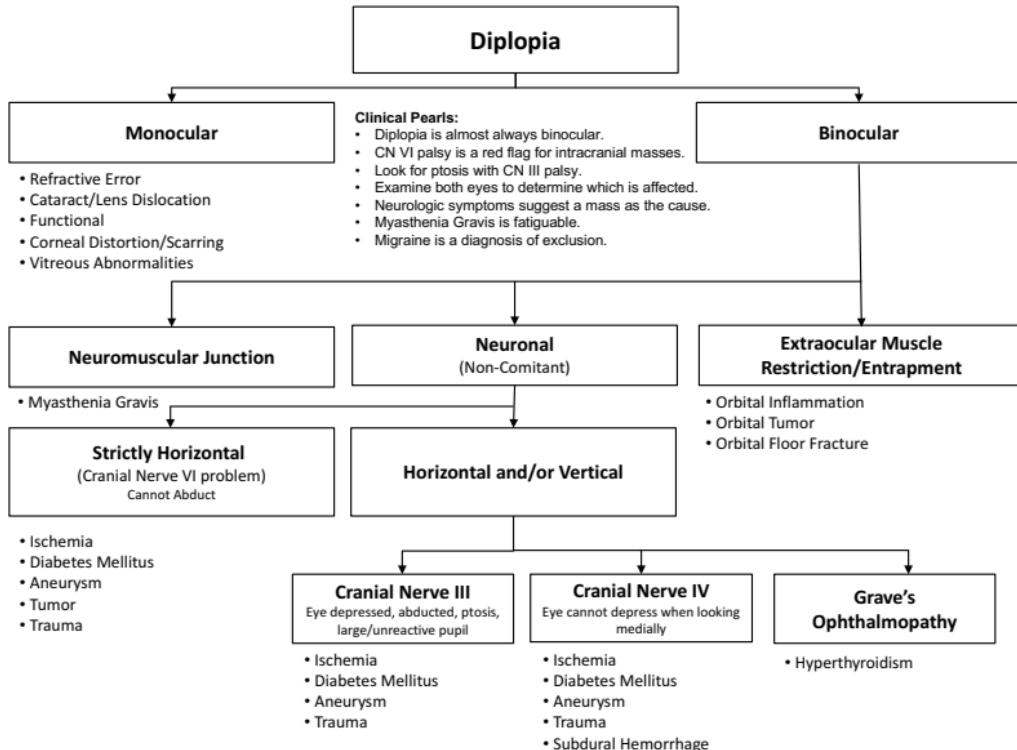


## Clinical Pearl:

- Congenital cataracts and retinoblastoma's cause leukocoria and a decreased red reflex

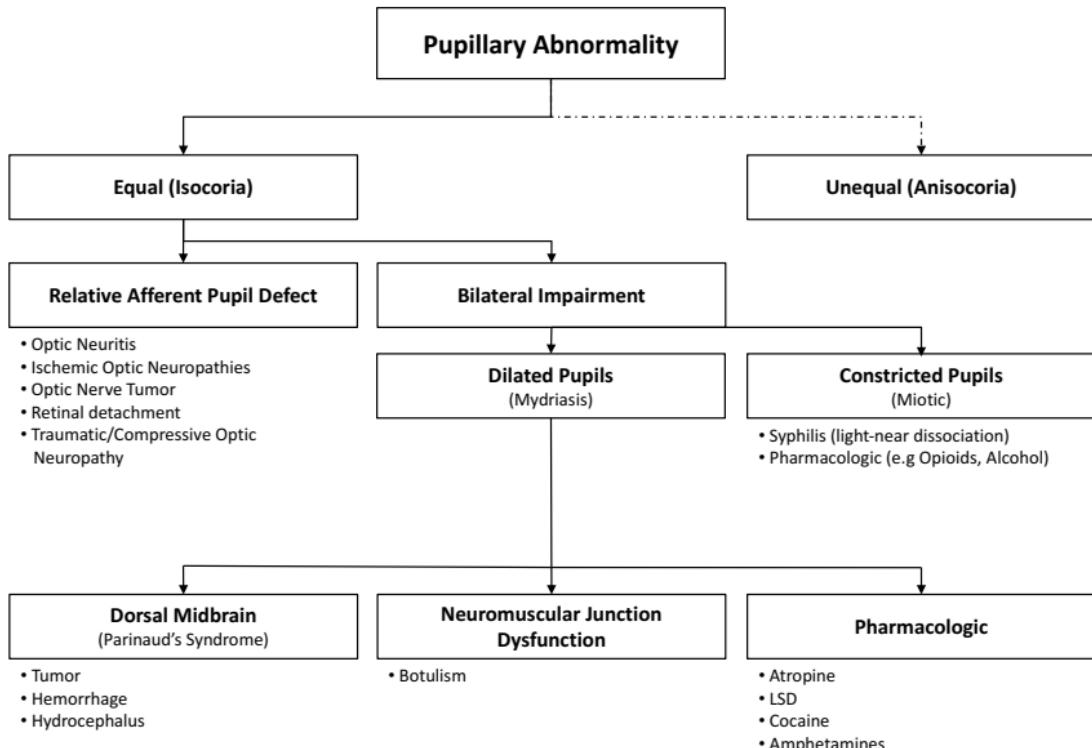
\* Can cause permanent visual impairment if not treated urgently in infancy

# Diplopia



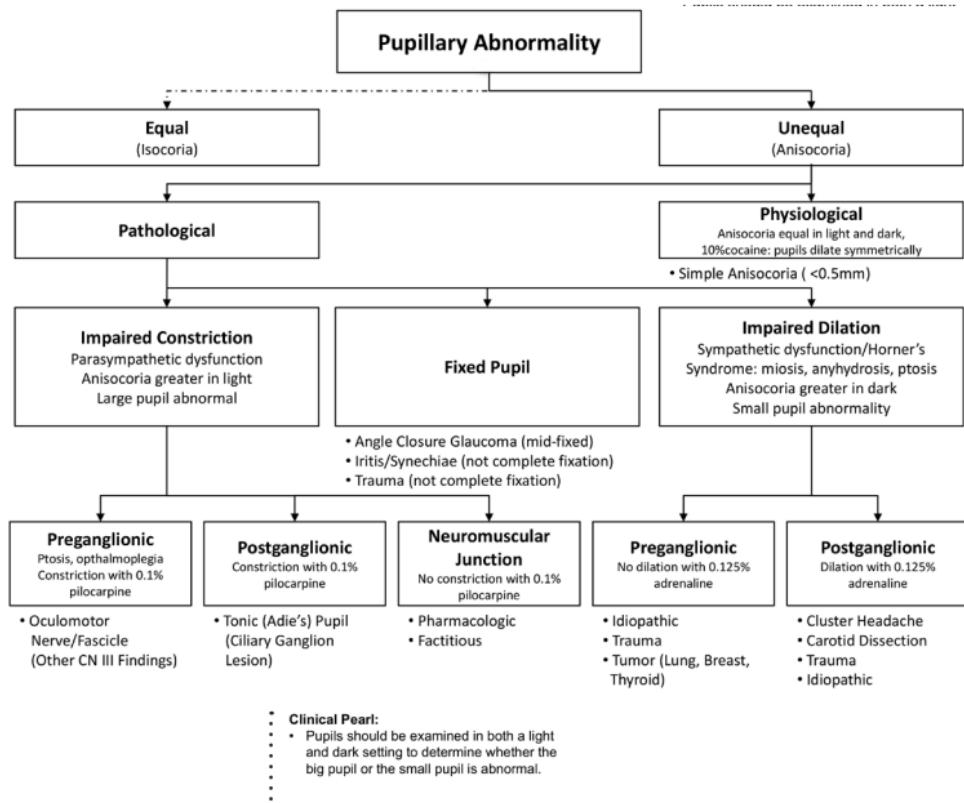
# Pupillary Abnormalities

Isocoria



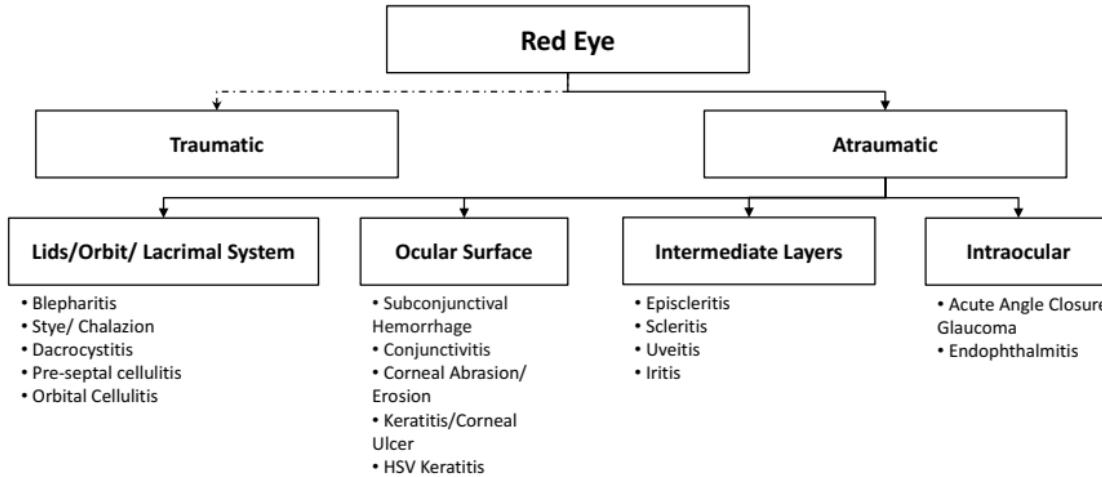
# Pupillary Abnormalities

## Anisocoria



# Red Eye

Atraumatic

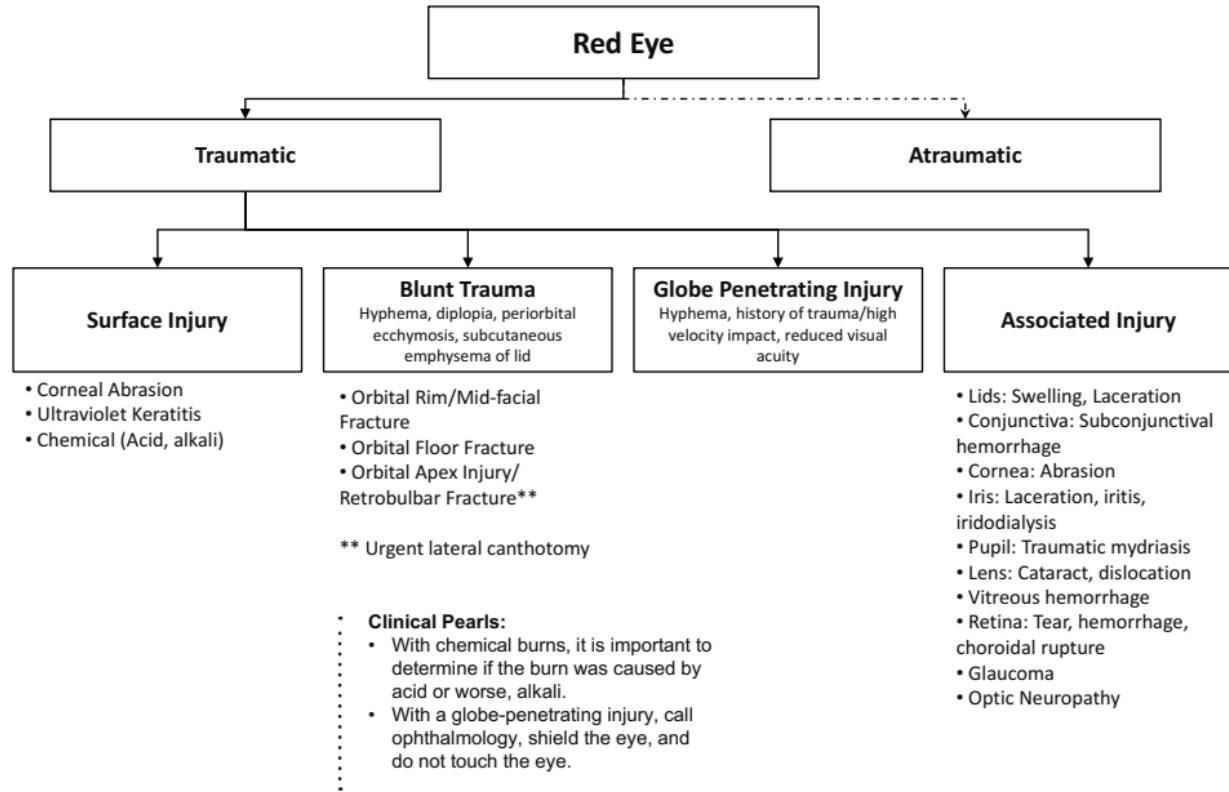


**Clinical Pearl:**

- Orbital cellulitis can present with pain on EOM and orbital signs of involvement

