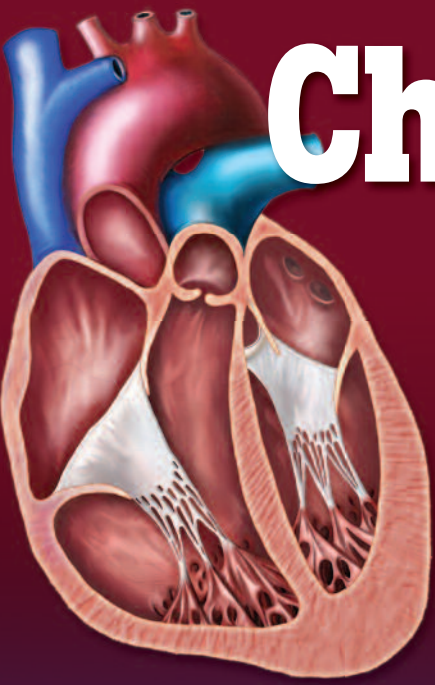
A MEDICAL TREASURY



Chelation:

Natural Miracle For Protecting Your Heart And Enhancing Your Health

Prevent or Reverse Clogged Arteries and Defend Against Heavy Metal Toxins

By Michael Cutler, M.D.

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Published by *Easy Health Options*™
P.O. Box 1105, Cullman, AL 35056
www.EasyHealthOptions.com

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Contents

Introduction

Our modern lifestyle has taken a serious toll on our heart health and increased our risk of cancer and other life-threatening diseases. Our wellness suffers when we eat processed food, consume sugary drinks, breathe polluted air and encounter a wealth of toxins—especially insidious heavy metals—produced by modern industry. The results of this toxic exposure can be the formation of calcified deposits in our arteries, the start of cancerous growths and other serious conditions. In our cardiovascular system, blockages narrow blood vessels and obstruct the crucial flow of blood and oxygen to the heart muscle. In other parts of the body, heavy metal contaminants can lead to malignancies that destroy vital organs. Additionally, autoimmune reactions (when the body attacks itself), stimulated by our polluted environment, can bring on arthritis, lupus, multiple sclerosis, Parkinson's… the list of conditions linked to environmental toxins is almost endless.

In this health crisis, coronary artery disease has become the No. 1 killer in the U.S., with cancer not far behind. Without warning, a heart condition can set off a catastrophic heart attack that is often fatal. Cancer's toll, of course, is just as serious if less rapid.

What links all of these problems together? Often it's heavy metals like mercury, lead and cadmium that are unknowingly ingested every day. Once these substances get in our bodies, they cause serious damage that can strike you down at any age but are particularly problematic as you age.

Consider these statistics: Every half a minute someone in the U.S. has a heart attack; about half of those victims die. Meanwhile,

about 8 million people a year, worldwide, develop cancer. Statistics from the World Health Organization (WHO) show that the cancer total is expected to rise to 11 million new cases a year by 2030.[1]

And there's more bad news. The leading killer of people over age 65 in the U.S. is congestive heart failure. This life-threatening condition progressively weakens your heart muscle, diminishes its pumping force and leads to life-threatening fluid retention. Clogged arteries are the leading cause of congestive heart failure. People over age 65 also have an increased risk of cancer and account for 70 percent of all cancer deaths.[2]

In addition, clogged arteries in any part of the body can lead to life-threatening clots. Every year, one out of every 300 Americans is killed by a clot originating in a blocked artery. That includes clogged arteries in the legs and neck, which can release deadly clots that lodge in the heart, brain or lungs.

Diseased Profits

You might think the medical establishment stays awake at night burning the midnight oil thinking up ways to prevent these types of deadly problems. Quite the contrary. It earns billions of dollars with after-the-fact treatments like expensive drugs and invasive surgeries. Preventive measures, keeping you from getting sick in the first place, are rarely contemplated.

Obviously, conventional medicine has the resources to conquer many of these health problems if that was something it desired. But from what I've witnessed in my own medical career, it won't happen. Mainstream medicine won't release the stranglehold they have on America's wallets, even if it kills people just like you and me.

The solution: Take matters into your own hands.

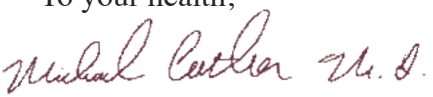
Inside this report, you'll discover a powerful natural alternative for unclogging your arteries, protecting your heart and clearing out heavy metals that threaten your health. It's a safe and effective way to advance your well-being. The benefits of this

incredible health tool include a wide variety of remarkable health improvements for your heart, brain and entire body.

My files overflow with research reports and patient case studies outlining the positive changes from this amazing treatment. It can reverse hardening of the arteries, reduce chest pain, boost circulation, normalize blood pressure, improve brain function and more. And all of these benefits are linked to its ability to remove heavy metals from the body.

What's the name of this unique health-saver? It's called EDTA chelation—and it's a wonder. Keep reading to find out more.

To your health,



Michael Cutler, M.D.

CHAPTER 1

EDTA Chelation: Vanquishing the Heavy Metal Health Threat

Natural Alternative for Heart Health

Did you know that anywhere from 44 percent to 85 percent of the people who receive coronary artery bypass surgery don't even meet the generally accepted medical criteria for having the procedure?[3,4] To add to the problem, conventional cardiologists and the American College of Cardiology consistently promote this flagrant abuse of surgery. In contrast, the American Heart Association admits that a huge number of these surgeries are, indeed, worthless.[5] However, aside from doctors recommending unnecessary surgery, I'd wager that many of these operations take place because people demand them, believing that a surgical procedure represents the solution to their heart disease.

At the same time, the medical establishment ignores an effective natural method for heart problems and other health difficulties: Chelation therapy with a benign chemical called EDTA.

EDTA, which is short for ethylenediamine tetra-acetic acid, is a simple amino acid, very similar in composition to common household vinegar. EDTA is thought to attach itself to life-threatening plaque and cholesterol deposits on artery walls and then remove these deposits gently, allowing them to be eventually filtered out of the blood by the kidneys. In addition, EDTA also grabs hold of environmental toxins and heavy metals and

effectively sweeps these harmful substances out of the human body. Both of these effects benefit your heart (as well as other organs). The overall elimination of heavy metals can boost the health of your entire body and restore circulation to your extremities.

"EDTA chelation has been given safely to more than one million patients in the US and another three million around the world."

The American College for the Advancement in Medicine (ACAM) is dedicated to training doctors in the use of EDTA chelation to lessen hardening of the arteries and other chronic degenerative conditions.

In the United States alone, more than 1,500 physicians recommend EDTA chelation through their practices as a central focus of treatment for cardiovascular disease. According to the latest statistics, EDTA chelation has been given to more than 1 million patients in the U.S. and more than 3 million patients in Canada, Europe, Australia and South America.

EDTA chelation is quite safe, having been used worldwide for more than 75 years without any significant side effects reported. It's so safe, in fact, the FDA and United States Department of Agriculture have approved the inclusion of EDTA in the foods we eat every day.

Basic Facts About EDTA Chelation

EDTA chelation is an all-natural solution for a healthier heart and removal of toxic heavy metals from the body. The word chelation (pronounced key-LAY-shun) is derived from the Greek *khele*, meaning claw. Chelation with EDTA claws out dangerous substances from your arteries, grabbing them and removing them before they can lead to harmful consequences.

EDTA's Actions on Rogue Calcium

Initially, chelation with EDTA may remove the rogue calcium ions that act as glue inside your arteries, collecting the material

that forms artery-blocking plaque. When the calcium is removed, the plaque is believed to dissolve, allowing blood to flow more freely. This restoration of blood circulation helps the vascular system deliver more oxygen and nutrients to the cells.

But EDTA's ability to flush out environmental toxins offers additional, and some believe, its most significant benefits. Because of its chemical properties, EDTA latches onto heavy metals like lead, cadmium and mercury which can otherwise destroy brain and central nervous system tissue and lead to chronic disease.

