Common Conditions of the Circulatory System and Their Herbal Remedies

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SECTION 1 – INTRODUCTION

Since time immemorial, humans have been fascinated by the stars in the sky and the outer space that seemed to be their heavenly back drop. Just as fascinating has been the mystery of the human body and the terrain of its inner space. Yes, people have speculated and studied the body since man first became self-aware. This self-awareness has motivated, if not completely driven, certain individuals to ask questions about the human frame and its function such as, "What?", "Where?", "Why?", and "How?". Now this questioning, and the consequent follow-up of fact finding, is nothing new to the human experience, but when it comes to better understanding ourselves, people as a whole seem to be almost obsessed with obtaining a better understanding human anatomy and physiology. Hence, it is only natural as man continues to grow in his understanding of these subjects, he would also begin to explore what happens when the human body seems not to be functioning within its normal parameters of health and well-being.

The study of dis-ease, and how to overcome it, is one of the oldest professions known to man. Within this field of endeavor, numerous great minds have emerged. Just a few examples of such great minds include: Hippocrates, Galen, Still, Lust, and Kellogg. And yet, even with the wisdom and experience of these giants within the field of natural healing, there is so much more to learn, and subsequently share with the world when it comes to regaining and maintaining optimum health. As we have seen over the last century, there has been a revolutionary growth of understanding when it comes both the structure and functioning of the human body. With this increase of knowledge, we have been better able to diagnose many of the ailments that seem to plague man. We have also increased our ability to more effectively treat the symptoms of those diagnosed aliments.

Unfortunately though, even with all of this increased knowledge and highly developed treatment, we seem to be no farther along with eliminating the underlying cause of dis-ease than those who have come before us. Matter of fact, in some ways it might be said that we, as a species, have taken a step backwards in regards to our understanding of anatomy and physiology, along with the maintenance and well-being of the human body. Until recent years, healers tended to looked at the body with a holistic perspective. While an ailment may have had its manifestation in a particular tissue or organ of the body, its underlying cause was understood to be both interconnected and systemic. To go further with this line of thinking, the causation for disease was seen to have its origin in one of the following three spheres of influence: physical, emotional, spiritual, or some combination thereof. Doctors of the past where acutely aware that healing, true healing, was simply more than eliminating a patient's symptoms, but instead was a matter of educating them in the ways of health and well-being.

As such, it is important to never forget that the human body is a synergistic whole, and not merely a random, conglomeration of haphazard parts. Instead, even while looking at a particular tissue, organ, or system one must never forget that the part under examination is interconnected to the entirety of the whole organism. That being stated, it is also important that the individual never forget that a systemic disease has a tendency of expressing itself in one or more ways throughout the human body. Often times this lack of homeostasis, or balance, shows up in disorders of the cardiovascular system. In this paper, we will not only explore the parts of the cardiovascular system, but also several common conditions that affect large numbers of the human populous. After reviewing these conditions, we will then examine herbal remedies used in the process of helping someone overcome these conditions by rebuilding and strengthening their innate vitality.

SECTION 2 – ANATOMY OF THE CARDIOVASCULAR SYSTEM

The Heart – Central to the cardiovascular system is an organ primarily made of cardiac muscle, the heart. This organ is a multi-chambered pump that circulates oxygenated blood to every cell of the body, while also sending deoxygenated blood to the lungs to dispose of carbon dioxide and then resupplied with life-giving oxygen. In their book, *Textbook of Anatomy and Physiology*, Kimber, Gray, and Stackpole go on to describe the heart as, "about the size of the closed fist, shaped like a blunt cone." (pg. 246-247) Seldom is found in nature, or of mans' inventions, a more simple, effective, or amazing device. As previously mentioned the heart is a multi-chambered pump, specifically divided into four compartments. The superior portion makes up what is know as the atrium, while the inferior portion are called the ventricles. The right atrium and ventricle handle the venous blood flow, and the left atrium and ventricle transport arterial blood. The proper movement of blood through, and out of the heart is facilitated by several valves. They include the: tricuspid valve, bicuspid valve, pulmonary valve, and aortic valve. Along with cardiac muscle cells and valves, nerves and fibrous tissue also make up the heart. Diana Wells, a freelance writer and blogger, who's work focuses of health related topics, shares that the heart beats "about 115,000 times each day", and "pumps about 2,000 gallons of blood" within a twenty-four hour period.

Arteries – The heart is only as useful to the human organism as the blood vessels that proceed from it. These blood vessels are called arteries. They are hollow, muscular tubing that carries blood away from the heart. In the case of the pulmonary arteries, they carry carbon-dioxide rich blood to the lungs to exchange the C02 for oxygen. The arteries are required to withstand the direct force of pressure when the heart beats, hence they are formed with strong, muscular sidewalls. This allows the blood to flow throughout the body with minimum resistance. These thick-walled vessels have an elastic-like quality that helps to move the blood along with each beat of the heart.