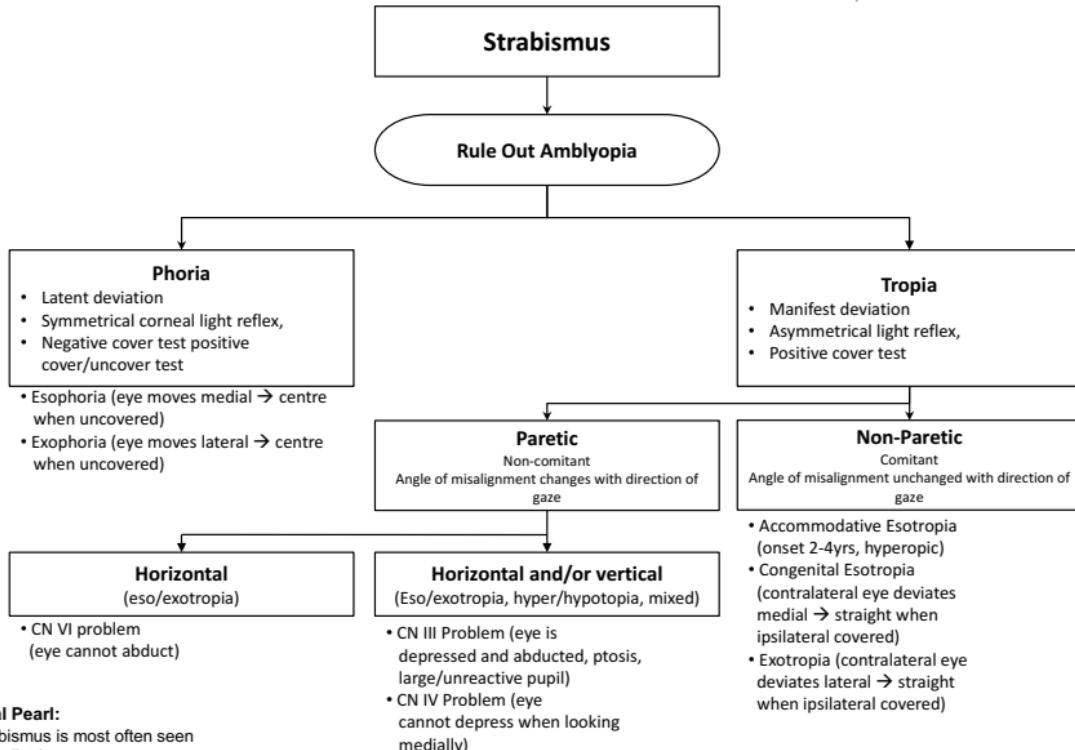
# Red Eye

Traumatic



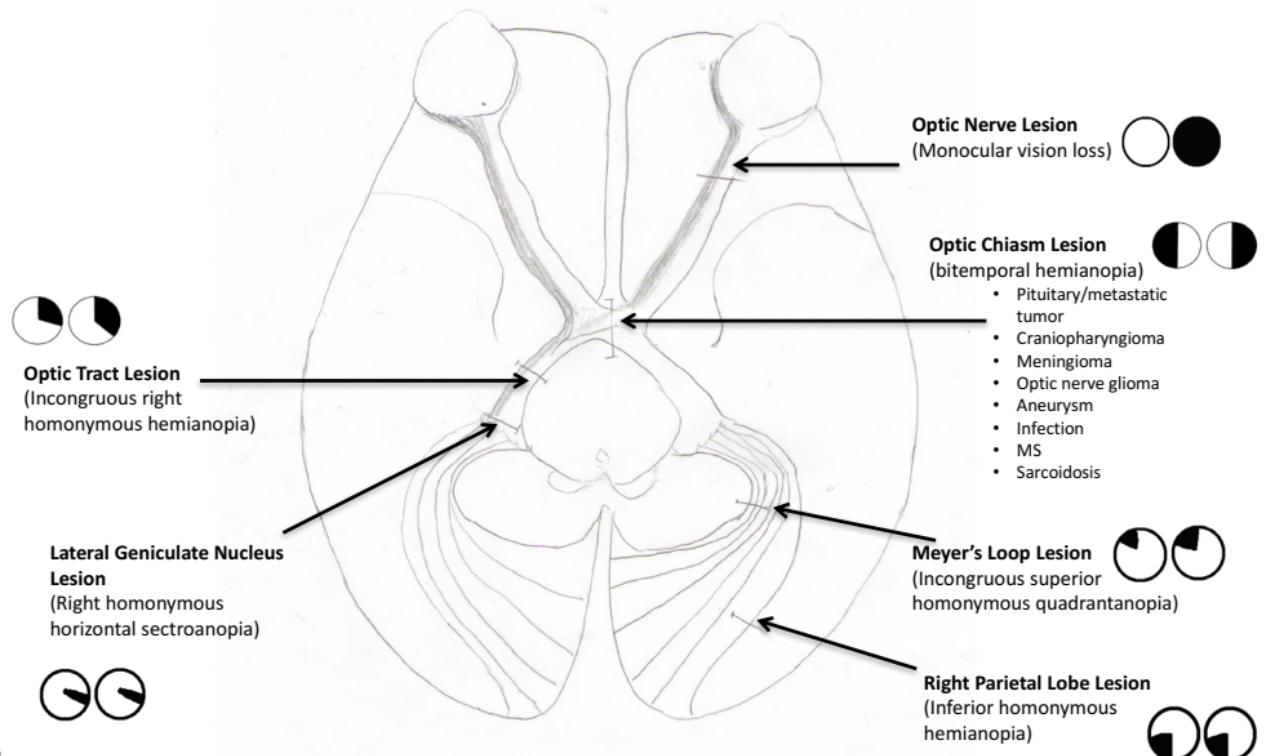
# Strabismus

Ocular Misalignment



# Neuro-Ophthalmology

## Visual Field Defects





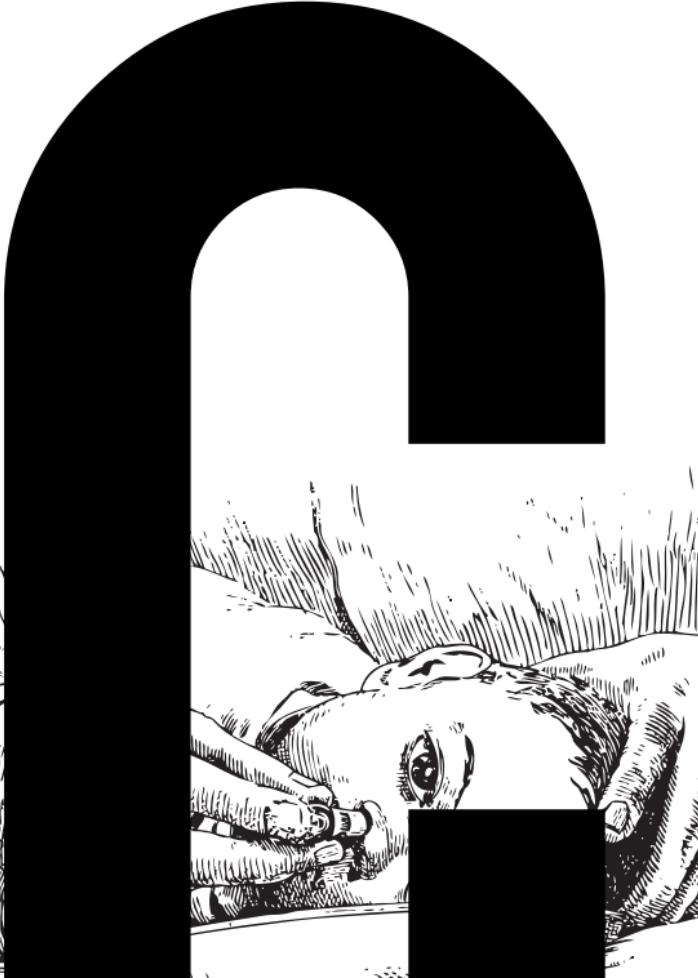
# Pediatric

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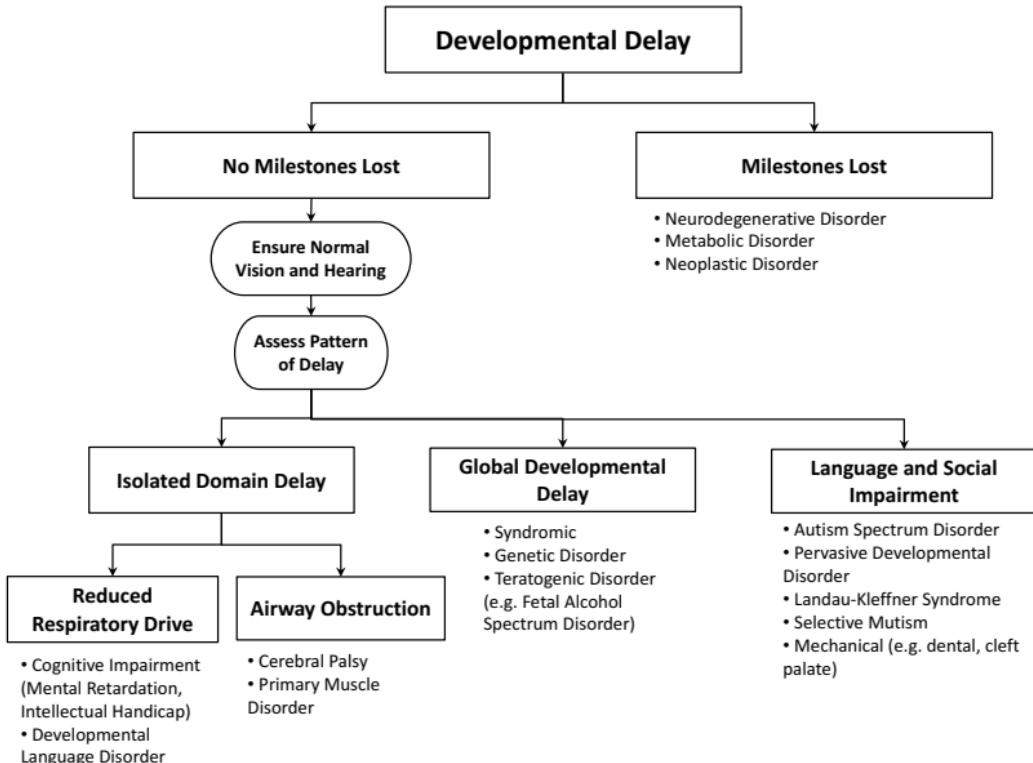
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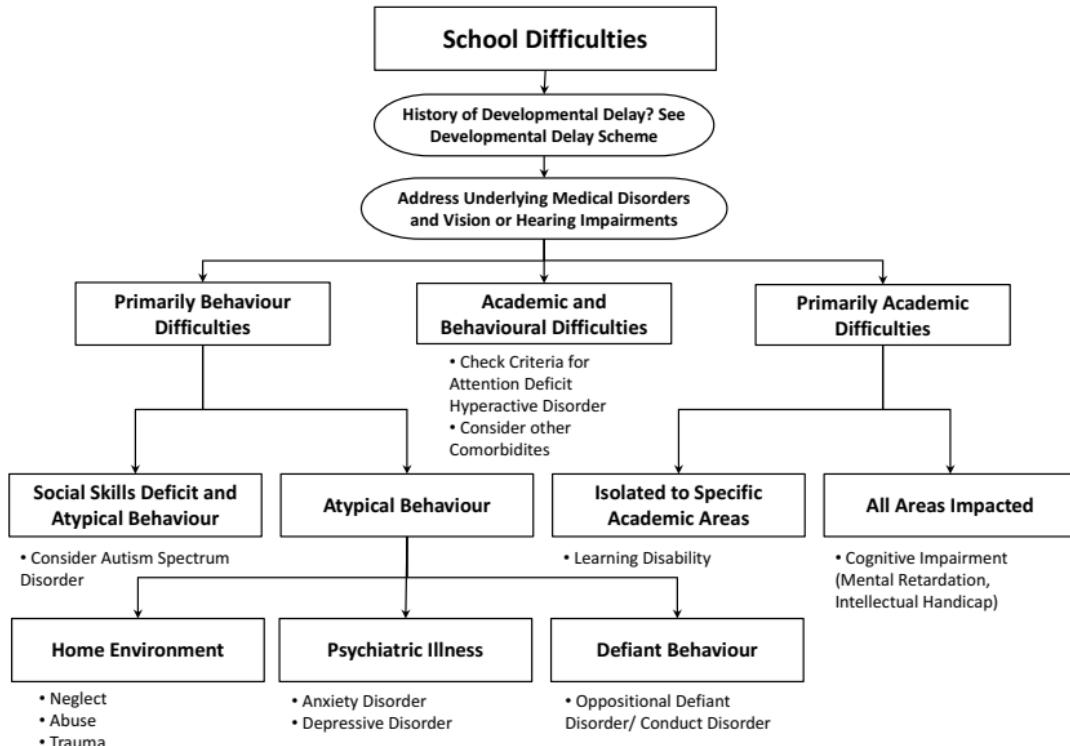
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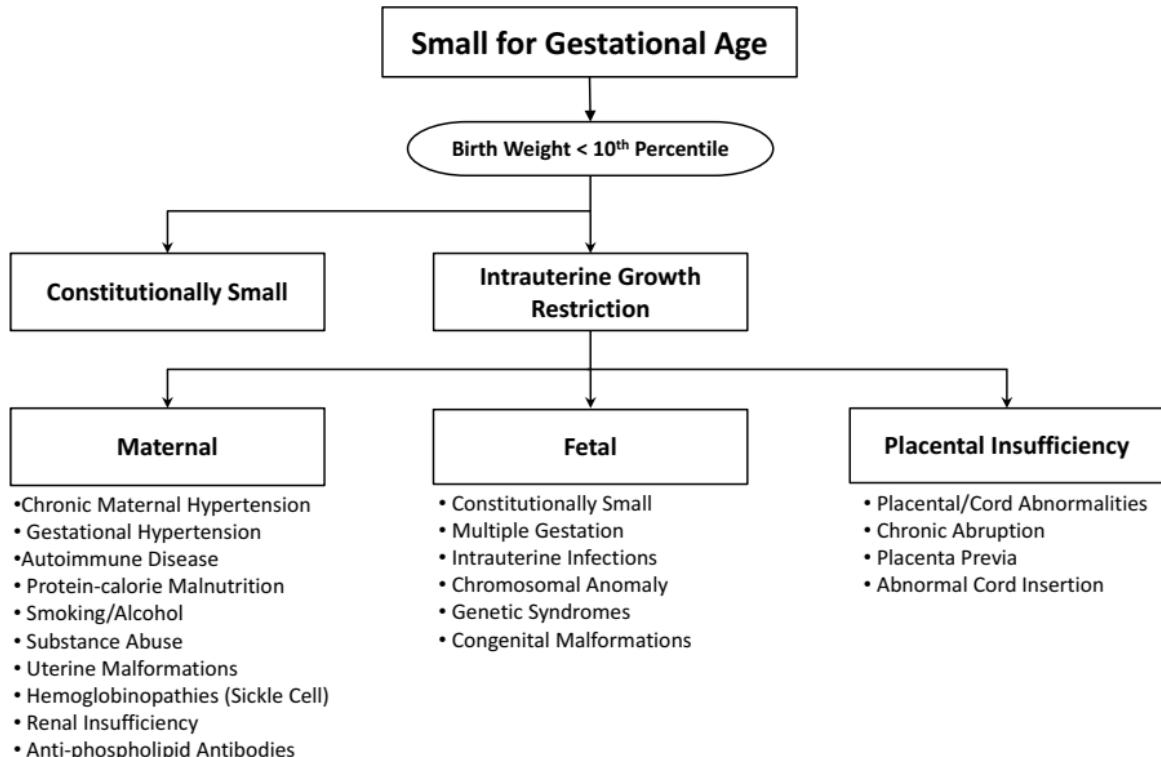
# Developmental Delay



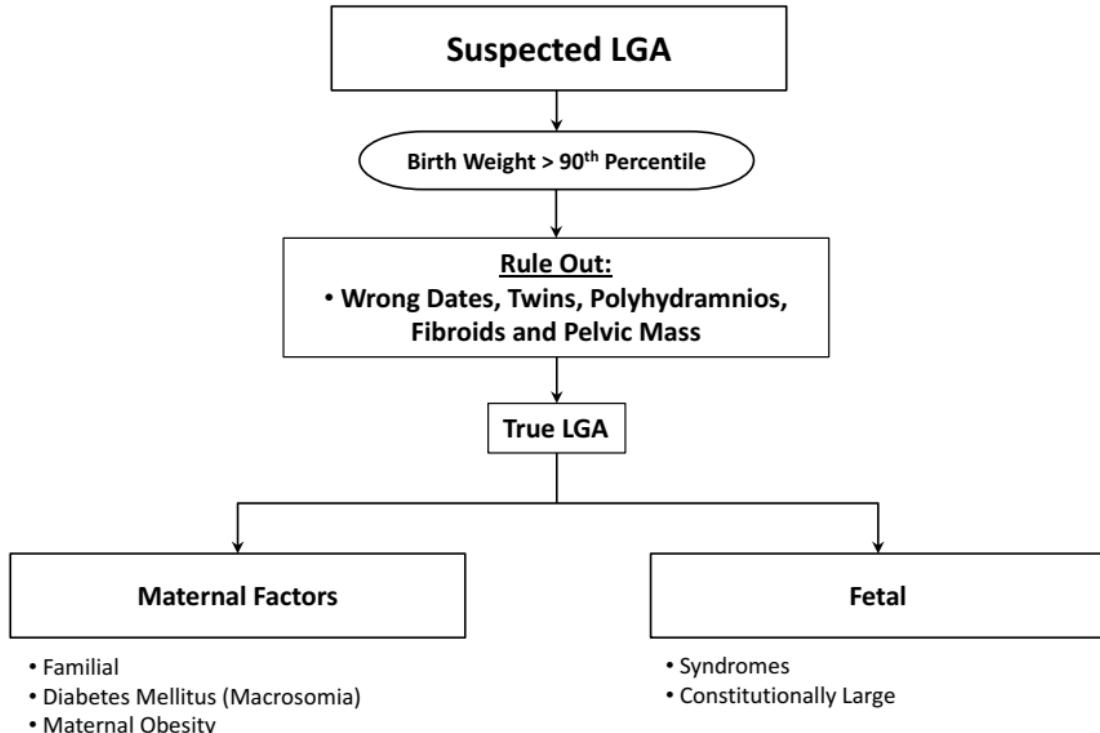
# School Difficulties



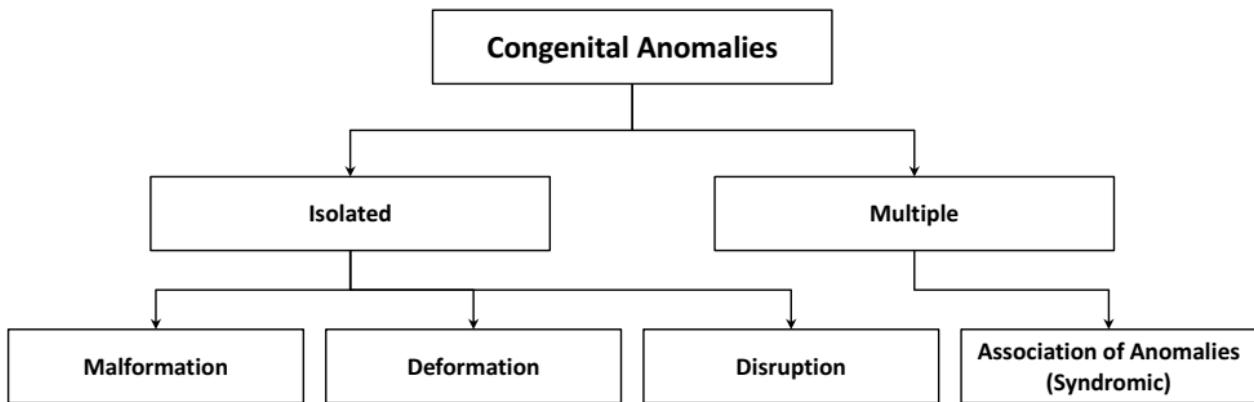
# Small for Gestational Age



# Large for Gestational Age



# Congenital Anomalies



- Embryonic development failure or inadequacy (often multifactorial)

