Two of the most frightening medical conditions are ones that strike quickly, powerfully and harmfully: heart attacks and strokes. The number of people in the United States who are affected by these is astounding. Being able to prevent both conditions would drastically improve survival rates, and help people live better, longer, healthier lives. For people who are already leading healthy lives and making wise lifestyle choices though, what additional steps can be taken to prevent a heart attack or stroke?

For residents of Spokane, there is a resource that can help guide them through the confusing medical world of heart attack and stroke prevention. The Heart Attack & Stroke Prevention Center, started by Bradley Bale, MD and Amy Doneen, M.S.N., A.R.N.P., provides medical diagnosis and treatment plans to help prevent the occurrence of heart attacks and strokes. “We melded from a family practice, which makes us unique,” says Doneen, who is the co-founder and director of the center. “We’re not cardiologists, not family doctors. We’re here to prevent heart attacks.”

The center’s website explains the unique approach to prevention and treatment, which is called the Bale/Doneen Method:

“Heart attacks and ischemic strokes are preventable, but it takes more than medicine’s current standard of care. It takes optimal care. The Bale/Doneen method treats people optimally, using six fundamental elements to create a paradigm shift in cardiovascular disease prevention:”
Based on current medical information, there is a great need for this type of medical prevention. According to the American Heart Association, “Strokes killed 143,579 people in 2005. It’s the third largest cause of death, ranking behind ‘diseases of the heart’ and all forms of cancer. Stroke is a leading cause of serious, long-term disability in the United States.”

On average, the number of reported strokes per year in the United States is 795,000. Of that large number, close to 600,000 of these are first time attacks, while over 180,000 are recurrent attacks – meaning it is at least the second stroke for an individual. To deal with one stroke is a traumatic experience, but multiple strokes can be devastating.

Equally devastating is a myocardial infarction – that is the medical term for a heart attack. No matter how you say it, this is a frightening and, unfortunately, common medical condition that strikes over 1,260,000 people per year in the United States.

Heart attacks fit under the umbrella of coronary heart disease. According to the American Heart Association website (www.americanheart.org), “Final 2005 statistics for the United States show that coronary heart disease (CHD) is the single leading cause of death in America. CHD causes heart attack and angina.” (Angina is described as chest pain due to coronary heart disease.)
One contributing factor of heart attacks is inflammatory atherosclerosis. An appropriately big word, it has a big impact on your chances of having a heart attack. Atherosclerosis is “the name of the process in which deposits of fatty substances, cholesterol, cellular waste products, calcium and other substances build up in the inner lining of an artery.” The build up that is left behind is referred to as plaque.

When the build up of plaque gets to the point that it reduces the blood flow through an artery, it is a dangerous situation. Problems occur if a piece of plaque becomes inflamed and dislodges or ruptures from the wall of the artery. A ruptured plaque particle is a signal to the body to send a clot to repair the wall. The danger that arises is that the clot can migrate to any part of the body, including to blood vessels that travel directly to the heart. If a clot ends up here, there is risk of disrupted blood flow and a heart attack. “You don’t want active inflamed plaque,” says Doneen, “when it becomes inflamed that is when a problem occurs.”

A common misconception is that everyone naturally develops plaque over the years as a result of the foods we eat and the lifestyle we lead. “It is not a normal stage of aging to get plaque in arteries,” says Doneen. She repeats it again for emphasis. “It is not a normal stage of aging to get plaque in arteries. It is very common but not a normal development of getting older.”

Atherosclerosis grows in the intima of the artery, which is the inner portion of the artery. A number of things can cause this damage, some genetic and some lifestyle-induced. According to the American Heart Association, some common risk factors include:

- Elevated levels of cholesterol and triglyceride
- High Blood Pressure
- Smoking
- Diabetes
One of the goals at the Heart Attack & Stroke Prevention Center is to find out why the plaque is there. One of the most common causes is insulin resistance, which also causes Type 2 diabetes. “If you get diagnosed with diabetes, it is a coronary risk,” says Doneen.

Part of Doneen’s job is to find the right treatment, tailored to each patient, which can bring about a reversal of plaque build-up. “I honestly believe that atherosclerosis can be stabilized,” says Doneen. Those are words of great encouragement for anyone who is battling the disease.

One of the most disheartening aspects of heart attacks and strokes is that though they take place often, it is not always easy to predict whom one will strike. It was this frustration, seeing people who looked as if they were at no risk for either of these, only to have a heart attack or stroke later on, which prompted Bale and Doneen to focus their practice on prevention.

They were so committed to finding a way to prevent heart attacks and strokes, that they shuttered their family practice, and shifted their focus to finding a way to prevent these deadly medical occurrences.

For years, the standard tool to assess if someone was at risk for a heart attack was the Framingham Heart Study. It is an assessment tool that takes a number of factors into consideration – including total cholesterol, HDL cholesterol, age, and blood pressure – and provides the percentage of risk a patient faces.

Many people who have taken this assessment, or stress test, and were told their risk was low, went on to have heart attacks or a stroke. Former NBC journalist Tim Russert is an example. He performed well on a stress test in April of 2008, only to die of a heart attack caused by a “cholesterol plaque rupture in an artery,” two months later. “To fail a normal stress test you need a 70 percent blocked vessel,” says Doneen, “but 86 percent of heart attacks occur in vessels less than 70
percent blocked." This proves the need for a different approach to prevention.

A visit to the Heart Attack & Stroke Prevention Center is an investment into your health. The first appointment runs an hour to an hour-and-a-half, and is dedicated to education, a physical exam, and drawing labs. A return visit one month later is the time to establish a treatment plan, which will be discussed with your regular doctor. "We always partner with the patient’s primary care providers and work with them," says Doneen.

One of the most important things accomplished at the clinic is to educate people on what Doneen calls "event-reality." Where the clot lands determines how the body reacts. If the clot lands in an artery in the head, it results in a stroke, if it lands in the heart it results in a heart attack. Structural testing used to identify vascular disease includes Carotid Intima-media thickness testing (CIMT) which identifies plaque in the artery walls, ankle brachial index testing (ABI) to look for peripheral disease, and coronary artery calcification (CACs). They also monitor disease with treatment by routine CIMT testing. Blood testing is also helpful, including advance lipid analysis, inflammatory markers, testing for insulin resistance and genetic risk identification.

"We should all be assessed," says Doneen. "There are ways to find out if you have asymptomatic vascular disease. If you have already had a heart attack or stroke, it is important to know if your treatment is stopping the progression of disease."

Helping their patients prevent heart attacks and strokes has become the mission for both Doneen and her partner, Bale. "We put every single ounce of our energy into discovering the cause and treatment of vascular disease," she says. Having them on your side may be one of the best preventative measures you can take.

To learn more about heart disease and stroke prevention, visit www.americanheart.org or www.baledoneen.com.