Chapter 3:
Heart Disease

i carry your heart with me
(I carry it in my heart)
i am never without it
(anywhere I go you go, my dear;
and whatever is done
by only me is your doing, my darling)

i fear not fate
(for you are my fate, my sweet)
i want no world
(for beautiful you are my world, my true)
and it's you who are whatever a moon has always meant
and whatever a sun will always sing is you

here is the deepest secret nobody knows
(here is the root of the root and the bud of the bud
and the sky of the sky of a tree called life;
which grows
higher than soul can hope or mind can hide)
and this is the wonder
that's keeping the stars apart

i carry your heart (i carry it in my heart)

e e cummings

In the latter part of his life Rudolf Steiner made several singular and provocative statements. When a student asked him what was needed in order for the proper development of humanity to occur in the future, he replied that mankind must

meet the following conditions:

1. He must understand that there is no difference between motor and sensory nerves.
2. He must no longer work for money.
3. He must understand that the heart is not a pump.

If any of us were asked the same question, we would probably give completely different answers—such as cleaning up environmental destruction or averting the threat of nuclear war. What are we to make of Steiner's astonishing reply?

We will discuss Steiner's first obstacle in Chapter 15 on neurological disorders. The second obstacle to overcome, that we must no longer work for money, seems logical. No emotional or spiritual progress can occur when people work for money. Of course, we need to be paid for what we do, but if our work is not interesting, challenging and meaningful, clearly the spirit will suffer. Only when our work responds to the deepest longing of the soul can we make emotional and spiritual progress in life.

The subject of this chapter is the third statement, the amazing suggestion that the heart is not a pump. We will discuss whether this statement is accurate, and then if it is, try to understand its significance for medicine, for the inner life of the human being, and for society in general. I have pondered this statement for over 20 years and only recently have I begun to understand its implications. In fact, Steiner's brilliant insight into the design of the heart and circulatory system has become my "unified field theory of medicine." What I mean is that in understanding the role of the heart, and how illnesses of the circulatory system can be healed, we can tie together many observations that otherwise remain obscure. We will see that this new understanding is crucial not only to the healing process but also to the forward evolution of humankind.

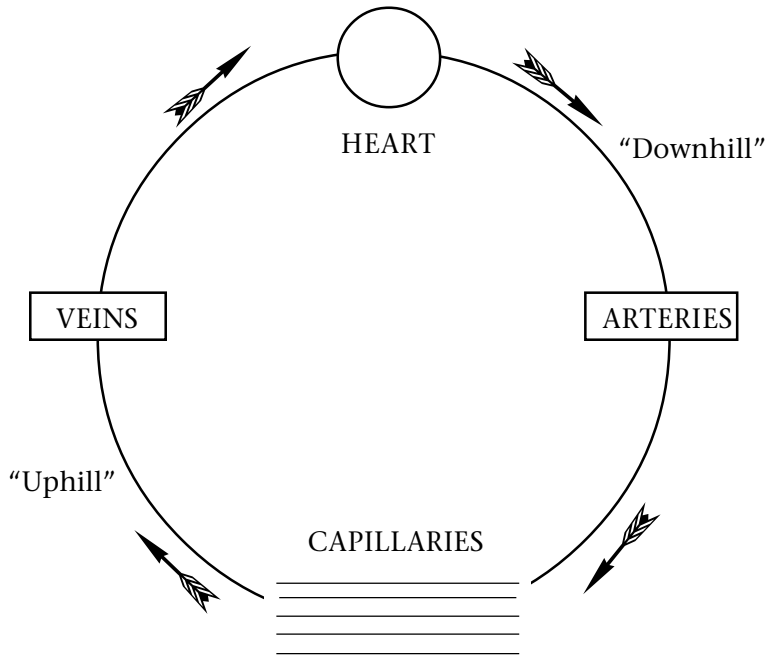
In a discussion as emotionally charged as this one, it is important to be as clear as possible with the words I am using. When I say "pump" I mean that part of the system that creates the force responsible for the movement of the fluid, in this case the blood. Normal science and medicine take it as a given that the organ or aspect of the circulatory system responsible for the movement of the blood is the heart. Specifically, we are taught that the muscular contraction of the heart walls provides the major impulse for the movement of the blood. Modern medicine accepts this assertion even though scientists do not understand how such a small and relatively weak organ can generate the amount of pressure needed to move a viscous fluid like blood through all the resistance presented by the miles and miles of blood vessels that make up the circulatory system. Nor do we really understand how the heart can perform

this muscular activity minute after minute, day after day, year after year, for a whole lifetime.

