HEART HEALTH & HAPPINESS - Part 1

by Lady Carla Davis, MPH *Specializing in Nutrition*

There is so much more to the human heart than what most people know; and if they are knowledgeable, they rarely think about the function, care, and needs of this amazing organ. In spite of the fact that heart disease kills more people than any other disease in the developed world, care and nourishment of the human heart is rarely taught in primary or secondary education. Sadly, nor is it taught to children by most parents. To create heart health and happiness, a basic lesson (or reminder) on the anatomy and function of this awesome organ is a good place to start.

The human heart is both a muscle and living, dynamic community of millions of hard working cells. It is located in the middle of the upper chest, between the lungs, unless you are among a small percent of people who have *dextrocardia*, where the heart is slightly more to the right side of the chest.

The heart has four chambers: two upper, called the *atria* and two lower, called the *ventricles*. The right *atrium* and right *ventricle* make up the "right heart" and the left *atrium* and left *ventricle* make up the "left heart." The two sides of the heart are separated by a wall of muscle called the *septum*.

The *atria* and the *ventricles* are connected by the *atrioventricular* (AV) *valves* (*tricuspid* valve and *mitral* valve). The right *ventricle* is separated from the *pulmonary artery* by *pulmonary semi-lunar valve*. The *left ventricle* is separated from the *aorta* by the *aortic valve*. The *heart strings* or *chordae tendinae*, anchor the valves to the heart muscles.

The *sinoatrial node* or *sinus node* produces the electrical pulses that drive the heart contractions. The *sinus node*, situated in the right *atrium*, is a natural pacemaker. It normally controls the heart rhythm by producing electrical impulses that initiate each heartbeat. Electrical impulses travel across the *atria* causing them to contract and pump blood into the *ventricles*. Then, these impulses arrive at a cluster of cells called the *atrioventricular node* (AVN). The AVN transmits the signals to a collection of cells called the *bundle of* HIS. These cells transmit the signal down a left branch serving the left *ventricle* and a right branch serving the right *ventricle*, which cause the *ventricles* to contract and pump blood. The right *ventricle* sends oxygen-poor blood to the lungs and the left *ventricle* sends oxygen-rich blood to the body.

Keep in mind that **water** is the medium that enables cells to communicate with each other. All the more reason why the water we drink must be kept pure, structured, and free of all chemicals and pollutants.

In addition, a good daily supply of natural daylight, sunshine, quality protein, essential fatty acids in balance (omega 3 in particular), and the right balance of various minerals keep this electrical system functioning.

The heart is encased and protected by a doubled-walled sac called the *pericardium*.

The outer layer, called *parietal pericardium*, and the inner layer, called the *serous pericardium*, hold the *pericardial fluid*, which lubricates the heart during contractions and movements of the lungs and diaphragm.

The heart circulates blood through two pathways: the *pulmonary circuit* and the *systemic circuit*. The *pulmonary circuit* carries deoxygenated blood, which leaves the right *ventricle* of the heart via the *pulmonary artery* to travel to the lungs. Oxygenated blood is then returned to the left *atrium* of the heart via the *pulmonary vein*. The *systemic circuit*, carries oxygenated blood via the left *ventricle* to the *aorta* where it enters the arteries and capillaries to supply the body's tissues with oxygen.

Deoxygenated blood returns via the veins to the *venae cavae*, re-entering the heart's right *atrium*.

After the blood leaves the heart through the *aortic valve*, two sets of arteries bring oxygenated blood to feed the heart muscle. They are the left main *coronary artery* on one side of the *aorta*, which branches into the left *anterior descending artery* and the left *circumflex artery*, and the right *coronary artery*, which branches out on the right side of the *aorta*.

