

Health



Science



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Patient Care

Color

Technician

- Scope of Practice
- Patient's Rights
- Med Terms
- Infection Control
- First Aid/CPR
- Patient Safety
- Basic Positions
- Ambulating/Transferring Patients
- ADLs
- Vital Signs
- Surgery

- Specimens
- Nutrition & Hydration
- Skin /Wounds
- ROM
- Ostomy Care
- Diabetes
- Hospice/Post-Mortem Care
- Phlebotomy
- Order of Draw
- EKG

SCOPE OF PRACTICE

CAN DO

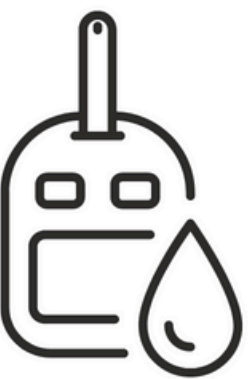
Measure vital signs



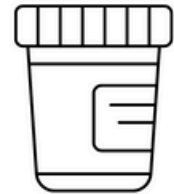
Greet Patients



Blood Sugar Checks



Label Specimens



Assist with ADLS



Remove IV

Draw lab work



Perform EKGs



Check on patients

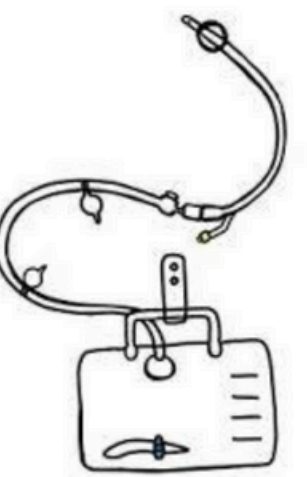


Help open medication bottle

Help with a dressing change

CAN NOT DO:

Administer Meds



Insert catheter/IV

Any form of teaching



Perform sterile procedures

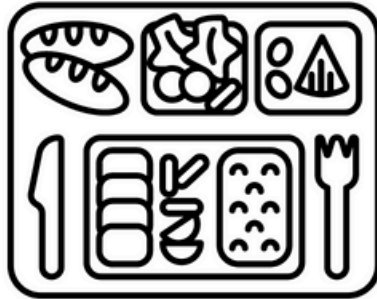
ACTIVITIES OF DAILY LIVING

Bed Bath

Water temp. 105°-110°

Privacy

Clean from cleanest to dirtiest
(face first with only warm water)



Eating

HOB- 45°

Dietary restrictions-low sodium, diabetic, NPO,
clear liquid, mechanical soft (difficulty
swallowing)

Dressing

Dressing - weak side first

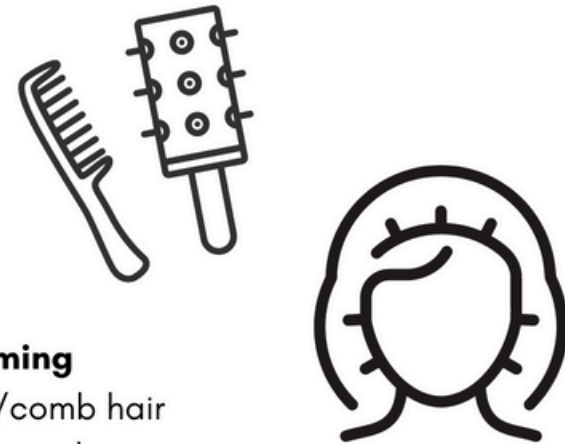
Undressing- strong side first



Grooming

brush/comb hair

non-rinse shower cap

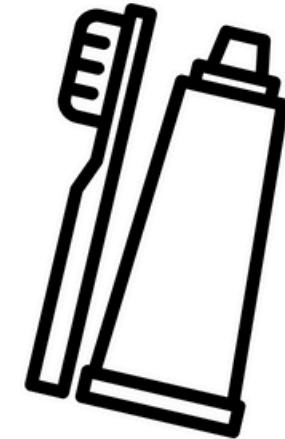


Oral Care

When pt. awakens, after meals, before bedtime

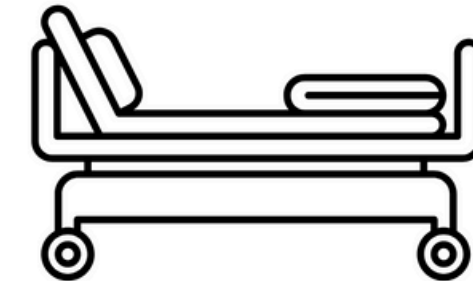
Dentures-use denture cleaner (not toothpaste)

**Remove
upper
denture
first!**



Bed making

- Roll pt. on side
- tuck dirty sheets under pt.
- replace sheets on unoccupied side
- tuck fresh sheets under pt.
- roll pt. to fresh side
- remove old linens
- complete linen change



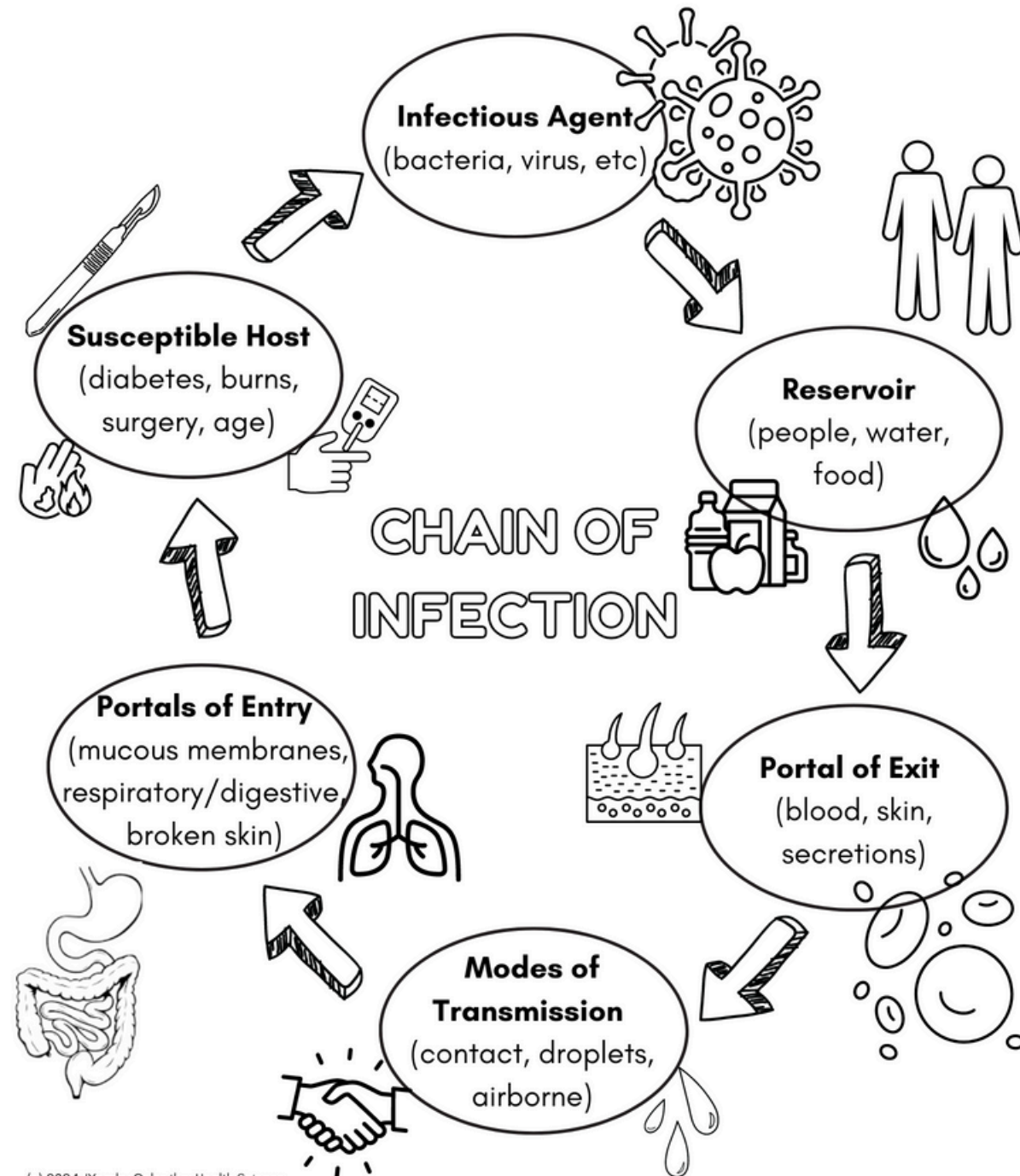
Toileting

BE PROMPT

Empty Immediately

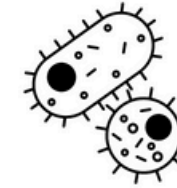


INFECTION CONTROL



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MODES OF TRANSMISSION:



Wear gown,
gloves, mask

CONTACT

Standard Precautions

Patient Ex.- **C. Diff, Hepatitis B**
anything on skin, blood or body fluids



DROPLET

Patient Ex.-
Influenza or Measles

Within 6 feet of patient
(think "cough")

Wear mask



AIRBORNE

Special Room
N-95 Mask

Patient Ex.-
Tuberculosis (TB)

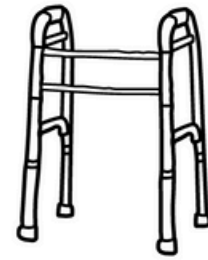


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AMBULATING/ TRANSFERRING PATIENTS

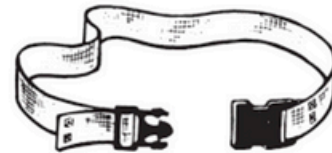
Walker

Advance 10-12 in. in front of legs



Gait Belt

- Put on over clothing
- Stand behind pt. on their weaker side



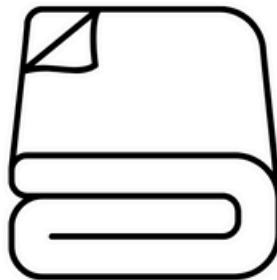
Cane

Hold on stronger side



Draw Sheet

- Placed under pt. from shoulders to lower back
- Used in helping move patients



Make sure
bed/wheelchair
wheels are **ALWAYS**



LOCKED

LOG ROLL



NWB = non weight bearing
FWB = full weight bearing
Non-ambulatory = unable
to walk

ASSIST

Before you manually lift a patient who is non-ambulatory, ask their ability to assist!