Let's look at how the textbooks explain the modern view of the heart as a pump and how this viewpoint creeps into our everyday language. Arthur Guyton's *Textbook of Medical Physiology*, the "Bible" of human physiology, contains the following statement: "The heart can pump either a small or a large amount, depending on the amount that flows into it from the veins; and it automatically adapts to whatever this load might be as long as the total quantity of blood does not rise above the physiological limit that the heart can pump"

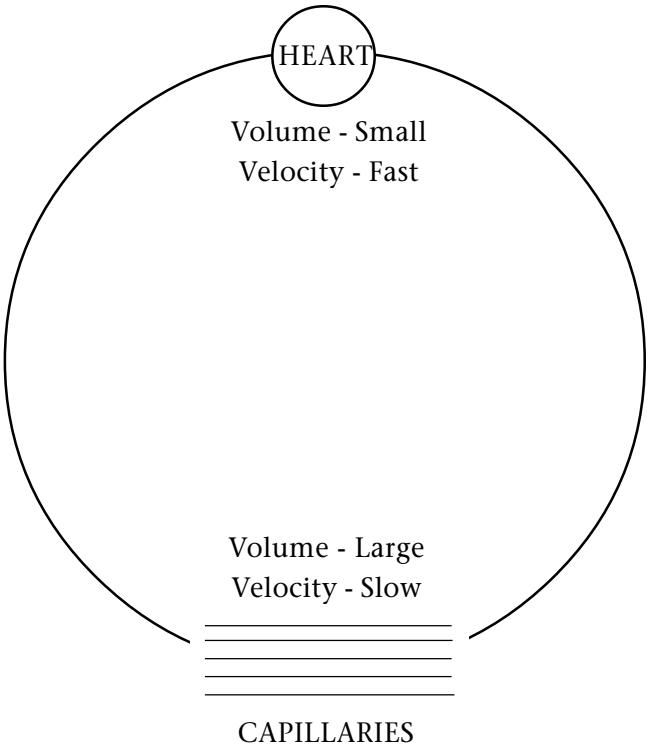
Credit for the discovery of the "pumping" action of the heart goes to William Harvey, the so-called father of modern cardiology. In 1628, Harvey claimed that the beating of the heart is the sole cause for the circulation of blood through living organisms. Another physiologist, Antoni, describes this succinctly when he claimed "The heart functions as the circulating pump that drives the blood through the vessels." This is the edifice upon which all modern cardiology is based. It is a distinctly modern, mechanistic view. Aristotle and Virgil taught that the heart rather than the brain was the seat of the mind, and a similar belief can be found in ancient Hindu scriptures and other Eastern philosophies.

Now let us look at the circulation as a whole as depicted in the diagram below:



If we imagine the circulation as a closed loop, in which the blood is confined to the inside of the blood vessels, we can make some specific observations about the movement of the blood in this system. At the level of the heart, the cross sectional area is very small. In other words, the volume of the blood at the point of the heart is compressed into a small space. The blood travels through arteries that get progressively smaller until it reaches the tiny capillaries where a transfer of nutrients between the blood and the cells occurs. After this transfer, the blood enters the venous system, first the tiny venules and then the veins, which get progressively larger as they approach the heart. In contrast to the vessels going into and out of the heart, the cross sectional area at the level of the capillaries is very large. Indeed, some researchers have suggested that if all the capillaries were laid end to end, they would cover the area of three football fields.

Elementary hydraulics and common sense observation teach us that in a closed system in which fluid is moving, the velocity at any one point is inversely proportional to the cross sectional area. In other words, at the level of the heart, where the area is smallest, the velocity of the blood is the greatest while at the level of the capillaries, where the area is the greatest, the velocity is the smallest, as depicted in the diagram below:



Actually, careful measurement of the speed of the blood shows that at the capillaries the blood actually stops, oscillates momentarily, and then proceeds. Another anomaly concerns the fact that the blood entering the heart does not actually go much faster than the blood exiting the heart. At these two points, before and after the heart, the blood moves at about the same rate. To visualize this more clearly, imagine a river that narrows down to a small width, and then widens into a pond. All of us would agree that the speed of the river is much faster at the narrowest point than it is at the pond. Consider further that except for the circulation to the head, a special exception which I will discuss later, the capillaries essentially lie downhill from the heart. By this I simply mean that the feet and legs are lower than the heart. The heart, relatively speaking, is near the top of the hill.

I have had numerous occasions over the past few years to present my views on nutrition and agriculture to farmers. I have often asked them the following question: If you had a narrow, fast-moving stream that went downhill into a pond and you needed to get that pond water back up to the level of the original stream, would you buy a pump from a man who told you he wanted to put the pump at the point of the original fast-moving stream and that this pump would not actually result in an appreciable increase in the velocity of the water? So far, I have had no takers. Instead, the farmer would put the pump at the bottom of the hill where the area is the greatest and the water has stopped. As anyone can see, putting the pump at the point in the system where the blood is moving the fastest is a serious design flaw! Of course, that suggestion is untenable—there are no design flaws in the human body, just flaws in our conception of it.