An adult male heart weighs about 10-12 ounces/280-340 grams and is about 25 percent larger than a woman's heart, which weighs about 8-10 ounces/230-280 grams. The female heart pumps about 6 beats faster per minute than a male heart. A normal heart is about the size of your fist. An enlarged heart, called *cardiomegaly*, can be an indication of:

- Weak heart muscle
- Coronary artery disease
- Heart valve problems
- Abnormal heart rhythms

Cardiomegaly can lead to cardiac arrest and sudden death (common with athletes), heart failure, heart murmurs, or blood clots, depending on the part of the heart enlarged.

Your stupendous heart works 24/7, from the time you are conceived in your mother's womb, to the time you die. It pumps about 2,000 gallons of blood, 100,000 times a day (about 2.5 billion times in the average lifetime) to bring nutrients and oxygen to your body's organs. It also helps to remove carbon dioxide and other wastes. To function properly, the heart needs a constant supply of good nutrition - chemically, electrically, and emotionally.

According to the Mayo clinic, a healthy adult heart should beat from 60 to 100 times a minute while at rest. The average is 70 beats a minute, which is around 100,000 times a day. An athlete's heart beats slower - from 40 to 60 beats per minute.

Faster than normal heart rate is called *tachycardia* or *arrhythmia*, and slower than normal is called *bradycardia*. Both could be a sign of heart problems.

Causes of *Tachycardia* include heart disease damage, mineral/electrolytes imbalance, birth defects (congenital heart conditions, including QT syndrome), heart valve disorder, anemia, high or low blood pressure, sudden stress or fright, smoking, fever, dehydration, over active

thyroid (hyperthyroidism), diabetes, heavy alcohol use, caffeine and various other drugs, medications, or a constant state of fear.

Types of Tachycardia:

- Arterial fibrillation
- Atrial flutter
- Supraventricular tachycardia (SVT)
- Ventricular tachycardia
- Ventricular fibrillation, which can be brought on by a heart attack, trauma, and a lightening strike

Symptoms include:

- Rapid pulse rate, heart palpitations, uncomfortable or irregular heart beat or sensation of flopping in the chest
- Chest pain
- Shortness of breath
- Lightheadedness
- Fainting (syncope)

Causes of *Bradycardia* can include sinus node problems, old age, heart tissue damage or infection, congenital heart defect, heart infection (myocarditis), Inflammatory disease (rheumatic fever, lupus), heart surgery complication, underactive thyroid (hypothyroidism), drug abuse, smoking, heavy alcohol use, sleep apnea, dehydration, medication, psychological stress or anxiety, chemical imbalance and/or deficiencies.

Heart Block (atrioventricular block)

Bradycardia can also occur when electrical signals transmitted through the *atria* are not transmitted to the *ventricles*.

- First-degree heart block: All signals from the atria reach the ventricles but are slowed.
- Second-degree heart block: Not all electrical signals reach the ventricles, resulting in slower and irregular rhythm.
- Third-degree heart block: None of the electrical signals reach the ventricles. The natural pacemaker takes over, but signals and control of the beat of the ventricles are unreliable.

Symptoms include:

- Chest pains
- Shortness of breath
- Dizziness or lightheadedness
- Fatigue or easily tiring during physical activity
- fainting (syncope)
- Confusion or memory problems

It is important to pay attention to your heart rate from time to time. A recent study published in the Journal of the american Medical Association found people whose resting heart rates increased from under 70 beats per minute to moe than 85 beats per minute over 10 years had a 90 percent increase risk of dying from heart disease compared to those whose heart rate stayed around 70 beats per minute.

Interestingly, your heart doesn't stop during heart failure. It just doesn't pump blood as well as it should. The only time the heart stops is during cardiac arrest.

HIGH BLOOD PRESSURE

Heavy metals, blockages, stress, drugs/medications, and a junk food diet are major factors in high blood pressure. A hair analysis can determine your long-term body chemistry, mineral levels and ratios, and heavy metal contamination. Work and personal relationships can be both a blessing and killer. If either are causing you distress, reduce exposure or bless them out of your life.

You have three kinds of blood vessels:

- Arteries carry blood from the heart to organs
- Veins carry blood from organs and limbs back to the heart
- Capillaries connect the two.