Given through intravenous (IV) infusions at a doctor's office or taken orally at home, EDTA chelation offers a wealth of significant health advantages. EDTA can:

- Dramatically reduce blockages in the heart and brain.
- Relieve chest pain.
- Ease chronic shortness of breath.
- Lower high cholesterol, high homocysteine and high blood pressure to normal levels.
- Reduce or eliminate irregular heartbeat and palpitations.
- Warm and soothe cold, numb and painful extremities.
- Alleviate swelling of lower legs and ankles.
- Restore motor control that had been lost to heavy metal toxicity.
- Soothe painful, stiff and inflamed joints.
- Restore blood sugar balance.
- Reduce incidence of chronic infections.
- Reduce symptoms of an enlarged prostate.
- Replace restless insomnia with deep restful sleep.
- Diminish annoying floaters in the eyes.
- Boost energy levels.
- Diminish varicose veins.
- Relieve sciatica and excruciating back pain.
- Vanquish male erectile problems.

- Halt or reverse age-related cognitive decline and memory loss.
- Erase digestive problems.
- Reduce skin problems.
- Restore skin elasticity.
- Reduce the effects of Peripheral Artery Disease (PAD).
- Make a wide variety of other positive changes in your health thanks to restored blood flow.

As you can see, EDTA chelation offers powerful health improvements for your entire body. While mainstream procedures focus specifically on one body area at a time, EDTA chelation offers the kind of total health benefits—completely safe and natural—characteristic of holistic therapies.

Cleaning Out the Cardiovascular System

EDTA chelation works to sweep clean every blood vessel in your body—75,000 miles of them—from the largest artery to the smallest capillary. Nearly all of these blood vessels are too small or too deep within your brain or other organs to be reached by surgery or other methods. After EDTA chelation helps remove blockages and other impediments to circulation, blood may be restored to areas previously starved of healthy blood flow for years—or even decades.

Prolonged Blockages

While doctors used to consider heart disease mainly a problem of aging, research has produced shocking evidence about how early in life the arteries and the rest of the body's blood vessels can start clogging and malfunctioning. Frighteningly, arterial obstructions can start forming during early childhood, sometimes as early as age 6. In the Bogalusa Heart Study, published in the October 1992 *American Journal of Cardiology*, researchers did post-mortem evaluations on 150 people aged 6 to 30 years who died in accidents. Measuring plaque build-up in the aortas of these unfortunates, scientists found it to be remarkably

extensive, up to 71 percent in each aorta they examined.[6] Therefore, we know that the process of depositing excess calcium on artery walls is an ongoing process that may ensue soon after birth. The final result of the process is the end stage of several decades of plaque accumulation that completely blocks blood flow.

"EDTA chelation sweeps clean every blood vessel in your body—all 75,000 miles of them—from the largest artery to the smallest capillary."

As you grow older, these plaque deposits may grow larger and larger, stretching the very limits of your blood vessels and limiting the circulation your cells require for nutrients, oxygen and waste removal. Eventually, your vascular system's blockages and restrictions may reach the critical mass for a heart attack or a stroke. But EDTA's ability to remove the troublesome plaque and heavy metals that inflame the situation makes it a valuable tool in the fight against heart disease and other chronic illnesses.

EDTA's molecular activities can help safely break down the calcium and oxidized cholesterol that is glued to the walls of your arteries. After these substances are rendered harmless, the chelated heavy metals are transported in the blood to the kidneys, where they enter the urine and are removed. The end result: Your arteries become more flexible and functional, aiding in blood flow rather than restricting it.

After more than 50 years of scientific studies, researchers have found that EDTA chelation is effective in up to 82 percent of patients in clearing plaque and other toxins from arteries. Plus, EDTA's lack of side effects makes it much safer than aspirin which can cause dangerous intestinal bleeding.[7]

Heavy Metal Problems

Perhaps no other class of modern-day toxic pollutants present more of a threat to our health than the heavy metals that industry continually releases into the environment. Research links heavy metals exposure to not only an increased risk of heart disease but

also cancer, neurological disorders, birth defects, reduced intelligence and kidney damage.

The heavy metal problem grows annually as our hunger for bigger and better electronic devices creates a deepening pool of heavy metal pollution. An estimated 70 percent of heavy metals in landfills derive from discarded electronics like large screen TVs, computer monitors, batteries, circuit boards and cell phones.

The amounts of heavy metals we add to our garbage are staggering. Approximately 100,000 tons each of zinc, chromium and lead go into landfills each year. Added to that, about 400 tons of mercury, 3000 tons of cadmium and 20,000 tons of copper are disposed of annually.[8]

And while landfills are supposed to maintain their integrity and not let these toxins escape, some release of chemicals is inevitable. When, in the year 2000, the U.S. Environmental Protection Agency (EPA) measured the heavy metals that were leaching out of landfills (compiled in what was called the "LEACH 2000" database) it found that heavy metals and other toxins were filtering into runoff water in disturbingly large amounts. Particularly troublesome were the arsenic and cadmium that had infiltrated groundwater. Additionally, data show that the levels of cadmium tainting our garbage is steadily growing, an increase thought to stem from the burgeoning use of nickel-cadmium (Ni-Cd) rechargeable batteries in cell phones and laptop computers.[9]

World Wide Problem

As much of the rest of the world, especially Asia and Africa, becomes more industrialized, our heavy metal dilemma worsens. Scientists have found that dust storms in China and Africa can lift pollutants high in the air and deposit heavy metals, other toxins, fungi and bacteria into the backyards of Americans. Plus, researchers at Arizona State University warn that our own domestic dust could be threatening our health.

The scientists in Arizona used images taken from satellites to track pollution movement across North America. They point out that pesticides used 20 years ago, which are still present in the soil, get lifted by the wind and are often blown long distances. In addition, toxins like heavy metals adhere to soil granules and sail across the continent on air currents. The researchers also found that dust carried to the U.S. Virgin islands from the Sahara desert contained a toxic brew of heavy metals, bacteria, fungi and suspected viruses. At the same time, storms in China and Mongolia have transported arsenic and other toxins to the California coast.[10]

Lead Pollution

Lead presents one of the most serious toxic risks to the human brain and other organs. Scientists are beginning to generally agree that there is no level of this deadly metal that is harmless for health.

For example, research at Tulane University shows that even the very low blood levels considered relatively safe by government agencies increase your risk of coronary artery disease, stroke and cancer. The research, which analyzed blood lead levels from about 14,000 adults who took part in the Third National Health and Nutrition Examination Survey Mortality Follow-Up Study between 1988 and 1994 found that death from any cause, including cardiovascular disease, heart attack and stroke increased progressively as people's blood levels climbed.

The Occupational Safety and Health Administration (OSHA), which regulates the working conditions of millions of Americans, defines a high blood lead level in adults as being higher than 40 μg/dL (micrograms per deciliter). But the Tulane researchers discovered an "association of blood lead with cardiovascular death to be evident at levels as low as 2 μg/dL," noted Paul Muntner, Ph.D., author of the study and, at the time, an associate professor of epidemiology and medicine at Tulane University

School of Public Health and Tropical Medicine in New Orleans.

"Since 38 percent of U.S. adults had lead levels above 2 μg/dL (in a recent survey), the public health implications of these findings are substantial," warns Muntner.

And while the Centers for Disease Control and Prevention (CDC) recommends that women of child-bearing age have blood lead levels below 10 μg/dL, the researchers found this standard is too lenient; health risks increased well below this level.[11]

In the last 30 years, the U.S. has reduced lead pollution by restricting the use of this metal in gasoline, food cans and household paint. But lead is still present in batteries, firearm ammunition, pipes and housing materials. In addition, battery manufacturing facilities, lead smelting plants, shipbuilding and ship repair sites, automobile makers and printing plants still use lead. As a result, we are all exposed to lead in the air, tainted food or soil, and polluted water.

Cadmium Dangers

When chelation with EDTA removes cadmium from your body, it is substantially improving your health and lowering your chances of serious disease. Cadmium is a silver-white metal that has found its way into many consumer products. But that's a dangerous development: Many studies show a strong association between cadmium exposure and your risk of cancer.[12, 13]

One of cadmium's dangers to health stems from the fact that it inhibits the body's repair of damaged DNA. During normal physiological activities, the body's cells constantly replicate themselves to replace dying cells. During this continual process, as DNA is duplicated, mistakes in the creation of new DNA must be corrected to prevent harmful mutations from taking place. However, cadmium not only directly causes harmful mutations, but also obstructs the correction process and thereby makes cells more vulnerable to becoming cancerous.[14]

And once cadmium is in your cells, unless you remove it

by chelation or some other purging process, it lasts a very long time. Experts estimate its half-life in the body at about 20 years (similar to lead).