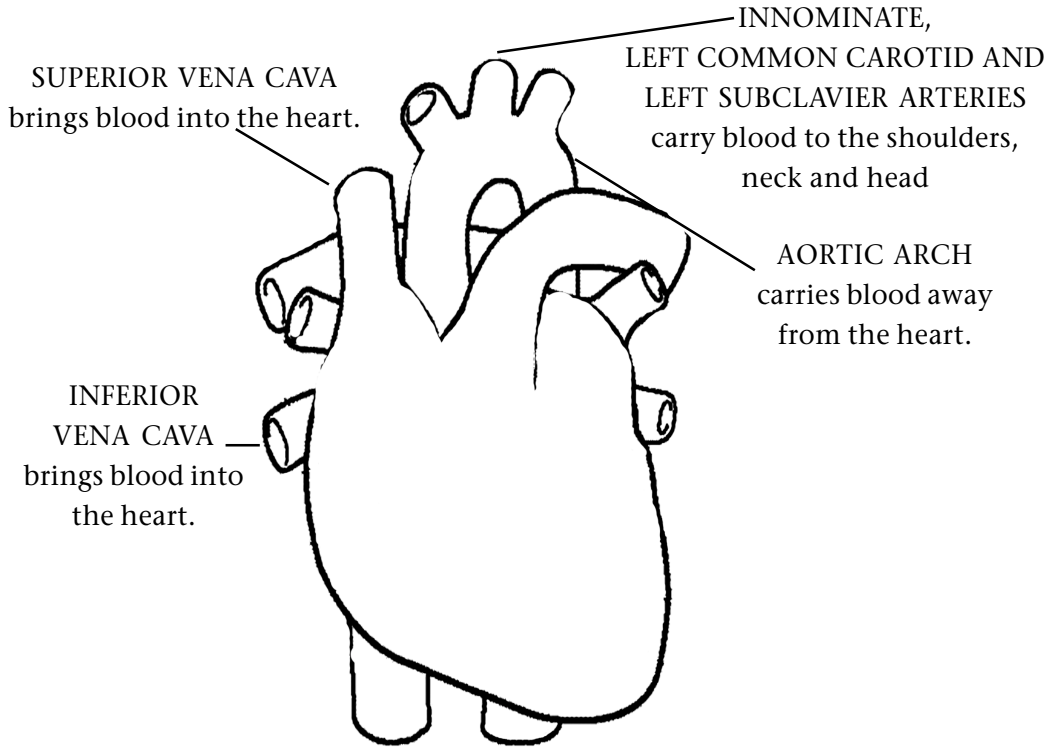
It is also problematic to consider the heart on its own as a pump. The diagram on page 142 shows the actual anatomy of the heart and its immediate vessels.

As you can see, the aorta or "outflow" tube leading away from the heart first goes up and then curves down again before it continues downward to the rest of the body. The vessels that lead up to the shoulders, neck and head come off the area of maximum bend. Another well-recognized fact is that during the time of maximum blood flow through the aorta—called the systole—the aorta actually bends more or, in engineering terms, "ascribes a more acute angle." Thus, when the heart is "pumping" at its maximum during the systole phase, the flexible outflow tube, the aorta, bends more than when the pumping is at a minimum. Anyone who has ever observed a pump at work knows that if you pump a fluid like water or blood very hard, in fact hard enough to overcome the tremendous resistance of the blood vessels, the outflow tube must straighten under this heavy pressure. But in the human system, it bends even more! Furthermore, the outflow tube faces uphill from the direction the blood eventually goes. Returning to our stream analogy, we are now asking a farmer

to buy a pump, put it in at the top of the hill where the water is moving the fastest, a pump that has *no* effect on the speed of the water *and* we are going to face the pump backwards so that when the water goes out of the pipe it is going to bend the pipe even more. This is simply preposterous!

If the heart is a pump, it is like no other pump in the world. Given the facts about the design of the heart and circulatory system, we cannot accurately describe the heart as a pump. We must examine the situation anew and come up with a better explanation for these simple observations we have made.

From the simple image I outlined above it is easy to see that the "pump," that is the driving force for the movement of the blood, must begin at the level of the capillaries. But how can this be since there are no physical "pumps" located throughout the body? Let's skip this question for a moment and consider the dynamics of blood movement starting from the capillaries. As the blood returns to the heart and the cross sectional area in the veins progressively narrows, the blood moves faster and faster. The valves in the veins keep the blood moving "uphill" towards the heart, and contractions of the muscles in the legs help increase momentum. The blood builds up maximum speed as it enters the largest veins and meets the heart. The heart



actually acts as a dam for this onrushing blood. It dams up the incoming blood and "traps" it in its four chambers, which can be likened to expandable holding tanks. When the chambers are filled to a maximum, the heart "gates" open up (we call the gates "valves") and the blood essentially falls down to the rest of the body due to the force of gravity. As it does so, it creates a kind of a suction that sucks or pulls the blood out of the heart, thereby creating a negative pressure, which bends the outflow tube during the point of maximum flow. Thus the heart is best described not as a pump, but as a hydraulic ram, a device engineers use to push fluids short distances up hills. This ingenious device is inserted into rapidly moving waters where it traps the "energy" of the water in an expandable tank; it has gates that open when the pressure builds in the tank and once the gates are opened, the water is essentially sucked out of the tank and the outflow tube bends, creating a kind of slingshot effect. The "pumping" is accomplished not by the walls of the tank, but by the trapped energy of the water. Typically, the outflow tube is put "backwards" to increase the suction. This model explains how the heart is able to do its job year after year, as it takes very little work to simply open the gates, and it puts no stress on the heart muscles. The electrical system of the heart helps to regulate the rhythmical opening of the gates, just as the hydraulic ram is attached to a power source to regulate the opening of its gates.