Together, they are all long enough to go around the world more than twice.

The Aorta is the largest artery in the body. It is the size of a garden hose and runs from from the heart to the abdomen. This is where most aneurysms occur.

Healthy arteries are flexible and elastic. When the arteries lose their elasticity, thicken, or harden, *arteriosclerosis* occurs. *Artherosclerosis* is a specific type of *arteriosclerosis* that occurs when fat and cholesterol clog the arteries and turns into plaque, which restricts blood flow. It can occur anywhere in the body. A blood clot can completely block blood flow and trigger a heart attack or stroke.

Symptoms depend on which arteries are damaged. For example:

- If you have it in your heart arteries, you may have chest pains (angina).
- If you have it in the arteries leading to your brain, you may have sudden numbness or weakness in your arms or legs, difficulty speaking or slurred speech, temporary loss of vision on one eye, or drooping muscles in your face. These symptoms signal a transient ischemic attack (TIA) that can progress to a stroke.
- If you have it in the arteries leading to your kidneys, you develop high blood pressure or kidney failure.
- If you have it in the arteries in your ams and legs, you may have peripheral artery disease, (leg pain when walking (claudication).

Most heart disease occurs when the heart, blood vessels, and liver are damaged (from diet, drugs, environmental toxins, etc.); malfunctioning because they are polluted with heavy metals or chemicals; and/or are deficient in protective nutrients such as: vitamins C and B complex, bioflavanoids, silica, zinc, potassium, magnesium, manganese, iodine, essential fatty acids **in balance**, enzymes, sunshine, full spectrum daylight, and pure, structured water.

Once damaged, clumps build up on the inner walls of an artery as a protective mechanism, like a scab does in a cut. Those clumps are naturally removed when the body (liver etc.) has the nutrients necessary to function and repair the damage.

Consuming refined sugar and carbs, damaged fats and oils, caffeine, soda, fluoridated water, alcohol, tobacco, distorted lightwaves, deplete the very nutrients that protect the heart. Insulin resistance, or diabetes, obesity, smoking, inflammation from various diseases, lack of sleep, EMFs, unhappy relationships, over work, and worry produce stress hormones that break down the body and stress the heart, which can trigger a heart attack or stroke. In fact, refined sugar is the leading cause of heart disease.

According to a 2005 study in the *European Journal of Epidemiology*, Monday is the most common day of the week for heart attacks. Is it the stress of returning to work or from the effects of a boozy weekend? Other frequent heart attack days are Christmas, the day after Christmas, and New year's Day. So most likely, it is the consumption of alcohol and an unhealthy overload of sugary foods.

Male pattern baldness is another sign of heart disease. Men with crown hair loss have a 23 percent higher risk of heart disease than men with a full head of hair. That risk increases to 36 percent for men with complete loss of hair on top of the head. And, that risk increases even more if a man has high blood pressure or excessively high cholesterol. Scientists and nutritionists believe this is because of an imbalance of hormones. The condition of your hair is an indication of hormones in the testicles if you are a man and ovaries if you are a women.

One form of cardiac arrest treatment used to slow the brain and other organ damage, is therapeutic hypothermia, where the body is cooled to 91 degrees F (7 degrees below average). Research in the *Annals of Neurology* in 2010 found that two-thirds of patients who received this therapy after revival from cardiac arrest recovered and went home with good heart function.

Early diagnosis and treatment can stop heart disease from worsening and prevent a heart attack or stroke. In some cases, with the application of good nutrition and the many natural modalities listed below, heart disease can even be reversed.