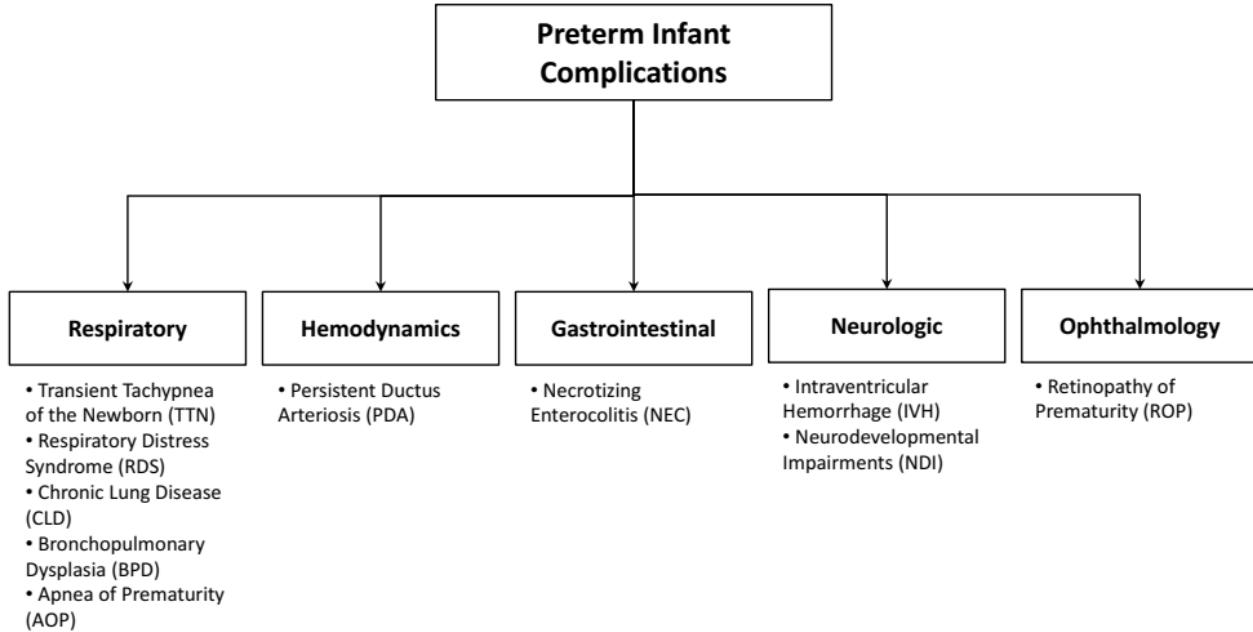
- Abnormal mechanical forces distorting otherwise normal structures  
(e.g. exoligohydramnios)

- Destruction/ Breakdown of previously normal tissue (e.g. ischemia)

- Chromosomal
- Single Gene
- Teratogenic
- Association (e.g. VACTERL)

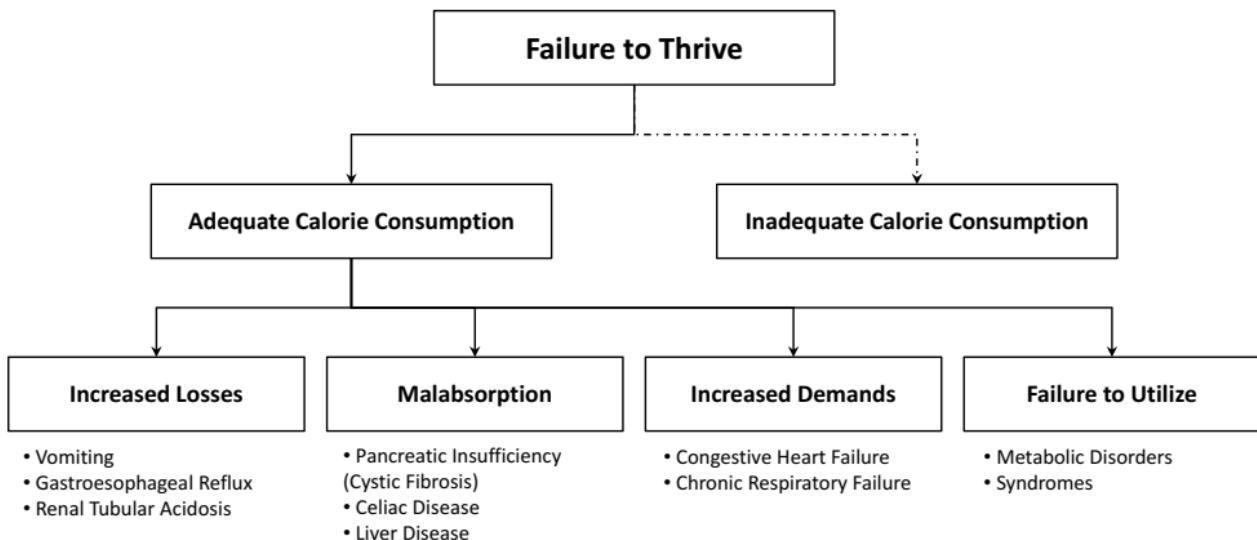
- : **Things to Consider:**
- **History** – Prenatal: maternal health, exposures, screening, ultrasounds; delivery; neonatal
  - **Family History** – Three Generations: prior malformations, stillbirths, recurrent miscarriages, consanguinity
  - **Physical Exam** – Variants, minor anomalies, major malformation
  - **Diagnostic Procedures** – Chromosomes, molecular/DNA, radiology, photography, metabolic
  - **Diagnostic Evaluations** – Prognosis, recurrence, prenatal diagnosis, surveillance, treatment

# Preterm Infant Complications



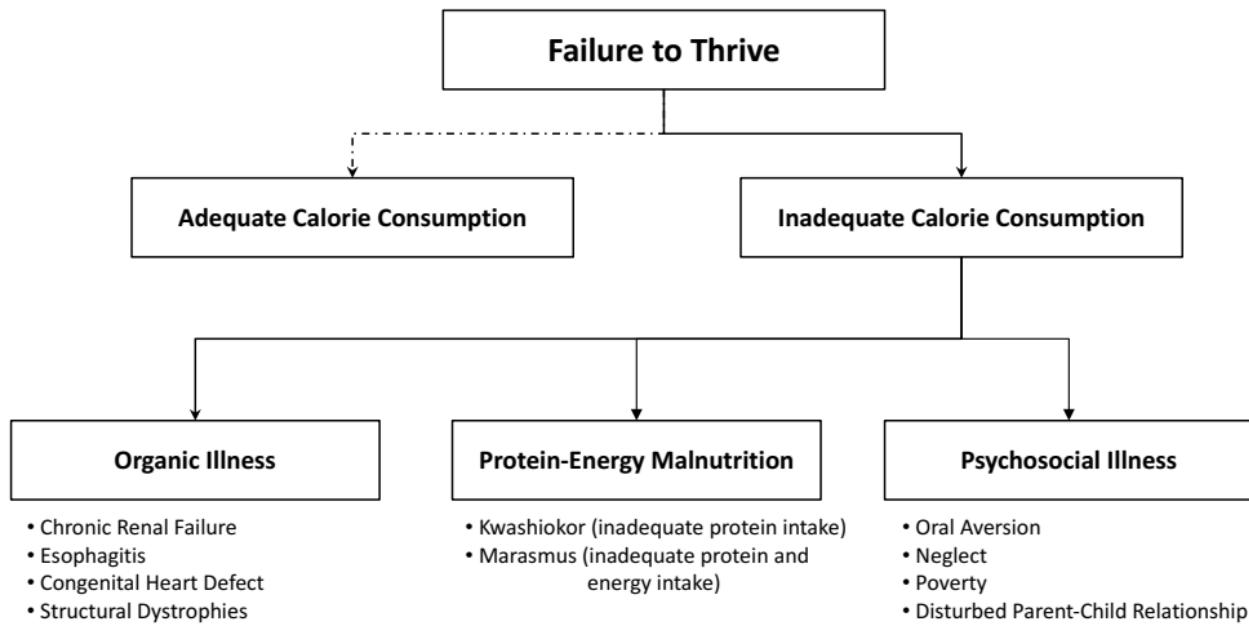
# Failure to Thrive

Adequate Calorie Consumption

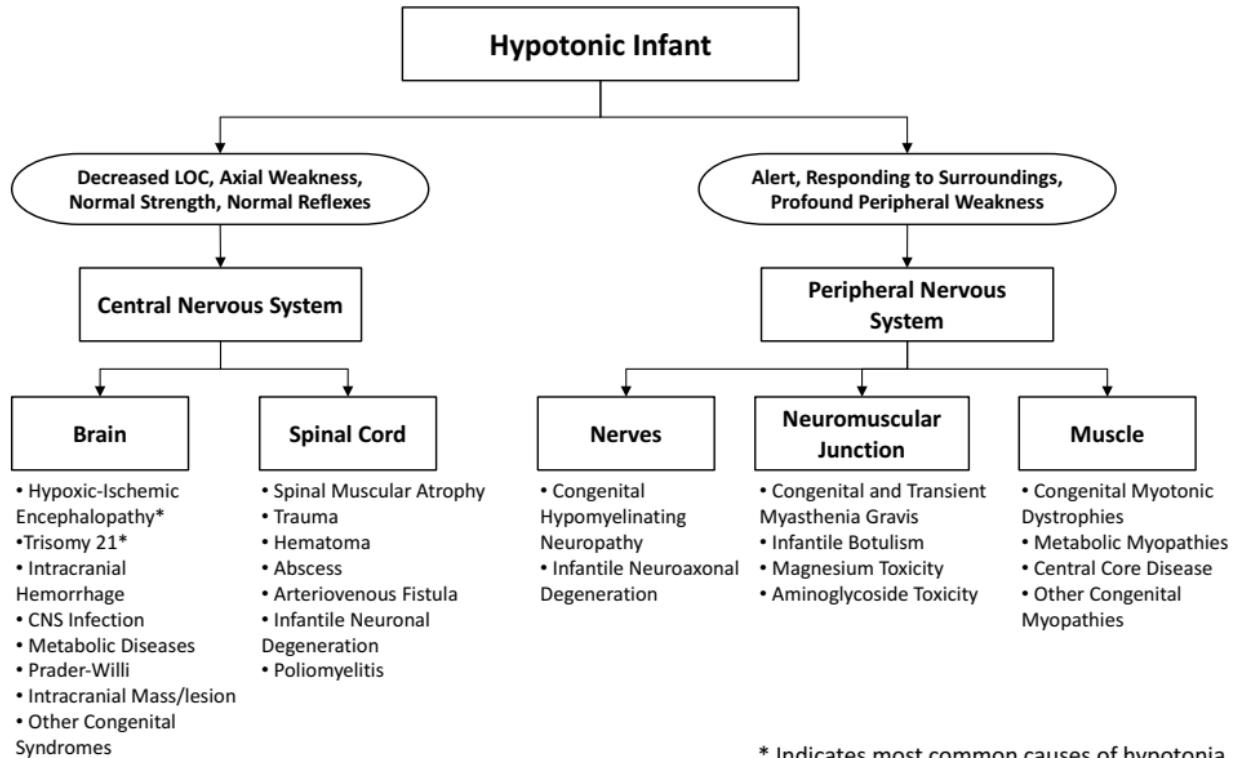


# Failure to Thrive

Inadequate Calorie Consumption

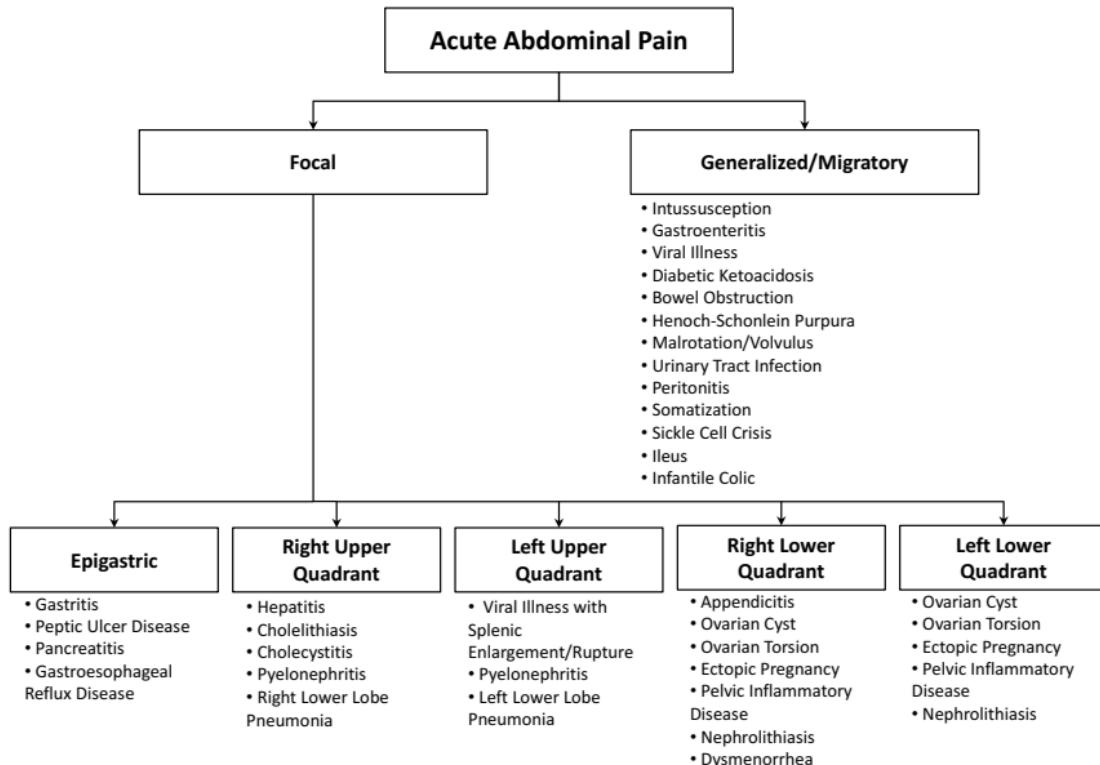


# Hypotonic Infant (Floppy Newborn)



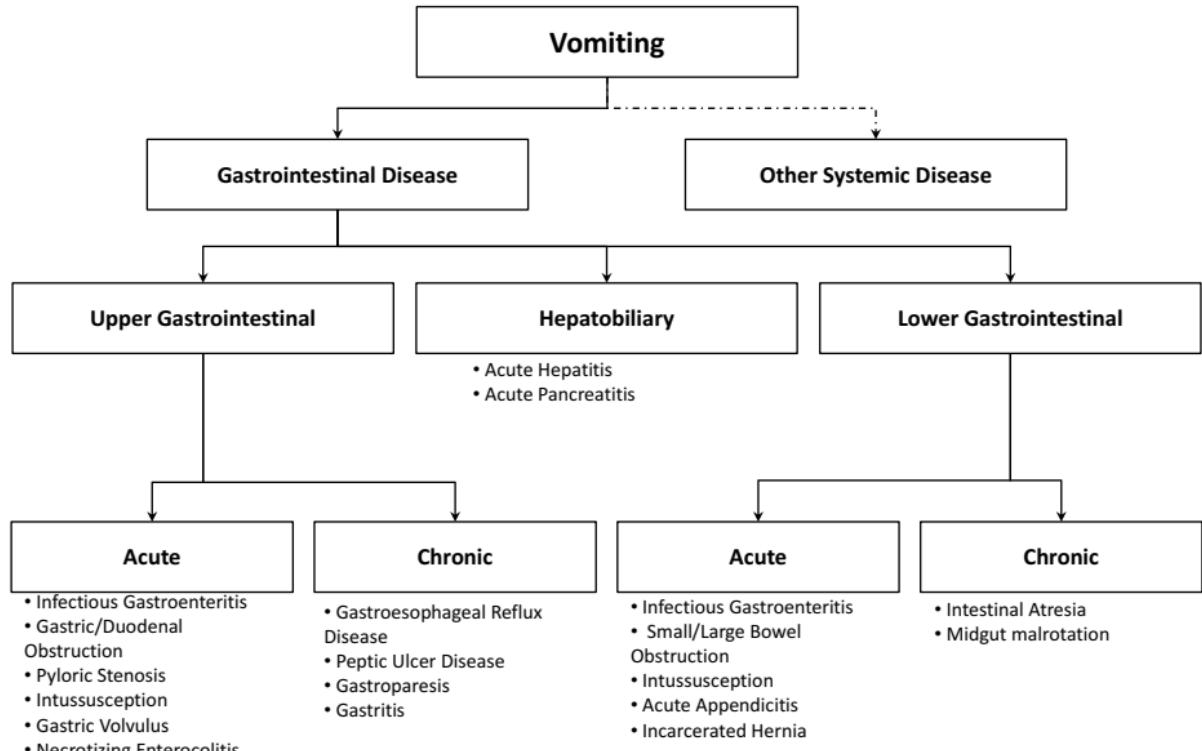
\* Indicates most common causes of hypotonia