Transferring from bed to gurney- beds should be at equal heights.



Transferring from bed to wheelchair- have the pt. push off the bed using hands when prompted.

If patient is non-weight bearing and needs to urinate-give bedpan/urinal

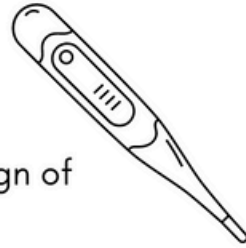


VITAL SIGNS

1

Temperature

Elevated temperature is first sign of transfusion reaction.



Normal Values:

BP= 120/80
HR= 60-100 bpm
RR= 12-20 breaths per minute
Temp.= 98.6° F
Pulse Ox= 95%>

2

Heart Rate

Tachycardia- fast HR (>100 bpm)

Bradycardia- slow HP (<60 bpm)

Pulse (conscious)- radial

Pulse (unconscious)- carotid



3

Respiratory Rate

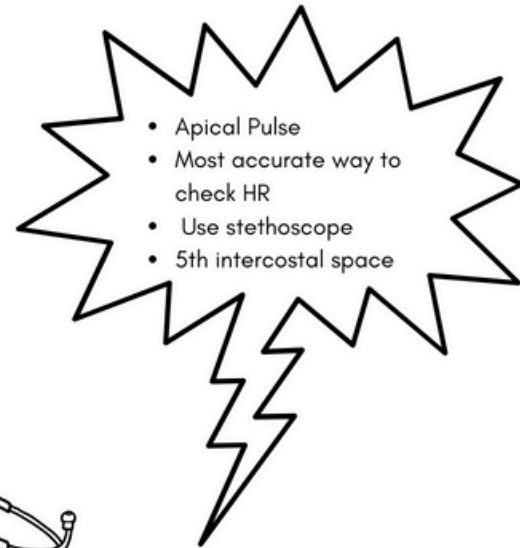
Dyspnea= difficulty breathing

Bradypnea= hypoventilation

Tachypnea= hyperventilation



- Apical Pulse
- Most accurate way to check HR
- Use stethoscope
- 5th intercostal space



4

Blood Pressure

- Arm should be heart level for accurate reading
- If need to recheck BP, be sure all air is let out of the cuff before rechecking

Hypotension
low BP (90/50)

Hypertension
high BP (140/90)

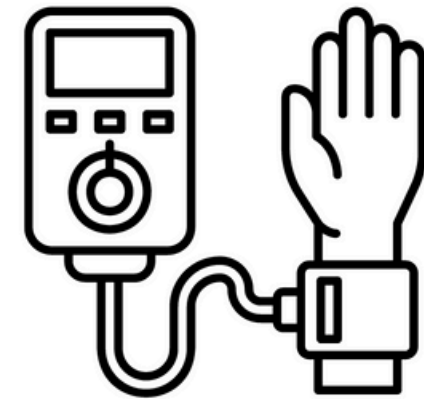
5

SITES:

- finger
- earlobe
- great toe

Pulse Ox

Artificial nails, low BP and cold hands can affect a Pulse Ox reading



6

Pain

Scale 1-10

Children- **Wong-Baker FACES Pain Scale**



Infant Normals:

HR= 120-170 bpm
RR= 30-50/min

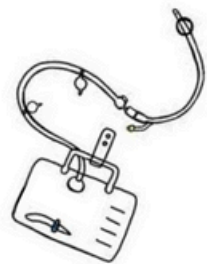




MED TERMS

DIAPHORESIS

Excessive sweating



Indwelling Catheter = Urinary catheter must be lower than bladder & on non-movable part of bed

Enteric-coated meds = **Do Not Crush**



Aphasia = inability to speak



Asymptomatic = having no symptoms—everything is normal



CVA

Stroke

EDEMA

Swelling



SYNCOPE

fainting
(pale, diaphoretic)



Abbreviations that are OK

OK

ac= before meals

pc= after meals

NPO= nothing by mouth

Incontinent = loss of bladder/bowel control

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STAT = NOW



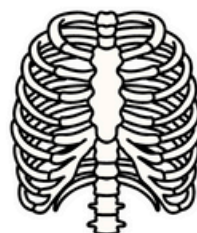
HEMATOMA

Bruise



INTERCOSTAL

Between ribs



Do Not Use
Abbreviation
U-unit

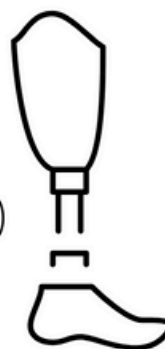
EMESIS

Vomit



PROSTHETIC

Artificial body parts (dentures)



Contraindicated=
something that should
not be used/done

OLIGURIA

Scant/Small amount of Urine

Shock

shallow, rapid respirations

PRN

as needed



I Intake

&

O Output

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Aspiration= the
inhalation of
food, fluid, or
foreign material
into lungs



C Congestive
H Heart
F Failure

PEDICULOSIS



Lice

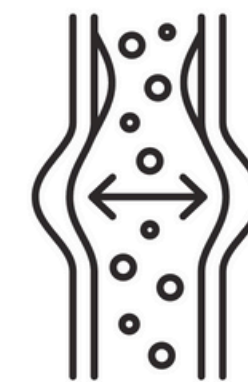
NPO = Nothing by mouth



CYANOSIS



Color
hand/lips
blue



Embolism =
Blood clot

BRADYCARDIA

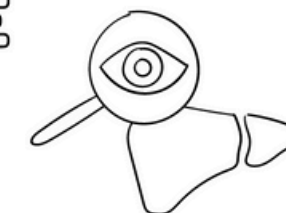
Slow HR <60 bpm



JAUNDICE

Liver Problems

- too much bilirubin
- skin/eyes yellow



Color eye
yellow

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PATIENT SAFETY

Falls are ^{#1} injury!

SIDE RAILS UP

Bed at comfortable working height



Put razor in sharps box

Color sharps box
Red

CALL LIGHT IN REACH



R-Rescue
A-Alarm
C-Contain
E-Extinguish

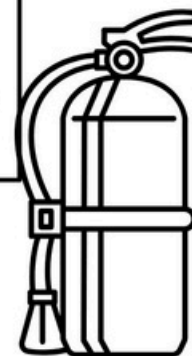


WHEELS LOCKED

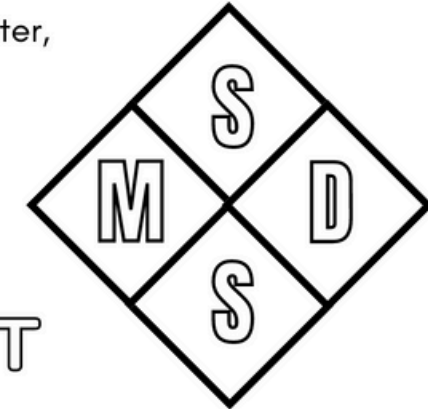
Place patient's feet on footrest



P-Pull
A-Aim
S-Squeeze
S-Sweep



If mercury spills from broken thermometer, evacuate room
Chemical spill/strong odor=move the patient
Spill urine- clean with bleach



ABUSE / NEGLECT

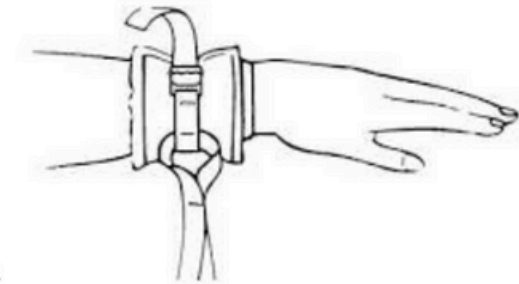
Possible indications: lack of personal hygiene, malnourishment, pressure sores/injuries, undue anxiety, caregiver control...

MUST
REPORT



RESTRAINTS

Must have a doctor's order
Check circulation every 15 minutes
Must be removed every 2 hours
If patient removes their own restraints- call for help



BODY MECHANICS

Bend at hips and knees/ NOT waist
Wide base of support
Carry heavy objects close to your body



**Run,
Hide,
Fight**

NUTRITION & HYDRATION

DIETS



Low-sodium- High BP, Heart Disease, Kidney Disease

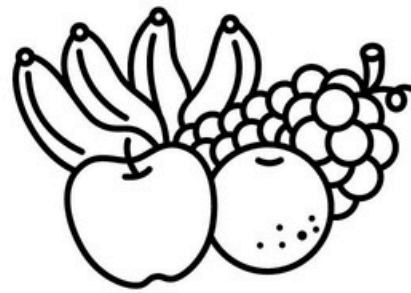
Low-Protein/Renal- Kidney Disease (Dialysis)

Bland- Crohn's Disease, IBS

Diabetic- Carb counting/low carb-sugars

Liquid- Short term before/after procedures

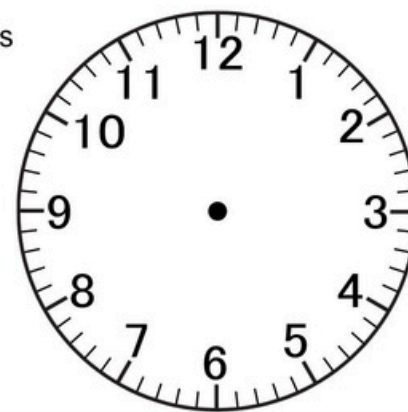
Soft- Trouble chewing/swallowing



Assisting w/Eating

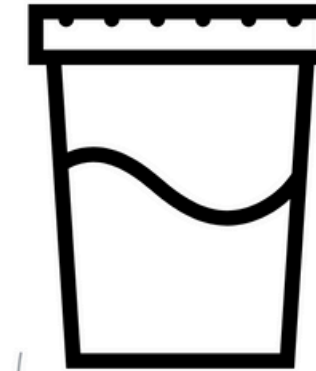
- HOB- 45°-90°
- Let pt. feed themselves
- Vision problems-use clock