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HEART HEALTH & HAPPINESS - Part 2 by Lady Carla Davis, MPH

Specializing in Nutrition

CREATING HEART HEALTH & HAPPINESS

LOVE: The number one best remedy for heart health and happiness is love: be it love for another person, family members, friends, work, nature, a hobby, or a pet. Self love and respect, first and foremost, is vital. Take a few minutes each day to value your body. Find a quiet, peaceful place. Place your hands on your wounded, neglected, abused, or happy heart and radiate (Reiki) thoughts of love. Talk to, sing, chant, and comfort your heart and all its little cells when you do this. A loving relationship and good friendships can also do wonders for the heart. A bad relationship can be deadly. In addition, harmonious relationships with others help to maintain a healthy, happy heart. However, some people are happier being on their own, as long as they are not lonely and have some form of love in their life. READ Masters of Health (MOH) magazine: http://MastersOfHealthMag.com to learn more and check out the fascinating work of Dr. John Demartini, featured in the MOH February 2019 issue, and at his site: https://drdemartini.com/

AIR, BREATHING, MEDITATION: You can only survive for approximately three minutes without air. Along with air, proper breathing is one of the most important physical nourishments required by the heart and every organ in your body. Meditating and doing tai chi, yoga, qi gong, chanting, and singing are among the best ways to alleviate stress and improve your breathing because they each hold on the out breath. All of these practices are very beneficial and contribute to heart health and happiness. You can learn more about them in every issue of MOH:

http://MastersOfHealthMag.com and on the personal websites of each contributor. Yoga and meditation are featured in the MOH August 2017 issue and written about in every other issue. See: Prem's https://www.vidya-samyogah.com/, and http://www.nourishingbasics.com/wp-content/uploads/2018/03/LTC-Yoga-India.pdf to learn traditional yoga with HH Swami Isa at his ashram in Kerala, India, or one of the LTC Centers in France, or Germany: https://www.ivpt.org. The benefits of meditation for the heart are well documented. Meditation also lowers the heart rate naturally. Meditate every day! For Karen Atkin's wonderful Qi Gong exercises go to: https://www.karenatkins.com/vital-qi-tv/

WATER: Clean, pure, structured water is also vital for the heart to function properly and in sync with all your other organs and body systems. Keep in mind that **water** is the medium that enables cells to communicate with each other. This includes the many communities of cells in the heart. Thus, all the more reason why the water you drink must be pure, structured/vitalized, and free of ALL chemicals and pollutants. Remember...not all water is created equal. Avoid contaminated (e.g. pesticides, herbicides, medications, etc.) and fluoridated water like the plague! Learn more about water and hydration. Remember: three days without water or severe dehydration can kill! If nothing else, ensure that you always have pure, clean, structured water to hydrate your heart and other organs on a daily basis. Read about the World of Water by Dr. Masaru Emoto in the July 2017 issue of MOH. https://www.youtube.com/watch?v=p9UC0chfXcg (13:38 H302/Fourth Phase) https://www.alivewater.com/, https://www.dancingwithwater.com/

FULL SPECTRUM LIGHT & SUNLIGHT: Full spectrum light, which includes sunlight, is another vital nutrient for heart function. Unfortunately, people have been misled about wearing sunglasses and applying sunblock, which prevent the body from absorbing vital nutrients from full spectrum light and sunshine. This type of light creates energy and strengthens the immune system. In fact, photons from sunlight, quality protein, and EFAs in balance (omega 3 in particular) are what enable the heart to keep ticking. This is a form of human photosynthesis, and the more sunlight you get, without burning, the healthier your heart. To learn more, READ "LIGHT: A VITAL NUTRIENT, by Lady Carla Davis, MPH, in the August 2017 issue of MOH and other light articles in the September 2018 MOH issue that featured Dr. Octavio Perez. Also, see:

https://www.youtube.com/watch?v=p9UC0chfXcg (13:38)