Frighteningly, cadmium keeps appearing in unexpected places. A few years back, McDonald's had to recall 12 million Shrek™ collectible glasses because traces of cadmium were discovered in the pigments incorporated into their cartoon illustrations. Researchers analyzing children's imported toy jewelry from China found that these innocent looking rings, necklaces and bracelets were rich in cadmium. When young children put these objects in their mouths, as young kids often do, they were ingesting significant amounts of cadmium. Other studies found that household dust is a serious source of cadmium (as well as other heavy metals like lead).[15]

In addition, until 1997, groundskeepers applied compounds containing cadmium as fungicides to golf courses and homeowners used cadmium carbonate and cadmium chloride to kill mold and mushrooms in their lawns.

Cadmium Spill

Occasionally, major industrial incidents release huge amounts of cadmium into the environment. In June, 2011 a former phosphate plant on the Gulf of Mexico in Florida released more than 45 million gallons of water contaminated with cadmium and radioactive radium into Bishop Harbor, a bay that is an environmentally delicate habitat for fish and wildlife.[16] Government officials who measured cadmium levels at nine times the State safety standard warned that shrimp and crabs in the affected area were likely to absorb the toxic metal.

Regrettably, everyone takes in a modicum of cadmium on a daily basis. "All people will have some cadmium in their system," warns Jane McElroy, Ph.D.,[17] an assistant professor of family and community medicine at the University of Missouri who studies cadmium. In 2003, McElroy authored a study demonstrating that women with higher levels of cadmium in

their bodies were at greater risk for developing breast cancer as compared to women with lower levels. In this research, women with the highest levels of cadmium in their systems had double the risk of cancer.

In addition, scientists now believe that cadmium in cigarette smoke is one of the main culprits in causing emphysema. Research at the University of Michigan School of Public Health suggests that increased cadmium in the body can double your risk of lung diseases like emphysema or chronic bronchitis.[18]

"The study suggests that the critical ingredient in smoking that may be causing emphysema is cadmium, a well-known contaminant of cigarette smoke," said Howard Hu, Ph.D., professor at the U-M School of Public Health and principal investigator in the study. "The worry is if you are exposed to this (cadmium) through other sources you can also be at risk for emphysema."

Research in Belgium found that cadmium exposure, in cigarette smoke and in industrial air pollution, significantly increases your chances of lung cancer.[19] The Belgian scientists emphasize that cadmium accumulates in your body over a lifetime and remains there a long time.

"Cadmium is a ubiquitous environmental pollutant in industrialized countries, says Jan A. Straessen, M.D., author of the Belgian study.

Because cadmium is such a danger, the European Commission finally banned it outright from being used in jewelry and plastics. European children had been exposed to cadmium in imported play jewelry after they licked these items.[20]

Mercury Contamination

In large doses, mercury is a deadly heavy metal, permanently damaging or fatally injuring the kidneys and brain. When elemental mercury touches your skin, it can penetrate your body almost instantly causing a severe allergic reaction. Swallow an

inorganic mercury compound and you suffer severe kidney and digestive damage. Organic mercury compounds are no safer: According to the Federal office of Research Facilities, they are "considered the most toxic forms of the element." When you're exposed to even tiny amounts of organic mercury compounds you can be vulnerable to "devastating neurological damage and death."[21]

But all of us are probably exposed to low-levels of airborne mercury every day. Every time a factory or electric-generating plant burns oil, coal or wood, mercury is released into the atmosphere. In addition, industrial waste released into lakes and rivers may be contaminated with mercury.

Much of the mercury emissions created by coal-fired power plants and other industrial processes eventually end up in fish according to research at the University of Alberta in Edmonton, Canada.[22]

Many experts have also raised alarms about the dangers of mercury fillings in our teeth since these amalgams can release mercury directly into your body. Plus, researchers have found that waste water from a dentist's office, which carries away the tiny particles of mercury created by a dental drillings, is contaminated with mercury. When scientists examined the mercury content of drain water from a dental clinic, they reported that they "found the highest levels of methyl mercury ever reported in any environmental water sample."[23]

Meanwhile, other research on environmental mercury is turning up alarming findings:

- Research in Nevada found that plants take mercury from air-borne emissions (which can originate from as far away as Asia) and incorporate them into their leaves. After the leaves fall off the trees and decay on the ground the mercury goes into the local air, soil and water.[24]
- In the last 200 years, mercury air pollution has tripled.
- Mercury pollution is thought to be killing off bird populations.

- Mercury used in small-scale gold mining is currently polluting thousands of locations worldwide, directly endangering the health of 50 million people. This mining activity has increased global mercury air pollution by 10 percent.[25]

Heart Threat

Research into how mercury affects cardiovascular health finds that mercury exposure is directly associated with heart attack risk. A study at the Johns Hopkins Bloomberg School of Public Health used toenail clippings to measure people's exposure to mercury. (The amount of mercury in your body is reflected in the measurable levels in your nails.) They found that, on average, men who suffered myocardial infarction had mercury levels 15 percent higher than healthy people whose hearts were OK.[26]

These researchers believed that the high mercury levels in their subjects originated in fish tainted with this heavy metal. They warn against eating the types of fish most frequently contaminated. These include:

- Swordfish
- Shark
- Tilefish
- King mackerel
- Fish from locally contaminated areas; freshwater fish are especially problematic

Fish with moderate amounts of mercury include:

- Red snapper
- Fresh or frozen tuna
- Marlin

Low-mercury fish, recommended for heart health include:

- Salmon
- Small oceanic fish
- Sardines

Mercury Infiltrates Nerves

Although some forms of mercury are kept out of brain tissue by what is known as the "blood-brain barrier," scientists have found that this toxin can enter the brain through the nerves, in a process called axonal transport.[27] Normally this transportation system is useful for carrying nutrients into brain cells and carrying out waste products. But in this case, the specialized channel may expose the brain to mercury as well as other metallic toxins like cadmium, manganese and nickel.

Chelation: A Natural Process

Chelation, which removes these heavy metals from your body, is a completely natural process that takes place continually in the human body.

According to Dr. James J. Julian, "Chelation is a basic process of life itself. Without the chelation mechanism, life as we know it would not exist on this planet."

"Chelation is a basic process of life itself. Without chelation, life as we know it would not exist on this planet."
—Dr. James J. Julian

The body uses chelation to process substances like aspirin, penicillin, vitamins, minerals and trace elements. The hemoglobin in your blood is a chelate (the end product of chelation) of iron. Chlorophyll in green plants is a chelate of magnesium.

The most common form of chelation in your body takes place with the formation of lactic acid, a natural chelator that the body uses to remove unwanted wastes from the muscles during strenuous exercise.

In addition, soap is a chelator, using the process to eliminate dirt and grime. Water softeners are also chelators, using chelation to remove hard minerals from household water. EDTA functions similarly to these substances, taking metal ions out of the body that would otherwise cause damage.

Dr. James J. Julian succinctly explains how EDTA chelation works:

"EDTA is (a form of a natural amino acid that is modified) to make it more predictable and dependable at removing specific elements with (positive electrical charges), such as calcium and heavy metals, namely lead, arsenic, mercury, cadmium, and aluminum from your body."[28]

According to Garry Gordon, M.D., O.D., a leading expert in chelation and well-versed in nutrition and mineral metabolism, "EDTA is essentially four molecules of vinegar, and chelation is a natural process."

