

LABORATORY RESULTS

THE ADVENT OF 'MY CHART'

**A BRIEF INTRODUCTION INTO THE PRACTICAL
INTERPRETATION OF YOUR BLOOD STUDIES**

FUNCTIONALITY OF MY CHART

View most of your health information in one place.

- 1 Medication list and refills
2. Test results
3. Upcoming and previous appointments,
4. View and pay medical bills
5. Make appoints
6. Message your healthcare provider.
7. Your list of healthcare providers
8. Vaccination needed and warning messages
9. Ability with signed permission to share information with other healthcare providers
- 10 Visit summaries and instructions

IS TELEMEDICINE THE FUTURE?

- 1. Home monitoring**
- 2. Treatment of minor problems**
- 3. The Virtual World.**



IN DEFENSE, AT LEAST IT WAS THE CORRECT LEG!

THE CBC

WBC	8.8 $10^3/\mu\text{L}$	3.8 - 10.8 $10^3/\mu\text{L}$
RBC	4.73 $10^6/\mu\text{L}$	4.20 - 5.80 $10^6/\mu\text{L}$
Hemoglobin	15.7 g/dL	13.2 - 17.1 g/dL
Hematocrit Blood	46.6 %	38.5 - 50.0 %
MCV	98.7 fL	80.0 - 100.0 fL
MCH	33.3 pg	27.0 - 33.0 pg
MCHC	33.8 g/dL	32.0 - 36.0 g/dL
RDW	13.2 %	11.0 - 15.0 %
Platelets	152 $10^3/\mu\text{L}$	140 - 400 $10^3/\mu\text{L}$
MPV	6.9 fL	7.5 - 11.5 fL

DIFFERENTIAL BLOOD COUNT

Neutrophils Relative	37.0 %	<i>bacterial infections</i>
Lymphocytes Relative	53.0 %	<i>immune system, leukemia</i>
Monocytes Relative	7.0 %	<i>immune system, globulins, Multiple Myeloma</i>
Eosinophils Relative	2.0 %	<i>Allergic reactions, parasitic diseases</i>
Basophils Relative	1.0 %	<i>inflammation</i>
Neutrophils Absolute	3.3 $10^3/\mu\text{L}$	<i>1.5 - 7.8 $10^3/\mu\text{L}$</i>
Lymphocytes Absolute	4.7 $10^3/\mu\text{L}$	<i>0.8 - 3.9 $10^3/\mu\text{L}$</i>
Monocytes Absolute	0.6 $10^3/\mu\text{L}$	<i>0.2 - 0.9 $10^3/\mu\text{L}$</i>
Eosinophils Absolute	0.2 $10^3/\mu\text{L}$	<i>0.0 - 0.5 $10^3/\mu\text{L}$</i>
Basophils Absolute	0.1 $10^3/\mu\text{L}$	<i>0.0 - 0.2 $10^3/\mu\text{L}$</i>

SERUM CHEMISTRIES

Cholesterol **179** mg/dL *125 - 199 mg/dL*

TOTAL CHOLESTEROL INTERPRETATION:

Less than 200 mg/dL Desirable
200-239 mg/dL Borderline
Greater or Equal to 240 mg/dL High

LDL Calculated **100** mg/dL *0 - 100 mg/dL*

LDL CHOLESTEROL INTERPRETATION:

Less than 100 mg/dL Optimal
100-129 mg/dL Near optimal/above optimal
130-159 mg/dL Borderline High
160-189 mg/dL High
Greater or Equal to 190 mg/dL Very High

HDL **63** mg/dL *40 - 180 mg/dL*

HDL CHOLESTEROL INTERPRETATION:

Less than 40 mg/dL Low
Greater than 60 mg/dL Desirable

Triglycerides **80** mg/dL *0 - 150 mg/dL*

TOTAL TRIGLYCERIDE INTERPRETATION:

Less than 150 mg/dL Normal
150-199 mg/dL Borderline High
200-499 mg/dL High
Greater or Equal to 500 mg/dL Very High

MORE SERUM CHEMISTRIES: ELECTROLYTES
NORMAL BLOOD PH. IS 7.4: BELOW IS ACIDOSIS,
ABOVE ALKALOSIS

Sodium	138 mmol/L	<i>135 - 146 mmol/L</i>
Potassium	4.5 mmol/L	<i>3.5 - 5.1 mmol/L</i>
Chloride	102 mmol/L	<i>98 - 110 mmol/L</i>
CO2	25 mmol/L	<i>22 - 29 mmol/L</i>
Anion Gap	11 mmol/L	<i>5 - 13 mmol/L</i>