NUTRITIOUS DIET & LIFESTYLE: Biochemical individuality and various factors determine what kind of diet is best for you. Work with a good nutritionist to find out what your heart needs to be healthy and free of disease. Consume a healthy, nutritious diet that provides these nutrients and maintain a slim waistline. A larger than normal waistline is a risk factors for heart disease. Maintaining a proper level and ratio of the heart minerals, such as sodium, potassium, calcium, magnesium, manganese, and iodine are vital for heart health and happiness. A deficiency or imbalance of any of these minerals can be deadly. Women have often been told that the way to a man's heart is through his stomach! Well, the same applies to both a woman's and child's heart! Educate yourself with my articles in each issue of MOH, which featured me in the March 2017 issue. Also, learn how to select and prepare healthy, gluten-free, sugar-free, heart healthy recipes for your blood type/genetics from my *Nourishing Basics* Cook Book and Recipe pages at: http://www.NourishingBasics.com

Good nutrition starts in the soil. Learn about the importance of healthy soil for healthy food in the MOH September 2017 issue that featured Neal Kinsey. Learn about the benefits of transdermal magnesium for the heart, by Sandy Sanderson, in MOH July 2018 issue and featured in the January 2019 issue. For products see: https://elektralife.com.au/. In the US see: https://www.amazon.com/gp/offer-listing/B00FBM1ZEC/?seller=A17O0JA6OPQCW

SLEEP: Sleep is vital for a healthy heart at every age. Lack of or poor quality sleep disrupts many of the body's biological processes and contributes to cardiovascular disease, coronary heart disease, mood disorders, insulin resistance, poor immune function, and lower life expectancy. Adolescents who don't sleep well are also at risk.

One study found that men with severe sleep apnea were 58% more likely to develop congestive heart failure then men without this night-time breathing disorder. Shift work and a constantly changing night-time work schedule can also put you at risk.

When you sleep your body repairs and replenishes hormones. During long, deep periods of rest, certain chemicals are activated that help normalize blood pressure and heart rate. As Dr. Mark Hyman, MD, ten-time #1 NYTimes Best Selling author, stated, "Poor quality sleep has become all too common in our stressed-out, super-busy, hyper-caffeinated, modern world." Follow his "Five Tips For better Sleep" in the MOH October 2018 issue. Low Blue Light glasses can be bought at: https://lowbluelights.com. The Traditionalists (Fitover) are a good choice because they can be worn over reading glasses. Both the amber polycarbonate glasses and low blue light bulbs are very effective for making you feel drowsy and helping to get a good night's sleep.

When suffering from jet-lag, disruption of your sleep pattern, or being over tired and trying to fall asleep, Melatonin, is a very helpful supplement to help you have a good night's sleep.

ESSENTIAL OILS, MASSAGE, REFLEXOLOGY: Don't underestimate the healing power and value of Essential Oils for heart health and happiness. They are effective, easy to use, and have no side effects. To learn more, read the MOH April 2018 issue, which featured Dr. Eric and Mama Z and the interview with Monique on The Value of Essential Oils: https://view.joomag.com/mag/0603654001521565689?page=40

https://www.doterra.com/US/en/site/nourishingbasics (CA)

https://www.doterra.com/US/en/site/mastersofhealth/

Massage therapy and Reflexology are two additional methods that can greatly benefit your heart and sense of wellbeing. https://lauranormanreflexology.com/

EXERCISE, DANCE, SWIM, WALK, HORSE/BIKE RIDE, JUMP ROPE: Do what ever physical exercise you enjoy! Dancing to music produces oxytocin and other beneficial hormones that are very healing and rejuvenating for the heart. Do this as much as possible. Participating in outdoor activities and connecting with nature help to relieve stress and maintain a healthy heart and normal blood pressure. Avoid smoking or heavy alcohol use. Yoga, tai chi, qi gong are all excellent heart healthy forms of exercise that reduce stress and benefit the heart. The exercises on this site are short and easy for everyone to do: https://www.karenatkins.com/vital-qi-tv/