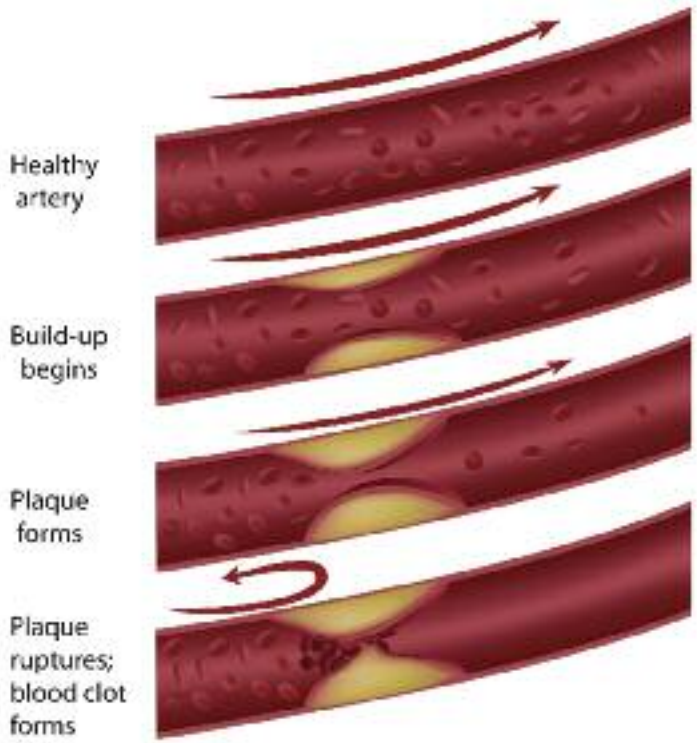
As Dr. Gordon explains, "EDTA is essentially a man-made synthetic amino acid, which hides the lead, mercury, cadmium, or other metal inside of it—so that it is finally able to exit the body with a higher efficiency."[29]

CHAPTER 2

Understanding Heart and Brain Dangers

How Arteries Clog

Arteries are the blood vessels that carry blood away from the heart to the organs in your body. These muscular vessels bear the force of each heartbeat—100,000 beats per day, which



translates to more than 36 million beats per year. Healthy artery walls are flexible and adjust for varying pressures, expanding and contracting with each heartbeat. However, unhealthy artery walls are filled with plaque and have limited elasticity. Atherosclerosis or hardening of the arteries restricts blood flow as it stiffens these vessels.

The outside of your arteries, the adventitia, consists of flexible connective tissue that surrounds a layer of smooth muscle. The elastic smooth muscle expands and contracts with each heartbeat. The inner layers of the arteries contain the basal lamina and the endothelium, the innermost skin of the artery, where the blood flows. When damage occurs within the endothelium, an inflammatory process begins leading to calcium collection and plaque formation.

It is believed that plaque begins when damage occurs in the arterial wall or the endothelium malfunctions and loses its ability to flex. The damage triggers the release of what are called clotting factors along with a flood of white blood cells, a cascade of inflammatory chemicals and the accumulation of adhesive (sticky) molecules that gather at the site of the injury.

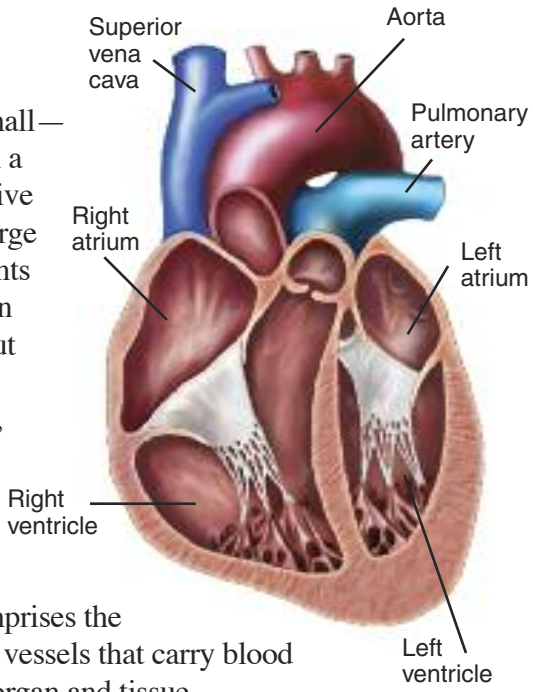
Eventually, the vessel wall collects oxidized cholesterol and scars form. Cholesterol continues to accumulate, increasing numbers of white blood cells as inflammation restricts blood flow.

At the height of this process, collagen forms a cap over the site of the injury in an attempt by the body to repair the tissue. But, at the same time, calcium encases the area and forms a strong, bone-like material which, in combination with the fatty streaks, constructs a dangerous, blood-blocking plaque deposit.

Plaque typically grows less stable as it enlarges. Consequently, it can eventually rupture and further disrupt blood flow, adding more and more obstructive materials to the area until the artery either forms a clot or becomes seriously clogged. As it progresses, the plaque can grow large enough to completely block the flow of blood to the heart and generate a full-blown heart attack.

An Inside Look at the Heart

The Hard Working Heart



Your heart is surprisingly small—only about one-third larger than a clenched fist. Still, this diminutive organ performs an incredibly large task, pumping blood and nutrients 24 hours a day to the 300 trillion cells in your body, moving about 14,000 gallons of blood every week. During a typical lifetime, the heart beats more than 2.5 billion times and pumps roughly 1 million barrels of blood.

Your circulatory system comprises the heart and thousands of miles of vessels that carry blood from your heart to every other organ and tissue.

The heart's power to beat continuously stems from its electrical generator, known as the pacemaker or sinoatrial node (S-A) node, embedded in its right atrium. The S-A node sends an electrical wave to the lower atrioventricular (A-V) node which distributes the charge through all the muscles and valves in the heart to create contractions. Each contraction is perfectly sequenced to stimulate the heart's chambers to keep blood flowing in a single direction. The stronger muscular walled chambers, the ventricles, and the two weaker chambers, the atria, each possess a valve that prevents blood back flow. If the muscular ventricles weaken and blood stops pumping correctly, you soon experience light-headedness, shortness of breath and/or chest pain.

The rate of your heartbeat varies with your activity and mental

"During a 70-year lifetime, your heart beats more than 2.5 billion times, and pumps roughly 1 million barrels of blood."

state. When you're relaxing or eating, your heart slows. Alternatively, your heart speeds up when you are stressed or exercising. At the same time, the body maintains a delicate, homeostatic balance of the electrolytes sodium, potassium and calcium, which are necessary to keep the heart muscle contracting effectively. Disrupt this balance and your heart's electrical activity and pumping action can start to falter. Unfortunately, certain serious diseases can also interfere with the heart's electrical performance.

The three arteries supplying blood to the heart muscle are called the coronary arteries. Blockage anywhere in these vessels can cause ischemia (lack of oxygenated blood) and result in myocardial infarction, a heart attack that can lead to heart muscle death. Significant ischemia almost always causes intense pain. In addition, lack of blood flow can make the heart weak and vulnerable to pump failure. In many cases, it gives rise to abnormalities in the motions of the heart walls (fibrillation), which can be lethal within minutes if not corrected. In 2001, fibrillation was responsible for more than 39 percent of all deaths in the U.S. according to the American Heart Association.

Heart Attack Signs and Symptoms

The descriptions of heart attacks in the popular media are deceptive: Chest pain is not the only sign of a heart attack. There are a wide variety of heart attack symptoms. Experiencing any of these discomforts might mean your heart and life may be in immediate danger:

- Upper abdominal pain or upper back pain, especially prevalent in women.
- Shortness of breath.
- Dizziness.
- Left shoulder pain or numbness; an ache down the left arm or into the jaw.

- Chest heaviness, tightness, squeezing, burning, pressure or discomfort.
- Palpitations of the heart (beating fast or irregularly).
- Tight throat or a lump in the throat.
- Cold sweat.
- Nausea.
- Sense of impending doom.
- Weakness.

Be especially wary if any of these discomforts begin in a subtle manner but intensify over several minutes. It is a bad sign if your pain or discomfort is NOT worsened by deep breaths, pressing on your chest or movement of the body area where the discomfort is taking place. In all of those cases, you should seek medical help immediately.

Pulmonary Embolism

A pulmonary embolism is a blood clot that travels to the lungs from the heart or from the extremities. In some cases an embolism may result from hardening of the arteries. The signs and symptoms of a pulmonary embolism can be similar to those of a heart attack:

- Sudden shortness of breath, typically, but not necessarily, during exercise.
- Pain that mimics a heart attack—pain in the chest, shoulder, arm, neck, jaw or back. The pain is usually sharp but may be aching, and becomes worse with deep breathing or with coughing, bending or stooping. The pain worsens with exercise.
- Blood in the sputum from coughing.
- Rapid heartbeat (tachycardia).
- Wheezing.
- Leg swelling (a deep vein clot may be the source of the embolism).
- Clammy or pale skin (from lack of oxygen to the body).
- Lightheadedness, fainting, anxiety or weak pulse.