# Acute Abdominal Pain



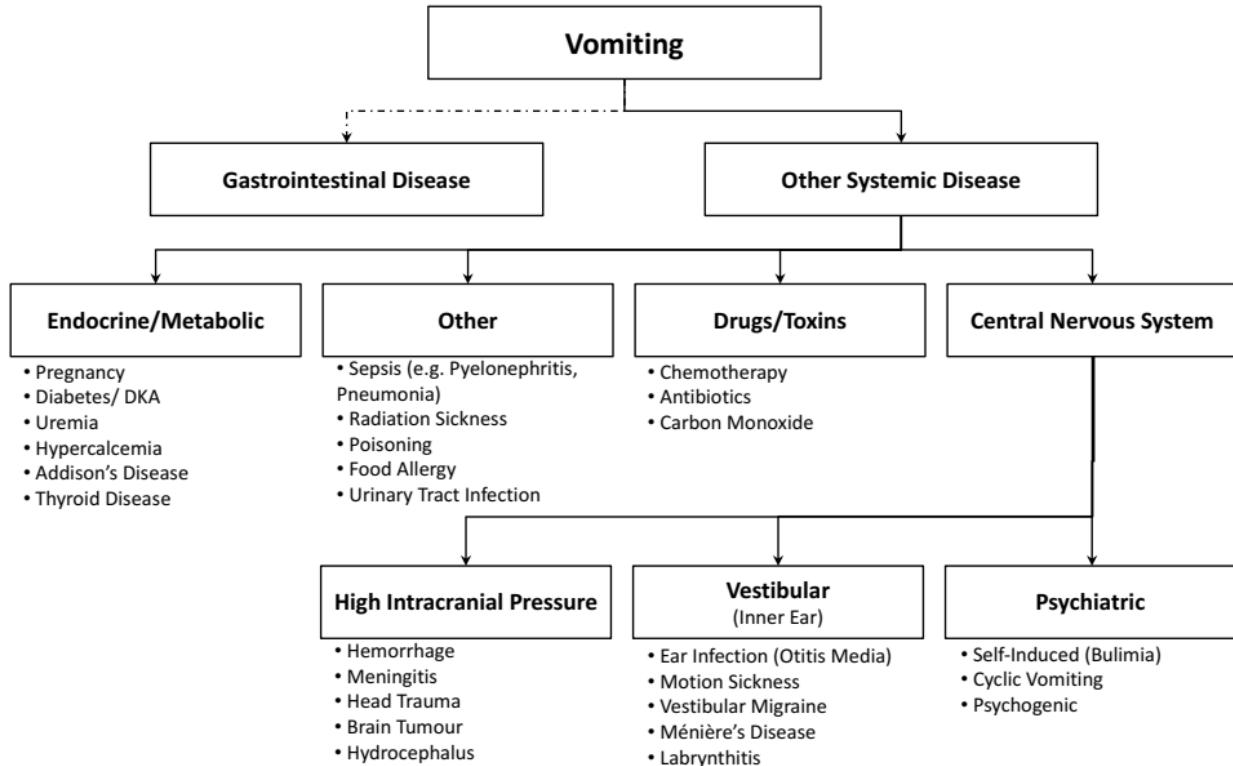
# Pediatric Vomiting

## Gastrointestinal Causes

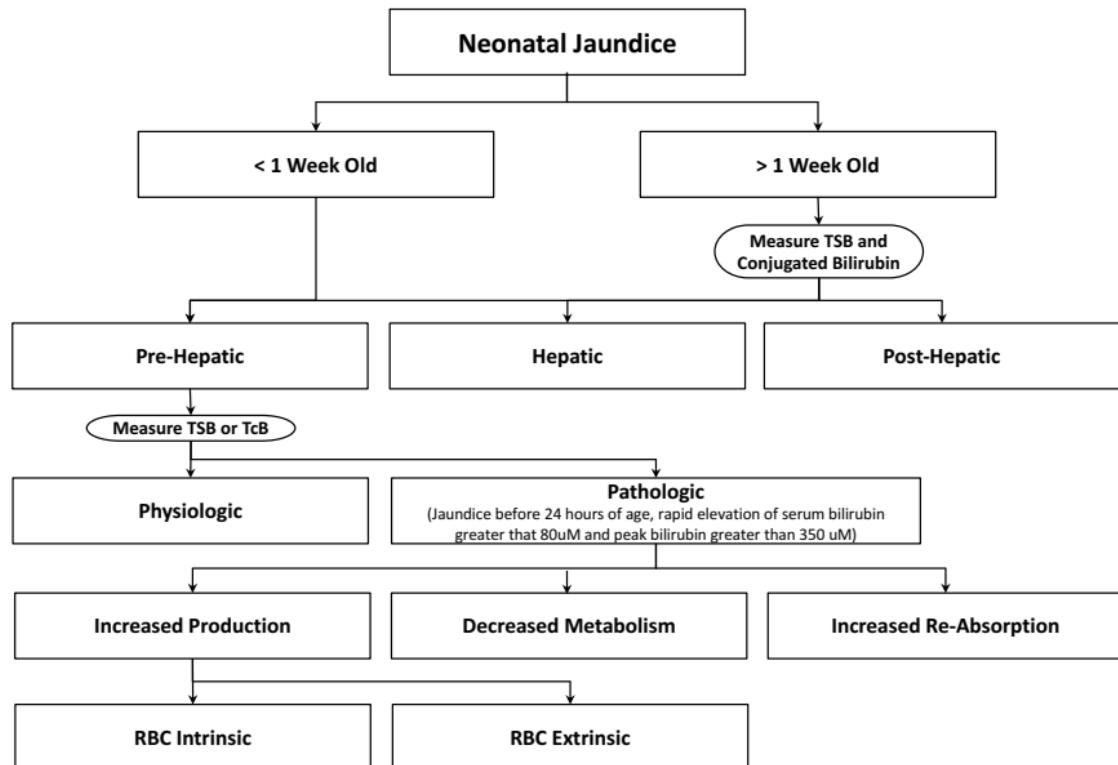


# Pediatric Vomiting

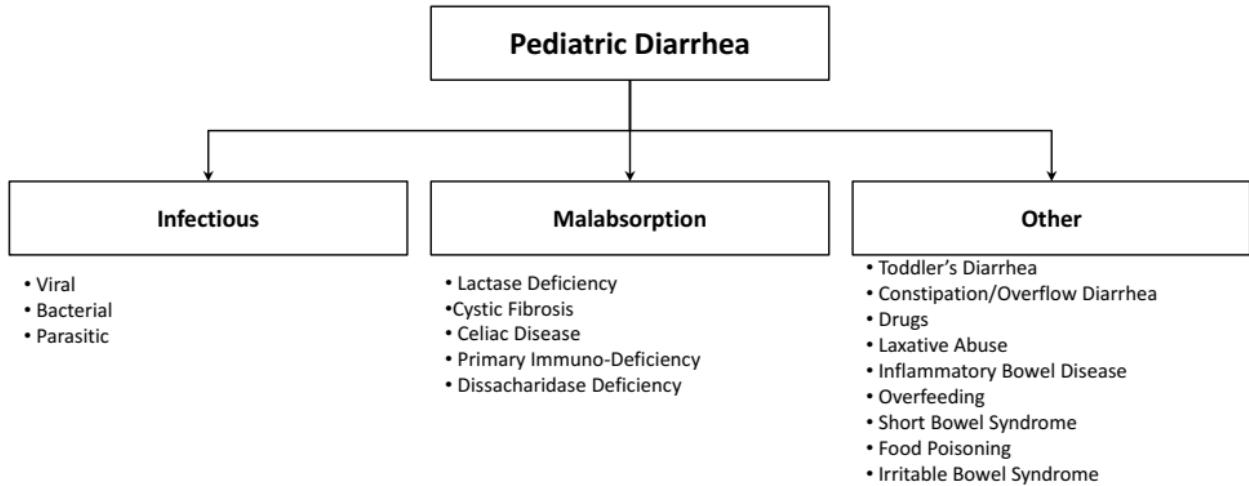
System Causes



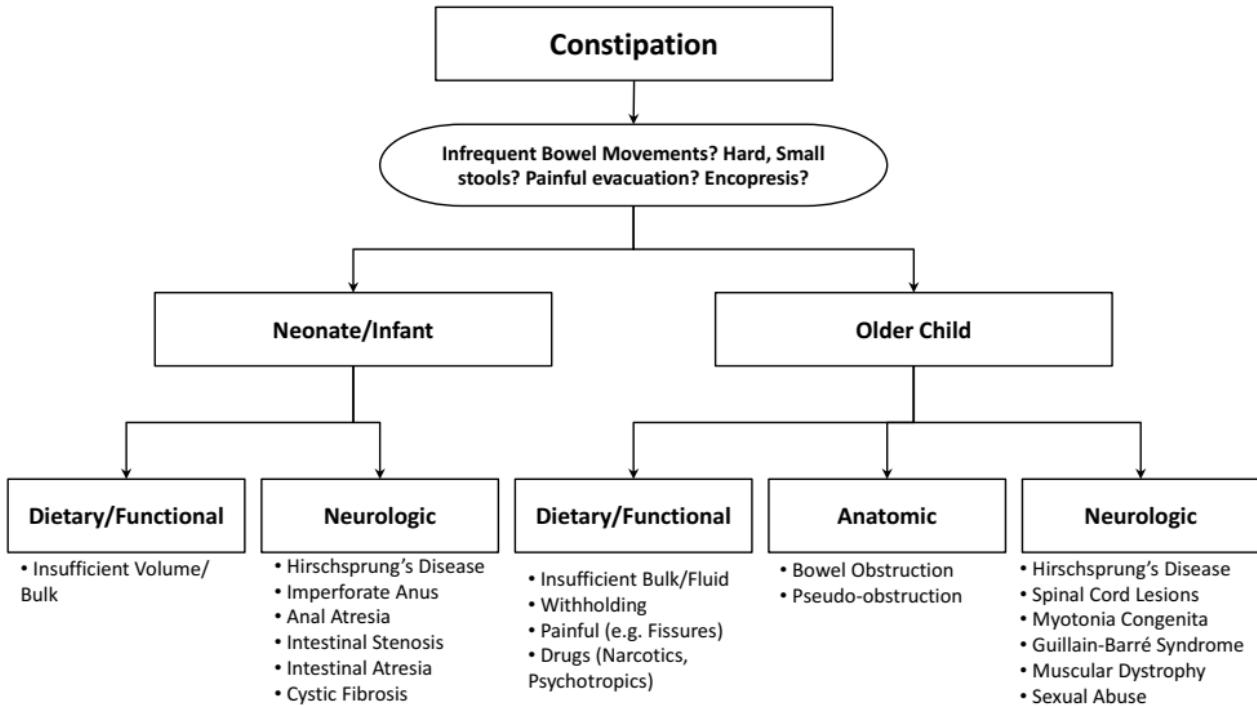
# Neonatal Jaundice



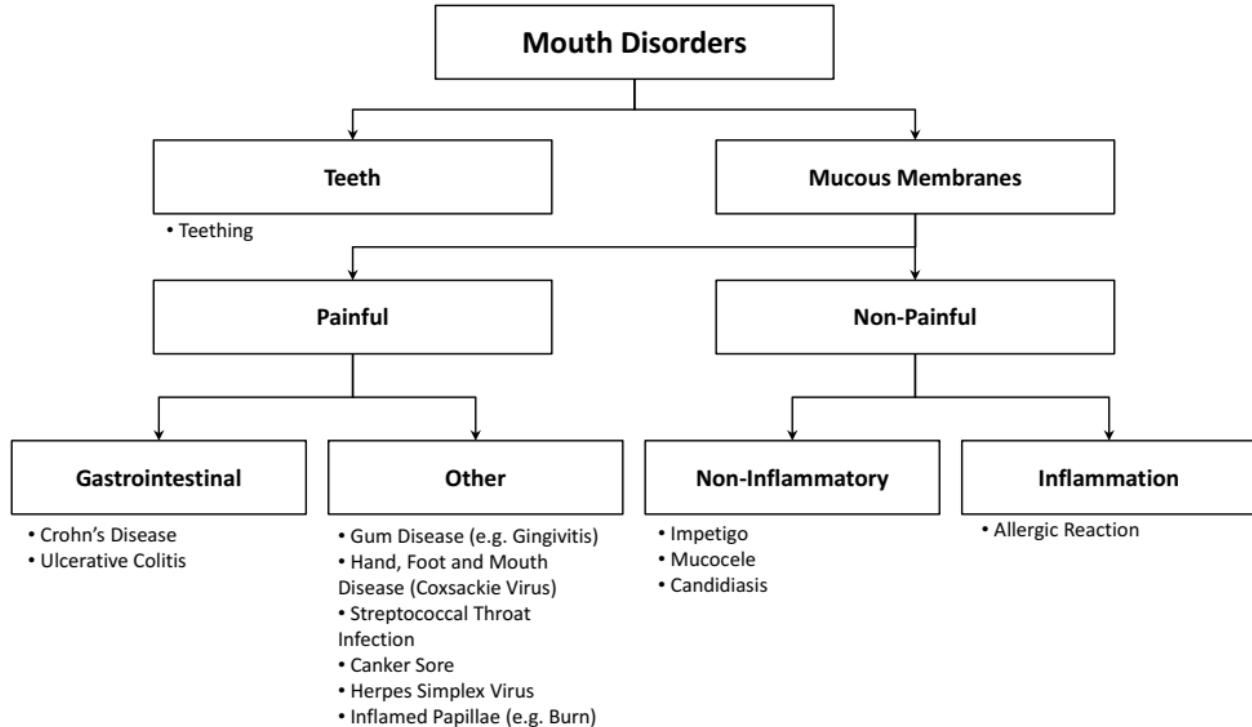
# Pediatric Diarrhea



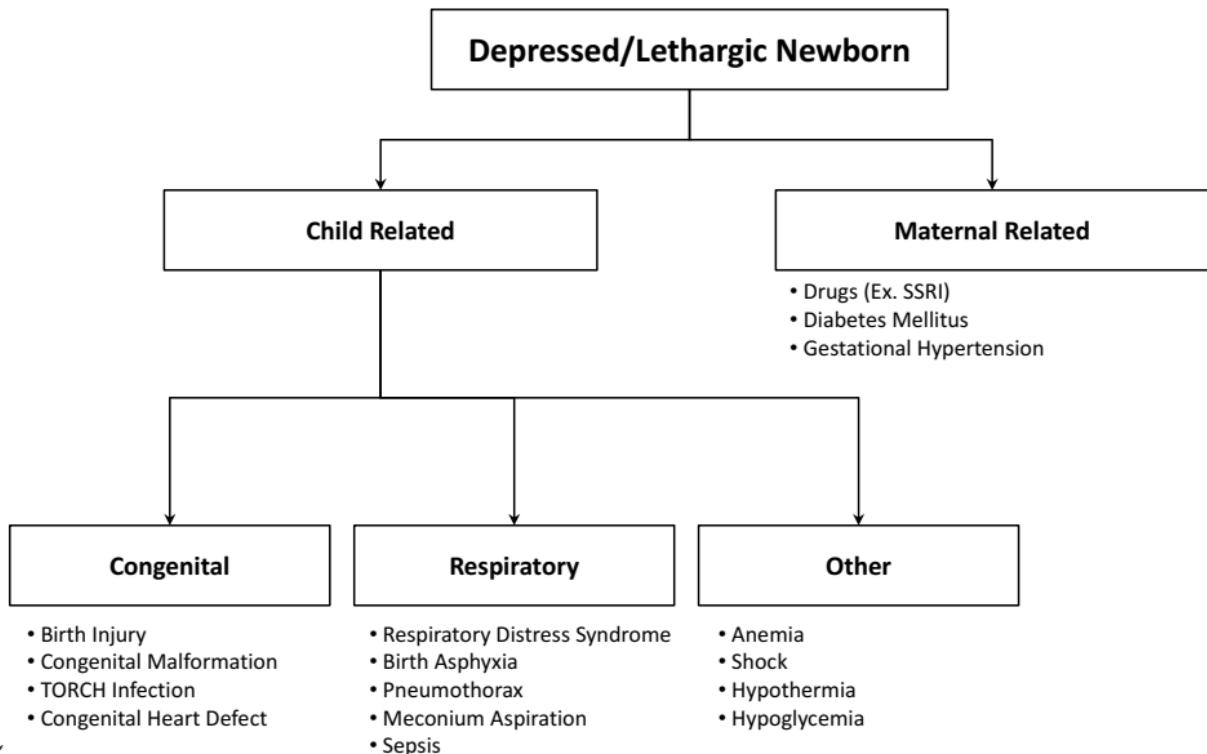
# Constipation (Pediatric)