There *is* one area in this beautiful system that requires a nudge from the heart and that is the blood flow to the head, neck and and shoulders. As these are situated above the heart, the blood cannot get there via the force of gravity, but needs a little push. The blood to these areas goes through the innominate, left common carotid and left subclavier arteries, which as I said, come off the aortic arch. The amazing thing is that when the suction happens and the aorta curves more, this brings these arteries into an almost straight shot from the heart, facilitating this extra push. When understood properly, we can only marvel at this mastery of design, right down into the fine details involving the placement of the blood vessels.

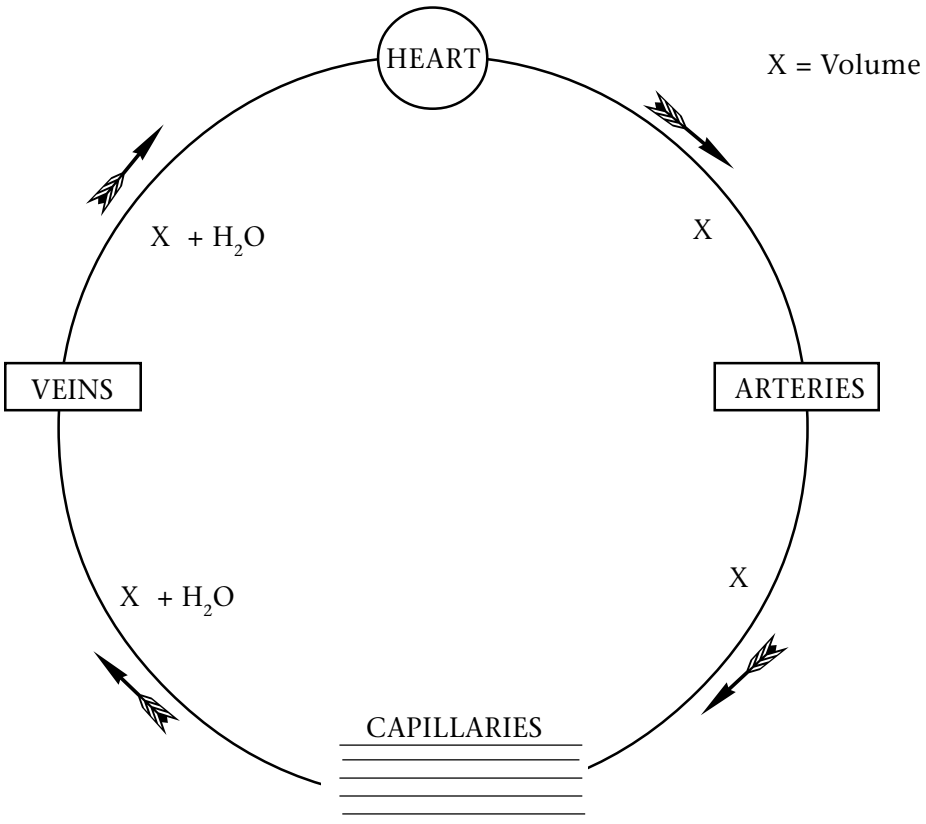
We now return to the question of how the blood begins movement in the capillaries. Let us go back to our original drawing of the circulation, as shown on page 144.

If we imagine a certain fixed volume of blood, we can see that the amount of blood entering the capillaries should be the same as that exiting the capillaries through the venules or fine veins. However, this is not actually the case because inside the capillaries, the cells extract food and oxygen from the blood and put carbon dioxide and water into the venules. This increase in the volume of water on the vein side of the capillaries as opposed to the artery side creates a gradient of pressure, called osmotic pressure, which actually pushes the blood in the direction of the veins. The

millions of cells acting independently and interdependently create enough osmotic pressure to get the blood moving, and then the narrowing of the vessels increases the flow. Clearly, it is the process of metabolism, or "eating" that provides the actual push for the movement of the blood. Osmotic pressure, in the form of the production of water from food and oxygen, is *the* pump.

One final point: The heart does not pump—what it does is *listen*. This amazing organ senses what is in the blood and then calls forth the necessary hormones so that homeostasis is maintained and the cells can function optimally. The heart serves the cells not by pushing blood towards them but by balancing and integrating the blood's chemistry. In fact, Steiner suggested that the heart also senses and integrates our thoughts, our emotions and our will to carry out tasks. The heart, then, is not a mechanical pump, but actually a sensitive integrator of all our experience.

But there is even more to this story, a fact well-known to poets throughout the ages and to the ancient cultures that viewed the Earth as the center of the universe, for the heart lies between Venus (the venous system) and Mars (the arterial system,



named after Ares or Mars), the namesakes of the basic male and female impulses. The heart, therefore, is the mediator between our male and female aspects, our *anima* and *animus*. In fact, the heart has a monumental task, acting as a kind of tireless therapist—integrating, sorting and processing all of our impressions, trying to create harmony and rhythm out of all that happens in our lives. It is no wonder that poets and sages have sung the praises of this indefatigable friend and clearly located the emotion of love in our hearts.

