

Angina Pectoris: Oh My Aching Heart

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In the medical world, chest pain is often called Angina Pectoris which most characteristically results when oxygen supply to the heart is inadequate. The primary cause is the buildup of plaque and other debris in the arterial walls minimizing the flow of blood to the vital organ designed to sustain life. Angina may feel like a vague, barely troublesome ache or may quickly become a transient yet intense squeezing pain or crushing sensation in the chest occurring most commonly after some type of physical exertion. The "exertion" can be from something as fun as dancing a jig, or as mundane as straining while trying to pass stool.

To complicate matters, there is another form of angina called Prinzmetal's Variant angina, not caused by plaque but instead as a result of a coronary artery spasm. This form of angina occurs most commonly at rest or at off times of the day or night, and tends to be more common in women under 50. More recently platelet aggregation has also been implicated as a culprit. A referral to a cardiologist would be imperative to confirm the diagnosis, but also to determine the type and severity of the blockage.

Traditional treatment approach has been to prescribe an aspirin a day in mild cases to help reduce platelet aggregation. If the situation is more severe, Nitroglycerin is the most commonly prescribed drug as it has a very fast acting smooth muscle relaxant and has a strong and nearly immediate vasodilation effect on the coronary arteries quickly providing oxygen and pain relief to your heart and chest. It is imperative the worst case scenarios are ruled out because if a severe blockage is identified, surgery, such as a coronary artery bypass graft, aka CABG, or a percutaneous transluminal coronary angioplasty (PTCA) would be highly recommended for you. If this is the case, here are some statistics to be made aware of;

The MASS-II study, published in 2004, sought out to evaluate the relative efficacies of the three most common traditional treatment options (CABG, PTCA, or prescription treatment). The results of 611 patients requiring treatment for multi-vessel coronary artery disease with roughly over 200 individuals in each group, revealed the following;

- One year survival rate: Highest in the prescription treatment group
- The group most likely to suffer a heart attack (MI) following the procedure: the CABG group
- The group most likely to need repeating surgical intervention: the PTCA group.
- Conclusion: Prescription therapy was associated with a lower incidence of short term events and a reduced need for revascularization.

Another landmark study, famously called The CASS study, which stands for the Coronary Artery Surgery Study, tracked 780 patients with mild to moderate angina and randomly assigned to either the surgical or medical intervention groups. Of surprise was the number or severity of the blockage(s) was not outcome, as both groups suffered an annual death rate of 1%. The critical factor was the functionality of the left ventricle that was a better predictor of better outcome following surgical intervention. CABG was only helpful when the ejection fraction was <40%.

So if those are your odds, what are some possibly better outcomes? What does naturopathic medicine have to offer? If we stay true to our oath and underlying philosophy of first treating the root cause of the disease and not just the symptom of the angina, we can greatly reduce the risk of death and the recurrent pain without the physical dependency on strong medications for temporary symptom relief. If surgery is eminent, is there a way to minimize the risk of recurrent surgeries? What does naturopathic medicine have to offer? What causes atherosclerosis?

DIET AND LIFESTYLE: It is no secret that the modern day American diet coupled with high stress and very little to no exercise has caused Americans to be diagnosed with atherosclerosis at a younger and

younger age. Atherosclerosis does not happen overnight; it usually begins in early adolescence and remains asymptomatic for many years. In fact the first symptom is often a sudden heart attack or sudden death. This was the case for 66% of men and 47% of women studied in 2004. Diet and lifestyle changes significantly reduce the risk of a sudden heart attack. Naturopathic doctors receive years of training in nutrition, assimilation of nutrients, and therefore can recommend optimal foods that will serve as medicine to turn your condition around.

EXERCISE: We seem to forget the most obvious: The heart is a muscle and like all muscles it must be exercised to be strengthened. It also must have periods of calmness to allow it to work optimally at all times for us. Taking up Tai Chi, Qi Gong, or Yoga will accomplish both. So will going for long walks or a gentle hike through the forest or desert trails on a nice temperate day. All these forms of exercise will effectively help you to distress so you can breathe deeply and calmly while building up stamina, flexibility, and strength.