Ex. Meat at 2 o'clock



DEHYDRATION

Encourage fluids, ice chips, popsicles



FUILD OVERLOAD

Edema



Color urine
**dark
yellow**

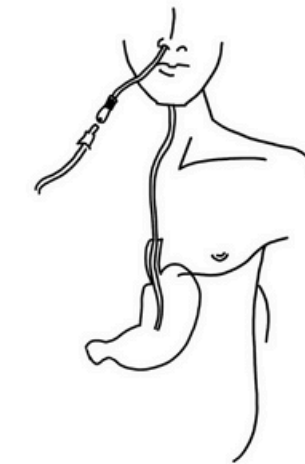
DYSPHAGIA

Difficulty Swallowing

NG TUBE

Nasogastric

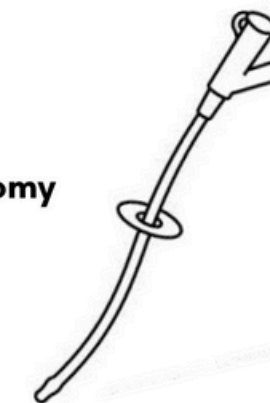
- Expect throat irritation
- HOB at least 45°



PEG TUBE

Percutaneous Endoscopic Gastrostomy

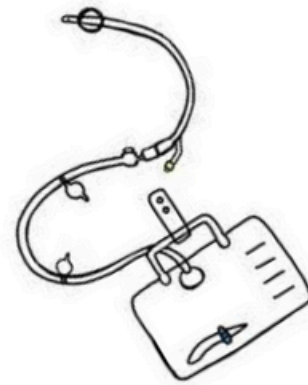
Increased risk for aspiration



SPECIMENS

URINE

- Normal urine(pale, yellow) output for 24 hours= 1,000-2,000 ml
- Report urine output of only 500 ml
- For urinalysis you need 30 ml
- Dark urine, dry mouth=dehydration
- Empty catheter once a shift/ every 8 hours
- Have patient void into specimen collection device left for them (urinal, "hat" in toilet)



Cystitis- may have
hematuria
(blood in urine)

Color urine
in cup **RED**

STOOL

Take to the lab STAT

Upper GI Bleed- black, tarry stool (report to nurse)

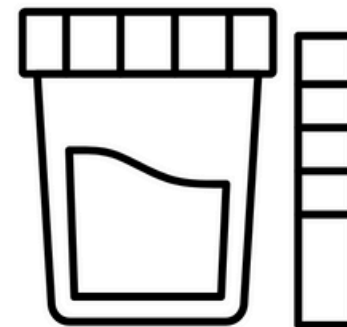
Lower GI Bleed- red, fresh blood

Red blood is expected in someone who has colon cancer

Color stool
BROWN



**Occult blood =
not visible**



SPUTUM

Should be taken first thing in the morning
Need 1 tsp

Ask patient to take a deep cough
normal=watery consistency

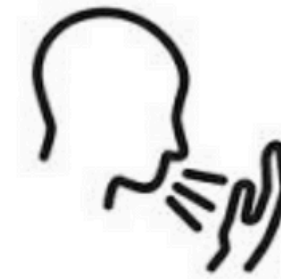
DO NOT use Mouthwash

Face patient while labeling a
specimen-always do it right then,
**never label before or after you
leave the room**

EMESIS

Red, bloody- ask if patient has
had anything to eat/drink that
was red

Coffee ground(old blood)- save
and show to the nurse



I&O recorded
every shift/every
8 hours

NAME _____
DOB _____
Specimen _____
Rm. No. _____ Date _____

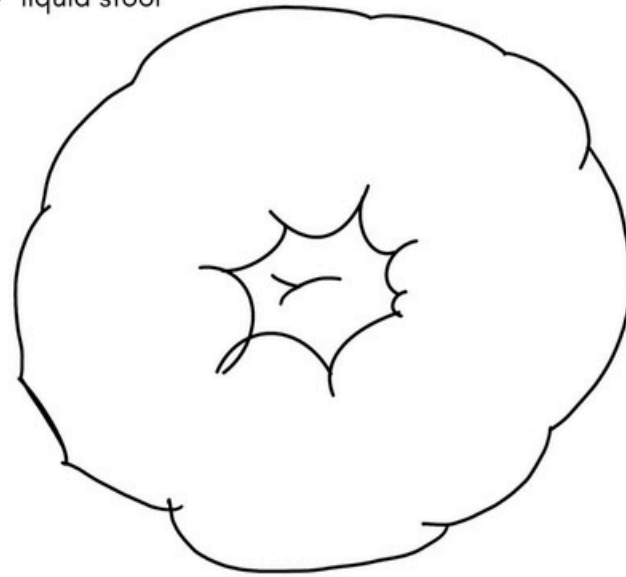


OSTOMY CARE



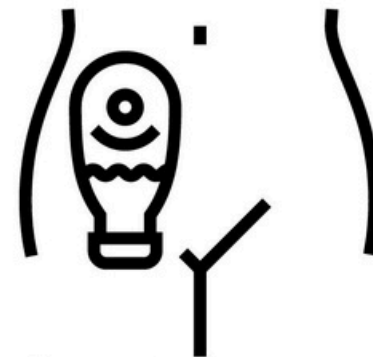
STOMA

- should be red, moist
- liquid stool



Definition:
surgically created
opening from the
intestines to the
outside of the
body.

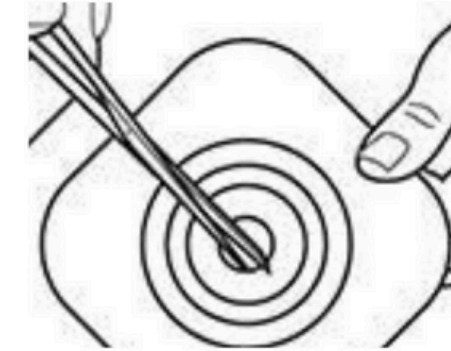
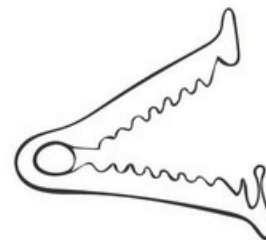
Color Stoma
Bright RED



EMPTY BAG WHEN 1/2 FULL

CLEANING:

- wipe with tissue
- clean with warm water, no soap

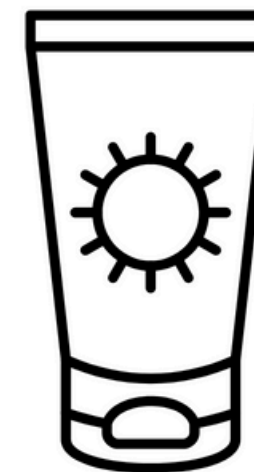


Cut an opening 1/16" larger
than circumference of stoma

THINGS TO NOTE:

- small amount of drainage is normal
- leaking around wafer should be reported to the nurse
- breakdown of an ostomy will have excessive moisture

SKIN CARE



Use barrier cream or
skin protectant



more formed stool
near **sigmoid** colon

DIABETES

POLYURIA

Excessive urination



POLYDIPSIA

Excessive thirst



POLYPHAGIA

Excessive hunger



POSTPRANDIAL

2 hours after a meal



Check the
glucose strips
every time a
patient is tested



Critical Blood Sugar Values:

Female

< 40mg/dL or > 450mg/dL

Male

< 50mg/dL or > 450mg/dL

Normal Levels:

Fasting

(no food for 8 hrs)
70-110mg/dL

Random

< 200mg/dL

Postprandial

< 150mg/dL



G T T Glucose Tolerance Test

Patient should be
fasting (first
thing in the AM)



Use facility's glucometer only, not
one from home



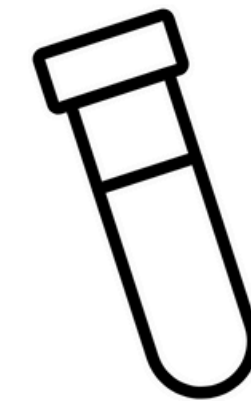
Type 1
< 18 yrs old
Insulin

Type 2
Adult
Oral meds

HYPERGLYCEMIA

High blood sugar

If a patient asks about
demonstrating how to give an
injection- say, "I will inform the
nurse about your request
regarding the injection"



Lab- Hgb-A1c
(Lavender)



Color tube
top
purple



HOSPICE & POST-MORTEM CARE

PALLIATIVE CARE

Comfort Care

Hospice

- Patient usually only has 6 months or so to live
- Is reimbursed by Medicare and Medicaid

Hearing
last sense to
leave the
body



STAGES OF GRIEF

Denial

Act like nothing is happening

Anger

Bargaining

Ex. "I need to live long enough to see my grandchildren"

Depression

Acceptance



End of Life Care

- Rigor mortis sets in 2-4 hours
- Use draw sheet to move a patient who has passed away on a gurney
- Place pillow/towel under patient's head
- Gather belongings to give to family
- Let family sit/be with patient for as long as they want

PHLEBOTOMY BASICS

NAME & DOB

Identify Patient

If patient info is not correct on order- DO NOT draw it.



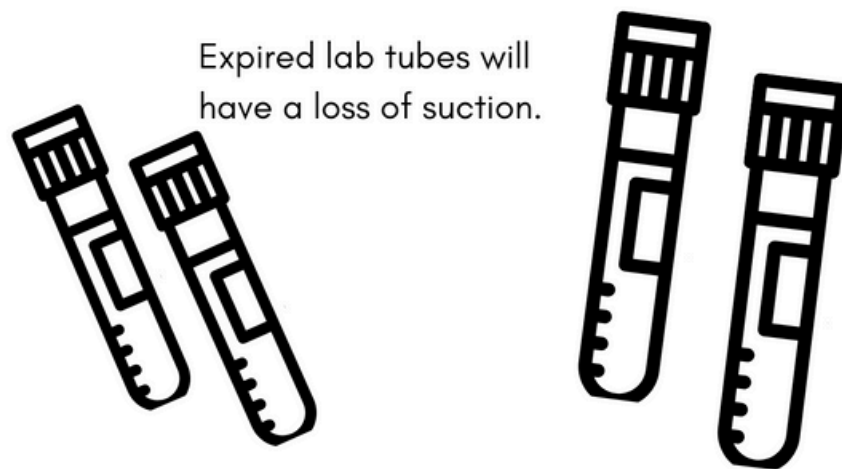
IMPLIED CONSENT

If patient just stretches arm out and does not speak.



