



Report Date: December 16, 2008  
Mr. John Sample (Normal CA, AO, AB, OS)  
93 Circle Creek  
Collinsville, IL 62234

Dear John Sample,

Congratulations on your recent participation at the health screening held at Collinsville Area Recreation. You have taken an important proactive step in maintaining your future good health.

Your screening results are enclosed. They have been reviewed by board-certified physicians. The following page provides a summary view of all your results. We've provided you an additional copy of this page that we encourage you to share with your doctor even if your results are normal. The rest of the report contains more detailed information about each screening test.

Please note that your screening on 10/21/2008 did not include results for the following screening tests: . These important screening tests will provide additional risk factor information. You can have these additional tests done when we're in your area. Call 1-800-778-6096 and mention code **RLTR-001** to reserve your appointment.

Preventive screenings can indicate the presence of a possible problem but are not meant as a diagnosis. They should be part of your ongoing health regimen, and the Screening Results Report allows you to track your status. Screening tests can alert you to diseases long before symptoms occur. This is important for early diagnosis and treatment by your doctor.

You're invited to enroll in our FREE Life Line Screening **Power of Prevention E-Newsletter**. This assures that you will continue to receive valuable health benefits year round from Life Line Screening. To receive this valuable health information, just sign-up online at [www.LifeLineScreening.com/welcome](http://www.LifeLineScreening.com/welcome).

- ✓ **HealthNews** – Each month, you'll stay up to date on important preventive health information and news via our email newsletter.
- ✓ **HealthShare** – You'll learn about worthwhile new health product offerings from Life Line Screening and our partner preventive health companies.
- ✓ **HealthDiscounts** – As a valued customer, you'll receive discounts for products and services that you can use yourself or share with family and friends.

Please keep this Screening Results Report as part of your personal health record. We will also keep track of your past screening history and inform you when it's time to be re-screened. Again, congratulations on taking the first step in managing your preventive health routine. We believe in prevention. We believe in knowledge. We believe in straightforward facts and a simple call to action. Life Line Screening is here to help you lead a fuller and healthier life.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andrew J. Manganaro".

Andrew J. Manganaro,  
M.D., F.A.C.S., F.A.C.C.  
Chief Medical Officer

A handwritten signature in blue ink, appearing to read "David Countryman".

Dr. David Countryman, M.D.  
Vascular Reviewing Physician

PARTICIPANT COPY

**Screening Results Summary**

Mr. John Sample (Normal CA, AO, AB, OS)

Screening Date: **October 21, 2008**

Location: **Collinsville Area Recreation**

Fasting: **Y**

**PRIMARY CARE CONSULTATION RECOMMENDED**       **YES**     **NO**

Screening Offered	Clinical Measure(s)	Your Result(s)	Your Narrative Result(s)	Your Graphic Result(s)
Carotid Artery Disease	Plaque Buildup and Blood Flow	Normal	Left Side: Normal	
		Normal	Right Side: Normal	
Atrial Fibrillation	6-lead EKG	Normal	No Atrial Fibrillation	
Abdominal Aortic Aneurysm	Abdominal Aorta Size	Normal	No Aneurysm	
Peripheral Arterial Disease	Ankle Brachial Index	Left Side: 1.00	Normal	
		Right Side: 1.00	Normal	
Osteoporosis	Bone Mineral Density (BMD)	2.0	Low Risk	
Complete Lipid Panel	Total Cholesterol mg/dL	215	Borderline High	
	HDL Cholesterol mg/dL	51	Desirable	
	LDL Cholesterol mg/dL	11	Optimal	
	Triglycerides mg/dL	164	Borderline High	
Glucose mg/dl	Glucose mg/dL	93	Normal	
C-Reactive Protein	CRP mg/L	1.00	Average Risk	
Liver Enzymes	AST U/L	35.0	Desirable	Results received at screening site
	ALT U/L	220.0	Suggests Possible Severe Liver Damage	Results received at screening site
	AST/ALT	1.0	Normal	Results received at screening site



## Introduction to Life Line Screening for Physicians and Medical Staff

### Who We Are

Life Line Screening is the leading provider of community-based preventive wellness services in the U.S. Established in 1993, we are dedicated to helping people live fuller, healthier lives by identifying risk factors for stroke, cardiovascular disease and osteoporosis. The mission of Life Line Screening is to make people aware of an undetected health problem and encourage these individuals to seek follow up care with their physicians. We are committed to providing the highest quality preventive screenings at an affordable rate. Life Line Screening's corporate headquarters is in Independence, Ohio.