Arterioles – As the arteries make their way from the heart, they continue to branch apart and diminish in size. In her book, *Holistic Anatomy: An Integrative Guide to the Human Body*, Pip Waller, a medical herbalist and massage therapist, states, "the arteries divide and divide, getting smaller each time. Small arteries are known as arteriole. Tiny arterioles end and open out into a network of microscopic vessels, called capillaries" (90).

Capillaries – With oxygen being an absolutely necessity for human life to exist, and be maintained, there has to be means whereby this life-giving element is effectively delivered to the individual cells of the body. This is where the capillaries come in to play. Emmet B. Keefe, M.D., professor of medicine at Stanford University, explains this further by saying, "Measuring only about eight thousandth of a millimeter, the capillaries are only wider than one single blood cell" (92) At this point, the capillaries are thin enough to allow certain substances, such as oxygen and carbon-dioxide, to pass through to the blood.

Venules – Eventually the vast network of capillaries begin to find their way back together. As this process occurs the vessels not only decrease in number, but they also start to increase in size. While there is an increase in size compared to the capillaries, venules, and their larger expression, veins, are still less muscular than their corresponding arteries. Another unique feature found in both

venules and veins is the presence of one-way valves, that helps to keep the blood flowing towards the heart.

Veins – As the venules make their way back towards the heart they continue to converge with one another, progressively becoming fewer in number but larger diameter. Just like the smaller venules, the veins have less musculature in their vascular walls. To compensate for this, the veins are assisted in their movement of blood back to the heart with a series of one-way check valves. These structures help to insure that blood moves towards the heart, while at the same time not reversing in its directional flow. This process eventually ensures that the cardiovascular system returns the blood back to the heart.

Blood – As fascinating as the structure and function of the cardiovascular system has been up to this point, the reality is this essential system would be unable to perform its life-sustaining job unless it had a fluid medium to transport oxygen and other important substances throughout the body. It is this same blood that also helps to rid the body of certain waste material, such as carbon-dioxide. These, and other important tasks, are accomplished by four main constituents of blood, which include: plasma, red blood cells, white blood cells, and platelets. Each of these four components has a specific function within the body. Plasma is the straw-colored liquid that suspends the three other kinds of cells. It also makes up approximately 55% of the blood's volume. Red blood cells, also know as erythrocytes, transport oxygen from the lungs to the cells of the body. Next are the White blood cells. These are specialized cells that help to fight off infection and produce an immune response with the body. The fourth type of cell found with the blood is not really a cell at all, but instead are pieces of cells, called Platelets, or thrombocytes. Their function is to produce clot formation within the body. Together, these four components make up approximately 8% of the body's entire weight.

SECTION 3 – COMMON AILMENTS OF THE CARDIOVASCULAR SYSTEM

Anemia – This is a common condition caused by a reduced amount of red blood cells or hemoglobin in the body. In their best selling book, *Prescription for Nutritional Healing,* James and Phyllis Bach, state:

> Millions of Americans suffer from anemia, which involves a reduction in the amount of oxygen that the blood can carry. This reduced red blood cell count results in weakness; fatigue; dizziness; pale-appearing nails; lips, and eyelids; irritability or depression; drowsiness; soreness in the mouth; and in the female, cessation of menstruation. The first signs of slowly developing anemia are loss of appetite, headaches, constipation, irritability, and difficulty in concentrating.
>
> Iron is an important factor in anemia because this mineral makes hemoglobin, the component of the blood that carries oxygen. The formation of red blood cells will be impaired in those lacking sufficient amounts of iron.
>
> Of those suffering from anemia, 20 percent are women and 50 percent are children. It is a hidden disease because symptoms are not easily recognized. (91)

Arteriosclerosis/Atherosclerosis – In general, these conditions are caused by the hardening and thickening of the artery walls. While the causation of these conditions might be different, the ultimate outcome is the same. In arteriosclerosis there are deposits of calcium that build up on the inner walls of arteries, while in atherosclerosis it is fatty material that is deposited on the lumen of the arteries. Phyllis A. Bach, CNC, in her text, *Prescription for Herbal Healing,* shares that, "Atherosclerosis [and atherosclerosis] is the underlying cause of 40 percent of all deaths in the United States. Symptoms of atherosclerosis can include high blood pressure, angina, and even heart attack and stroke. Underlying causes and risk factors for this condition include a family history of cardiovascular disease, high blood pressure, diabetes, abnormal cholesterol levels, and smoking". (195)

Varicose Veins – While varicose veins can be unsightly, they can also be a sign of other substantial health concerns. James and Phyllis Bach declare that, "Varicose veins are abnormally enlarged, swollen veins that occur most often in the legs". (307) They then go on to conclude by noting:

> They [varicose veins] are the result of a breakdown of the valves inside the veins and allow blood to flow back to the heart. If the valves do not work properly, blood accumulates in the veins, stretching them and causing varicosity….These prominent, bluish bulging veins are often accompanied by dull, nagging aches and pains. Swelling, leg cramps, and a feeling of heaviness in the legs are characteristic of varicose veins. (307)

High blood pressure – It must always be remembered that the cardiovascular system is a closed system, meaning under normal conditions it, and the vital life-giving substance that it transports, the blood, are maintained at a relatively constant volume and pressure. The constant pressure that it maintains is measured in two phases or readings. The first phase is called the systolic reading. This is when the lower chambers of the heart, or ventricles, contract and consequently force the blood along its journey throughout the body. It is at this moment that the pressure exerted against vascular walls is at its highest. This is called systole. When the two ventricular chambers are at rest this is the time when the least amount of pressure is being exerted of the vascular walls, and is called diastole. Using a blood pressure cuff and stethoscope, an individual's blood pressure can be measured. The unit of measurement that is used when taking someone's blood pressure is millimeters of Mercury, or mm Hg. With these facts in mind, the blood pressure is read, or indicated by placing the systolic measurement over the diastolic measurement. An example of such a reading would be written as, 124/86 mm Hg. While the optimal blood pressure in adults has been 120/80 mm Hg, in recent years those numbers have been lowered to 110/70 mm HG. Taber's Online goes on to share this information about high blood pressure, also referred to as hypertension:

> Normal blood pressure is defined as a systolic BP between 100 and 120 mm Hg and a diastolic BP below 80 mm Hg (in adults over age 18). Prehypertension is present when measured blood pressures are between 120 and 140 mm Hg systolic or between 80 and 90 mm Hg diastolic. When either the systolic pressure exceeds 140 mm Hg or the diastolic exceeds 90 mm Hg, and these values are confirmed on two additional visits, stage I hypertension (high blood pressure) is present.

The results from uncontrolled high blood pressure can be devastating and produce numerous health issues including, but not limited to: chronic kidney failure, heart attack, and stroke.

SECTION 4 – HERBAL REMEDIES FOR THE CARDIOVASCULAR SYSTEM

It is absolutely essential to understand that there is no force outside the human body that can ultimately bring about true healing. Certain substances, procedures, and protocols can provide, or set up, the body with the things it needs to produce healing and well-being, but it is still the body, and its innate ability, that does the healing. At best, individuals assist in the process of strengthening and maintaining the vitality of the human constitution. One such system that has, and continues, to assist in this process is Herbology, or Botanical Medicine. Herbs, and other plants, have been used in one way or another to help bring about the health and wellness in the human species since its inception. While nature may produce the poison, it also produces the remedy. As time and experience show, herbs can be just such a remedy. Yes, the organic substances found within the parts of plants contain the very materials needed by the body to bring about self-healing. While the following remedies for the aforementioned ailments are in no way meant to be exhaustive in their nature, they are meant to representative of nature's bounty of healing substances.

Remedies for Anemia - If the anemia is caused because of a nutritional deficiency (which is usually the case), certain herbs can be very beneficial. Phyllis A. Bach, C.N.C., recommends Dandelion, taken as a tincture and Stinging nettle, either as a capsule, juice, or a tea. (186) Her reasoning for taking Dandelion is that it, "Contains more, iron, potassium, folic acid, and vitamin B12 than almost any herb". (186) As for her recommendation of Stinging nettle, she explains it is, "A rich source of iron, vitamin C, and chlorophyll that is effective for the treatment of iron-deficiency anemia". (186) In a similar manner, Clarence Meyer, author of several natural health books, including, *Vegetarian Medicines,* writes that spinach leaves, "contain iodine, iron, chlorophyll and flavones, and are rich in calcium, vitamin C and K1 and folic acid, which has an effect against anemia". (35) In, *The Herb Book,* Dr. John Lust lists the following herbs as possible remedies for anemia:

Alfalfa
Artichoke
Barberry
Brooklime
Burnet saxifrage
Chive
Comfrey
Dandelion
Dwarf nettle
Elecampane
European angelica
European vervain
Fenugreek
Fumitory
Gentain (all)

Ground ivy
Iceland moss
Lad's love
Milfoil
Mother of thyme
Nettle
Peruvian bark
Quassia
St. Benedict thistle
St. Johnswort
Spinach
Sweet flag
Watercress
Wild Oregon grape (57-58)

Remedies for Arteriosclerosis/Atherosclerosis - With arteriosclerosis being one of the leading causes of death among adults in the United States, its treatment is a major focus of both allopathic and alternative health care practitioners. It has long been known of the importance of caring for the blood vessels of the cardiovascular system, especially in relationship to their openness and elasticity. To promote these very important vascular qualities, John Lust, N.D., D.B.M., shares the following herbal formula for the treatment of arteriosclerosis in his famous text, *The Herb Book:*