TUBES

Expired lab tubes will have a loss of suction.

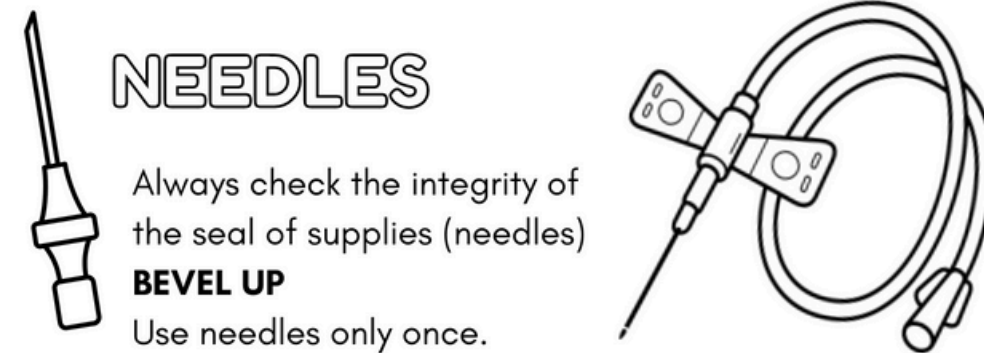


NEEDLES

Always check the integrity of the seal of supplies (needles)

BEVEL UP

Use needles only once.



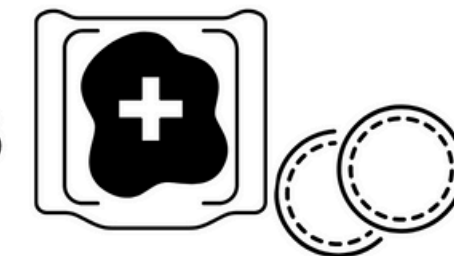
TOURNIQUETS



Position 3-4 inches above site

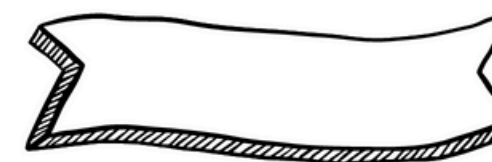
Only leave tourniquet on for 1 minute

ALCOHOL PADS



LABELS

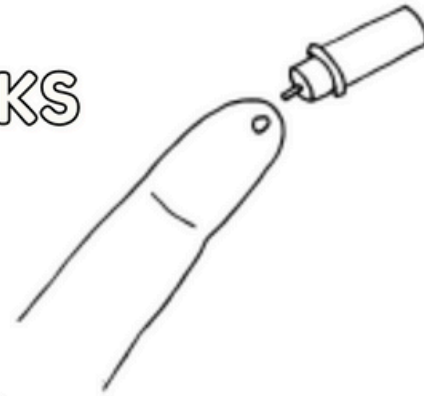
Consequence of mislabeling a blood bank specimen- transfusion reaction



DERMAL PUNCTURES

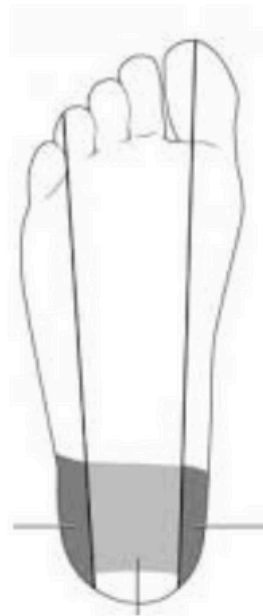
FINGER STICKS

Anyone over 1 yr of age
3rd or 4th finger of
non-dominant hand



HEEL STICKS

Infants younger than 12 months
Warmer may be needed-leave
on for 3-5 minutes



Contraindication of Dermal Stick- hands swelling

Procedure:

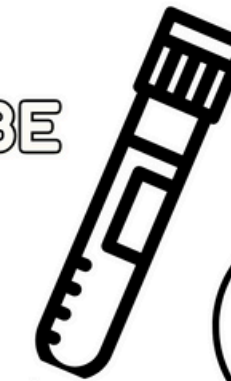
- Identify site
- Clean with 70% isopropyl alcohol-
allow to air dry
- Puncture site with lancet
- Wipe away first drop of blood
- Collect blood sample
- Use gauze to apply pressure to site

LAVENDAR TUBE

Drawn First

INFANTS

If you have infant screening and need
to draw DNA, bilirubin, O2 and
hemoglobin- **draw O2 first!**



Color
Tube Top
Purple



Bilirubin specimens
need to be kept away
from light



Color Bilirubin
Tube Top
Green

If baby is under a light
because of jaundice, and a
bilirubin level is needed-
turn off UV light



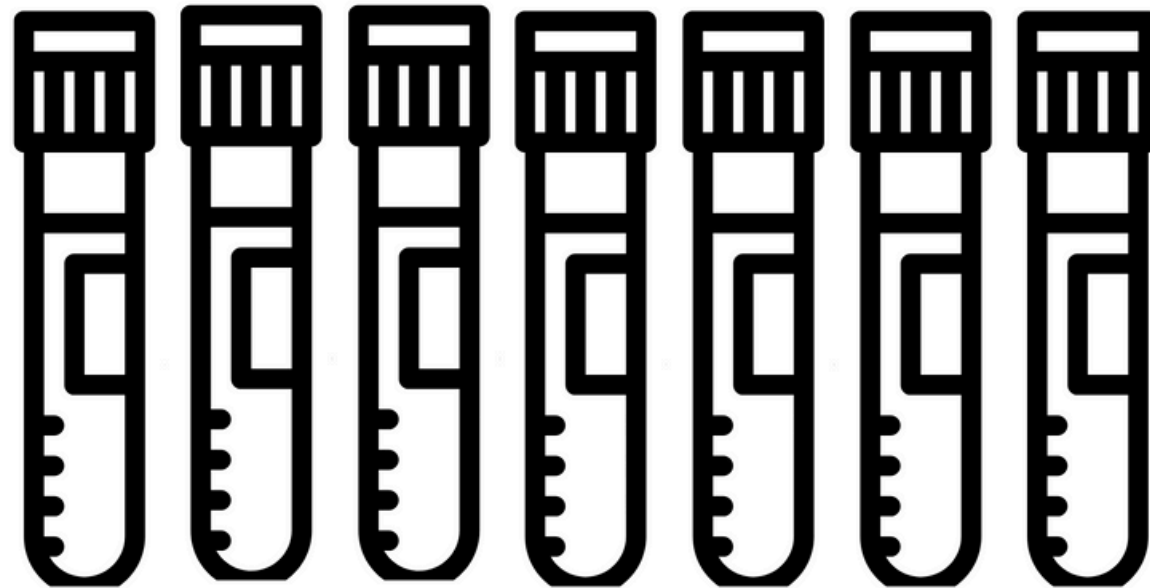
What factors determine
whether you do a dermal
stick on a child?

**Age and development of
child**



ORDER OF DRAW

Color lab tube tops below corresponding color



Light Blue

Red

Gold

Green

Lavendar

Pink

Gray

BLOOD CULTURES



- Clean w/ **Chlorhexidine**
- **Always draw first if ordered!**
- Draw aerobic first, then anaerobic



GREEN

Bilirubin

Additive- **Heparin**

Must keep covered/away from the light



LIGHT BLUE

PT/PTT(Coagulation tube)

Additive- **sodium citrate**

Invert **3-4 times**

PINK

Type and Crossmatch
(Blood Bank)

GOLD

Serum
Separator
Tubes (SSTs)

RED

Chemistry,
Serology

LAVENDAR

Hgb A1C (Diabetes)

Additive- **EDTA**

Last tube drawn in venipunctures

GRAY

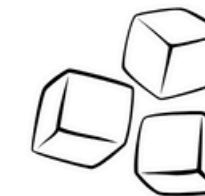
Alcohol

Additive- **Potassium**
Oxalate/Sodium Fluoride

Chain of Custody

Blood alcohol
testing
Notes exact path
specimen takes

Invert most
tubes **5-8 times**



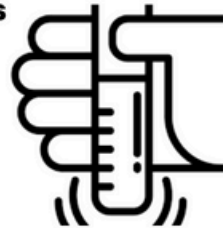
Ammonia
specimen
needs to be
kept **cold**

VENIPUNCTURE PROBLEMS

NEEDLESTICK INJURY

- Milk Site
- Clean with soap & water
- Report before the end of your shift
- Complete incident report

Vigorously inverting tubes can cause **hemolysis**



Transfusion reaction=
increased temperature



Drawing blood and blood flow stops in the middle of a draw-
discard tube and redraw



Phlebotomy Sites to Avoid

- Mastectomy
- Tattoo
- Edema
- Hematoma
- Scars



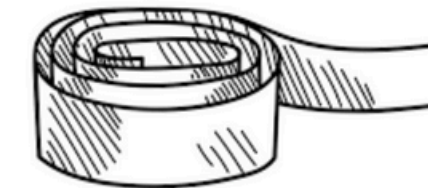
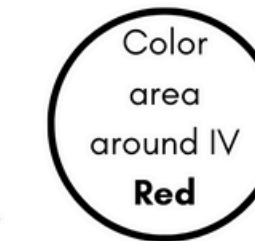
Prevent bleeding from venipuncture site after needle removal- **apply pressure**



INFILTRATION

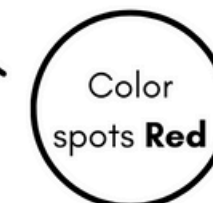
Most common cause of swelling at IV site

Hematoma develops after drawing blood-
release tourniquet, stop draw, apply direct pressure