The repercussions of this model are legion. To begin with, any problem of the heart or circulation must first address the integrity of the "pump;" that is, the generation of osmotic pressure. Some of my patients on hearing about this model wonder whether they should drink more water in order to increase the efficiency of the pump. But that is the wrong approach. It is the gradient or *difference* of water pressure from the artery side to the vein side that provides the pump; in fact, increasing total volume in the system makes it harder to move the blood because the excess water volume makes it heavier. No, the only way to "pump" the blood is to increase the gradient. How can this be done? It is actually quite simple if we realize one important fact—that the amount of water liberated from the metabolism of fats, especially saturated fats, is much higher than the amount of water liberated from proteins or carbohydrates. According to the biochemistry textbooks, consumption of 10 grams of protein releases 4 grams of water; ten grams of carbohydrates release 6 grams of water. But consumption of 10 grams of fat releases a full 10 grams of water. This liberation only occurs, however, when sufficient oxygen is present in the blood. So, oxygen plus a metabolism in which the cells live predominately on fats instead of carbohydrates or protein results in the most efficient pump and the healthiest circulation.

Given this model, one would expect those people who do regular exercise and eat a diet consisting plentifully of healthy fats and low in carbohydrates to have the healthiest hearts and circulatory systems. This exactly fits Dr. Price's descriptions of the Swiss, Gaelics, Eskimos, African cattle herders and South Sea Islanders as well as modern observations of the French (the so-called French paradox). Finally, the confusing world of cardiology begins to make sense!

This simple model is the backbone of all my recommendations to those with problems of the heart and circulation: eat more fats and get more exercise. If possible, 80 percent of your caloric intake should be from fats, mostly saturated fats. Fortuitously, the high-fat diet will make you feel more like exercising. Metabolization of fats generates healthier circulation by making the osmotic gradient more pronounced. Besides, it is a wonderfully tasty therapy!

Here are a few points to remember as you begin to increase the fat content of your diet. The first is that signs of fat deficiency include the feeling of coldness; in his

Fundamentals of Therapy, Rudolf Steiner states that eating fats is *the* way to generate more warmth. This is because fats improve the circulation. Other signs of fat deficiency include craving for anything (from sugar to water), poor circulation, the feeling of dryness in any body part (such as eyes, skin and joints), or simply the feeling of tiredness. These are all signs of fat deficiency and you cannot solve them by drinking more water—this only makes the circulation more sluggish. You can only solve these problems by increasing the efficiency of the pump, that is by eating more good fats.

A sign of excess fat consumption is the feeling of nausea; if this happens reduce your fat intake temporarily and eat more bitters and fermented foods such as sauerkraut, beet kvass and dandelion greens, to help you digest the fats. If you undertake to increase the fat content of your diet along with a regimen of regular walking, your circulation will demonstrably inprove in a matter of weeks. Perhaps this requirement for regular walking was the reason Steiner said heart patients should never travel faster than their own two legs could carry them. He was encouraging people to walk!

This model also explains why there has been an "epidemic" of congestive heart failure in the recent era of lowfat diets. This phenomenon has also increased since the promotion of cholesterol-lowering regimes. Lowering the fat intake or level in the blood lowers the efficiency of the pump, the circulation gets sluggish, and eventually can hardly go forward. At that point the heart enlarges and weakens, a condition we call congestive heart failure. The basic cause of this condition is bad advice—the lowfat, cholesterol-lowering measures orthodox medicine promotes as gospel. Most cases of congestive heart failure can be reversed simply by increasing fat intake and engaging in regular walking.

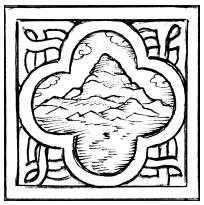
It is not uncommon in the history of the world for philosophers or social scientists to look to the human being as a model for society at large. The alchemists summarized this way of thinking with the phrase "As above, so below." A famous example of this type of thinking was the use of social Darwinism to justify the mistreatment of the poor or the slaughter and repression of indigenous people. The Darwinian paradigm described these peoples as unfit, especially compared to the "more fit" peoples of European descent.

If we are to use the human being as a model for our social system, it is important to get the model correct. Survival of the fittest is no more an accurate description of human evolution than the model of the heart as a pump. Both models are inaccurate and inherently misleading. Recently, when I heard General Tommy Franks describe the US military as a system that functions like the circulatory system, where central command gives the orders (like the heart pumping blood) that are then transmitted to the soldiers who carry out these orders (like the blood to the cells), I knew another slaughter was in the offing. If the heart is not a pump, and the movement of the

blood is initiated in the individual cells, then the orders should be given by the individual soldier; the role of central command, like the role of the heart, is simply to listen to the will of the people and the soldiers! A society that believes the heart is a pump is a society that accepts centralized control, planned economies, central banks, a national farm policy, government-dictated medical policy, chain stores for our clothing and one big company that makes everyone's shoes.

If the heart functions as a listener rather than as a pump, then the model for the state should not be one of central control, be it the socialist state or the Federal Reserve, but one of freedom and decentralization; of 10 million local farms each taking care of their own land and neighbors rather than a central farm policy; of thousands of artisans making shoes and clothes rather than a few large shoe companies and clothing produced in Third World sweatshops; of a billion religions, not three or five central dogmas; of a God that listens and reacts to our needs, just as the heart reacts to the circulation, not the other way around. The heart as a pump reflects itself onto society as control leading to slavery and the inability for mankind to progress, just as Rudolf Steiner suggested.