Claudication occurs when blood flow to your lower legs becomes significantly limited by arterial restriction. This condition may lead to pain in your calf and thigh muscles, especially during exercise that worsens as you age.

Your Chances of Heart Disease

Conventional medicine focuses on so-called risk factors for coronary heart disease, signs that things are going wrong with your heart and circulation. However, it totally ignores what are actually the underlying causes.

Conventionally, mainstream medicine recognizes these risk factors for coronary artery disease:

- Family history of artery disease
- Being male
- Being age 65 or greater
- Smoking cigarettes (doubles your risk)
- Hypertension
- Diabetes

High total cholesterol (above 240 mg/dl), high LDL cholesterol (above 130 mg/dl) or low HDL cholesterol (below 40 mg/dl).

- Sedentary lifestyle
- Being overweight
- Menopause in women
- Infection that causes inflammatory response in artery walls (Although this is still being debated.)

Other Risk Factors

Doctors also use lab tests to identify risk factors for coronary artery disease. Particular blood levels of these are associated with an increased chance of heart problems:

- High homocysteine[30]
- High fibrinogen[31]

- High C-reactive protein[32]
- High cholesterol[33]
- High glucose[34]
- High insulin[35]
- High iron[36]
- High LDL[37]
- High triglycerides[38]
- Low HDL[39]
- Low testosterone[40]

Experts also recognize that many of these factors fluctuate according to the time of day, what you recently ate and the stress you encounter.

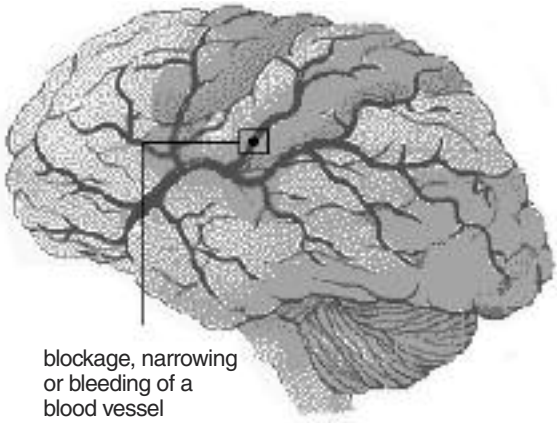
Identifying why Greek men lived an average of eight years longer than American men, researchers, in the 1970s focused on the island of Crete. The island had reported absolutely no heart attacks for the previous 10 years, in spite of a male population whose average cholesterol was well above 200. Scientists believe that their heart protection is linked to their Mediterranean diet rich in fruits, vegetables and omega-3 fatty acids. Plus, the local residents practiced an effective brand of mind/body healing, that effectively ameliorated their stress.

An Inside Look at the Brain

Brain Feed

Hardening of the arteries also occurs inside the arteries supplying the brain. In fact, cerebral vascular accidents and strokes are the leading cause of adult disability in the U.S. and Europe. Approximately 750,000 Americans suffer strokes every year and 150,000 Americans die from them. That's an alarming 83 strokes per hour, every hour of the day, every day of the year.

A stroke is like a heart attack in that a stroke also causes infarction, the death of tissue, in this case brain tissue: Brain cells become deprived of


blockage, narrowing or bleeding of a blood vessel

oxygen and nutrients and start to die. During a stroke, either a clot blocks the flow of blood to the area—a condition termed a thrombotic or embolic stroke—which represents 80 percent to 90 percent of strokes, or bleeding, termed a hemorrhagic stroke, disrupts blood flow. So-called mini-strokes, which produce temporary symptoms similar to full-blown strokes, are sometimes important warning signs of an impending massive stroke.

Although heart attacks can be extremely painful, strokes rarely hurt. And while heart attacks can quickly kill, strokes seldom do. Instead, stroke victims lose control of important bodily functions and then may partially regain functionality in the weeks and months following the initial event.

Signs and Symptoms of Stroke

A stroke usually takes place quite rapidly—beginning and ending within seconds to minutes—and can manifest itself in a wide variety of ways. It generally affects the part of the body controlled by the damaged area of the brain.

Signs of a stroke include:

- Hemiplegia (part or all of one side of the face goes weak).
- Numbness or vibratory sense loss.
- Altered smell, taste, hearing or eyesight.
- Facial muscle drooping or weakness, including the muscles that move the eyes.
- Weakened ability to swallow.
- Weak neck muscles or tongue muscles.

- Balance abnormalities, trouble walking or dizziness.
- Altered breathing or heart rate.
- Inability to talk or comprehend language (aphasia).
- Loss of memory or confused thinking patterns.

Types of Strokes

Thrombotic stroke—Caused by a blood clot that forms around plaque in the brain's arteries. Usually leads to a series of small strokes over the years that can cause death of brain tissue and dementia.

Embolic stroke—This occurs when an embolism, a clot that forms in the heart or the neck (carotid) arteries, travels to the brain and lodges there. An embolism can also be caused by a clump of fat, air in the bloodstream, cancer cells or bacteria from a heart infection.

Systemic hypoperfusion—When the heart fails or has a rhythmic disturbance, the blood pressure can fall and cause a stroke. This can also be caused by a large embolism in the lung.

Hemorrhagic stroke—This is triggered by any kind of bleeding into brain tissue, either from trauma or from a broken or burst blood vessel.

Heavy Metals Attack the Brain

Aside from setting off a chain of events in the arteries that eventually lead to a stroke, heavy metals can also endanger your brain by interfering with nerve function and directly harming brain cells. It is well known, for instance, that high levels of lead can hamper the ability to make decisions. Research at the University of Cincinnati College of Medicine found that being exposed to lead disrupts the ability to focus mental attention and control impulses.[41] "What we have found is that no region of the brain is spared from lead exposure," says the study's lead author, Kim Cecil, Ph.D., imaging scientist at Cincinnati Children's Hospital Medical Center.

Other research shows that heavy lead exposure in adults is the equivalent of aging the brain at least five years. "The effect of lead on the brain is progressive," says study author Walter F. Stewart,

Ph.D., of the Center for Health Research of the Geisinger Health System in Danville, Pa. "These effects are the result of persistent changes in the structure of the brain, not short-term changes in the brain's neurochemistry."[42]

Scientists have not conducted many studies of cadmium's direct effect on the brain. But in the lab they have found that it decreases the number of neurons, which could hinder brain function, and interferes with substances that brain cells use to communicate with each other.[43] Other studies show that nerves exposed to cadmium degenerate.[44]

Mercury's effects on the brain are particularly notorious. Among men making hats in the 1700s, "mad hatter syndrome" was particularly widespread, caused by the fumes from mercury used to make felt. The mercury in these workplaces affected hat makers' brains, causing serious personality changes, slurred speech and memory problems.[45]

In Japan during the 1950s, scientists found that pregnant women who ate fish high in mercury were much more likely to give birth to children with cerebral palsy.[46] In Iraq in 1972, mercury poisoning (from a fungicide) was again linked to brain and nervous system problems in children.[47]

Today, scientists know that mercury interferes with electrical activity in the brain, but they are still not sure exactly how this occurs.[48] But no one doubts its harmful effects.

CHAPTER 3

The Origins of EDTA Chelation

Nobel Laureate Makes an Astounding Discovery

EDTA chelation originated in the scientific labors of Alfred Lerner, a Swiss chemist. Lerner originated what's called coordination chemistry, the science of how chemical compounds result from the interaction of charged metal ions and other molecules. In 1893, Lerner outlined the specific structures of metals containing complex ions, work which earned him the Nobel Prize for Chemistry.

As Lerner's work demonstrated, the ring within the molecule of a chelator captures and firmly binds with metallic ions, creating complexes that are excreted in urine. This knowledge formed the foundation of all types of chelation therapy, including EDTA chelation.

After Lerner initiated research in this field, for the next 40 years scientists in the U.S. and around the world strived to develop a safe and synthetic chelator, one that the body would recognize as foreign and expel, taking harmful metals with it. They finally developed the amino acid EDTA in 1930.