PREVENTION: How many times, have you or someone you know experienced chest pains, have gone through a series of tests which most commonly includes a full blood work up in addition to an EKG, stress test, and imaging only to find nothing wrong or causative? From a naturopathic standpoint, there are a number of "causes" which would not show up on the most sophisticated of traditional cardiac machinery. For example, the other well documented factors known to cause chest pain include; 1) magnesium deficiency, 2) toxic burden, and the often overlooked factor of 4) emotions.

Magnesium: Insufficient amounts result in what is commonly called coronary artery spasms, which in effect blocks vital oxygen loaded blood to the heart, causing the same described chest pain. It is an important cause of myocardial infarctions (Heart attacks) that can be easily remedied as magnesium by its very nature is a well-known smooth muscle relaxant. Unfortunately, magnesium is very commonly deficient in most Americans diets and taking in too small of quantities or supplied in the wrong form in most multi-vitamins on the market. Did you know Magnesium is involved in over 300 biochemical reactions in the body? From creating cellular energy, to regulating the immune system, working in conjunction with other minerals in the body to help maintain strong bones, our bodies require a heavy daily dose of this mineral. Without it, we can suffer from excessive level of fatigue, heart spasms, arrhythmias, to numbness, tingling, and seizures.

Emotions: How often have we said, "I have a heavy heart," "My heart is breaking," or "My heart aches for you." What other organ is so closely linked to our emotions? Did you know angina is most likely to occur during periods of stress, anxiety, anger, or rage? Did you also know that 61% of patients who underwent bypass surgery had an underlying nervous system disorder such as anxiety, panic, or fears? The beauty of naturopathic medicine is to evaluate the total health of the patient, body and mind. Naturopathic medicine has some wonderful highly effective treatment options found to be much more effective than prescription anxiety medications. In this way, the patient can obtain a sense of freedom by obtaining total health instead of spot treating. So take heed, and get your emotions under control. There are many options available to all. We are here to help guide the way.

Toxic Burden - The well documented toxins known to have a damaging effect on the cardiovascular system are primarily Lead, Mercury, Cadmium, and Arsenic as well as the commonly used Bisphenol A, and air pollution. Air pollution contains all the above and more...

Air pollution- also called particulate matter; a mixture of small particles and liquid droplets containing heavy metals, solvents, hydrocarbons, pesticides primarily from dust, auto exhaust, jet fuel, pesticide spraying, industries, trash incineration, and coal burning power plants to name a few. These pollutants have been linked to increases in hypertension, stroke, inflammation, acute heart attacks, deep vein thrombosis, and atherosclerosis, leading to angina. A 2007 study published by the New England Journal of Medicine, evaluated nearly 66,000 post-menopausal women, located in 36 US cities with no previous history of cardiovascular disease over a 4 year period and followed by a six year follow up. The results:

nearly 2,000 suffered from either a fatal or near fatal cardiovascular event. The study found the highest risk was those living in an area in which they were exposed to a higher level of particulate matter. Each increase in 10 ug/cubic meter was equivalent to a 24% likelihood of suffering and possibly not surviving from a cardiovascular event. Fine particulate matter is associated with increased pulmonary and systemic inflammation, atherosclerosis, increased fibrinogen and platelet activation. Fine particulate matter most commonly comes from vehicle and factory exhaust, power plants, combustion, and fires. The top five cities containing the most particulate matter according to the 2010 American Lung Association study, are as follows;

1. Phoenix, Mesa, Scottsdale, AZ
2. Bakersfield, CA
3. Los Angeles, Long Beach, Riverside, CA
4. Visalia, Portersville, CA
5. Pittsburgh, New Castle, PA

What can be done to be preventative against an impending cardiovascular disease? Besides moving out of the valley, you can:

- Find out what your toxic burden is. Assessing your level of heavy metals, is just about as easy as collecting your own urine for a specified period of time and dropping it off for analysis. Based on these results, we can determine the appropriate method of action to reduce this burden on your heart and overall health.
- Micro-nutrient testing: Assesses your body's absorption of magnesium and other essential minerals into red blood cells where they are optimally utilized via highly specialized blood test.
- Treat allergic reactions: an influx of allergen cells and the subsequent breakdown causes elevated blood pressure and irritation of nerve conduction to the heart.
- Minimize stress: Obtain naturopathic treatment for anxiety, and or fears instead of allowing them to control you. Traditional treatment approaches are not curative and can result in further stresses on the heart.
- Make an appointment today for a full consultation and complete naturopathic work-up. You are worth it!