Nutrition



Using *Nourishing Traditions* as your guidebook, the strategy with any "disease" of the heart is to slowly increase the percentage of healthy fats in your diet. The target range is usually between 60-80 percent of total calories depending on your reaction to the food. Remember that fats contain twice as many calories as protein or carbohydrate foods and proteins and carbohydrates can contain as much as 85 percent water while fat contains none. Thus, a well-marbled steak contains about 80 percent of its calories as fat, even though fat comprises less than 25 percent of the volume or weight; whole milk contains 50 percent of calories as fat and cheese contains over 70 percent of calories as fat.

As I mentioned, let your body be your guide to the amount of fat that is right for you; watch for signs of cravings (too little fat), or nausea (too much fat). Most importantly, eat regularly of fermented and bitter foods, such as beet kvass, sauerkraut and bitter green vegetables, to help you digest and absorb the fats. These guidelines hold for any disease of the circulatory system, especially any feelings of coldness or fatigue (usually a result of poor circulation and deficient warmth).

The fats you eat should be largely animal fats, along with some olive oil, coconut oil and palm oil. Although the public rarely hears about them, many studies have implicated polyunsaturated vegetable oils, not animal fats, as a major cause of heart

disease. In 1900, when heart attacks were unknown, the American diet was rich in saturated fat and cholesterol from butter, cream, lard, tallow, whole milk, cheese and meat. Today, most of our fat calories come from vegetable oils, a direct result of today's orthodox dietary advice! Modern commercial vegetable oils create imbalances at the cellular level that can lead to clots. And partially hydrogenated vegetable oils, the *trans* fatty acids, seem to disrupt the development of the cell membrane, making the cells stiffer and more inflexible, leading eventually to "hardening" of the blood vessels and a less efficient "pump." *Trans* fats also reduce the amount of energy available to the heart.

Furthermore, modern processing removes many important fat-soluble vitamins from our diet. Vitamin E is a natural antioxidant. It protects against clots and inflammation of the blood vessels. Vitamin E is removed or destroyed during the high-temperature processing of vegetable oils, as well as in the refinement of our grains. Vitamins A and D are needed for mineral assimilation and hence a host of processes that support optimal metabolism in the cells and the electrical system that regulates the heart. Dr. Price was able to demonstrate that deaths from heart disease went up during times of the year when the levels of fat-soluble vitamins in the local butter went down. These nutrients are found mostly in the fats and organ meats of animals that eat green grass and in seafood.

The food industry is aware that its processing methods destroy vitamin content. Its response has been to add synthetic vitamins to our foods. But synthetic vitamins are not as effective as those occurring naturally. In fact, synthetic vitamins may have an effect opposite to the natural form. Synthetic vitamin D_2, which was added to milk for many years, can cause softening of the hard tissues (such as the bone) and hardening of the soft tissues (such as the arteries). The dairy industry quietly dropped vitamin D_2 in favor of more natural vitamin D_3, but D_2 is now added to increasingly popular imitation milks made from soy, rice and oats.

The diet for heart disease should eliminate all processed foods containing sugar, white flour, additives, rancid vegetable oils and especially *trans* fatty acids from partially hydrogenated vegetable oils. It should be rich in fat soluble vitamins from grass-fed butter and cream (preferably raw), seafood, lard and liver. Liver is especially important because it supplies vitamin B_{12}, recently shown to be important for the cardiovascular function, and is the best dietary source of copper, a mineral that is vital for proper function of the artery lining. Bone broths for calcium and leafy green vegetables for magnesium should be included as these two minerals are also vital for cardiovascular health. Raw animal foods (raw milk and cheese, raw and marinated seafood, raw beef and lamb) supply vitamin B_6, another important nutrient for the heart. Finally, coconut oil supplies lauric acid, which has strong antimicrobial proper-

ties to combat viruses and other pathogens that can irritate the arteries.

Supplements should include cod liver oil to supply at least 10,000 IU vitamin A per day. The vitamin D content of cod liver oil is needed for the absorption of calcium and magnesium and the special fatty acids it contains have been shown in many studies to decrease platelet aggregation or clot formation leading to coronary thrombosis (blockage of the small coronary arteries). If you don't like liver, take 4-6 Carlson's desiccated liver capsules per day. Also, take 1/4 teaspoon of rose hip, acerola or amalaki powder mixed with water to supply vitamin C. Finally, I recommend Cataplex E2 by Standard Process for vitamin E. Many of us are familiar with the voluminous literature on the role of vitamin E in preventing heart disease. The Standard Process vitamin E formulation accentuates the particular nutrient that is responsible for prevention of thrombosis and should only be given to people diagnosed with coronary artery disease. The dose is 1-2 tablets 3 times per day.