# Mouth Disorder (Pediatric)

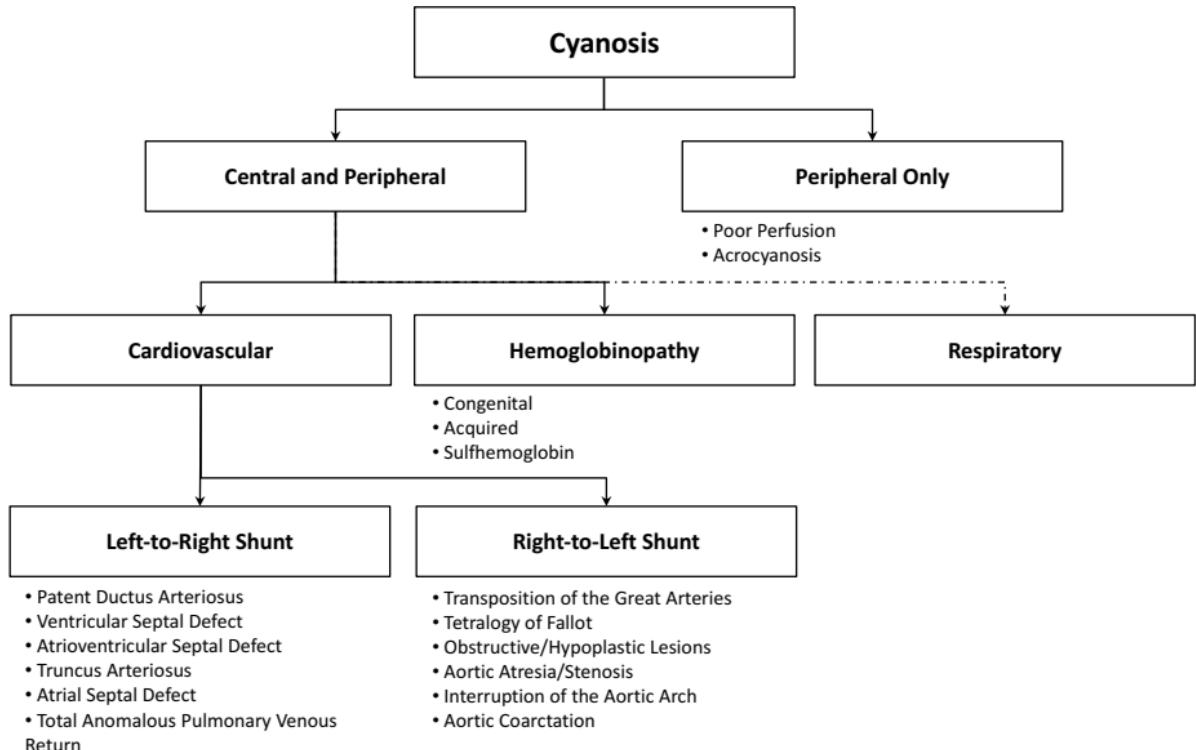


# Depressed / Lethargic Newborn



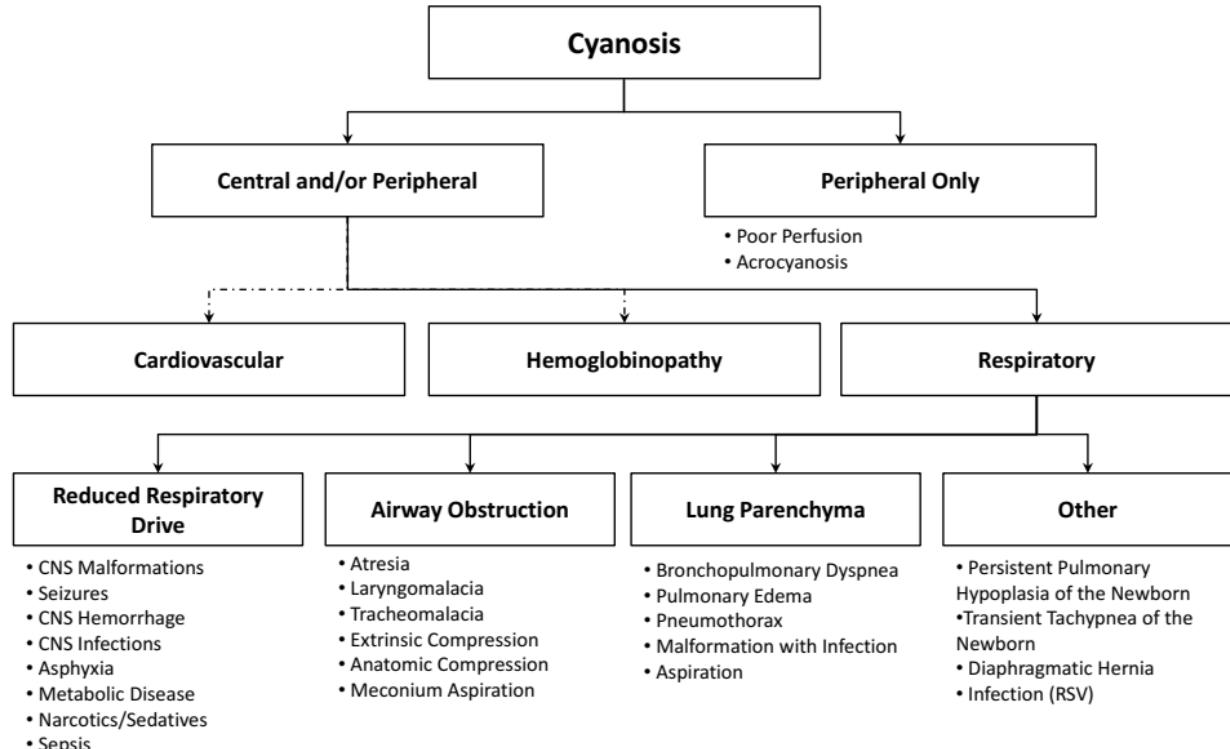
# Cyanosis in the Newborn

Non-Respiratory

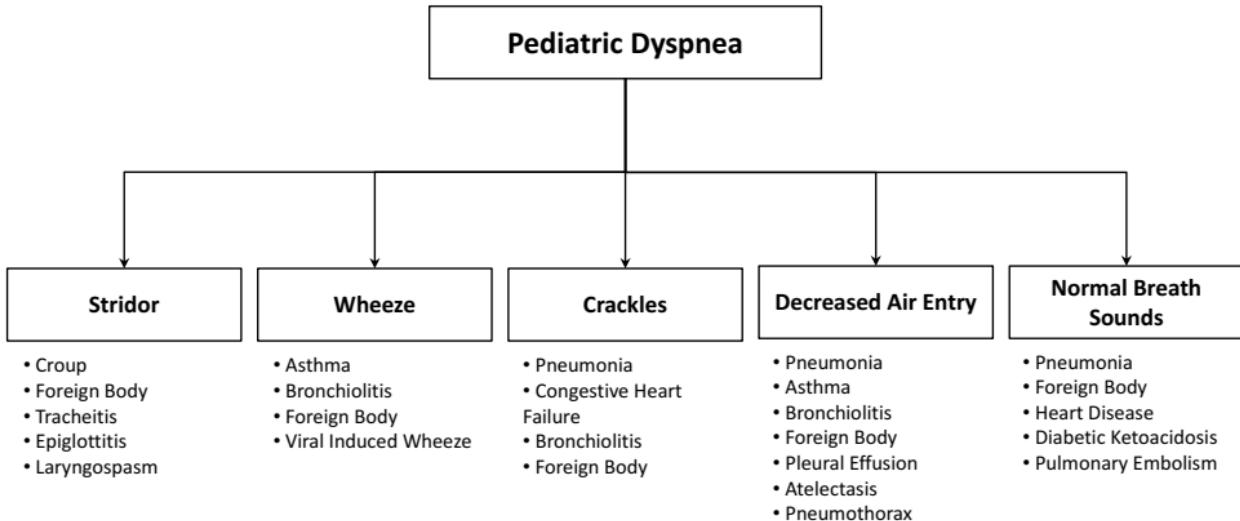


# Cyanosis in the Newborn

Respiratory

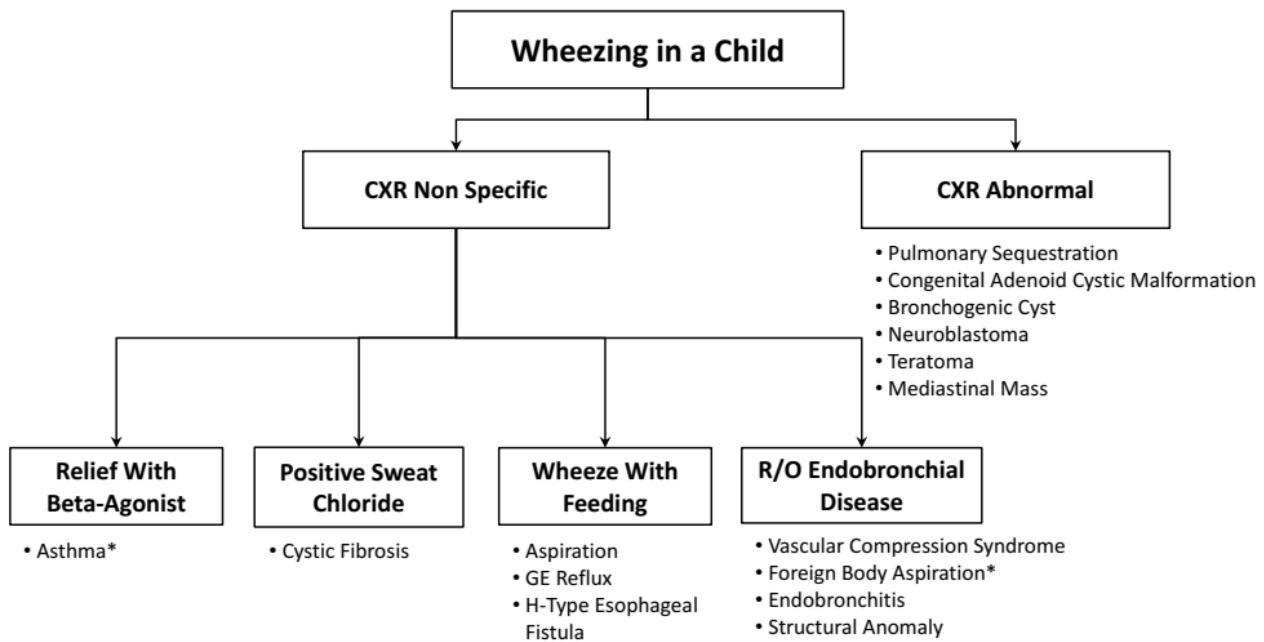


# Pediatric Dyspnea



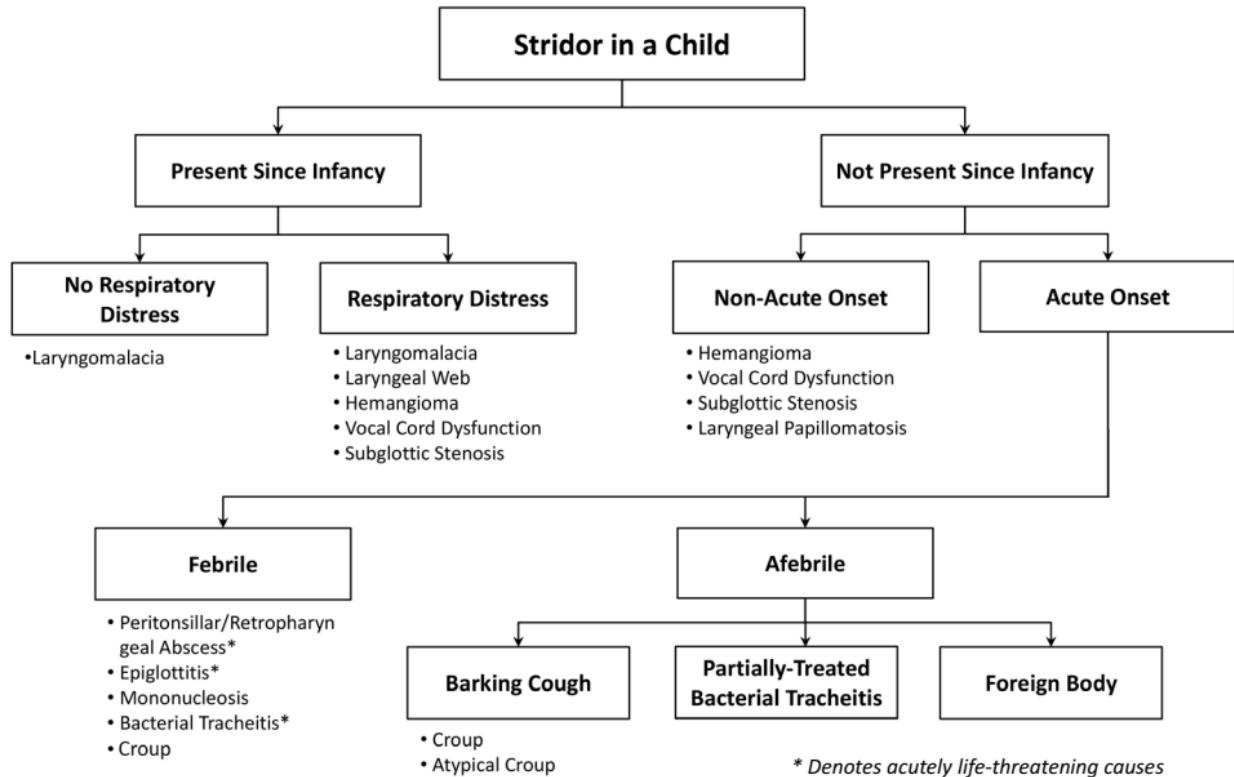
# Noisy Breathing

## Pediatric Wheezing



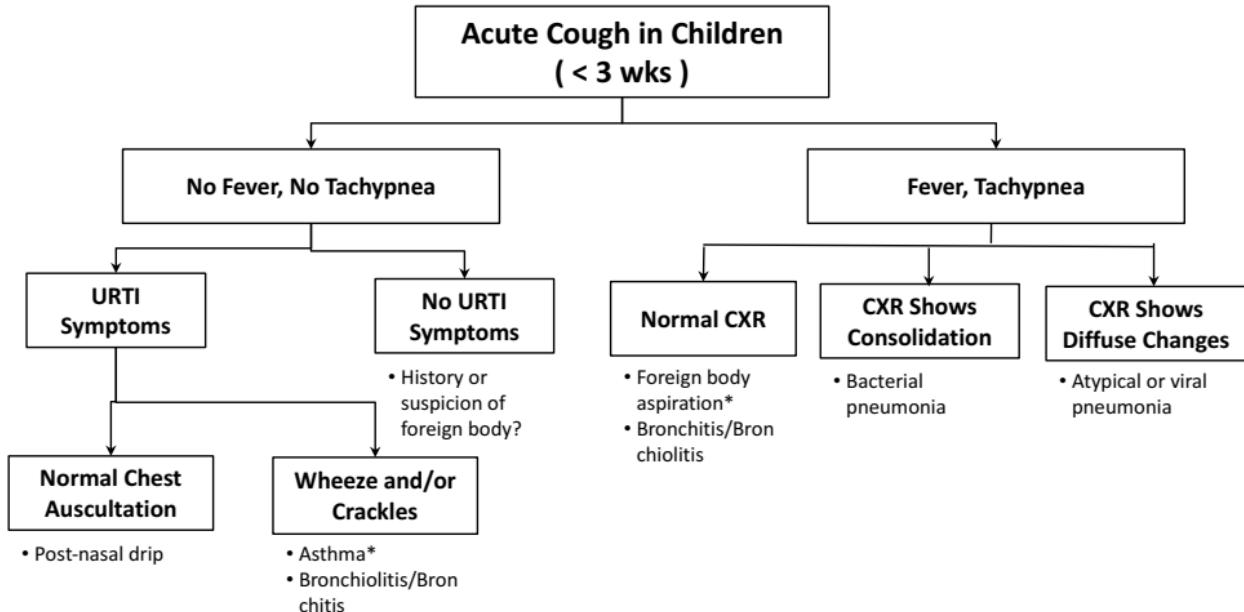
# Noisy Breathing

## Pediatric Stridor



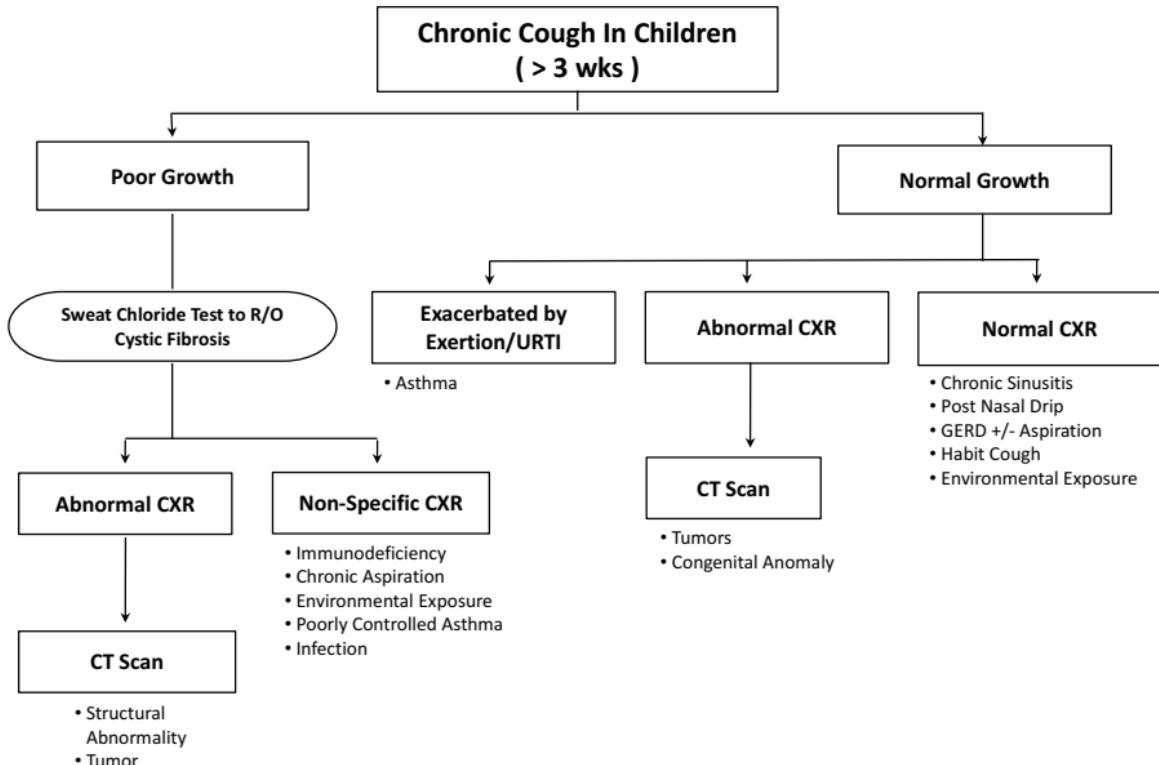
# Pediatric Cough

Acute

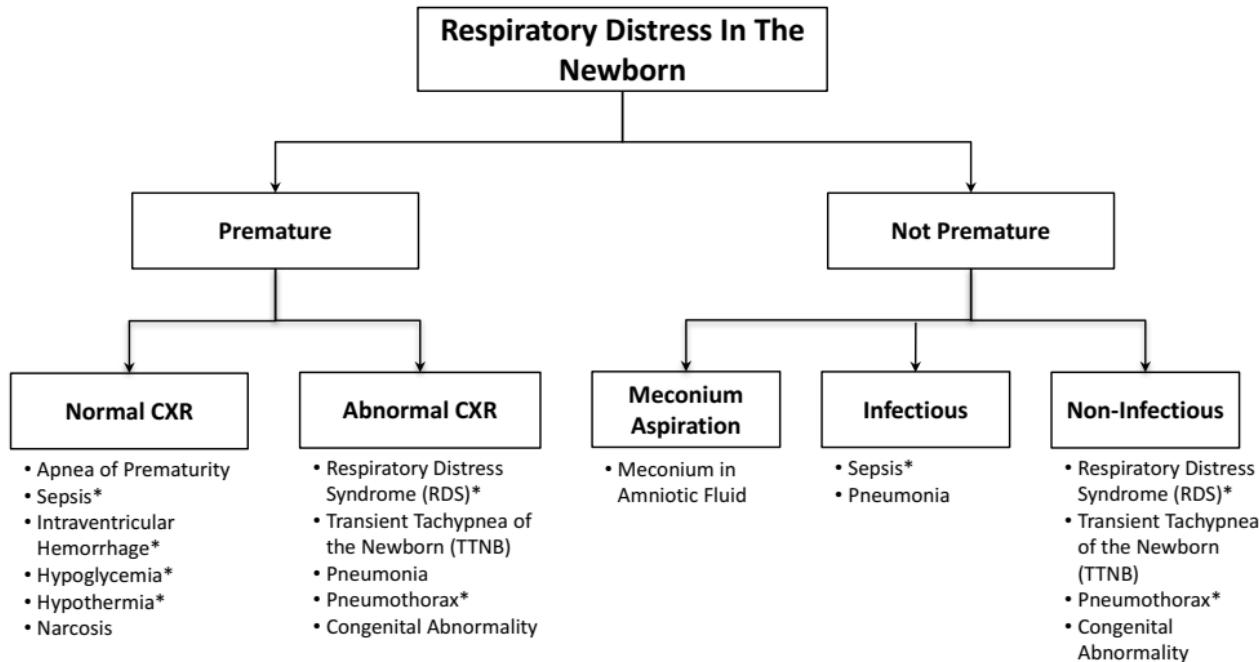


# Pediatric Cough

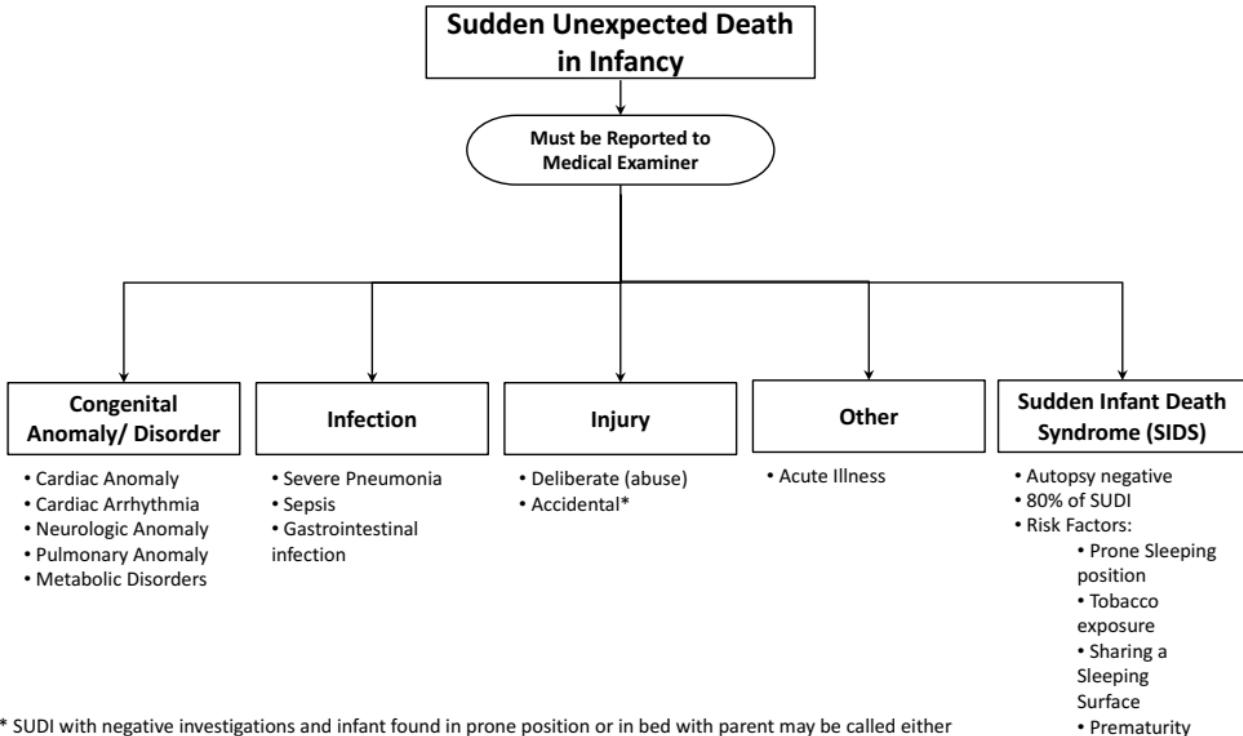
Chronic



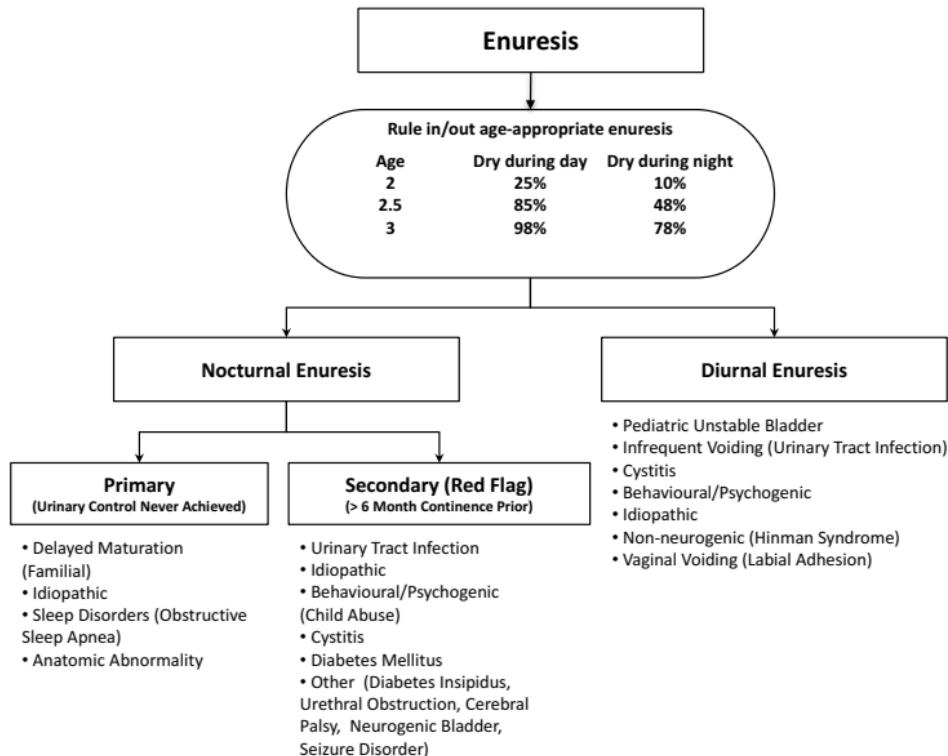
# Respiratory Distress in the Newborn



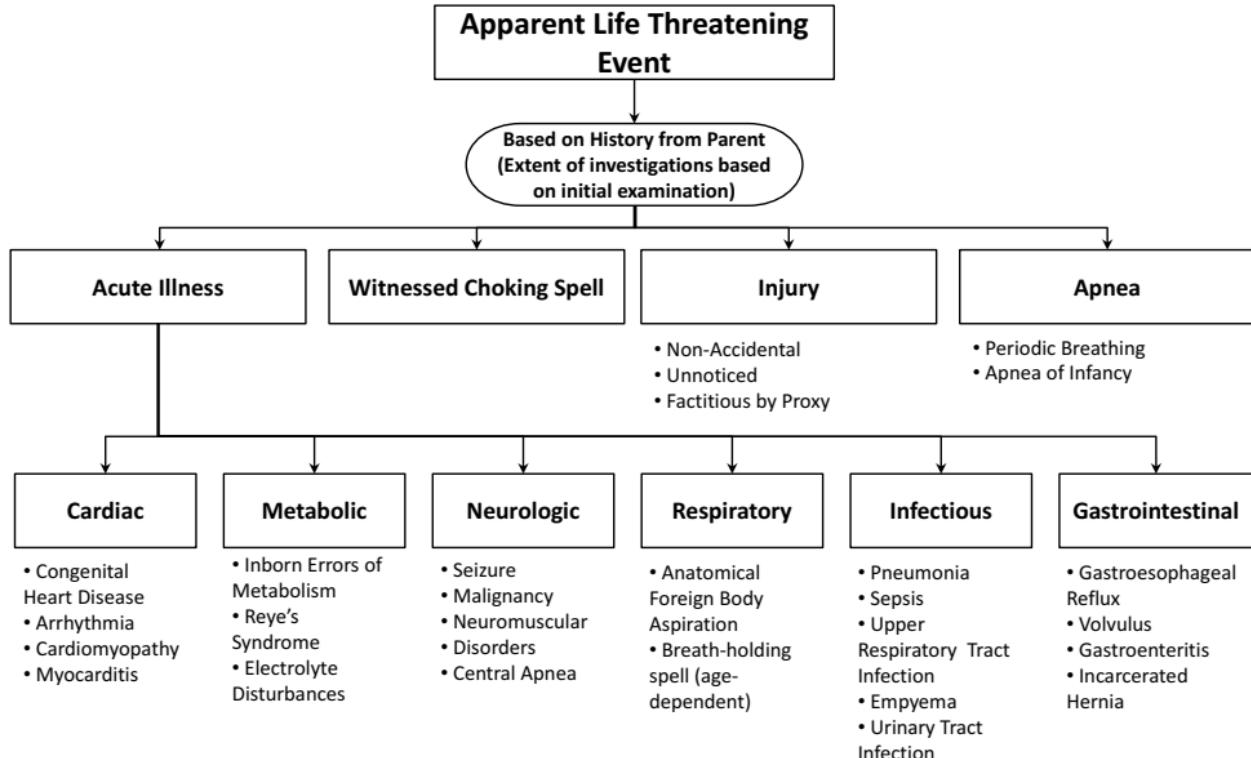