### What We Screen For

We offer screenings to detect carotid artery stenosis, atrial fibrillation, abdominal aortic aneurysms, peripheral arterial disease and diminished bone density. Our participants are generally age 50 and over and are asymptomatic although they tend to have significant risk factors such as hypertension, hypercholesterolemia, smoking, diabetes mellitus, or a family history of stroke. In most states, we also do finger-stick blood screenings for lipid panel, glucose, C-reactive protein, and liver enzymes.

### How We Screen

Our sonographers are highly skilled and are either registered or eligible to be registered with the American Registry of Diagnostic Medical Sonographers (ARDMS) or Cardiovascular Credentialing International (CCI). All screenings are performed in accordance with the latest medical literature recommendations for categorization of normal and abnormal results. Sonographers adhere to strict protocols to ensure consistency and accuracy. We use the same state-of-the art Doppler color flow ultrasound technology found in hospitals. Individuals with abnormal test results are urged to contact their personal physicians who can then order further testing and any treatment considerations. Life Line Screening is a non-referral company. We do not refer individuals for further examinations or consultation to any particular doctor nor do we permit our physician reviewers to self-refer. No Medicaid, Medicare or insurance billing is involved.

### Validity and Medical Oversight

Life Line Screening's vascular screenings have been independently reviewed by researchers at the University of South Florida and the Cleveland Clinic. Sensitivity is 98%. Specificity is 94%. Excellent concordance was found between Life Line Screening's findings and an ICAVL accredited laboratory. Medical supervision is provided by our National Chief Medical Officer, Andrew Manganaro, MD, FACS, FACC and Clinical Director, Karen Rena Law, RDMS, RDCS, RVT. Screening results are reviewed by physicians. Reviewing physicians are board-certified physicians licensed in the states in which they review screening results.

### Contact Us

If you have any questions about Life Line Screening services, please contact our dedicated physician line at **877-557-7497** or email us at [physicians@llsa.com](mailto:physicians@llsa.com).

### Selected References

- Role of carotid duplex imaging in carotid screening programs-an overview. Saleem MA et al. University Hospital, Cambridge UK. *Cardiovascular Ultrasound*, May 2008, 6:34.
- KC Kent, et al. The Cost-effectiveness of a Quick-Screen Program for Abdominal Aortic Aneurysms. Department of Surgery, Weil Medical College of Cornell University, New York Presbyterian Hospital. *Surgery*. 2002; 132:399-407.
- Bluth EI, Sunshine JH, Lyons JB, et al. Power Doppler Imaging: Initial Evaluation as a Screening Examination for Carotid Artery Stenosis. *Radiology*. 2000; 215:791-800.
- Chestnut C. Osteoporosis, An Underdiagnosed Disease. *JAMA* 2001; 286:2865-2866.
- Hirsh AT, et al. Peripheral arterial disease detection, awareness, and treatment in primary care. *JAMA* 2001; 286:1317-1324.

PHYSICIAN COPY  
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## AN EASY GUIDE TO UNDERSTANDING YOUR RESULTS

### Carotid Artery Disease Screening

The leading cause of stroke is fatty plaque buildup in the carotid arteries, which blocks adequate blood flow to the brain. The carotid arteries are the main blood supply to the brain and travel up the side of the neck. Our screening is not meant to be a comprehensive diagnostic exam, but rather a screening to visualize the presence of plaque and changes in the blood flow in the carotid arteries. Your Carotid Artery Disease Screening results are reported as one of four (4) categories which describe the amount of plaque buildup identified: Within Normal Range, Mild to Moderate, Moderate, and Findings of Possible Significance.