Therapeutics

There are several medicines that are appropriate for virtually all patients with problems of the circulation, including coronary artery disease, cold hands and feet, varicose veins, and to a certain extent cardiac arrhythmias. All of these conditions, with the exception of arrythmias, are the result of "pump failure" in the way I have described above. They all respond quickly to the basic steps of a high-fat diet and regular walking.

The first medicine is Cardiodoron, a specially prepared mixture of three plants formulated by Rudolf Steiner. In creating this medicine his intention was to regulate or "harmonize" the "periphery" with the "middle." I understand this to mean that the combination helps the heart and the circulation work together, rather than oppose one another. Curiously, even though there are many folk remedies and plants that have been used for centures for heart conditions, none found its way into this medicine, which is composed of cowslip (*Primula veris*), Scotch thistle (*Onopordon acanthium*) and henbane (*Hyoscyamus niger*). In many ways, these three plants bring together the three possible strategies of a plant, the three roles that plants play in nature. Cowslip flowers as early as possible in spring, thistle flowers at midsummer and henbane reserves its flowering until almost autumn. Furthermore, these plants represent both the succulence and lightness of the primula and the darkness and heaviness of henbane, with thistle somewhere in the middle. This combination also gives us the nutritive qualities of primula plus the detoxification aspects of thistle, along with the outright poisonous qualities of henbane. In these we begin to get a

picture of a medicine that is an integrator of much that lives in the world of nature, just as the heart is the integrator of the flow of blood.

An interesting research paper published in the German journal *Arzneimittelforschung*, 2000, sheds some light on the effects of the Cardiodoron combination. The researchers looked at the importance of what is called heart rate variability and noted that the healthier the heart, the greater the beat-to-beat variability. This is analogous to the difference between beat and rhythm. Beat can be mechanical, even done by a machine, as it keeps a constant, unchanging rhythm, a situation that is anathema to healthy, living organisms. A healthy circulatory system, requires a constantly changing, adapting rhythm, like the master drummer who uses changing rhythms to keep his band together. The heart's task of harmonizing and integration can never be accomplished by a mechanical beat. In the study, the researchers found that Cardiodoron increased heart rate variability after four weeks of use in healthy volunteers. In other words, Cardiodoron helps tune the heart so that it listens more closely and adapts to the rhythm of the pump, which is the metabolism. This is the very essence of cardiovascular health. The medicine is given in a rhythmical fashion, 20 drops in water 4 times per day for at least one full year.

Another important medicine is Cardioplus by Standard Process. It contains nutients that help the circulation, including coenzyme Q_{10} to strengthen the heart muscle, and magnesium, a nutrient that regulates cardiac rhythm, as well as the protomorphogen of the heart. It is clear from the writings of Royal Lee that while he may not have understood the true nature of the heart, he did suggest that treating the heart should be accomplished by improving the nourishment of the entire person and not just the heart. His developed a heart "test" called the acoustic cardiograph to listen to the heart as it adapts to the changing conditions of circulatory flow. Cardioplus is not designed to increase the pumping efficiency of the heart; rather it is a source of nourishment for the circulation. The dose is 2 tablets 3 times per day for virtually any circulatory imbalance.

The third general medicine for cardiovascular health is the herb hawthorn, which has been shown to improve virtually all conditions of the heart and circulation. Once again, this remedy is best thought of as food for the circulation. These flavonoid-rich leaves and berries help increase the integrity and tone of the blood vessels walls, facilitating the smooth circulation of the blood, thereby making it easier for our "pump" to work. I recommend hawthorn from Mediherb, 2 tablets 2 times per day for about 1 year.

In conjunction with these medicines, I often suggest a preparation made from homeopathic gold. Earlier, we presented the medieval philosophy of correspondences in the body, with each of the seven traditional metals linked to one of the seven

planets in our solar system and to a human organ. Traditional cultures assigned qualities to each of the planets based on the length of their cycles and other properties. Then, invoking the philosophy of "as above, so below," they linked the qualities of each planet with the metals found in the earth, and with the organs of the human body, as summarized in the chart below:

Sun	Gold	Heart
Moon	Silver	Reproductive Organs and Brain (reflection)
Mercury	Mercury	Lungs, Large Intestine
Venus	Copper	Kidneys
Mars	Iron	Gall Bladder
Jupiter	Tin	Liver
Saturn	Lead	Spleen

It should come as no surpise that gold corresponds to the sun, which in turn relates to the organ of the heart. As the sun through its light and gravitational influence provides integration and harmony to the other six planets, so too does our heart provide integration and harmony to the other organs through its influence on the components of the blood. I give Aurum D10 as a subcutaneous injection 3 times per week in the left upper arm.

When heart arrhythmias accompany cardiovascular problems, I suggest an herbal combination of Tienchi ginseng 50%/ motherwort 20%/gingko leaves 30% from Mediherb. Arrhythmias involve the "electrical" system that controls the gating mechanism of the heart rather than the pump itself. They are often difficult to resolve and require proper diagnosis to assess the severity of the problem. While it is not entirely clear how this herbal combination works in combatting arrhythmias, each has both traditional and modern scientific evidence to support its use. My guess is that gingko increases the oxygen supply, thereby facilitating the conversion of food into available nutrients. Motherwort is a mild sedative for the autonomic nervous system. Tienchi ginseng, like gingko, works with oxygen, but in this case improving the efficiency of oxygen utilization. The dose is 1 teaspoon 2-3 times per day for 6 months.

