

# Lab Values

## CHEAT SHEET

### VITAL SIGNS

- **BLOOD PRESSURE:**
  - ⇒ SYSTOLIC: 120 mmHg
  - ⇒ DIASTOLIC: 80 mmHg
- **HEART RATE:** 60-100 BPM
- **RESPIRATIONS:** 12-20 breaths per min
- **OXYGEN:** 95%-100%
- **TEMPERATURE:**
  - ⇒ °F 96.4 - 99.5
  - ⇒ °C 36.1-37.2



### LIPID PANEL

- **TOTAL CHOLESTEROL**
  - ⇒ MALE: < 205 mg/dL
  - ⇒ FEMALE: < 190 mg/dL
- **TRIGLYCERIDES**
  - ⇒ MALE: 44-180
  - ⇒ FEMALE: 10-190
- **LDL:** < 100 mg/dL  
BAD cholesterol
- **HDL:** > 60 mg/dL  
GOOD cholesterol



### COAGs

- **PT:** 11-13 seconds  
⇒ 22-32.5 seconds on Warfarin
- **INR:** 0.8-1.1 seconds  
⇒ 2-3 seconds on Warfarin
- **PTT:** 21-35 seconds  
⇒ 31.5-87.5 seconds on Heparin

💡 The higher these numbers are, the ↑ risk of bleeding!!



### LIVER [LFT]

- **ALT**
  - ⇒ MALE: 10-40
  - ⇒ FEMALE: 8-35
- **AST:** 5-40 U/L
- **ALP:** 40-120 U/L
- **BILIRUBIN:** 0.3-1.0 mg/dL



### COMPLETE BLOOD COUNT [CBC]

- **WBC:** 5000-10,000
- **RBC:**
  - ♂ MALE: 4.2-5.4
  - ♀ FEMALE: 3.6-5
- **PLATELETS [PLT]:** 140,000-400,000  
CRITICAL: < 50,000 [↑ risk of bleeding]  
> 100,000 [↑ risk of clots]
- **HEMOGLOBIN [Hgb]:**
  - ♂ MALE: 13-18
  - ♀ FEMALE: 12-16
- **HEMATOCRIT [HCT]:**
  - ♂ MALE: 42%-52%
  - ♀ FEMALE: 36%-48%

### GLUCOSE

- **FASTING:** 70-110 mg/dL
- **CASUAL:** < 200 mg/dL



### HbA1C

- **Non-Diabetic** 4-6%
- **Pre-Diabetic** 5.7-6.4%
- **Diabetic** > 6.5%

💡 HbA1C is a better indicator of blood sugar control... = the average over 3 months [lifespan of an RBC]

### ABGs

- **pH:** 7.35-7.45  
← acidic basic →
- **PaCO<sub>2</sub>:** 35-45 mmHg  
← basic acidic →
- **PaO<sub>2</sub>:** 80-100 mmHg
- **HCO<sub>3</sub><sup>-</sup>:** 22-26 mEq/L  
← acidic basic →



- ⇒ CO<sub>2</sub> ↑ pH ↓ = Respiratory Acidosis
- ⇒ CO<sub>2</sub> ↓ pH ↑ = Respiratory Alkalosis
- ⇒ HCO<sub>3</sub> ↓ pH ↓ = Metabolic Acidosis
- ⇒ HCO<sub>3</sub> ↑ pH ↑ = Metabolic Alkalosis

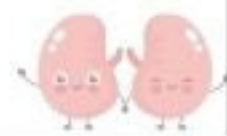
### BASIC METABOLIC PANEL [BMP]

- **SODIUM [Na]:** 135-145 mEq/L
- **POTASSIUM [K]:** 3.5-5 mEq/L
- **CHLORIDE [Cl]:** 97-107 mEq/L
- **CALCIUM [Ca]:** 8.5-10.5 mEq/L
- **MAGNESIUM [Mg]:** 1.2-2.3 mg/dL
- **PHOSPHORUS [P]:** 2.5-4.5 mg/dL
- **ALBUMIN:** 3.5-5.5 g/dL
- **TOTAL PROTEIN:** 6-8 g/dL



### RENAL

- **BUN:** 10-20 mg/dL
- **CREATININE:**  
specific to kidney function  
⇒ MALE: 0.6-1.2 mg/dL  
⇒ FEMALE: 0.4-1 mg/dL
- **SPECIFIC GRAVITY:** 1.005-1.03  
← dilute → concentrated
- **GFR:** 125-200 mL/min



### SERUM OSMOLALITY

280-300 mOsm/L water



💡 Concentration of particles compared to water

### PANCREAS

- **AMYLASE:** 25-125 U/L  
Older Adults: 24-151 U/L  
⇒ Breakdown of starches
- **LIPASE:** < 140 U/L  
⇒ Breakdown of fats
- **PANCREATITIS**  
> 200 U/L COMBINED  
⇒ AMYLASE total + LIPASE total



### OTHER

- **MAP:** 70-100 mmHg
- **ICP:** 5-15 mmHg [intracranial pressure]
- **BMI:** 18.5-24.9
- **GLASCOW COMA SCALE**  
Best = 15 Mild = 13-15  
Moderate = 9-12 Severe = 3-8