**Within Normal Range - Essentially minimal to mild plaque buildup. Blood flow velocities within normal limits.**

Your Carotid Artery Disease Screening results are **Within Normal Range**. This means that we have identified a negligible to minimal amount of plaque buildup in both of your carotid arteries, which is insignificant. The blood flow in your carotid arteries is also within normal range. Since the plaque buildup is not affecting the rate of blood flow, the velocity measurements for the internal carotid arteries will not be stated specifically in this report. However, your velocities fell below 110 centimeters per second, which is within normal limits.

### Atrial Fibrillation Screening

Atrial Fibrillation or AF is the most common type of irregular heart rhythm or arrhythmia. During AF, the upper chambers of the heart beat rapidly and irregularly so that blood is not completely pumped out of the heart. This can cause blood to collect in the heart and form a blood clot. If the clot travels to the brain, it can cause a stroke. Our screening is not meant to be a comprehensive 12-lead EKG (electrocardiogram), but rather a screening to identify only the presence or absence of an atrial fibrillation heart rhythm at the time of the screening.

Your Atrial Fibrillation Screening results are **Normal - No Atrial Fibrillation detected**. This means that at the time of your screening, your heart rhythm did not show evidence of atrial fibrillation.

### Abdominal Aortic Aneurysm Screening

The aorta is the largest artery in the body, traveling from your breastbone to the level of your navel. Medical conditions, such as high blood pressure and fatty plaque buildup, can weaken the walls of the aorta, causing an enlargement or aneurysm. An aneurysm can form in any section of the aorta, but they are most common in the belly area (abdominal aorta).

Our screening uses an ultrasound examination of the abdominal aorta to screen for the presence of either type of aneurysm that is 3 cm or greater.

**No abdominal aortic aneurysm has been detected.** Our physician has reviewed the ultrasound images and measurements of the aorta and bifurcation of the iliac arteries. All measurements are within normal limits.

### Peripheral Arterial Disease Screening

Peripheral arterial disease or PAD is a condition in which fatty plaque builds up in the arteries leading to the arms and legs. One way to screen for PAD is by measuring the Ankle-brachial index (ABI). A small ultrasound device is used to measure your systolic pressures in both of the arms and legs. A ratio less than 0.90 indicates plaque buildup and possible peripheral arterial disease. A ratio of 0.90 or greater is considered normal.

Your Peripheral Arterial Disease Screening results are **Normal - ABI index of 0.90 or greater**.

This means the pressures in your ankles are almost as high or higher than the pressures in your arms, which is a normal result.

## Osteoporosis Screening

Osteoporosis is a condition in which the bones are severely weakened and brittle. As a result, fractures occur easily. Life Line Screening performs an osteoporosis risk assessment using quantitative ultrasound to measure the density of the heel bone. The heel is measured because its bone is similar to that found in the spine or hip, where osteoporotic fractures occur most.

Our screening is not meant to diagnose osteoporosis, but is rather a screening to predict bone loss with similar accuracy to an x-ray based bone mineral density test.

Your T-score is 2, which is **Low Risk for Osteoporosis**. You may wish to speak to your physician regarding risk factor management and proactive steps such as weight-bearing exercise and calcium and vitamin D supplementation.

## Total Cholesterol

Your Total Cholesterol is 215 mg/dL (200-239). It is **Borderline-High** and fails to meet the National Cholesterol Education Program (NCEP) recommendation of total cholesterol below 200 mg/dL. Cholesterol comes from the foods we eat (anything from animals) and from our body (liver). Excessive cholesterol is a risk factor for heart disease, stroke and type 2 diabetes.

## HDL (High-Density Lipoprotein)

Your HDL Cholesterol is 51 mg/dL (> 40). It is **Normal** and meets the NCEP recommended level of 40 mg/dL or more. HDL carries excess cholesterol away from your arteries. The higher your HDL, the better. An HDL of 60 mg/dL or higher is beneficial and considered protective against heart disease.

## LDL (Low-Density Lipoprotein)

Your LDL Cholesterol is 11 mg/dL (<100). It is **Normal** and meets the NCEP recommendation of LDL cholesterol below 100 mg/dL. LDL is the main source of cholesterol that contributes to the buildup of fatty plaque in your arteries.