After World War II, the U.S. Navy began using EDTA as a treatment for lead poisoning. At the same time, other scientists performed studies on EDTA's ability to remove plaque-producing calcium deposits from the body. These first studies were conducted in Switzerland at the University of Zurich and the University of Bern.[49, 50, 51]

However, the real progress in utilizing the plaque-busting benefits of EDTA came in 1953, thanks to Dr. Norman E. Clarke and his associates

"EDTA can restore essential blood flow to every single cell in the body by removing deadly plaque."

in Detroit, Mich. As the head of research at Providence Hospital, Clarke began using EDTA chelation to reduce coronary artery disease in his patients and achieved dramatic results. After a series of intravenous treatments with EDTA, 19 out of 20 patients with chest pain reported "remarkable" improvements. Patients also reported healing of their gangrenous legs, increased memory, improved vision, sharper hearing and keener sense of smell. What's more, many patients experienced a boost in their personal energy levels.[52]

Clarke's results got the attention of insightful physicians who saw the astonishing potential of EDTA chelation. Many of these doctors began using it in their own practices and witnessed profound benefits for patients who had been suffering from hardening of the arteries, heart disease and brain disorders. They found that EDTA could restore blood flow to every cell in the body by removing deadly plaque.

EDTA Studies

Throughout the 1950s and 1960s, studies on EDTA proliferated as researchers searched for an alternative to mainstream medicine's tremendously expensive and extremely dangerous approach for treating heart disease—open heart surgery. EDTA research, which consisted of both human and animal studies, demonstrated the success of EDTA chelation as a safer treatment for mild to moderate heart and blood vessel conditions.

For example, a research paper by W. Grant, M.D., published in 1952, showed that EDTA chelation helped improve the eyesight of cataract patients by removing post-keratitis corneal opacities (calcium deposits in the eye).[53]

In the 1960s, Fred Walker proved conclusively that EDTA is able to remove calcium from the plaque that gets plastered to arterial walls, effectively removing the blockage and reducing the danger of cell death in the heart and brain.[54]

Then, in 1973, the American Academy of Medical Preventics (now the American College of Advancement in Medicine or ACAM)

approved a highly safe and effective protocol for EDTA chelation. The chelation process had truly entered the mainstream.

Conventional Doctors Ignore Positive Results

When mainstream doctors started to see their treasured belief systems—not to mention their treasured bank accounts—threatened by the adoption of EDTA chelation, they reacted by debunking the scientific results and the observations of physicians using EDTA. They also openly shunned these doctors, questioned their competence, and even threatened their practices. Personal attacks became commonplace.

The medical establishment, Big Pharma, the government and other special interest groups stood to lose massive profits if EDTA chelation became widely accepted, so they were determined to stop it.

Critics complained that EDTA chelation therapy was unproven because it hadn't undergone randomized, double-blind, controlled studies to demonstrate its effectiveness. But this type of negative perspective ignores the fact that, according to a Congressional study, only 10 percent to 20 percent of medical procedures of any kind have undergone these kinds of trials. According to this bogus (and impractical) standard, 80 percent to 90 percent of medical techniques could be considered unproven.[55]

These same critics wailed that EDTA chelation, which the FDA had approved for heavy metal chelation, was not approved for hardening of the arteries. Here too, this objection represents a blatant double standard. It is common practice for doctors to use medical techniques not yet approved by the FDA.

The general silence in the face of these objections spoke volumes about the bias in mainstream medicine. Universities stayed mum since their huge research grants depended (and still depend) on the largess of the medical establishment. The news media also stayed silent since big medicine provides them with a large bounty of advertising revenue. Meanwhile, medical lobbyists worked night and day to keep chelation from making inroads into medical profits. They prioritized the maintenance of economic and political power over the wellbeing of heart

patients whose lives hung in the balance.[56]

"Bypass graft surgeries and balloon angioplasties, many of them unnecessary, cause over 20,000 deaths every year in America."

However, many doctors with actual experience in EDTA chelation knew that chelation was effective at boosting heart health and clearing heavy metals from the body. They witnessed astonishing improvements in their patients who had been suffering cardiovascular disease—often the very same patients who hadn't been helped by mainstream medicine. These doctors continued to offer chelation in their practices even when faced with extreme pressure to stop. Because of their courage, these physicians are genuine medical heroes.

Heart Surgery Profits

EDTA chelation is safe, effective and inexpensive. This isn't true of the treatments that cardiologists and most other conventional health practitioners employ for the same disorders.

Mainstream treatments for cardiovascular disease cost Americans $100 billion dollars annually. A single bypass surgery alone runs upwards of $44,000.[57] No wonder the medical establishment resists an inexpensive alternative like EDTA chelation therapy. *They've gotta keep that cardiovascular gravy train rolling.*

Even though ubiquitous heart surgery amasses harsh criticism from forward-thinking medical doctors and authorities, the U.S. orthodox medical machine continues to charge Americans big bucks for these procedures. And it continues, despite 20,000 deaths from bypass graft surgery or balloon angioplasties every year.

At the same time, many of these surgeries are over-prescribed and even completely unnecessary. That makes the situation even more tragic for folks who die from the surgeon's scalpel. The medical reality is fairly evident: Many of them didn't even need to be on the operating table in the first place.

Even if a patient survives heart surgery, the conventional procedure is just a stopgap measure that doesn't address or solve the

underlying health problem. After an open-heart operation, you can end up suffering from more cardiovascular problems. Oftentimes you are even worse off because new plaque continues to fill up your arteries. This can cause:

- Reduced blood supply to the heart, straining the heart muscle, causing heart pain, elevating your blood pressure and often killing heart muscle.
- Diminished blood flow to the brain, which restricts your memory and reasoning ability, dulls your reflexes, kills brain cells and can lead to paralysis.
- Lessened blood flow to joints resulting in pain, stiffness and inflammation.
- Inadequate blood flow to the muscles, which robs them of vitality and strength.
- Lack of oxygen to vital organs.
- Blocked circulation to the delicate blood vessels in your eyes, causing blurred or foggy vision.

These types of ongoing health concerns make it imperative to implement safe and effective alternatives to standard heart disease treatments. And as a matter of fact, EDTA chelation is a healthier solution, opening up your arteries to optimal blood flow and reversing or improving many of these serious health problems.

"Doctors who are experienced with EDTA chelation see astonishing improvements in their patients with cardiovascular disease."

EDTA chelation could make a huge difference for the 1.2 million people per year who have heart attacks, the 15.8 million chest pain sufferers and all the other folks who endure health problems linked to clogged arteries.

EDTA Therapy Benefits Millions

Opponents of EDTA chelation have unnecessarily turned it into a controversial treatment. According to documented case histories,

millions of people around the world have already benefited from EDTA chelation, mostly as a treatment for hardening of the arteries.[58]

Nevertheless, the medical establishment has kept most doctors in the dark about the cardiovascular benefits of EDTA chelation. Other well-meaning doctors blindly accept the surgery and drug model that's the darling of conventional medicine. These doctors, therefore, reject EDTA chelation out of hand, without giving it a fair hearing.

It's not that doctors don't know about EDTA chelation or have access to information about how it works. In fact, doctors use a form of EDTA chelation called a push to treat lead poisoning. In this process, a physician uses a massive amount of EDTA to chelate the lead out of poisoned patients. But the push, developed in 1948, is usually the entire extent of a doctor's knowledge about EDTA chelation.

Most doctors haven't grasped that EDTA chelation, through a series of IV infusions or a regimen of oral supplements, can dramatically improve heart health, remove harmful toxins and boost overall health. They're still stuck with the conventional objections to EDTA chelation that were current when Harry S. Truman was President.

But another difficulty also stands in the way. Too many doctors still exclusively focus on one particular medical specialty. They can't, or won't, see the body as a whole or identify the many interacting factors affecting patients' health. They stick to their own little narrow area of expertise and don't take a holistic perspective.

You Can Fight to be Healthier

Because of their restricted perspective, doctors continue to convince their patients to undergo unnecessary surgeries, pay for diagnostic tests that expose them to radiation and take prescription medicines that cause debilitating side effects.

The physician authors of *Death by Medicine* state it best:

> "US healthcare spending reached 1.6 trillion in 2003 [it's even higher now], representing 14% of the nation's gross national product. Considering this enormous expenditure, we should have the best medicine in the world. We should be preventing and reversing

disease, and doing minimal harm.