ARTERIOSCLEROSIS

Fragrant valerian root [1 part]	European mistletoe [4 parts]
Shave grass [1 part]	Hawthorn [4 parts]

Soak 1 tbsp. Chopped plant in ½ cup of cold water for 8 hours.
Take ½ cup a day, spaced out in 3 or 4 doses. (439)

In the same text, Dr. Lust list the following herbs as effective in the treatment of arteriosclerosis:

Arnica
Artichoke
Bear's garlic
Black currant
Chervil
European mistletoe
Garlic
Hawthorn
Hedge garlic
Nutmeg
Olive
Onion

Pansy
Rue
Shave grass
Shepherd's purse
Watercress
Witch grass (58)

Remedies for Varicose Veins – Thomas Easley and Steven Horne in, *The Modern Herbal Dispensatory: A Medicine-Making Guide,* suggest the use of the Butcher's Broom as an effective remedy for varicose veins. They go on to state that, "Butcher's broom is a tonic for the vascular system, helping to prevent blood clots and to tone arteries and veins. It is particularly helpful for phlebitis, varicose veins, hemorrhoids, and bruises". (199) They go on to give the following dosage forms for Butcher's broom:

STANDARD DECOCTION: 2-4 ounces up to 3 times daily
TINCTURE: Dried herb (1:5, 60% alcohol); 1 ml (0.2 tsp.) 1-3 times daily
CAPSULE: 300-1,000 mg up to 3 times daily
TOPICAL USE: Apply as a fomentation or compress. (199)

Again, John Lust, N.D., D.B.M, lists the following herbs as potential natural remedies for the treatment of varicose veins:

Barberry
Bear's garlic
Bennet
Bistort
Blind nettle
Brier hip
Burnet saxifrage
Calendula
European mistletoe
Great burnet
Hawthorn
Horse Chestnut
Red oak
Sassafras
Shave grass
Shepherd's purse
Sticklewort
Sweet marjoram
Wax myrtle
White melilot
White oak
Witch hazel

Yellow melilot (76)

Remedies for High Blood Pressure – With high blood pressure, or hypertension, afflicting so many people, its treatment has been long pursed. Recognizing there have been numerous herbs, and herbal formulas, used to treat high blood pressure, the following are simply a small representation of what is currently being used by many herbal practitioners. The late Dr. Edward E. Shook in his famous text, *Advanced Treatise in HERBOLOGY, shares this herbal formula:*

> *FORMULA 70. Fucus* [Bladderwrack], Comfrey and Garlic.
> 1 pint of expressed essence of *Fucus* (Formula 69.)
> 1 pint of mucilage of comfrey root (See Lesson 12, page 148.)
> 1 ounce of expressed fresh garlic juice made by peeling, mincing and squeezing out the juice.
> Shake all together and apply as in Formula 69
>
> *INTERNALLY. Dose:* For adults, one or two tablespoonsful 3 or 4 times a day. Children from 3 to 7 years, ½ to 1 teaspoonful. From 7 to 12 years, 1 to 2 teaspoonsful. When given to children, it should always be sweetened with at least twice as much honey….*Fucus* is a very valuable and effective in all cases of chronic acidosis, rheumatism, gout (both internally and applied outwardly). Also in cases of high blood pressure, arteriosclerosis, and calcium deposits; relieves arthritis, reduces swelling, and so forth. (173-174)

Another simple, yet effective, herbal remedy for high blood pressure is suggested by Michael Castleman when he says, "It's best to chew 3 cloves at a time, two to four times a day. To help reduce blood pressure, cholesterol, and the likelihood of internal blood clots, three to ten cloves of fresh garlic a day is recommended". (181)

Once more, Dr. John Lust, N.D., D.B.M., provides a more extensive list of herbs found to be beneficial in treating high blood pressure:

American sanicle
Barberry
Bear's garlic
Black cohosh
Blue cohosh
Boneset
Chervil
Cleavers
Ergot
European mistletoe
Garden violet
Garlic
Hawthorn
Onion
Parsley

Rue
Scotch Broom
Skullcap
Storksbill
Wild black cherry (59)

SECTION 5 – CONCLUSION

No matter what the culture, people have long valued the healing properties of herbs. Whether it is in the form of a compress, infusion, or ointment, herbs have found their way into the healing arts of all societies. While it might be the nervous system, lymphatic system, or cardiovascular system that receives the primarily benefit of a given herbal remedy, there can be no argument that herbs have been used effectively to bring health and well-being throughout human history, and will continue to do so long into the future. Might we continue to grow in our insight and understanding of herbology, and in so doing, minimize suffering and increase wellness and vitality.

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