MORE CHEMISTRIES

BUN	13 mg/dL	7 - 25 mg/dL <i>Kidney function</i>
Creatinine	1.07 mg/dL	0.50 - 1.30 mg/dL <i>Kidney function</i>
Glucose	89 mg/dL	65 - 99 mg/dL <i>Insulin/diabetes</i>
Calcium	10.0 mg/dL	8.4 - 10.5 mg/dL <i>bones, parathyroid</i>
Total Bilirubin	1.0 mg/dL	0.2 - 1.2 mg/dL <i>Red blood cells, liver</i>
AST(SGOT)	20 U/L	0 - 40 U/L <i>Liver enzyme/damage</i>
ALT (SGPT)	14 U/L	0 - 60 U/L <i>Liver enzyme/damage</i>
Alkaline Phosphatase	66 U/L	33 - 140 U/L <i>Bones, gall bladder obstruction</i>

MORE CHEMISTRIES

The normal reference range is not applicable for patients less than 20 years old.

Total Protein	6.7 g/dL	6.4 - 8.3 g/dL
Albumin	4.4 g/dL	3.5 - 5.0 g/dL <i>liver, nutrition</i>
Globulin	2.3 g/dL	2.1 - 3.7 g/dL <i>immune system</i>
Albumin/Globulin Ratio	1.9	1.0 - 2.1
BUN/Creatinine Ratio	12	
GFR MDRD Af Amer	81 See Note <i>Renal function</i>	

GFR is estimated using Creatinine, age, gender and race. Patient's values should be interpreted as a trend.

Between 30 and 90 ml/min/1.73m², clinical correlation is needed.

For additional information:

OTHER COMMON TESTS

- **Serum Amylase (23 to 85 units per liter (U/L). (Pancreas)**
- **Thyroxine T4 (4.5-11.7 mcg/Dl) (Thyroid Gland)**
- **DXA Bone Density Levels (T score: 0=normal) (osteoporosis)**
- **Pap smear for Cervical cancer and HPV infection**
- **Stool Guaiac for Colon cancer and GI bleeding**
- **PSA for Prostate Cancer and Inflammation**
- **Screening Chest CT scan for detection of Lung Ca**

COMMON TESTING PROCEDURES

- **Cardiac Stress test-Treadmill or via Injection**
- **Echocardiogram—Heart Function; Ejection Fraction**
- **Spirometry—Pulmonary Function test**
- **Colonoscopy to detect Colon Ca or Diverticulosis (cologard?)**
- **Mammography**
- **Hgb A1c (4-5.6%) Elevated in poorly controlled diabetes**
- **MRI-Magnetic Resonance Imaging (Other scans include CT or computerize tomography and PET scans)**

MORE TESTS

- **ECG or EKG--Electrocardiogram**
- **CT Coronary calcium score/screening**
- **CRP/C-reactive protein (index of inflammation)**
- **RBC sedimentation rate (indicative of inflammation)**
- **Troponin—Heart damage enzyme**
- **Natriuretic Peptide (BNP)-Heart damage enzyme**
- **EMG-Electromyogram—Nerve conduction**
- **EEG-Electroencephalogram—brain waves**
- **Functional MRI-Investigative tool to map the brain**

BACTERIOLOGY

- **Specimen/Source: SWAB/NASAL PASSAGE**
Collected: 11/25/2014 10:05

Status: Final Last Updated: 11/28/2014 02:17

ISO1 (Final)

**No Staph aureus Isolated (no MRSA-metacillin
resistant staphylococcus aureus**

YOU ARE THE MAIN STEWARD OF YOUR HEALTH

- All medical information can be researched on the WEB
- Understand that there are many treatment options and often standards for treatment of specific illnesses are works-in-progress and change
- Do not underestimate the value of a second opinion
- Be cost sensitive and not reticent in asking questions about 'what's it going to cost doc'.
- Understand your healthcare coverage as best you can
- The vast preponderance of physicians are ethical, well-informed and strong advocates for their patients; it is increasingly a tough occupation

**IT MAY ALL SEEM CONFUSING BUT YOU CAN
RESEARCH TEST RESULTS EASILY THROUGH THE
INTERNET**

- Medline
- WebMd
- Wikipedia