"Careful and objective review, however, shows we are doing the opposite. Because of the extraordinarily narrow, technologically-driven context in which contemporary medicine examines the human condition, we are completely missing the larger picture.

"Instead of minimizing these disease-causing factors, we cause more illness through medical technology, diagnostic testing, overuse of medical and surgical procedures and overuse of pharmaceutical drugs. The huge disservice of this therapeutic strategy is the result of little effort or money being spent on preventing disease.

"Despite this, there is currently a massive public movement to learn and implement strategies that really support health. This movement is predominantly seen among the more educated adults who are taking it upon themselves to learn about high nutrient density foods, nutritional supplementation, stress-reducing techniques, moderate exercise, and avoiding environmental toxins."[59]

This movement represents a significant shift towards greater holistic health and wellness, with patients leading the movement. Since EDTA chelation is one of the most powerful natural strategies available for optimal heart health, more and more health-conscious patients are requesting it. A growing number of discerning doctors now offer it.

Keep Your Arteries from Killing You

A startling 90 percent of Americans are at risk for illness or death from cardiovascular disease, regardless of age or gender. Deadly arterial plaque often starts its growth inside your arteries in early childhood. In many cases, this plaque grows larger as the years pass, and most people with this condition don't even realize they're in danger.

The American Heart Association reports that, "Heart disease begins at a very young age with well-developed plaque deposits present in one in six teenagers."[60]

According to the American College of Cardiology, 80 percent of teenagers ages 13-18 eat too much saturated fat and 33 percent already

have elevated cholesterol.[61]

The epidemic of heart disease in young people has been going on for a long time. When doctors performed autopsies on young male soldiers who died in the Korean War they found that more than 70 percent of them had evidence of atherosclerosis in their coronary arteries.[62] In the Vietnam War, similar studies showed that more than 45 percent of dead soldiers already had signs of significant heart disease.[63] Five percent had seriously advanced heart problems. And these were men who were only in their late teens and 20s.[64]

The risk of heart problems in women usually starts later in life than in men, but at middle age their chances of heart disease are substantial. In fact, heart disease is the No. 1 killer of women. About half of all women die from cardiovascular disease and complications. In contrast only one-fifth of that number of women dies from breast cancer.

Dodging Heart Disease

Preventive health measures, like you get with EDTA chelation, are essential to dodge heart problems. This therapy can help remove decades of accumulated arterial plaque and can help keep the heart pumping strongly and the blood flowing smoothly. If you already have heart trouble, EDTA chelation can help restore normal function or, at the very least, prevent further damage and prolong your life.

The American Heart Association's year 2011 Heart and Stroke Statistical Update confirmed that if all major forms of heart and blood vessel disease were eliminated, average life expectancy in the U.S. would increase by about seven years.[65]

"If all major forms of heart and vessel disease were eliminated, average U.S. life expectancy would increase by seven years."

EDTA is a simple amino acid that's as harmless as a teaspoon of vinegar. However, 50 years of scientific studies have shown that this all-natural nutrient is up to 82 percent effective at clearing out plaque and other unwanted toxins from your body. It immediately enters your

bloodstream, bonds with and dissolves the calcium deposits that harden your arteries, and washes them gently out of your body.

EDTA can help unclog arteries, remove heavy metals from tissues, prevent hardening of the blood vessels, soothe joint and muscle pain, increase cardiovascular function, normalize blood sugar level, improve memory and cognitive function, provide relief from age-related varicose veins and balance cholesterol levels.

Conventional Difficulties

Mainstream treatments offer few of the benefits of EDTA chelation but can lead to much more serious risks. Conventional surgical procedures are expensive and downright dangerous. Prescription heart drugs can cause skin rashes, insomnia, depression, kidney damage, fatigue, swelling and reduced sexual function. Plus, these mainstream options address only the symptoms of a heart problem and frequently leave the underlying causes in place.

EDTA, however, not only has the potential to clear heart blockages, it can also chelate out other harmful chemicals. That's why so many physicians who believe in EDTA chelation don't just give it to their patients; they also use it on themselves and their loved ones. They understand how safe and effective it is, and how it deals with existing heart problems and keeps arteries from clogging.

Safe to say, critics of EDTA chelation therapy have probably never had the treatment themselves, seen the positive reactions of loved ones or patients who have achieved remarkable heart benefits, or read the huge amount of powerful research available through the American College of Advancement in Medicine, an organization dedicated to furthering research and certifying doctors in EDTA chelation.[66]

Heavy Metal Removal

EDTA's ability to clear the body of heavy metals makes it an invaluable medical tool in a polluted world where we encounter these types of toxins daily. And some people are more exposed than others. People who are hairdressers, painters, printers, welders, metal

workers, cosmetic workers, battery makers, engravers, photographers, visual artists, physicians, pharmaceutical workers, laboratory workers, potters, dentists or dental assistants often labor constantly among harmful toxins.

Still, everyone in modern society continually ingests heavy metals from a wide variety of sources. Most people don't even realize this is occurring even though these toxins can exert long-term and catastrophic effects on the body.

These kinds of consequences were reported by researchers from Rome, Italy in the 1999 *Journal of the American College of Cardiology*. In this study, scientists carefully extracted and examined heart muscle biopsies from patients with congestive heart failure. What they found was disturbing.

The patients with congestive heart failure had no reported prior exposure to heavy metals, yet they had 22,000 times more mercury and 12,000 more antimony in their hearts as compared to normal control subjects. This data suggested that mercury and antimony can concentrate in the food chain and become toxic dangers for certain individuals.[67]

Toxins Take Their Toll

As most of us realize, modern progress has confronted us with a collection of very big health risks in terms of the nasty chemicals that have infiltrated our environment. Our food supply is replete with harmful pesticides, insecticides, hormones and antibiotics. Our air and water convey industrial chemicals, medical waste and huge collection of deadly substances. The sources for most of this toxic brew are the manufacturing processes that go into producing our consumer goods. As part of this scenario, experts warn that more than half of the fresh-water fish in the U.S. contain toxic levels of mercury.

More than 20 heavy metals lurk in our environment. After you consume these toxins, they are stored in fat cells indefinitely and can eventually turn your body into a ticking toxic time bomb when they threaten your health.

That is where EDTA comes to the rescue. EDTA has chemical and physical characteristics that attract heavy metals, bonding with them and

coating them. Since EDTA is a synthetic amino acid, once it bonds with toxins, the body regards this combination as a foreign substance and sends it out of the body in a harmless form that is excreted through the urine, quickly and easily.

Heavy Metal Implications

If you look back at history, events in the ancient Roman Empire offer a warning for how we should be protecting our health.

The Romans were known in their time for their technological advancements. They built roads and aqueducts, had great leaders and powerful armies, and ruled the entire known world. However, some scholars speculate that the Romans were weakened significantly by a hidden enemy that they never recognized: lead poisoning.

Although lead had been used sporadically since before the Roman Empire came into existence, the Romans made more extensive use of it than anyone else. They added lead to wines and foods for extra flavor, fashioned lead into plates and coins, used lead in their cosmetics and paints and had lead pipes and bathtubs. In fact, the name plumber comes from the Latin word plumb meaning lead. Consequently, Romans were surrounded by lead in their environment.

As a result, some historians believe, many Romans suffered from lead poisoning that was severe enough to compromise their fertility. They hypothesize that, because Romans absorbed such significant amounts of lead, an emperor like Julius Caesar could only father a single child. Caesar Augustus, his nephew, had no children. Some historians even argue that lead poisoning among the population reached such epidemic proportions that it served as a significant factor in bringing down the Roman Empire.[68]

Heavy Metal Destruction

Toxicologists have been warning people about lead for decades, but two relatively recent studies demonstrate its severe destructive effects on brain function. A 2002 study published in the *Archives of Internal Medicine* tracked lead levels in adults aged 30 to 74 for 16 years. The results were conclusive: People with even a slightly elevated level of

lead had a 46 percent greater risk of death, from all causes, compared to patients with normal lead levels.[69]

Another study confirms the deadly effects of lead: Research published in the *New England Journal of Medicine* on children from ages three to five showed that even minute amounts of lead in their blood produced measureable deficits in their intelligence. In fact, there was a direct correlation between the amount of lead present and the detrimental effects on IQ.

