

Heart Attacks & Strokes in Women

Updated Information That Could Save Your Life

Consider this: 50% of American women die as a result of a heart attack or stroke.

Heart attacks and strokes *are preventable*, according to new medical evidence. Many women underestimate their personal risk level. By participating in the WOW Program you will gain an understanding of your risk, increase your awareness for heart disease, and be empowered with healthy solutions.

Be proactive! Prevent disease!

What Determines Your Risk of Having a Heart Attack or Stroke?

- **Heredity.** Family history is an important indicator of your future risks, especially if your father had a heart attack before the age of 45 or your mother before the age of 55.
- **Personal.** Factors that contribute to an elevated LDL, an elevated CRP-HS, and the amount of atherosclerotic plaque within your arteries (determined by vascular ultrasound) include:
 - Aging, existing heart disease, diabetes, high blood pressure, smoking, metabolic syndrome, obesity, stress, excessive alcohol, sedentary lifestyle, and poor nutrition.
 - Menopause (estrogen deficiency) raises LDL and lowers HDL. Estrogen replacement is preventative.
 - Low thyroid function will increase cholesterol levels.
- **Presence of Atherosclerotic plaque** within your coronary or carotid arteries, regardless of your hereditary or personal risk profile. Plaque is a disease of the arteries and can rupture at any stage and cause a potential heart attack or stroke.

Good News! All risk factors, except age, can be reduced with lifestyle changes and proper medical care.

What Causes a Heart Attack or Stroke?

- Over 90% of heart attacks and strokes are due to plaque within the walls of arteries supplying blood and oxygen to the vital organs of the body.
- Atherosclerosis ("hardening of the arteries") occurs when the immune system tries to heal the inflammation within the arterial wall. LDL or 'bad' cholesterol is deposited within the inflamed lining. The body's defense mechanisms attempt to reverse the process. However, during the 'healing' process LDL cholesterol continues to be deposited forming a plaque with a thin cap (like a cholesterol blister).
- When the surface capsule of the cholesterol plaque *ruptures*, releasing cholesterol core material directly into the blood stream, a significant and sudden event occurs: a blood clot is formed causing a potentially fatal blockage of blood flow and oxygen supply.

- If plaque rupture occurs in the coronary arteries of the heart, the result is a heart attack. If a plaque rupture occurs in the carotid arteries supplying the brain, a stroke occurs. The size and location of the resulting clot determines the severity of the attack and frequently results in death.
- It is important to understand that plaque rupture can occur with only mild disease and not just with advanced blockage (stenosis). The presence of any amount of plaque is a diagnosis of disease. This explains the frequently heard story of the friend or neighbor that suffered a fatal heart attack the day after a normal EKG Stress Test.

Take Action to Reduce Your Risk

Steps to Take to Reduce Your Risk

- **Goal:** Prevent or reverse atherosclerotic plaque build up to reduce your risk of heart attack and stroke.
- Current research has demonstrated that future risk of a heart attack appears to be significantly lower when LDL 'bad' cholesterol is reduced to the levels of *healthy newborns and infants* (30–70mg) and the level of CRP-HS (C-Reactive Protein - Highly Sensitive) is less than 1.0.
- Our recommended *target* goals of both behavioral and medical treatment:

♥ HDL "Good" Cholesterol	>60 mg
♥ LDL "Bad" Cholesterol	<60 mg
♥ Triglycerides	<60 mg
♥ CRP- HS	<1.0
- There is overwhelming medical research suggesting that atherosclerosis is a dynamic inflammatory metabolic disorder, which means, it can be stabilized and even reversed. Studies have clearly demonstrated that by not smoking, controlling elevated blood pressure and blood sugar levels (diabetes), maintaining a normal weight with balanced nutrition, reducing stress, and engaging in an aerobic exercise program (five days a week) can significantly reduce LDL and CRP-HS; thereby reducing your risk of atherosclerosis, its progression, and plaque rupture.
- In many patients modification of these lifestyle factors may not bring the levels of LDL and CRP-HS down to the goal or target range (listed on the previous page). It may be necessary to add medication such as statins to achieve your goal. Statins are chemicals that inhibit the liver's production of cholesterol. Statins also reduce inflammation in the arteries, decrease plaque formation, stabilize the fibrin capsule and lower the risk of plaque rupture.
- **'Breaking News':** A long-term study by the Gunn Towbin Center Heart Healthy WOW *Maintenance Program* indicates that to date over 50 patients have experienced *significant reduction or complete reversal of carotid artery plaque*. These are all patients who had been previously diagnosed with atherosclerotic plaque. WOW!

How to Assess Your Risk for Developing Heart Disease or Stroke

- **Initial Priority:** Determine your current risk for atherosclerotic plaque within the arteries of your body, especially your brain, heart, abdomen and legs.
- **Experience the 'WOW' Program (Wellness Overview for Women):** This program, exclusive to the Gunn Towbin Center, includes identification of your genetic makeup (family history) as well as an evaluation of your lifestyle, medical history, physical examination,

body fat composition, laboratory testing, carotid artery ultrasound (determines the actual presence of any atherosclerotic plaque in the carotid arteries in the neck and/or femoral arteries of the legs), and EKG.

▪ **Your WOW Evaluation Includes:**

- Family History
- Personal Medical History
- Cardiovascular Physical Examination
- Current Status of: Smoking, Alcohol Intake, Physical Activity, Medications
- Blood Pressure
- Pulse (to detect any irregularity of the heart rate/rhythm)
- Resting EKG
- Body Mass Index (BMI)
- BodyStat Bioelectrical Impedance Analysis (BIA) measurement of fat, lean body mass and metabolism
- Waist / Hip Circumference Ratio
- Laboratory Testing:
 - Fasting Lipoprotein Profile (Total cholesterol, HDL, LDL, VLDL, Triglycerides)
 - Cardiovascular Risk Markers (CRP-HS)
 - Metabolic Profile for Diabetes, Liver, Kidney, Bone and Electrolytes
 - Thyroid Function
 - Complete Blood Count (CBC)
- Carotid Artery Doppler Ultrasound Screening for presence of plaque
- Echo and Stress Echocardiograms, when indicated
- Holter Monitoring for evaluation of irregular heart beat, when indicated

Initial screening tests should be performed at the age of 18 (especially, if overweight) and be repeated at least every two to five years, depending on age, test results and risk analysis. By implementing proven lifestyle changes and medical treatments, the *future risk* of heart attack and stroke due to atherosclerosis can be significantly reduced and probably prevented.

♥ **Enroll in the WOW Program at the Gunn Towbin Center Today!**

Women throughout Southern California have been inspired, empowered and changed by their involvement in the WOW Program. If you would like to know more about how WOW can reduce your risk for heart attack and stroke, and improve your health and sense of well being, please call our care team at

714-447-4800.

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