# Sudden Unexpected Death in Infancy



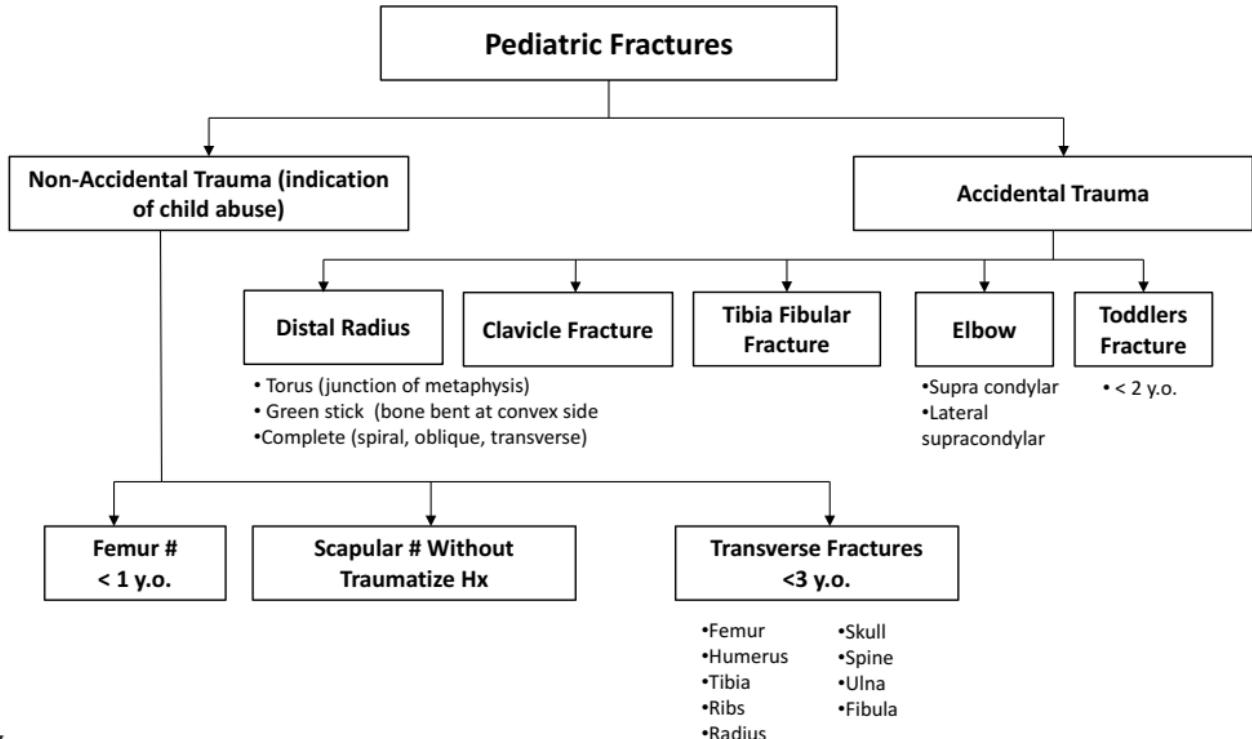
# Enuresis



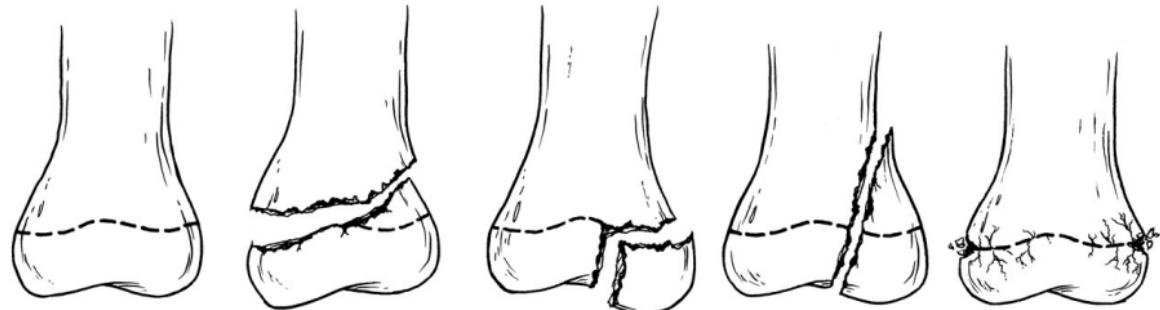
# Acute Life Threatening Event



# Pediatric Fractures



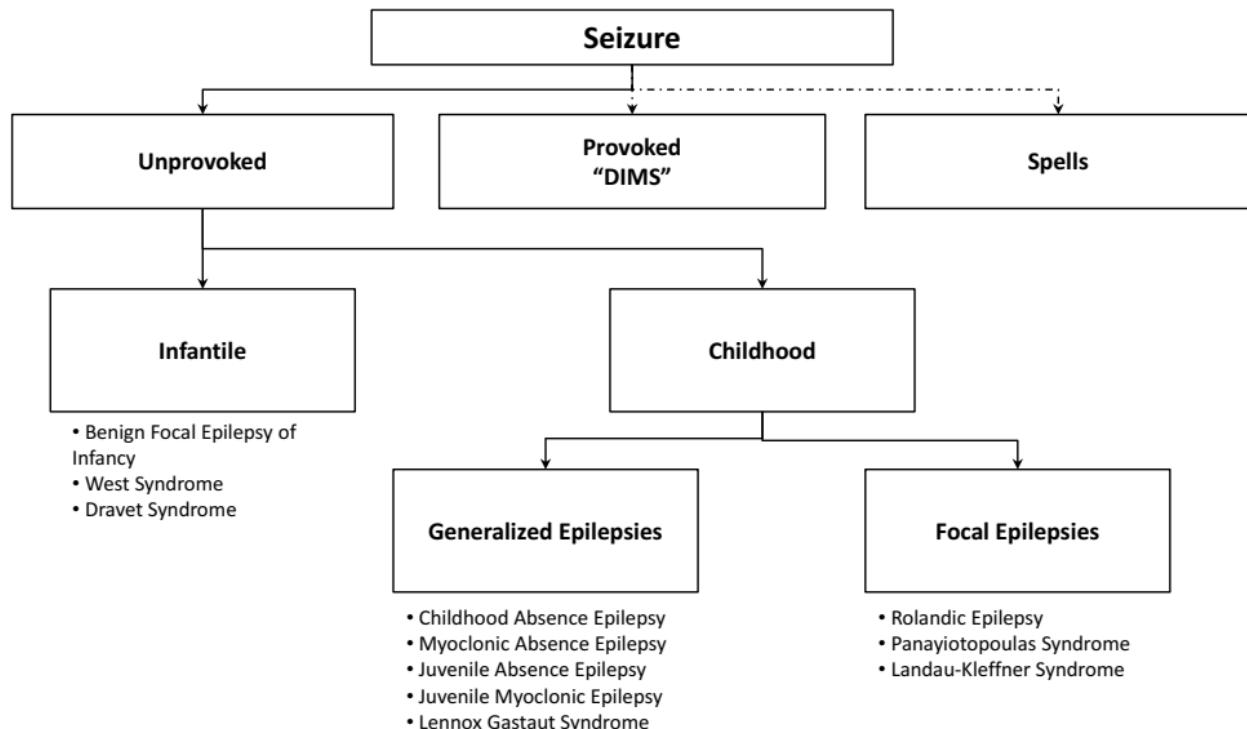
# Salter Harris Physeal Injury Classification



Type	Population	Features		
I	Younger Children	Separation through the physis	S	Straight through
II	Older Children (75%)	Fracture through a portion of the physis that extends through the metaphyses	A	Above
III	Older Children (75%)	Fracture line goes below the physis through the epiphysis, and into the joint	L	Lower
IV		Fracture Line through the metaphysis, physis and epiphysis	T	Through
V		Compression fracture of the growth plate	R	Crush

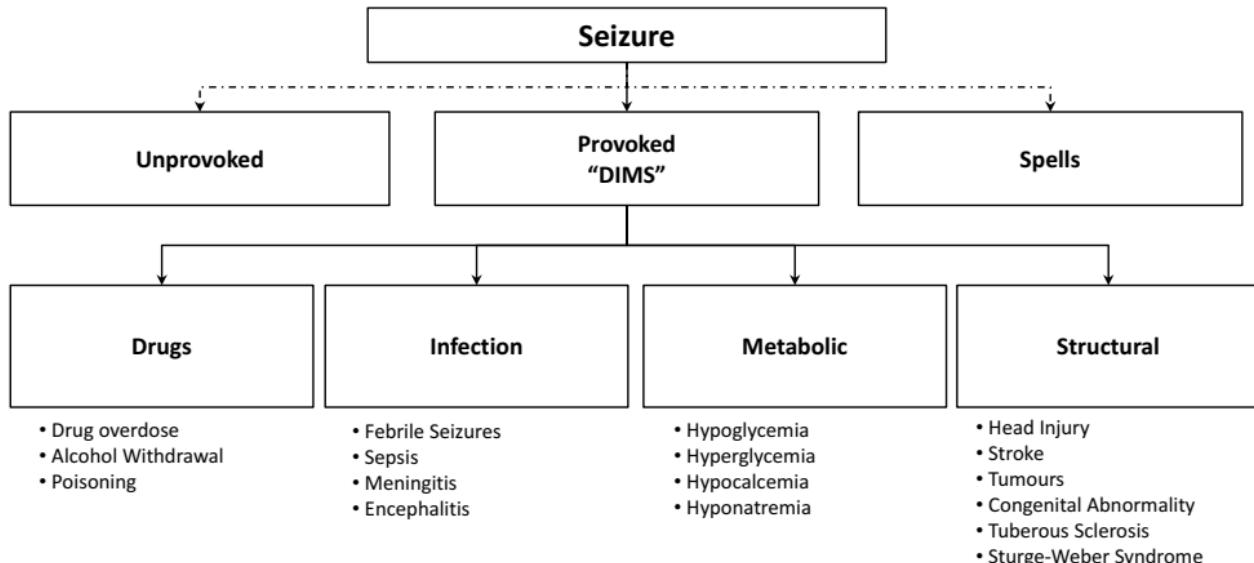
# Pediatric Seizure

Unprovoked