PETECHIAE

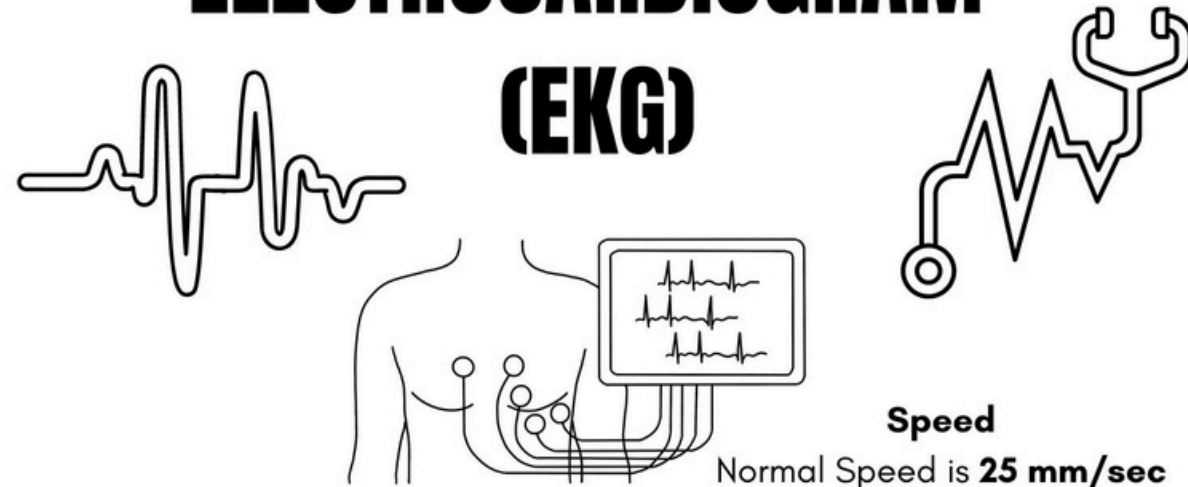
Red spots under skin
(caused by bleeding)



TRANSFUSION REACTION

Consequence of mislabeling a blood bank specimen

ELECTROCARDIOGRAM (EKG)

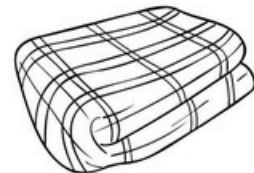


Gain Control-
adjust height of EKG



ARTIFACT

Artifact filter- helps with clearing up EKG
If someone has **somatic tremor**, cover with blanket/keep warm



PLACEMENT

Lead I= R arm & L arm
V4= midclavicular line
V6= midaxillary line

- Above the knee amputation, place lead- **lower abdomen**
- Arm amputation place lead- **deltoid**



V3 can be reversed in pediatric pt.

Speed
Normal Speed is **25 mm/sec**
If pt. has bradycardia/tachycardia speed increases to **50 mm/sec**

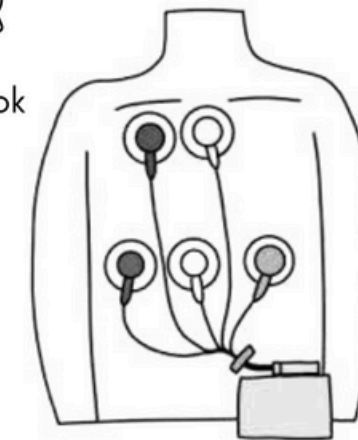


STRESS TEST

Eat light meal 2 hrs. prior
asymptomatic= continue as normal
If during test pt. appears to be hyperventilating- check respiratory rate

HOLTER MONITOR

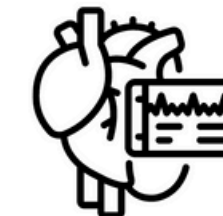
- worn for 24-48 hrs. so doctor can look at your heart for a longer period of time
- resume all normal activities
- keep an activity log
- avoid metal detectors



Large breasts= place electrodes as close to spot and under the breast
Implants= move V1 and V2 from 4th intercostal space to 1st and 2nd intercostal space

TELEMETRY

Transmits information to a central monitoring station



EKG RHYTHMS

NORMAL SINUS RHYTHM

Lead II- most commonly viewed

P WAVE

Should be upright

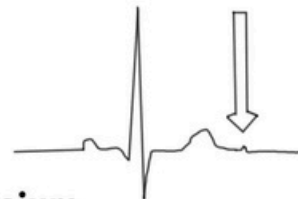


QRS

Should be skinny



U WAVE



U wave present= **low potassium**

U wave present + chest pain= **notify MD**

WANDERING BASELINE

Check leads/electrodes first



EKG RHYTHMS

A-FIB



Check **manual pulse**-apical (5th intercostal space) using a stethoscope

PVC



V-FIB

If pt. goes into V-Fib while performing EKG, **Call for HELP**



PACEMAKER



Vertical projections = pacemaker

ST SEGMENT

ELEVATION



Heart Attack (notify nurse)

Idioventricular vs. Junctional



Wide QRS

No p waves
slow



Skinny QRS

Newest Additions....

INSURANCE

H Health

M Maintenance

⊙ Organization

P Preferred

P Provider

⊙ Organization

Deductible- predetermined amount patient must pay per year before insurance will pay

Ex. \$500/year

Coinsurance- % owed by patient for services rendered after deductible has been met

Co-pay- certain amount patient has to pay toward charge

Ex. \$20/visit



WORKER'S COMPENSATION

Healthcare for those **injured on the job**

TRICARE

Healthcare for active **military** service members, retirees and their families



MEDICAID

Federal health insurance program **low income, disabilities, pregnant women**



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MEDICARE

Health Insurance for **people who are over 65 years of age, disabled, receiving Social Security benefits or in end-stage renal failure (any age).**

PART A

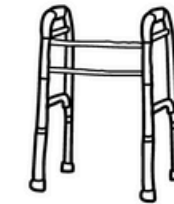
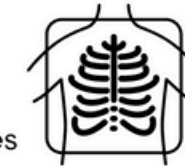
hospital coverage, skilled nursing facility care, rehab services, and hospice



PART B

office visits, x-rays, lab services

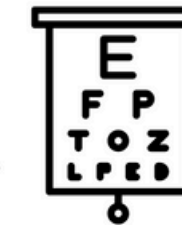
Durable Medical Equipment-walker, cane, bedside commode, hospital beds and diabetic supplies



PART C

Medicare Advantage

combine Part A & Part B for comprehensive coverage dental, vision



PART D

generic & brand name drugs



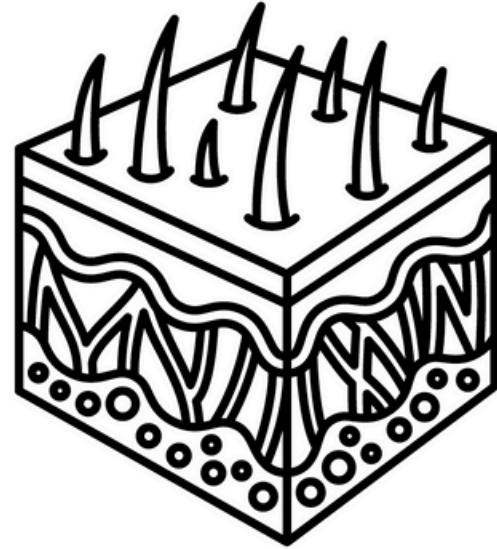
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Human

Color

Body

Integumentary System



Skin

Epidermis- outer layer of skin
Dermis- true skin (nerves & blood vessels)
Hypodermis (subcutaneous)- bottom layer (fat tissue)

Melanin- pigment that gives skin/hair color

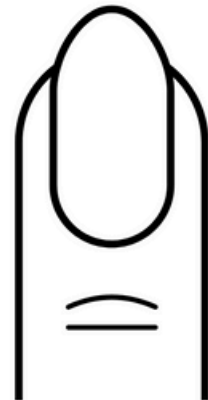
Keratin- protein that makes hair/nails waterproof

Hair



Sebaceous Gland- Oil Gland

Nails



Functions:

- protects
- regulates body temperature
- makes Vitamin D
- gathers sensory information
- regulates water loss

Diseases/Disorders

Erythema

Skin color- **red**

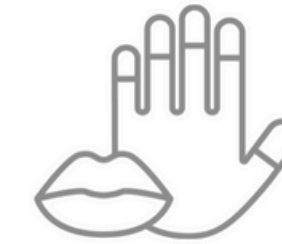


Alopecia
loss of hair/baldness



Cyanosis

Skin color- **blue**

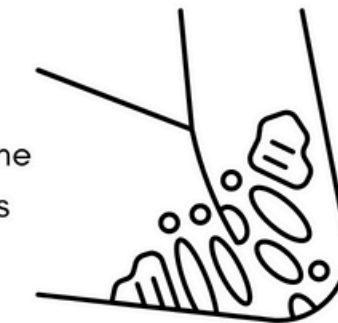


Eczema
dry, red, itchy



Psoriasis

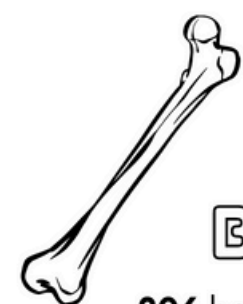
chronic, inflammatory, autoimmune disease with silvery-white scales



Jaundice

Liver Disorder- eyes/skin **yellow**





Skeletal System

Bones

206 bones in adult human



Long bones- femur
Flat bones- skull
Short bones- carpals
Irregular bones- vertebrae



Functions:

- supports & provides shape
- protects vital organs
- allows movement & anchorage of muscles
- mineral storage
- blood cell formation

Cartilage

Tough, **connective tissue** that protects bones & joints



Color the cartilage between the joint **blue**

Ligaments

attach bone to bone

Tendons

attach muscle to bone



Muscles

contract, allowing joints to rotate, bend or straighten



Diseases/Disorders

Arthritis

Osteoarthritis-degenerative joint disease

Rheumatoid Arthritis- autoimmune, inflammatory disease



Fractures

a **break** in a bone



Greenstick



Comminuted



Compound

Closed

Open

Osteoporosis

means: spongy (porous) bone
decrease in the amount & thickness of bone tissue



Carpal Tunnel Syndrome

compression of the median nerve at the **wrist**
Pain, tingling, numbness, weakness