## Triglyceride Panel

Your Triglyceride level is 164 mg/dL (150-199). It is **Borderline-High** and fails to meet the NCEP recommendation of triglycerides below 150 mg/dL. Triglycerides are another contributing cause of plaque buildup, which can cause artery blockage and heart disease. Triglycerides circulate in your blood, but when you have excess levels, they are stored in the body's fat cells.

## Glucose

Your Glucose level is 93 mg/dL (<100). It is **Normal** according to the American Diabetes Association guidelines. Glucose is only one indicator for diabetes risk. Obesity, family history, ethnicity, age, blood pressure and cholesterol are also risk factors that should be considered in assessing your overall diabetes risk.

## C-Reactive Protein

Your C-reactive Protein (CRP) level is 1 mg/dL (1.0-3.0). This means you are at **Average Risk** for developing cardiovascular disease. CRP is part of your immune system and becomes elevated in your blood as a result of infection or inflammation. Although CRP is an independent risk factor for cardiovascular disease, it is a non-specific and should not be used to identify risk alone. Other risk factors including age, family history, blood pressure, smoking status, weight, exercise level and stress level are also considered when assessing cardiovascular disease risk.

## Liver Enzymes

You received your Liver Enzyme blood test results at the time of your screening and are not included in this results summary.

Your **AST/ALT ratio is 1.0** (2.0 or less regardless of gender). This level is in the desired normal range and does not indicate any liver damage.

## ROUTINE PREVENTION

At Life Line Screening, we believe routine preventive screenings are part of maintaining good health for the future. Life Line Screening conveniently visits your community several times a year, making it easy for you to be screened again and maintain routine prevention.

### YOUR RISK FACTORS

Based on your screening results and answers to the health questions, below are your risk factors which elevate your risk for cardiovascular disease and other chronic conditions. Certain risk factors can be controlled (modifiable), while others cannot (non-modifiable).

#### Modifiable Risk Factors\*

#### Non-Modifiable Risk Factors\*

- Lack of exercise

\*Source: This section retrieves information from test results and from your self-reported medical history.

Screening Offered	Your Results	Recommended Screening Interval	
Carotid Artery Disease Screening	Normal	October 2009	
	Normal		
Atrial Fibrillation Screening	Normal	October 2009	
Abdominal Aortic Screening	Normal	NOW	
Peripheral Arterial Disease	Left Side: 1.00	October 2010	
	Right Side: 1.00		
Osteoporosis	2.0	October 2010	
Complete Lipid Panel	Total Cholesterol	215	April 2009
	HDL	51	October 2009
	LDL	11	October 2009
	Triglycerides	164	April 2009
Glucose	93	October 2009	
C-Reactive Protein	1.00	October 2009	
Liver Enzymes	35.0	Follow your physician's recommendation	
	220.0		
	1.0		

Call 1-800-778-6096 and mention code **RLTR-001** to reserve your next appointment.

## TAKE ACTION

### TALK TO YOUR DOCTOR

The screenings provided by Life Line Screening do not diagnose medical conditions. Screening results are solely for informational purposes and are not medical advice. Please remember that the results of these screenings must be interpreted in the context of your clinical history. We recommend sharing your results with your personal physician, so they can fully evaluate your screening results and recommend a treatment plan for you, if necessary. Because no screening test can screen for every possible cause of stroke or heart disease, it is possible to have a normal screen with Life Line Screening and still suffer a stroke or heart attack. Specifically, we do not screen the coronary arteries, the arteries surrounding the heart. If you are experiencing symptoms of a heart attack or stroke, SEEK MEDICAL ATTENTION IMMEDIATELY. Do not delay, regardless of your Life Line Screening results.

### KEEP INFORMED

Don't forget to sign-up for our free monthly electronic newsletter to receive ongoing health benefits at [www.LifeLineScreening.com/welcome](http://www.LifeLineScreening.com/welcome).

### COPIES OF ULTRASOUND IMAGES AND EKGs

We keep a copy of ultrasound images and EKGs on file, but for a minimal service fee, you may obtain additional copies of your carotid artery, aorta ultrasound images and EKG printout. Please call 1-800-897-9177 and select option 3 to order through our Customer Service department.

## END OF REPORT



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