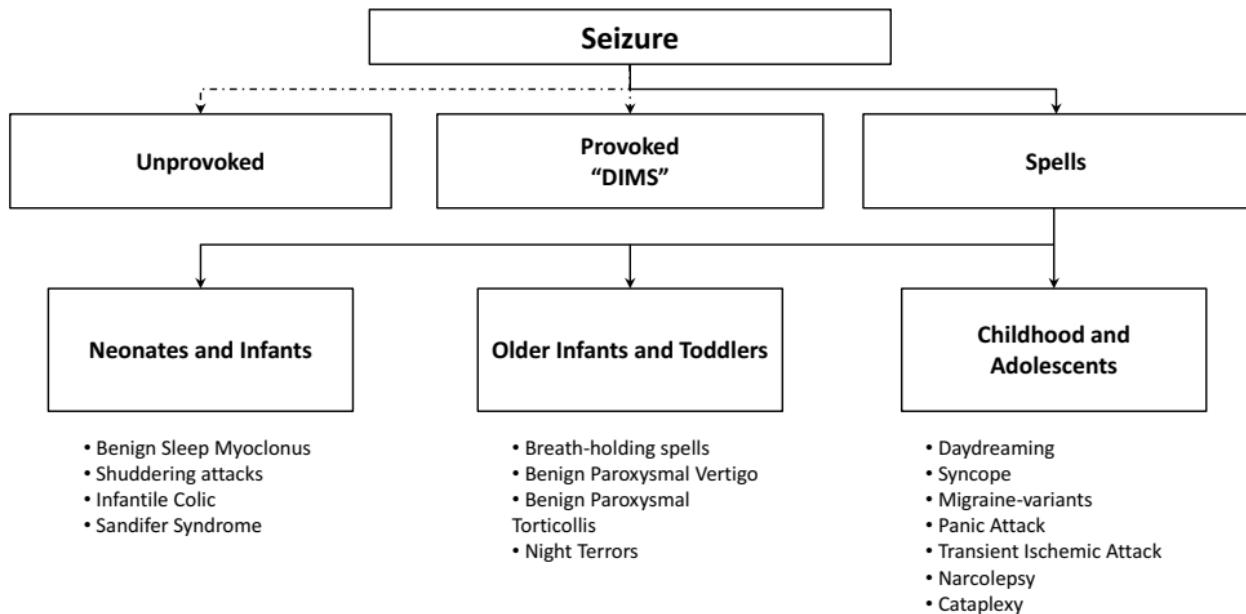
# Pediatric Seizure

Provoked

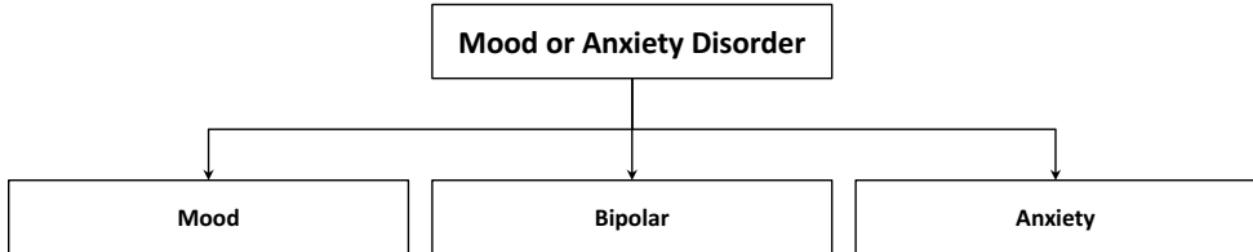


# Pediatric Seizure

Spells



# Pediatric Mood & Anxiety Disorder



- Major Depressive Disorder
- Persistent Depressive Disorder
- Disruptive Mood Dysregulation Disorder\*

- Panic Disorder and Agoraphobia
- Specific Phobia
- Social Phobia
- Generalized Anxiety Disorder
- Selective Mutism\*
- Separation Anxiety Disorder\*

\*More commonly or exclusively found in pediatric populations

# General Presentations

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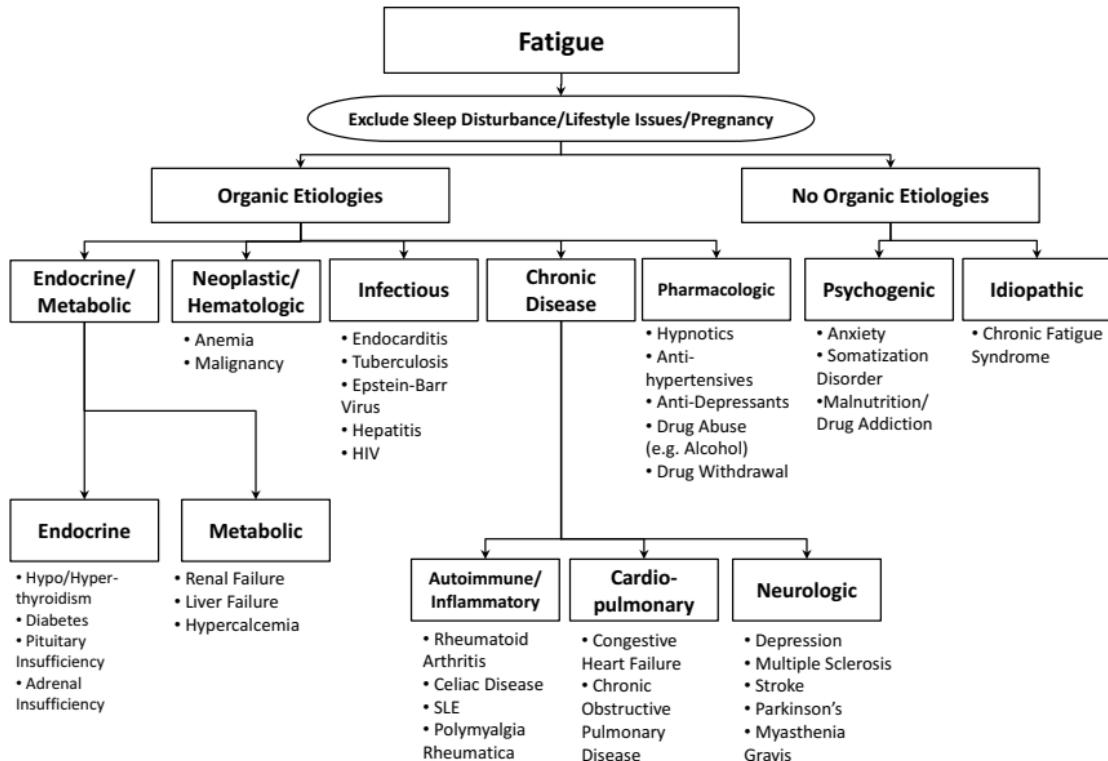
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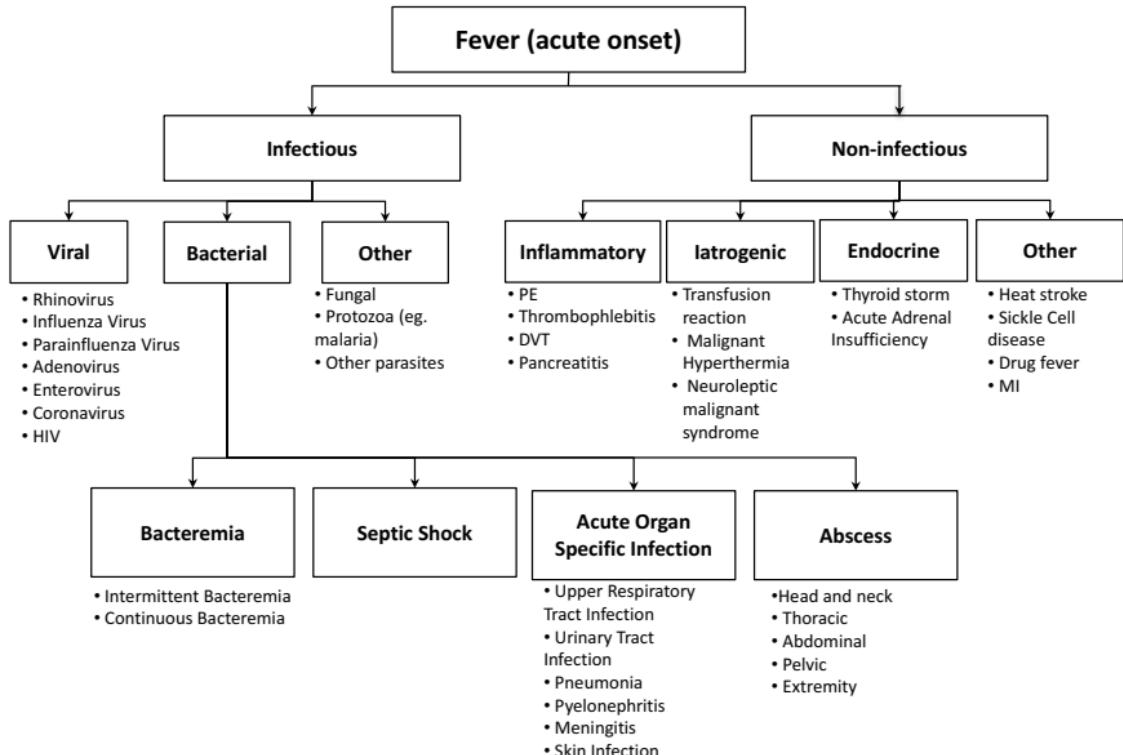
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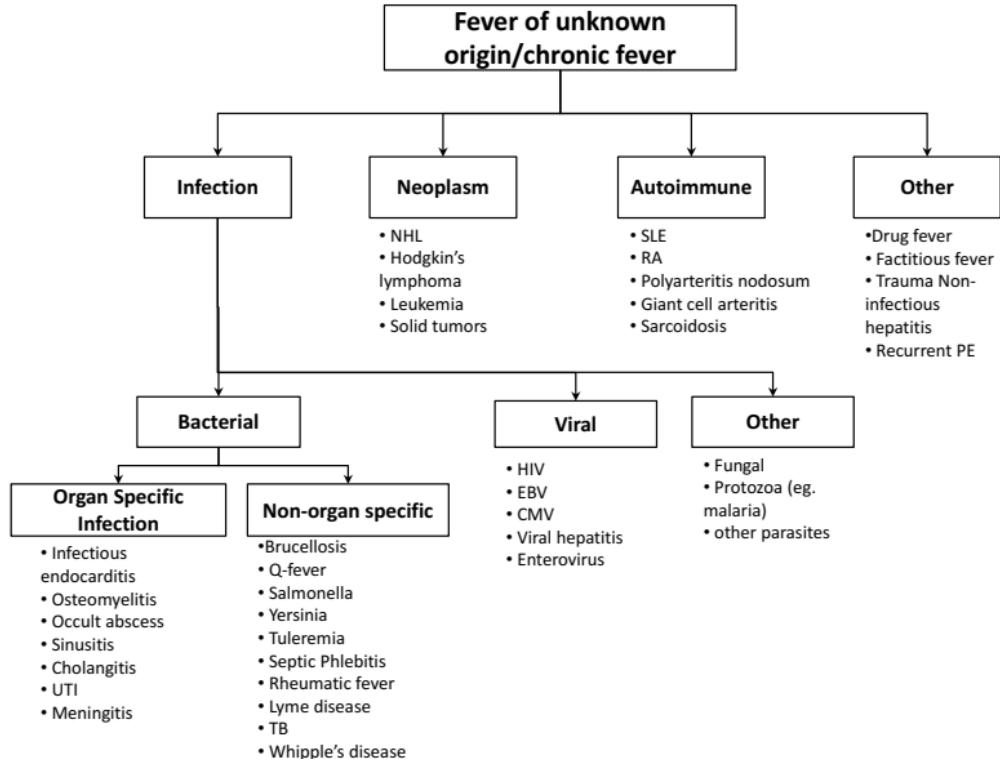
# Fatigue



