

CAROTID IMT (INTIMA MEDIA THICKNESS) ASSESSMENT

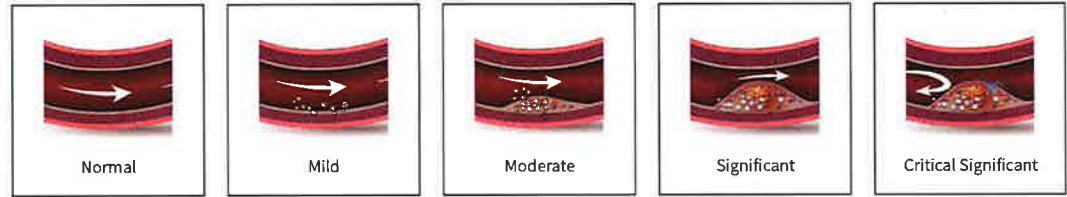


AMERICAN COLLEGE of CARDIOLOGY

The IMT test has been endorsed by the American Heart Association and the American College of Cardiology as a proven technique for the early detection of heart disease.

J Am Coll Cardiol. 2010 Dec 14;56(25):e50-103

Your risk of experiencing a heart attack or stroke is graded by zone. The zone assigned is age and gender specific to you. Normal or thin Carotid IMT does not completely exclude coronary artery disease. The result of this test should be interpreted in conjunction with your medical history, symptoms, known risk factors, and other test results.



ADVANCED CAROTID ULTRASOUND SAMPLE REPORT REPORT FOR: John Smith PAGE 1
 CENTER: Clinic Name GENDER: Male
 CREATED: 1/4/2018 DOB: 9/9/1946

CAROTID ASSESSMENT	A	B	C	D	E
	GOOD	SATISFACTORY	CONCERN	SERIOUS	HIGHEST RISK
INTIMA-MEDIA THICKNESS					
PLAQUE CHARACTER					
PERCENT STENOSIS					

Arterial Age: 75

IMT Score Relative Risk Of Clinical Event

- A Very Unlikely - No increased risk
- B Unlikely - Minimal increased risk
- C Possible - Risk increased 1.5x
- D Probably - Risk increased 1.5x - 2.0x
- E Likely - Risk increased to 2.7x

Comments:
 Sometimes there are additional comments added regarding the results.

Carotid IMT Assessment
 Your risk of experiencing a heart attack or stroke is graded by zone. The zone assigned is age and gender specific to you. Normal or thin Carotid IMT does not completely exclude coronary artery disease. The result of this test should be interpreted in conjunction with your medical history, symptoms, known risk factors, and other test results.

Plaque Character
 Plaque or lesions develop when atherosclerosis in the arterial wall intrudes into the lumen. Plaque may be soft, mixed or calcified as outlined on Page 3 of the report. It is possible to have normal IMT and yet lesions may be present.

Percent Stenosis
 Stenosis is the amount of blockage of the artery. It occurs when plaque intrudes into the lumen. If the plaque becomes large, it can reduce the flow of blood to critical areas.

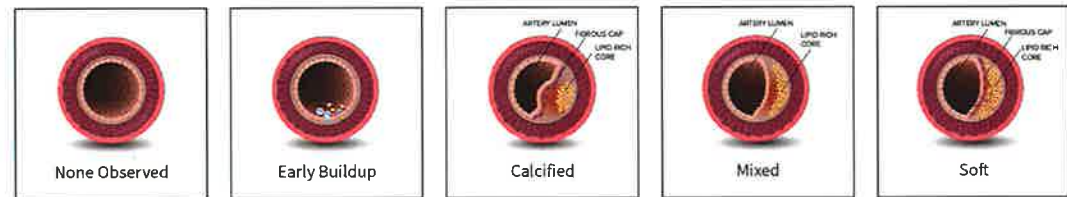
The HeartSmart IMT Grade
 HeartSmart IMT uses a graphical illustration on the front page of the report to give a patient a "grade" of A through E based on comparing the actual IMT measurement to outcome data from a database of 40,000 patients with an average 6 year follow-up based on age and gender. The grade provides a ratio of increased risk for a coronary event based on the age and gender as outlined on the left.

HEARTSMART IMT GRADE

A	B	C	D	E
Very Unlikely No Increased Risk	Unlikely Minimal Increased Risk	Possible Risk Increased 1.5x	Probably Risk Increased 1.5x - 2.0x	Likely Risk Increased To 2.7x

PLAQUE CHARACTER

Plaque or lesions develop when atherosclerosis in the arterial wall intrudes into the lumen. Plaque may be soft, mixed or calcified as outlined on Page 3 of the report. It is possible to have normal IMT and yet lesions may be present.



