



HEART HEALTH AND CHIROPRACTIC

Description

The heart is the most electrically active organ in the body, generating a pulsed electromagnetic field that is 10 times stronger than that of the brain. These electromagnetic pulses can be measured, and the resulting analysis reveals much about our health, vitality and emotions.

By studying the way the heart's electrical patterns change in time and in relationship to brainwaves, scientists and researchers have demonstrated the complex interaction between the heart, skin, brain, and overall health. This area of research also documents the powerful role the heart and its rhythms play in creating consciousness, including emotional states and mood.

Cardiologists look for specific changes in the way the heart changes its speed, known as heart rate variability, or HRV, as an indicator of heart disease.

In a healthy person and in an athlete that is training effectively, but not over-training, the heart can change its rhythm very quickly to respond to changing physiological conditions. This state could be described as a state of enhanced HRV. For example, if an athlete begins to sprint, a very healthy, adaptable, and relaxed person will be able to go from a slow heart rate to a very rapid one very quickly. However, that same change would happen much more slowly and erratically in a person with heart disease, in an athlete who has trained beyond the body's ability to recover, or a person who has a high level of emotional or psychological stress. These states can be characterized by a diminished HRV. After the sprint is over, a healthy, calm person would be able to normalize their heart rate quickly. Not so for the cardiac patient, the over-trained athlete, or an overstressed individual. A more adaptable heart rate shows a healthier and stronger person.

Cardiologists can also analyze the heart rate by frequencies of its many components, and can come up with a surprisingly accurate assessment of one's risk of cardiovascular disease. Yet athletic performance and the detection of heart disease, while helpful and certainly desirable, are perhaps the most mundane applications of this powerful technology.

How Chiropractic Care Relates to Heart Disorders

Even if every nerve in your chest were disconnected, your heart would continue to beat. This is because a small node of heart muscle rhythmically contracts and relaxes on its own, setting the pace for your heartbeat. This natural pacemaker is called the "sinoatrial node." In the average adult, the sinoatrial node maintains a rhythm of approximately 70 beats per minute.

As impressive as this natural pacemaker is, it is a very limited control system. Left on its own, the sinoatrial node would keep your heart constantly beating at an invariable speed, whether you are exercising or resting, upset or relaxed, alert or asleep. Fortunately, the nerve supply to your heart provides accelerators and brakes. The accelerators - nerves that cause the heart rate to speed up - are called "sympathetic nerves." The sympathetic nerves to your heart originate from the thoracic spine (in your upper back). The brakes - the nerves that slow down heart rate - are called "parasympathetic nerves." The parasympathetic nerves to your heart originate from the brain itself, and pass very close to the upper cervical vertebrae as they pass through your neck on their way to your heart.

Over the years, chiropractic researchers have noted that chiropractic adjustments often are accompanied by a normalization of cardiac rhythm. This suggests that spinal misalignment or restriction (subluxation) can create an imbalance in the sympathetic and parasympathetic stimulation to the heart. A recent study made use of a specialized type of electrocardiographic measurement, which is a sensitive indicator of sympathetic/parasympathetic balance in the control of heart rhythm. This measurement is called heart rate variability (HRV).

Several chiropractic practices contributed HRV data from 539 chiropractic patients with no history of heart disease. Most of these patients had HRV readings done before and after a single adjustment, while 20 percent had their HRV measurements done before and after four weeks of care. In both groups, HRV at the end of the study was significantly better than HRV at the beginning of the study. Even though these patients had no known cardiac health problems, improved sympathetic/parasympathetic balance clearly is beneficial. Previous research data indicate that better HRV readings correlate with better cardiovascular fitness.

<http://www.yourspine.com/Chiropractor/Health/Heart+Disorders.aspx>