MUSIC, FREQUENCIES, SINGING: Music is the universal language. It has been around in every culture since the beginning of time, and for good reason. Quality music with certain frequencies has a very beneficial effect on the heart and other organs. Play an instrument, sing, and/or listen to beautiful quality music. Teach this to your children at an early age. Children who play an instrument have better right/left brain development. The frequency and rhythm of waltz and harp music have a very healing and beneficial effect on the heart. Listen to this kind of music, and music that makes you feel happy, as much as possible. To learn more about the benefits of various musical frequencies (528 Hz and 432 Hz, etc), read the MOH May 2017 issue featuring Dr. Len Horowitz; *How Music Affects You*, by Steve Rees, in the October 2018 issue; plus articles by 2018 Person of the Year, Silvia Nakkach (Dec 2018) and Harpist, Steve Rees in the 2018 and 2019 issues of MOH: https://calmingharp.com/ & https://calmingharp.com/ & https://www.cureshoppe.com/musical-products/

Your voice tells a lot about the health of your heart and the rest of your body. To learn more, check out the MOH August 2018 issue, featuring the pioneering work of Sharry Edwards: https://soundhealthportal.com/ & https://soundhealthportal.com/ Singing produces oxytocin and many other beneficial hormones that are very healing and rejuvenating for the heart. Sing this as much as possible. Learn more about the benefits of singing in MOH December 2018 issue, featuring Silvia Nakkach, and at: http://voxmundiproject.com/ &

 $\frac{http://www6.biosonic.com/?s_token=1548407600.0448455574\&searchbox=1\&showDomain=1\&tdfs=0$

And, be sure to see the MOH April 2019 issue, featuring Karen Atkins: https://www.karenatkins.com/music

NATURE, GARDEN, & ARCHITECTURE: Nature is immensely healing and comforting, especially when recovering from an illness, trauma, loss of a loved one, or a broken heart. Connect with nature on a daily basis. Do earthing often. Connecting with the earth with your bare feet helps to calm and relax the body. The heart loves it! People who work or spend long periods of time outdoors (gardeners, artists, photographers) generally live longer. Gardening is a great way to exercise, create beauty with flowers, grow healthy food (fruits, vegetables, and herbs). Just looking at beautiful gardens and flowers makes a person feel happy, which in turn is good for the heart. Learn how to grow your own food in the April 2017 issue of MOH that featured Marjory Wildcraft:

https://view.joomag.com/masters-of-health-magazine-april-

2017/0982714001489605786?short and explore: https://thegrownetwork.com/

The same is true with beautiful Architecture. Most modern architecture is an assault on the human physiology. Looking at and living in beautiful geometrically balanced architecture secrets various hormones that are very beneficial for the heart. Look at what architect J. Robert Barnes is doing: http://robertbarnesassociates.com/intro.htm

See the 2 min. cymatics video at: http://robertbarnesassociates.com/intro.htm

HEALTH CONSCIOUS MD, TCM DOCTOR/ACUPUNCTURIST, & DENTIST: Most everyone needs a medical doctor (MD) at one time or another. As you get older it is sensible to have a check up from time to time. The key to healing and maintaining a healthy, happy heart is to always address the cause of the problem and avoid the protocol system of being treated with drugs. All drugs have side effects! In addition to working with a good nutritionists (different from a dietician) and health conscious MD, also consider the options of working with a Health Coach, TCM (Traditional Chinese Medicine) Doctor, and/or an Acupuncturist. The long-term outcome with all these natural methods is much better and safer than just being treated with medication. A good doctor will address the cause(s) and collaborate with a good nutritionist, health coach, and/or acupuncturist when the need arises. Some medical doctors also do acupuncture in their practice, which is a very effective healing method. Nutrition is a different profession that requires more time than what a doctor's visit allows for. Remember, one size doesn't fit all! Last but not least find a good, biological dentist that doesn't use fluoride, amalgam, or unprotected x-rays. Research has shown that some heart attacks have their roots in the mouth from an infection. To learn more read the MOH February 2018 issue, which featured Dr. Gerald P. Curatola, DDS. In addition to all of the above, maintaining a healthy mouth and gut microbiome are a very important part of achieving heart health and happiness!

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