PERCENT STENOSIS

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RediMedi
 Integrative Clinic

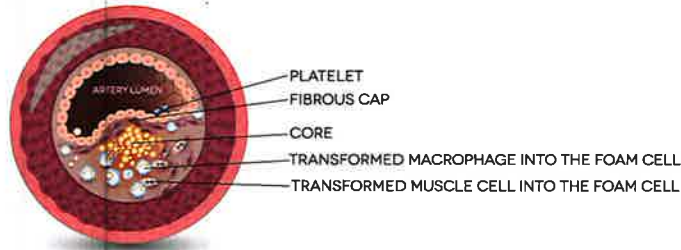
Karl Lambert, ARNP
 230 Grant Road, Suite B2
 East Wenatchee, WA 98802
 509-888-6334
 www.theredimedclinic.com

ENDOTHELIAL FUNCTION

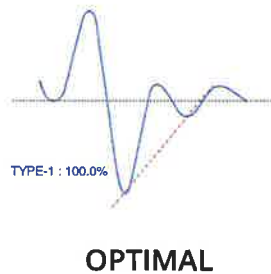
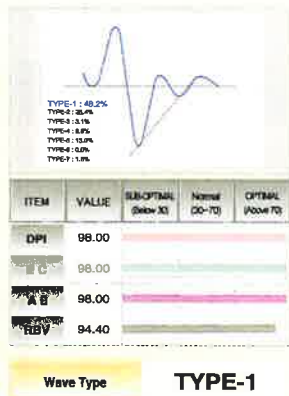
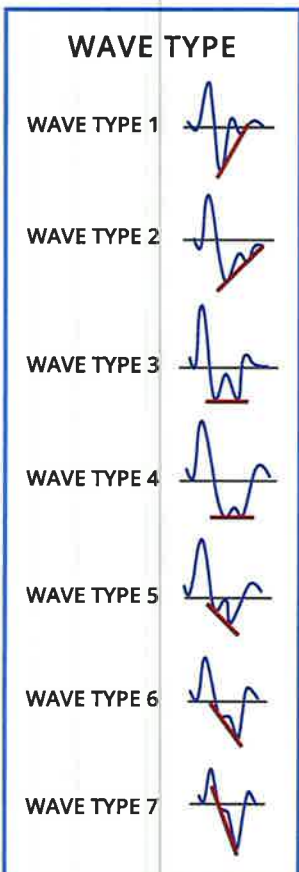
*Endothelial dysfunction is the precursor to every ischemic heart attack.
80% of all cardiac events are ischemic.*

ARTERIOSCLEROSIS:

Arteriosclerosis occurs when the blood vessels that carry oxygen and nutrients from your heart to the rest of your body (arteries) become thick and stiff — sometimes restricting blood flow to your organs and tissues. Healthy arteries are flexible and elastic, but over time, the walls of your arteries can harden.



AGING VASCULAR HEALTH SAMPLE REPORT



DPI - Differential Pulse Wave Index: Represents the overall health of the cardiovascular system. DPI is the main indicator that represents aging vascular health.

EC - Eccentric Constriction: Represents the contraction power of vessels from the left ventricle.

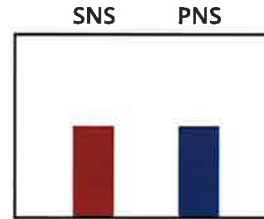
AE - Arterial Elasticity: Analyzes the blood circulation, vascular elasticity, and resistance of the vessels. It detects early cardiovascular disease like atherosclerosis and peripheral circulation dysfunction.

RBV - Remaining Blood Volume: The remaining blood volume in the vessels after systolic contraction on the heart. If the blood vessels are healthy, there is little remaining blood volume. If the vascular state improves, the remaining blood volume will decrease. This will reflect as an improved remaining blood volume score.

HEART RATE VARIABILITY & AUTONOMIC NERVOUS SYSTEM

HRV measures the adaptability of the cardiovascular system and autonomic nervous system, which is composed of the sympathetic nervous system (SNS) and parasympathetic nervous system (PNS). Your SNS plays the role of the accelerator, also known as flight or fight. Your PNS functions as the brake, also known as rest and repair. A healthy person has a balanced autonomic nervous system.

AUTONOMIC NERVOUS SYSTEM



OPTIMAL

SYMPATHETIC NERVOUS SYSTEM

Fight or Flight

Muscle breakdown (**catabolic**)

Releases muscle destroying and fat storing hormones

Cortisol, Adrenaline (n**o** adrenaline)

Increased heart rate, blood pressure, sweating, blood vessels and pupils dilate, blood flow to the limbs

Decrease in digestion and sexual function

Naturally active during the day

Everyday stress: Traffic, deadlines, kids, family, relationships

PARASYMPATHETIC NERVOUS SYSTEM

Rest and Digest

Muscle building (**anabolic**)

Releases muscle building hormones

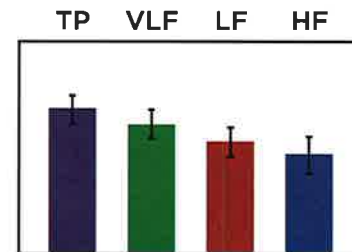
Growth hormone, DHEA, Melatonin, Testosterone, Estrogen

Repairs the body and responsible for sexual arousal

Stimulates digestion and elimination

Naturally active at night (specifically between 10pm and 2am)

FREQUENCY DOMAIN ANALYSIS & STRESS SCORE



OPTIMAL



< 50 OPTIMAL

REDUCTION OF TP

- Decreased ANS function
- Lowered regulation competence
- Decreased ability to cope with the requirement of continuously changing environment

REDUCTION OF VLF

- Inability to regulate body temperature
- Hormone disorder

REDUCTION OF LF

- Fatigue
- Insufficient sleep
- Lethargy

REDUCTION OF HF

- Chronic stress
- Aging
- Reduced electrical stability of heart
- Functional indigestion