By the way, excessive consumption of soy products can cause arrhythmias by disrupting potassium metabolism. Anyone suffering from this problem should cease all consumption of soy.

Movement

The heart is the place where the three spatial planes are balanced. In ideal conditions, there is a harmonious interplay between contraction and expansion. If the heart area has been locked in a gesture of contraction, or has been "boxed in," the blood vessels constrict and the heart muscle is deprived of the nutrients it needs for its integrating tasks. The result is strain rather than strength. The various exercises for defining the three planes can be helpful to the patient with heart disease, especially the Water Level Gesture and Autumn Leaves. Lowering the Sail can also help bring the horizontal plane down to the level of the heart and is especially helpful for angina. The Spinal Stretch is also recommended.

People with heart conditions tend to hold on to the past. Letting Go is an excellent gesture for removing constriction in the heart area. In addition, the Rice Paper Walk helps bring blood down from the head. In the Rice Paper Walk, we go forward without pushing from behind, but by releasing what is in the past. This is a serene, timeless walk that stimulates an "opening up," and is good for high blood pressure, menstrual problems and insomnia as well. Finally, the Wrestling Stance and Penguin Wrestling can be useful in mitigating aggressive tendencies.

Any exercise that is rhythmical can help the heart — dancing, swimming, walking or running in moderation. In a sport like tennis, emphasize graceful follow through rather than aggressive power.

Rudolf Steiner once remarked that high-speed travel can contribute to heart disease. If you are a very high-risk case, try to limit the amount of time spent in planes, trains and automobiles. However, it would be impractical to suggest that heart disease patients should never move faster than their own two legs can carry them. Try to do your errands either by walking or using a bicycle. Leisure activity involving hikes, nature walks and walking tours are especially appropriate. Jogging or running can be detrimental in serious cases. Wherever you travel, bring your own Personal Space with you and move with joy.

Meditation

The meditation for the heart can be none other that the practical advice to "follow your heart," advice that is easy to give but often difficult to implement. I have found two ways that work for myself and my patients. First, since it is clear from this model that the "central" God listens, it is important that we talk to "Him." In other words "Ask, and it shall be given unto you." Explain your situation as though you were talking to your best friend, then ask for guidance. It is important that the image you carry is one of asking for help—no demands, no suggestions, just the heartfelt request for help.

The second approach is one I learned from the work of Marshall Rosenberg and described in his book *Non-Violent Communication*. Rosenberg suggests that you find the person in your life whom you consider the best listener, then sit down with him or her for 30 minutes and just tell your story in whatever way it comes out. Then have them ask you to answer the following question: "At this point, what would make your life more wonderful?" Then listen very carefully to your answer. If the answer makes you laugh or cry, it comes from your heart. Try to honor the answer you receive in the best way you know how. When you have finished this exercise try to do the same for at least three other people in your life. Continue this cycle until your heartfelt answer is, "Now my life is wonderful," and no more changes are needed. When that moment comes, your heart as well as your life will be whole.

RECOMMENDED READING

Non-Violent Communication by Marshall Rosenberg

Summary

Nutrition

- Avoid — All processed foods, especially those containing *trans* fatty acids
- Emphasize — Plenty of appropriate fats, up to 80 percent of calories
  Bitter and lacto-fermented foods
  Grass-fed butter and cream (preferably raw), seafood, lard and liver for fat-soluble vitamins
  Bone broths
  Leafy green vegetables
  Raw animal foods
  Coconut oil
- Supplements — Cod liver oil to supply 10,000 IU vitamin A per day
  Desiccated liver capsules by Carlson's, 4-6 per day (if you don't like liver)
  1/4 teaspoon of acerola or amalaki powder mixed with water
  Cataplex E2 by Standard Process, 1-2 tablets 3 times per day

Therapeutics

- Cardiodoron from Weleda, 20 drops in water 4 times per day for at least 1 year.
- Cardio-Plus by Standard Process 2 tablets, 3 times per day for at least 1 year.
- Hawthorn tablets by Mediherb 2 tablets, 2 times per day for at least 1 year.
- Aurum D10 given as a subcutaneous injection 3 times per week in the left upper arm.

* For arrhythmias, Tienchi ginseng 50%/ motherwort 20%/gingko leaves 30% from Mediherb,1 teaspoon 2-3 times per day for 6 months.

Movement

* Exercises for balancing the intersection of the three planes, especially the Water Level Gesture and Autumn Leaves.
* Lowering the Sail for angina.
* The Spinal Stretch for increased circulation.
* Letting Go and the Rice Paper Walk.
* Wrestling Stance and Penguin Wrestling.
* Rhythmical exercise.
* Reduce time in planes, trains and automobiles as much as possible.
* Wherever you travel, bring your own Personal Space with you and move with joy.

Meditation

* Talk to "God" and ask for guidance so that you can "follow your heart."
* Tell your story to a friend who is a good listener and then have him or her ask the question, "What would make your life more wonderful?" and then honor the answer you receive.