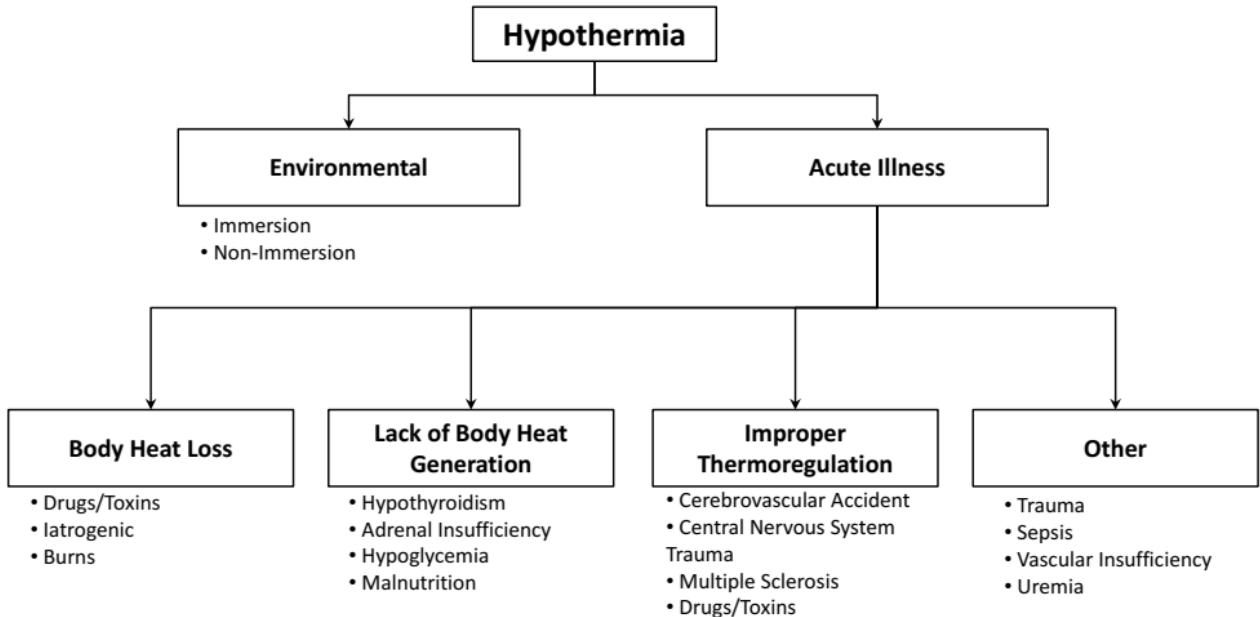
# Acute Fever



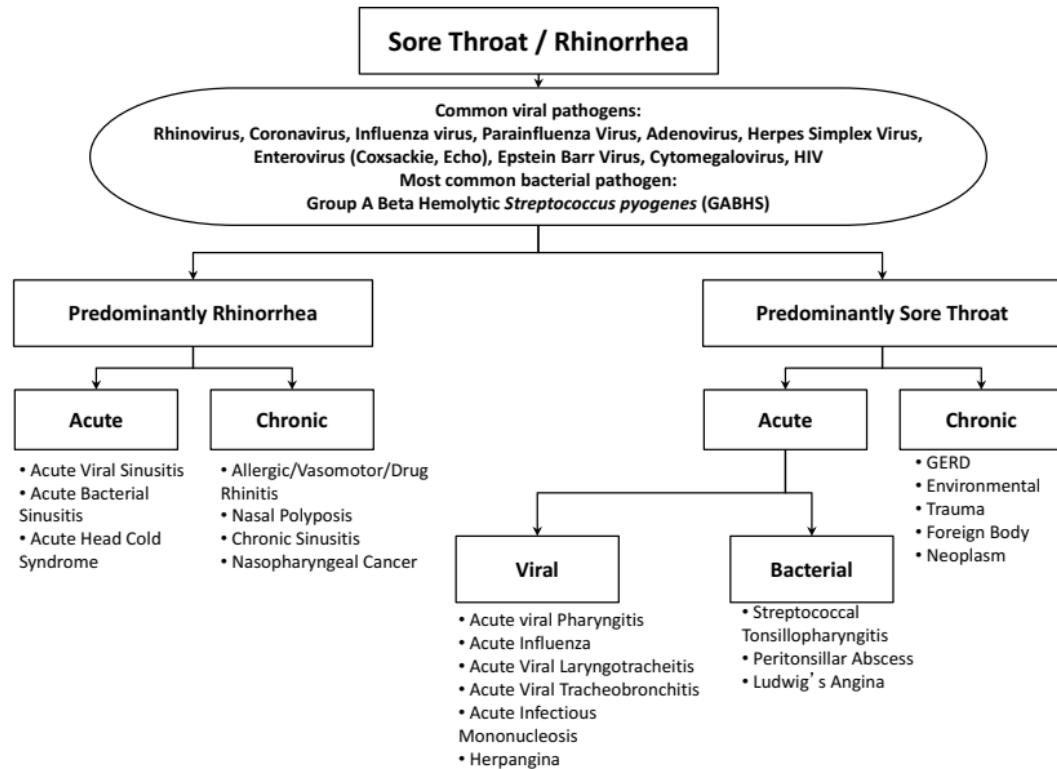
# Fever of Unknown Origin / Chronic Fever



# Hypothermia



# Sore Throat / Rhinorrhea





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# Abbreviations

<b>AAA</b>	Abdominal Aortic Aneurysm	<b>DKA</b>	Diabetic Ketoacidosis
<b>ACE</b>	Angiotensin-Converting Enzyme	<b>DRE</b>	Digital Rectal Exam
<b>ACTH</b>	Adrenocorticotrophic Hormone	<b>DVT</b>	Deep Vein Thrombosis
<b>ADPKD</b>	Autosomal Dominant Polycystic Kidney Disease	<b>EABV</b>	Effective Arterial Blood Volume
<b>ADH</b>	Antidiuretic Hormone	<b>ECF</b>	Extracellular Fluid
<b>AIN</b>	Acute Interstitial Nephritis	<b>ENaC</b>	Epithelial Sodium Channel
<b>ALS</b>	Amyotrophic Lateral Sclerosis	<b>FEV<sub>1</sub></b>	Forced Expiratory Volume in One Second
<b>ARB</b>	Angiotensin Receptor Blocker	<b>FJN</b>	Familial Juvenile Nephronophthisis
<b>ARF</b>	Acute Renal Failure	<b>FSGS</b>	Focal Segmental Glomerulosclerosis
<b>ARPKD</b>	Autosomal Recessive Polycystic Kidney Disease	<b>FSH</b>	Follicle Stimulating Hormone
<b>BPH</b>	Benign Prostatic Hypertrophy	<b>FVC</b>	Forced Vital Capacity
<b>CCD</b>	Cortical Collecting Duct	<b>GBM</b>	Glomerular Basement Membrane
<b>CHF</b>	Congestive Heart Failure	<b>GERD</b>	Gastrointestinal Esophageal Reflux Disease
<b>CIN</b>	Chronic Interstitial Nephritis	<b>GFR</b>	Glomerular Filtration Rate
<b>CLL</b>	Chronic Lymphocytic Leukemia	<b>GHRH</b>	Growth Hormone Releasing Hormone
<b>CNS</b>	Central Nervous System	<b>GH</b>	Growth Hormone
<b>COPD</b>	Chronic Obstructive Pulmonary Disease	<b>GI</b>	Gastrointestinal
<b>CRF</b>	Chronic Renal Failure	<b>GN</b>	Glomerulonephritis
<b>CRH</b>	Corticotrophic Releasing Hormone	<b>GnRH</b>	Gonadotropin Releasing Hormone
<b>CT</b>	Computed Tomography	<b>GPA</b>	Granulomatosis with Polyangiitis
<b>DCIS</b>	Ductal Carcinoma In Situ	<b>GRA</b>	Glucocorticoid
<b>DHEA</b>	Dehydroepiandrosterone	<b>GTN</b>	Gestational Trophoblastic Neoplasm
<b>DHEA-S</b>	Dehydroepiandrosterone Sulfate	<b>H<sup>+</sup></b>	Hydrogen
<b>DIC</b>	Disseminated Intravascular Coagulation	<b>HCG</b>	Human Chorionic Gonadotropin

<b>HDL</b>	High Density Lipoprotein	<b>LPL</b>	Lipoprotein Lipase
<b>HELLP</b>	Hemolysis, Elevated Liver Enzymes, Low Platelets	<b>MCD</b>	Minimal Change Disease
<b>HIV</b>	Human Immunodeficiency Virus	<b>MCH</b>	Mean Corpuscular Hemoglobin
<b>HPL-1a</b>	Human Peripheral Lung Epithelial Cell Line 1a	<b>MCHC</b>	Mean Corpuscular Hemoglobin Concentration
<b>HRT</b>	Hormone Replacement Therapy	<b>MCV</b>	Mean Corpuscular Volume
<b>HSP</b>	Henoch-Schönlein Purpura	<b>MEN</b>	Multiple Endocrine Neoplasma
<b>HSV</b>	Herpes Simplex Virus	<b>MI</b>	Myocardian Infarction
<b>HUS</b>	Hemolytic-Uremic Syndrome	<b>MPA</b>	Microscopic Polyangiitis
<b>IBD</b>	Irritable Bowel Disease	<b>MPGN</b>	Membranoproliferative Glomerulonephritis
<b>IBS</b>	Irritable Bowel Syndrome	<b>MS</b>	Multiple Sclerosis
<b>ICP</b>	Increased Intracranial Pressure	<b>MSK</b>	Musculoskeletal
<b>ICU</b>	Intensive Care Unit	<b>Na<sup>+</sup></b>	Sodium
<b>IGF</b>	Insulin-like Growth Factor	<b>NSAIDs</b>	Non-Steroidal Anti-Inflammatories
<b>INR</b>	International Normalized Ratio	<b>OCP</b>	Oral Contraceptive Pill
<b>ITP</b>	Idiopathic Thrombocytopenic Purpura	<b>OSM</b>	Osmolality
<b>IUGR</b>	Intrauterine Growth Restriction	<b>PE</b>	Pulmonary Embolism
<b>IV</b>	Intravenous	<b>PID</b>	Pelvic Inflammatory Disease
<b>IVP</b>	Intravenous Pyelogram	<b>PMN</b>	Polymorphic Neutrophils
<b>JVP</b>	Jugular Venous Pyelogram	<b>POSM</b>	Plasma Osmolality
<b>K<sup>+</sup></b>	Potassium	<b>PPROM</b>	Preterm Premature Rupture of Membranes
<b>KUB</b>	Kidney, Ureter, Bladder	<b>PROM</b>	Premature Rupture of Membranes
<b>LCIS</b>	Lobular Carcinoma In Situ	<b>PT</b>	Prothrombin Time
<b>LDL</b>	Low Density Lipoprotein	<b>PTH</b>	Parathyroid Hormone
<b>LGA</b>	Large for Gestational Age	<b>PTT</b>	Partial Thromboplastin Time
<b>LH</b>	Luteinizing Hormone	<b>PUD</b>	Peptic Ulcer Disease
<b>LLN</b>	Lower Limit of Normal	<b>PUJ</b>	Pelviureteric Junction
<b>LOC</b>	Level of Consciousness	<b>RAPD</b>	Right Afferent Pupillary Defect

<b>RAS</b>	Renal Artery Stenosis
<b>RBC</b>	Red Blood Cell
<b>RTA</b>	Renal Tubular Acidosis
<b>SGA</b>	Small for Gestational Age
<b>SLE</b>	Systemic Lupus Erythematosus
<b>TORCH</b>	Toxoplasmosis, Other (Hepatitis B, Syphilis, Varicella-Zoster virus, HIV, Parvovirus B19), Rubella, Cytomegalovirus, Herpes Simplex Virus
<b>TSH</b>	Thyroid Stimulating Hormone
<b>TSHR</b>	Thyroid Stimulating Hormone Receptor
<b>TTKG</b>	Transtubular Potassium Gradient
<b>TPP</b>	Thrombotic Thrombocytopenic Purpura
<b>UTI</b>	Urinary Tract Infection
<b>US</b>	Ultrasound
<b>VACTERL</b>	Vertebral Anomalies, Anal Atresia, Cardiovascular Anomalies, Tracheoesophageal Fistula, Esophageal Atresia, Renal Anomalies, Limb Anomalies
<b>VSD</b>	Ventricular Septal Defect
<b>VUJ</b>	Vesicoureteral Junction

# **Notes**









Superficially resembling flowcharts, schemes are a way to ease the memorization of differential diagnoses by breaking large lists into sets of smaller, conceptually-intuitive information packets. Using the Medical Council of Canada's Clinical Presentation List, *Blackbook* organizes the most common medical presentations of patients into diagnostic schemes. As a tool for medical students, residents, allied health trainees, and health care educators, medical presentation schemes will ease the learning of the volume of medical diagnoses, and will facilitate recall when needed.

Based on the medical presentation schemes used in the University of Calgary Medical curriculum, *Blackbook* is a joint production of the students and the Cumming School of Medicine at the University of Calgary.