Muscular System

Skeletal Muscle

attached to the bones of the skeleton

Smooth Muscle

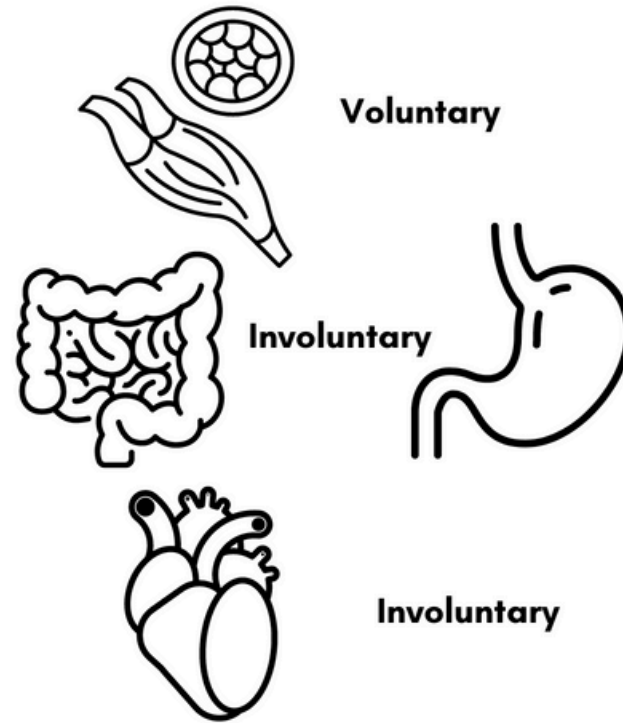
found in the walls of internal organs

Cardiac Muscle

found only in the heart

Functions:

- body movement
- gives body shape
- maintain body temperature (heat)



Contractility- capacity for the muscle to shorten



Extensibility- ability to be stretched

Elasticity- ability to return to original length when relaxing

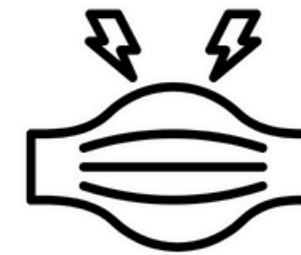


Excitability- ability to respond to certain stimuli

Diseases/Disorders

Myalgia

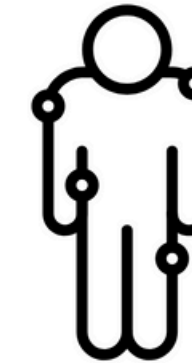
muscle pain



VS

Fibromyalgia

chronic pain lasting > 3 months in specific muscle points



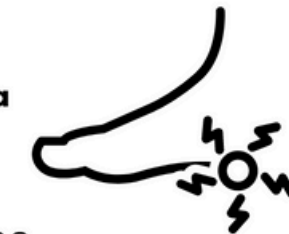
Muscular Dystrophy

group of diseases in which muscle cells deteriorate



Plantar Fasciitis

inflammation of the plantar fascia on the sole of the foot



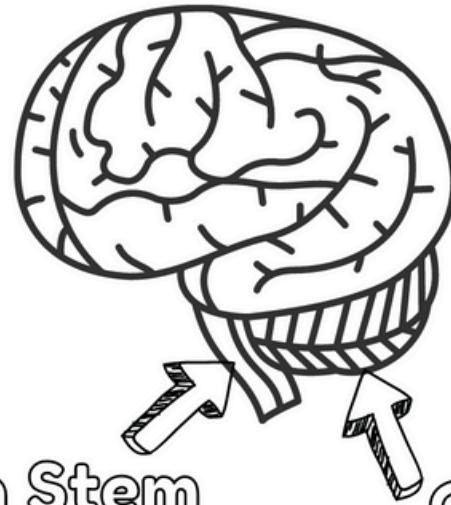
Tennis Elbow

tendon on the sides of the elbow become inflamed due to repetitive use

Nervous System

Brain

Frontal- speech, personality
Parietal-pain, heat, touch
Occipital- vision
Temporal- hearing



Color the following lobes:
frontal- **red**
parietal- **yellow**
occipital- **blue**
temporal- **green**

Brain Stem

Controls HR/Breathing

Cerebellum

Controls balance

Spinal Cord

Carries messages to and from the brain
Reflex Center



Nerves

Carries impulses from sense organs to the brain or spinal cord



Neuron= Nerve Cell

Functions:

- communication & coordination
- intellect & reasoning
- relays messages

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Diseases/Disorders

Cerebral

Palsy

Brain damage during childbirth



Meningitis

Bacterial or Viral
Inflammation of the lining that protects the brain & spinal cord



Epilepsy

Seizure Disorder



Multiple Sclerosis

Autoimmune Disease
Body attack myelin-causes communication problems



Parkinson's Disease

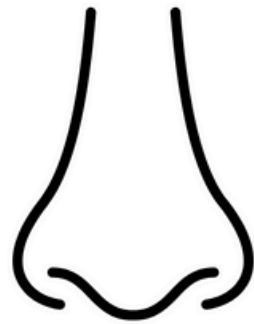
- Tremors (shaking)
- Slowed movement
- Poor balance & coordination
- Difficulty speaking



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Special Senses

NOSE



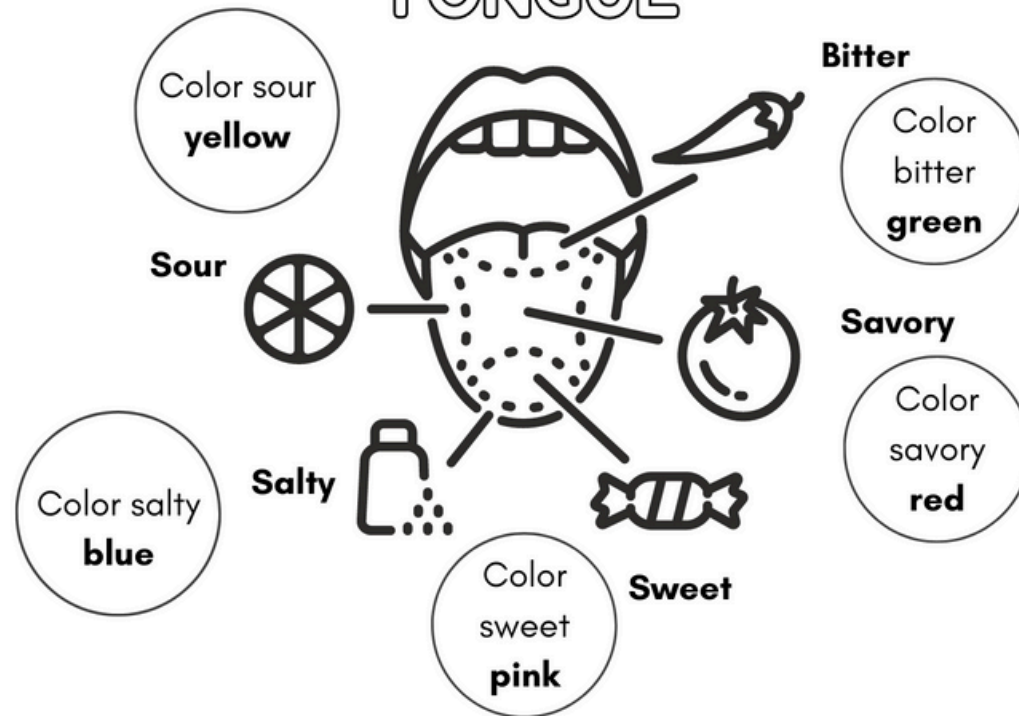
Smell

Olfactory nerve sends message to our brain

Smell accounts for 90% of what we think of as taste



TONGUE



Ear Disorders

Otitis Media



Infection of the Middle Ear



Treated with antibiotics or surgery to place tube (myringotomy)



Earache

Vertigo

Dizziness



Tinnitus

Ringing in the ears



Hearing Loss

Conductive

sound is blocked by earwax or fluid in the middle ear



Sensorineural Damage

nerve damage results in partial or complete deafness



Endocrine System

Glands=Hormones

Pituitary

"Master" Gland

- Growth
- Reproduction
- Stress response
- Metabolism



Pineal

produces **Melatonin**

regulates sleep patterns



Thyroid

regulates metabolism, growth and development



Parathyroid

increases calcium levels in the blood

Color the parathyroid glands **green**



Thymus

produce and mature immune cells



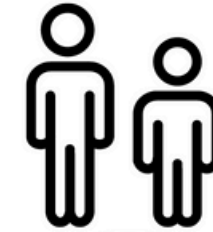
Functions:

- release hormones to maintain body balance

Diseases/Disorders

Pituitary

Gigantism



Color the tall man **blue**

- hypersecretion of growth hormone during preadolescence
- overgrowth of long bones

Acromegaly

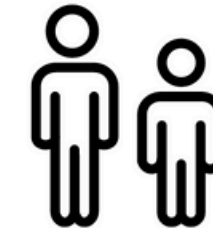


- hypersecretion of growth hormone during adulthood
- overdevelopment of bones of the face, hands, and feet

Dwarfism

- hyposecretion of growth hormone during childhood
- growth of long bones is abnormally decreased

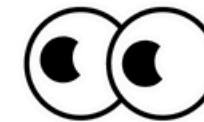
Color the short man **green**



Thyroid

Hyperthyroidism

Graves' Disease



Weight loss, goiter & bulging eyeballs



Hypothyroidism

Hashimoto's Disease

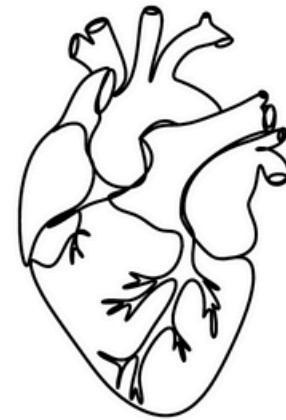


Dry, itchy skin, dry and brittle hair & constipation

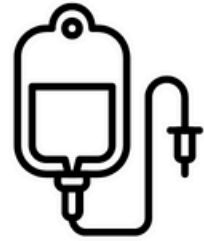
Circulatory System

Heart

Pump that circulates blood to all parts of the body



Blood



Plasma

Liquid, straw-colored part of blood

Makes up 55% of blood

White Blood Cells

Leukocytes

Help body fight infection



Platelets

Thrombocytes

Help with blood clotting



Red Blood Cells

Erythrocytes

Contains **hemoglobin** which gives it's red color and helps carry oxygen

Makes up 45% of blood

Functions:

- carries nutrients, oxygen and waste throughout the body

TIA Transient Ischemic Attack



CVA Cerebrovascular Accident (Stroke)



- temporary interruptions of the blood flow to the brain
- experience stroke like symptoms
- last from 1- 24 hours



- sudden interruption of blood supply to the brain
- loss of oxygen to brain cells
- cause weakness/paralysis on one side of the body
- loss of speech/memory

Assess for Stroke

F face



A arms



S speech



T time



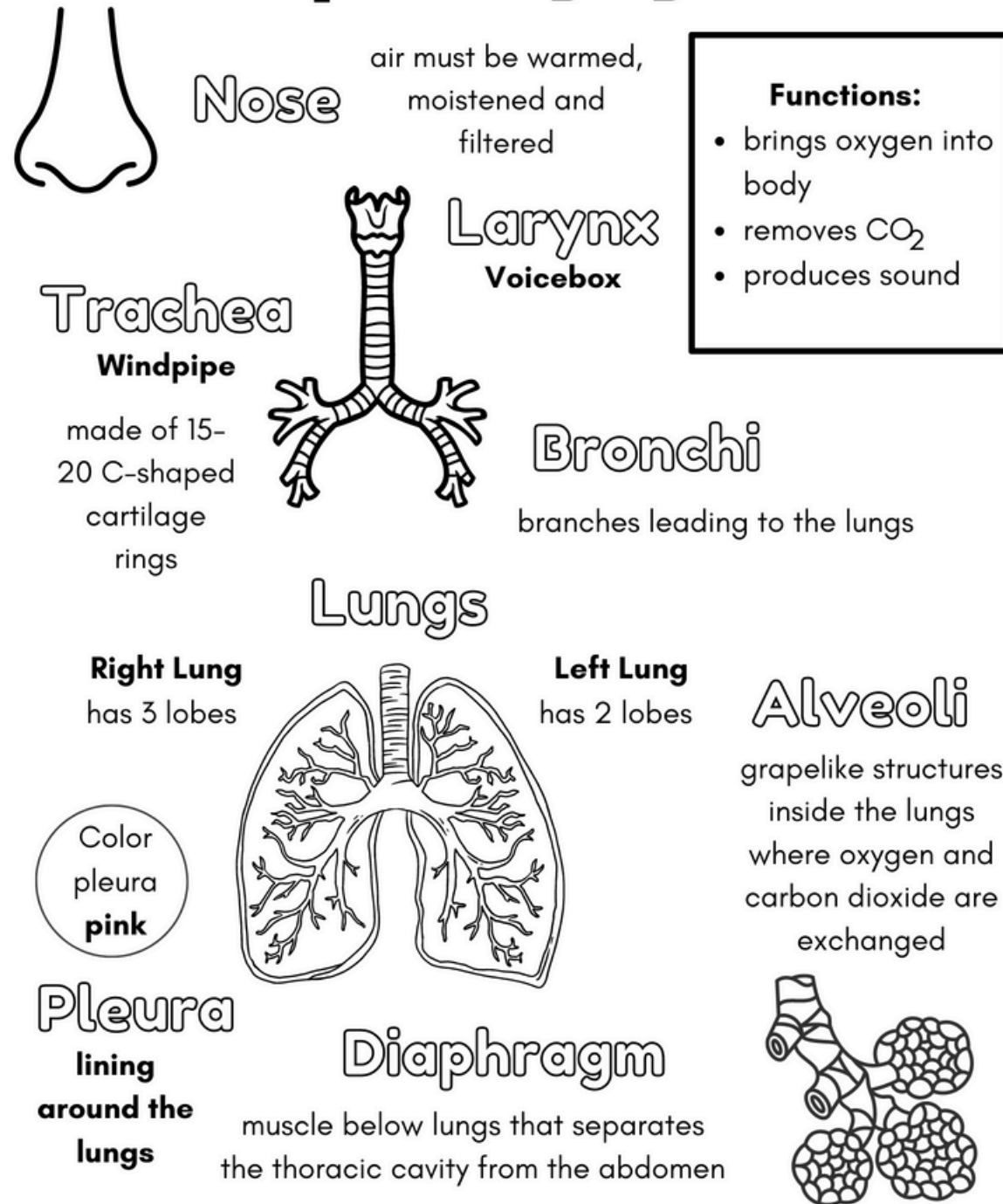
Ask person to smile-look for facial drooping

Raise both arms-watch for arm drifting down

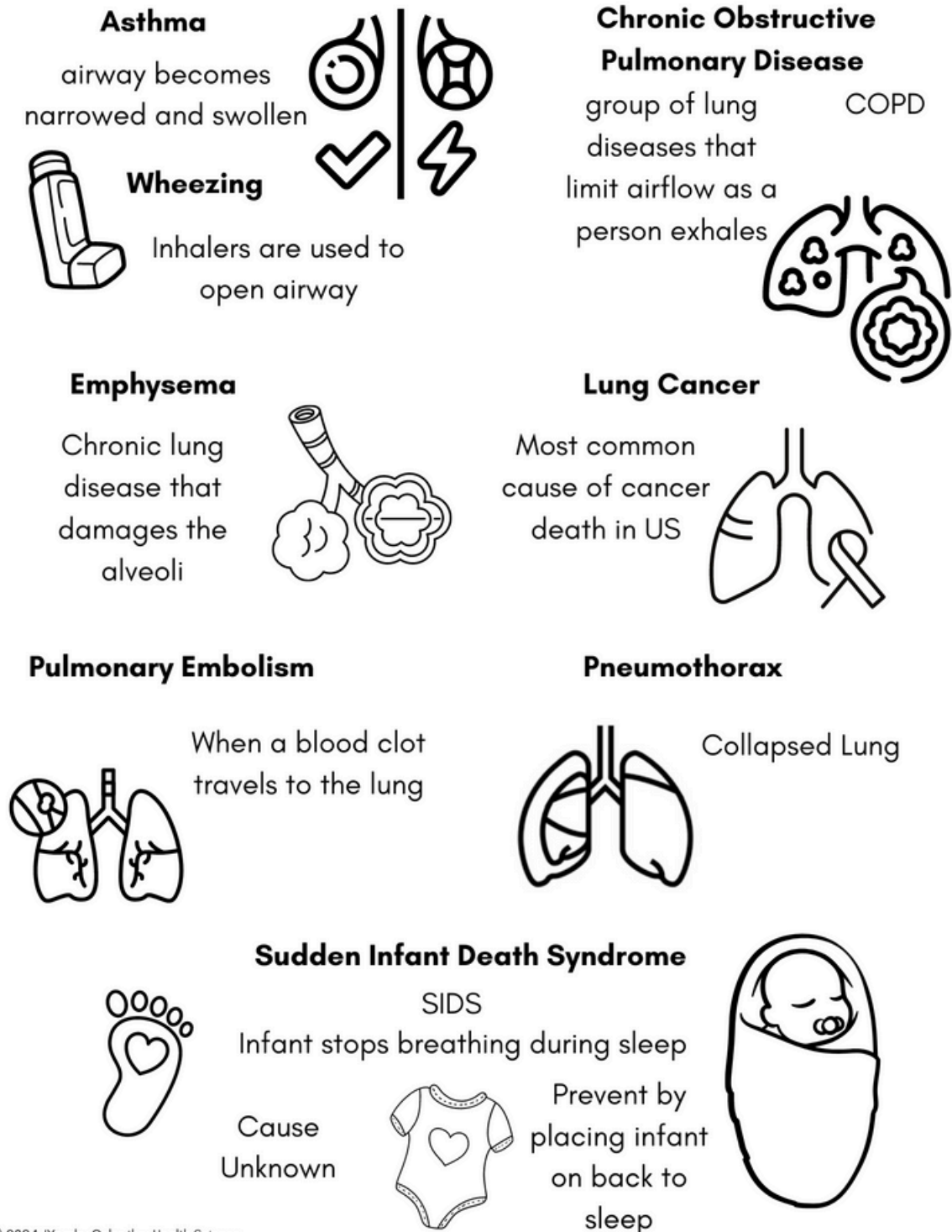
Check for slurred speech

If symptoms present, call for emergency help immediately

Respiratory System



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Immune System

Lymph Nodes

filter substances in lymphatic fluid



Color lymph nodes **green**

White Blood Cells



Tonsils

trap germs



Color tonsils **pink**

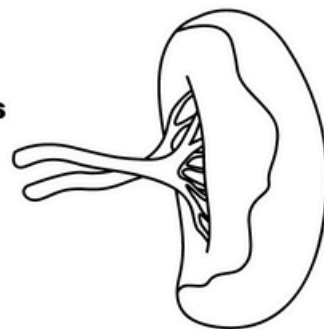
Thymus

produces white blood cells



Spleen

helps **destroy microorganisms**
produces white blood cells



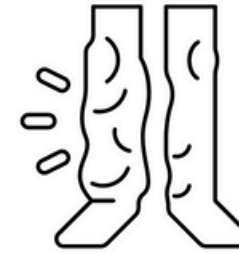
Functions:

- helps body fight infection

Diseases/Disorders

Lymphedema

swelling in the body due to a buildup of lymph fluid



Lupus

chronic **autoimmune disease** where the body's immune system attacks it's own tissues/organs



suffer from **fatigue, rashes and joint pain**



Anaphylaxis

severe allergic reaction
facial swelling, breathing problems, falling BP



caused by stings, medications or foods



treated with **Epi-Pen**

HIV

Human immunodeficiency virus

virus that causes AIDS



AIDS

Acquired immunodeficiency syndrome

disease that suppresses the body's immune system





Mouth

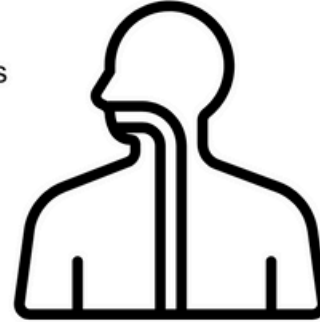
Digestive System



where digestion begins

Esophagus

muscular tube, 10 in. long
moves food to the stomach



Color the
esophagus
orange

Stomach

stores & breaks
down food



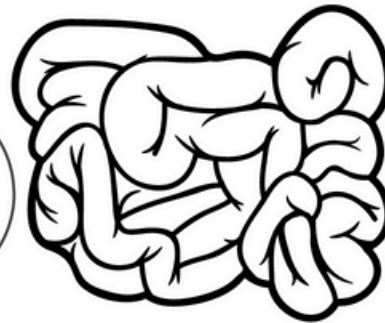
Mucus- protects the lining of the
stomach

HCL & Pepsin- acid that breaks down
food

Small Intestine

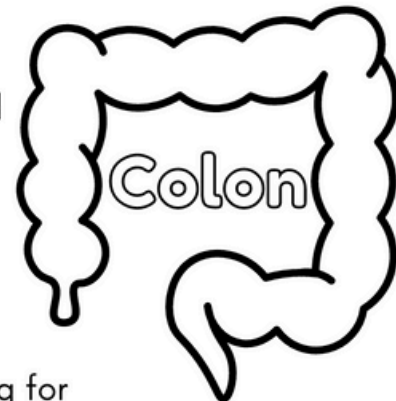
20 ft. long
where total digestion occurs
nutrients absorbed

Color small
intestine
pink



Large Intestine

5 ft. long, 2 in.
diameter
water is absorbed



Rectum

where stool is
stored

Anus

external opening for
defecation

Functions:

- break down food
- absorbs nutrients
- eliminate waste

Diseases/Disorders

Nausea

Feeling of
sickness

Color
emoji
green



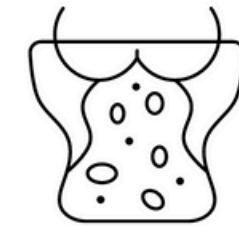
Vomiting

Emesis



Diarrhea

Loose, watery, frequent
bowel movements



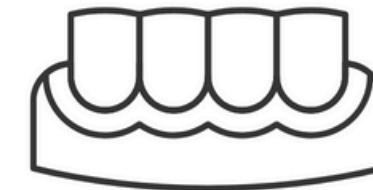
Constipation

Colon absorbs too much water-
stool dry & hard



Gingivitis

Gum disease



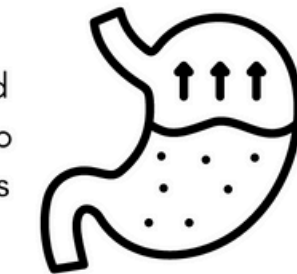
GERD

**Gastroesophageal Reflux
Disease**

Heartburn



Stomach acid
backflows into
the esophagus



Urinary System

Kidneys

Bean-shaped organ in the **retroperitoneal** cavity that removes excess water and waste from the body

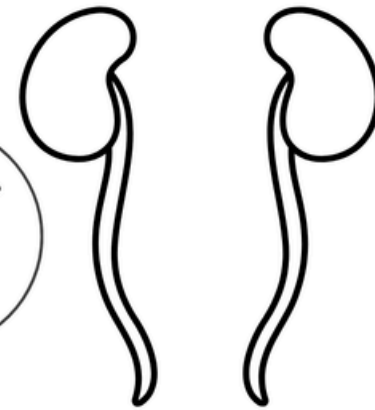


Nephron- urine producing unit of the kidney

Ureters

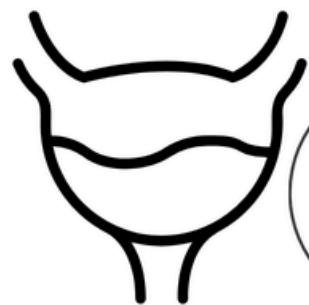
Narrow tube that carries urine from the kidneys to the bladder

Color the ureters **blue**



Bladder

Hollow, muscular organ that **stores urine**



Color the urine in the bladder **yellow**

Can hold about 1 pint (500 ml) of urine

Urethra

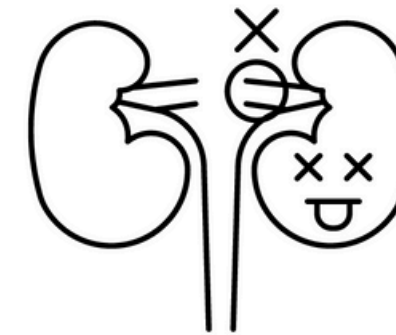
Thin-walled tube leading from bladder to outside of the body

Functions:

- filters blood
- eliminates waste from the body

Acute Kidney Failure

Sudden onset; often reversible



Chronic Renal Failure

Gradual loss of function of the nephrons



Fistula-opening between an artery & vein
Used for inserting Dialysis needles

Peritoneal Dialysis

Treatment that uses the patient's own peritoneal lining (abdomen) to filter



Hemodialysis

Machine that filters wastes, salts and fluid from the blood



VS

Reproductive System

Functions:

- release hormones for sexual development
- produce sex cells
- females- nurture offspring

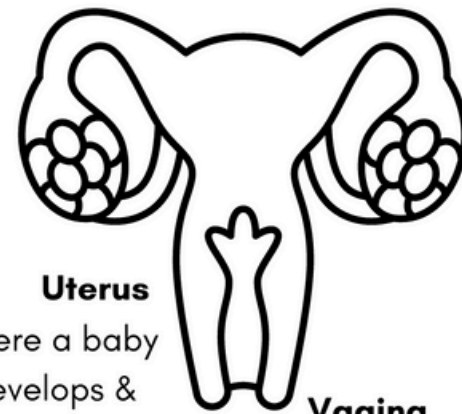
FEMALE

Fallopian Tubes

where fertilization takes place

Breast

produces milk for baby



Ovaries

produce eggs
produce estrogen & progesterone

Uterus

where a baby develops & grows

Vagina

passageway for blood & mucus during menstruation
passageway for baby during childbirth

Menstrual Cycle

monthly cycle of hormonal changes to prepare for pregnancy



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Diseases/Disorders

FEMALE

Endometriosis

- disease where tissue similar to the lining of the uterus grows outside the uterus
- causes severe pain
- makes getting pregnant difficult



Amenorrhea- absence of the menstrual cycle

Premenstrual Syndrome- irritability, mood swings

Dysmenorrhea- painful menstruation

Menorrhagia- excessive or prolonged menstrual bleeding

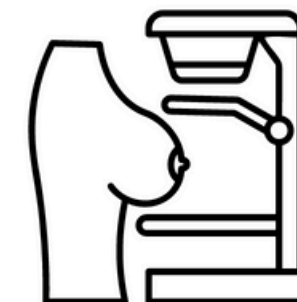
Cancer

Ovarian



Mammogram

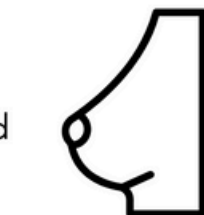
X-ray to detect and diagnose breast disease



Pap Smear

a sample of cell scrapings from the cervix is removed and tested

Women should visit their gynecologist yearly for screenings!



Breast

Cervical



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Sexually Transmitted Diseases

Chlamydia (STDs)
Most common curable STD

Symptoms:


- abnormal genital discharge
- burning with urination

Gonorrhea
Bacterial Infection

Male
painful urination
discharge of pus from penis

Female
no symptoms

Treated with antibiotics



Human Papillomavirus (HPV)

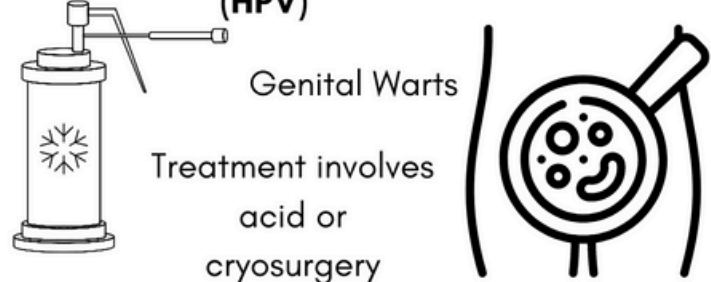
Genital Warts

Treatment involves acid or cryosurgery

Genital Herpes

lesions
burning sensation

Symptoms may reappear throughout lifetime



Syphilis

Potentially Life Threatening

Can affect vertebrae, brain & heart

Penicillin is most effective treatment



Infertility

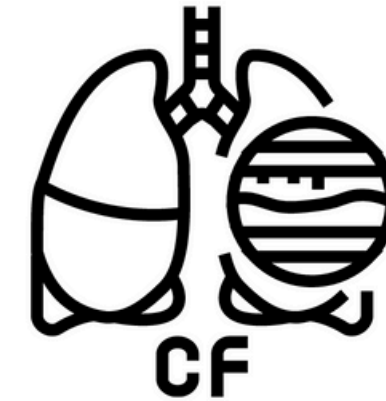
when conception does not occur despite trying for one year



Genetic Diseases

Cystic Fibrosis

causes the body to produce thick mucus that can clog the lungs, digestive tract and other organs



Down Syndrome

when a person is born with an extra copy of chromosome 21



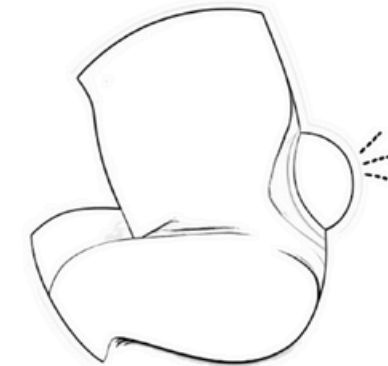
- short stature
- flat face
- short neck
- almond shaped eyes
- moderate intellectual disability

21



Spina Bifida

when a baby's spine and spinal cord does not develop properly in the womb, causing a gap in the spine



Coming Soon....

Healthcare

Color

Careers

Pharmacy

Color

Technician

Health



Facebook



TPT



Amped Up
Learning