Said another way, the higher the lead levels, the more the child's IQ dropped. Investigators concluded: "these findings suggest that more U.S. children may be adversely affected by environmental lead than was previously realized."[70]

Adults suffer the same complications. Lead, heavy metals and other toxic pollutants not only ravage overall health, they can destroy mental function and cause age-related cognitive decline. Fortunately, EDTA chelation can remove heavy metals and other environmental poisons from the body both safely and effectively.

Free Radical Problems

Free radicals are rogue molecules inside the body that cause inflammation, trigger chronic degenerative diseases and set the stage for premature aging. In fact, some scientists believe that free radical damage causes 80 percent to 90 percent of the disease states in the human body.

However, since EDTA is an extremely powerful antioxidant, you can help ward off these free radicals with EDTA chelation. Used on a consistent basis, this amazing anti- oxidant treatment can keep your body young longer.

"EDTA chelation can remove heavy metals and other environmental poisons from your body so they can no longer harm you."

Free radicals are an inevitable, natural consequence of the processes in cells that keep us alive. Not only that, but your body uses free radicals to kill off harmful, invasive microorganisms.

But difficulties arise when free radicals accumulate excessively over an extended period of time and overwhelm the body's ability to eliminate them or defuse their destructive power. When this happens, they can run amuck and wreak havoc on health.

The root causes of the onslaught of health-destroying free radicals often include a host of lifestyle factors, including poor digestion, environmental toxins, internal stress and the prescription medicines used by so many Americans. (National data show that the average American fills a dozen prescriptions a year.[71])

Because free radicals so readily react with cellular structures they can damage cell membranes, alter the body's bio-chemicals, damage DNA and sometimes even kill cells outright. These actions can lead to circulatory diseases, malignant tumors, inflammatory conditions and auto-immune disorders.

EDTA Protection

EDTA is one of the most potent antioxidants available. In fact, EDTA is so effective that the FDA and the USDA have approved it as an ingredient to keep food from going bad and even to prevent other antioxidants (like vitamins A, C and E) from spoiling.

"EDTA is one of the most powerful antioxidants in the world, and is used to keep other antioxidants from spoiling."

Because of its wide range of antioxidant functions within your body, EDTA has been shown to protect against an impressive list of chronic diseases.[72, 73, 74, 75, 76] As Elmer Cranton, M.D., notes "The free radical concept (for the effectiveness of EDTA)… provides a scientific rationale for treatment and prevention of many of the major causes of long-term disability and death: atherosclerosis, dementia, cancer, arthritis, and other age-related diseases."

Cranton goes on to say, "EDTA can reduce the production of free radicals by a million-fold."[77]

EDTA Evicts Calcium

One of the keys to EDTA's benefits is its ability to remove calcium from the parts of the body where this mineral causes problems. Rogue calcium, which can clog arteries, can also cause huge difficulties in other areas of your body when it lodges where it doesn't belong.

"EDTA chelation removes rogue calcium from your joints, your kidneys, your eyes, and even the bones of your inner ear."

You can improve your joint pain, eyesight, hearing and more just by ridding yourself of unwanted calcium. A 1985 study showed that EDTA chelation effectively removes calcium from joints, kidneys and the bones of the inner ear. EDTA chelation can also help restore youthful, glowing skin, revitalize sexual prowess, rejuvenate memory, restore mental reasoning and reaction time and boost your immune function.

CHAPTER 4

EDTA Chelation: What You Can Expect

You can receive EDTA chelation two ways—either intravenously (through an IV) at a doctor's office or orally with a natural supplement. Both methods achieve the same end result, but various circumstances may make one preferable over the other.

Intravenous EDTA

IV treatments with EDTA are also known as EDTA chelation therapy. You must use the services of a doctor to receive EDTA chelation therapy. This method efficiently clears toxins from the body at a much faster rate than can be accomplished with oral chelation. That makes it ideally suited to treating critical heart disease in an advanced stage. EDTA chelation therapy usually consists of an extended series of IV treatments. At the same time, the supervising doctor monitors kidney function in patients that require it.

"You can get EDTA chelation either through an IV infusion at a doctor's office or through oral EDTA supplementation."

As effective as it is, there are aspects of EDTA chelation therapy that may put some people off. The therapy employs needles which go into your veins. Treatment sessions can be tedious, taking up to four hours. And its cost may be prohibitive for some people. Each session usually costs $100 or more, and is usually not covered by Medicare or other healthcare insurance companies.

While many conventional doctors argue that EDTA chelation has no effect on heart disease, doctors who use EDTA chelation have witnessed its impressive benefits.

Dr. James Carter, who published a landmark paper on EDTA chelation in the late 1980s, had this to say about chelation's critics: "It's safe to say that every article written about (EDTA chelation) and printed in 'respectable' journals has been written by a physician or researcher who has assumed the mantle of Authority, yet has absolutely no knowledge of it."[78]

A Mere Pill Makes Chelation Simple

You take oral EDTA chelation by simply swallowing supplements. This method takes longer than IV chelation, but it is equally safe and effective.

Oral EDTA usually entails daily doses of anywhere from 300 milligrams (mg) to 1,000 mg of EDTA. This represents a much higher dose than what doctors give for IV EDTA chelation because oral EDTA is not absorbed as readily as IV EDTA.

Oral EDTA chelation enjoys several advantages over IV therapy. You can take it at home and no one has to put a needle in your veins. You can have results in as little as 30 days, but the biggest changes usually arrive in about 60 to 90 days but could take up to a year. Unless you suffer from kidney disease, you can remain unmonitored for oral EDTA chelation. Researchers have not reported any adverse reactions or side effects.

However, for serious conditions, the best course is to seek IV EDTA chelation from a physician. Often, in those circumstances, the doctor will also prescribe oral EDTA chelation as an adjunct therapy to the IV therapy.

EDTA and Trace Minerals

Some critics argue that EDTA chelation not only removes heavy metals from the body but also takes out trace minerals and is therefore dangerous and should be avoided. However,

these warnings are misguided.

It's true that, along with plaque and heavy metals, EDTA chelation causes you to excrete calcium and zinc in your urine. However, simple mineral supplementation more than makes up for this minute loss of minerals, which is likely insignificant anyway.

Studies from the Dow Chemical Company and a report published in *Food Chemical Toxicology* both demonstrate that trace mineral depletion linked to chelation is minimal.

In any case, EDTA chelation does not cause the excretion of all trace minerals. Cobalt, chromium and copper are untouched by EDTA chelation, and, conversely, the therapy causes a slight retention of magnesium.[79, 80]

In addition, some trace minerals actually become more absorbable in the body when you take EDTA, meaning you need less of these elements. For example, at a National Institutes of Health (NIH) and the Office of Dietary Supplements Bioavailability Conference, a report given about mineral absorption revealed that EDTA enhances the absorption of zinc with protein, cysteine, citrate and methionine.[81, 82, 83]

Other Forms of Chelation

Malic Acid

In tandem with EDTA, malic acid acts as another powerful chelator able to absorb heavy metals. Found in apples, other fruits and vegetables, malic acid helps remove aluminum from the bloodstream. This is an important attribute: Researchers believe aluminum may play a role in the development of brain-destroying Alzheimer's disease.

Many common items in America's households contain toxic aluminum. These include over-the-counter and prescription drugs, cookware, deodorants and antiperspirants, cosmetics, toothpaste and other personal care items as well as canned foods and baked goods. Aluminum is even a frequent air pollutant.

Fortunately, according to a 1988 study published in *Human Toxicology*, malic acid has the remarkable ability to dissolve aluminum deposits and escort them through the kidneys for safe elimination.[84]

In a 2002 study completed by Purdue University, scientists demonstrated that malic acid has the capacity to dissolve aluminum-containing drugs in body fluids. Even more impressively, a study reported in *Pharmacology & Toxicology* reported that malic acid is the single most effective chelator of aluminum.[85, 86]

Research also shows that malic acid may help alleviate the discomforts of fibromyalgia. In one clinical study, fibromyalgia patients took a combination of malic acid and magnesium for eight weeks. At the end of the treatment, every single patient reported a significant reduction in muscle pain after just 48 hours of taking the supplements.[87]

Garlic

Garlic possesses a wealth of health-promoting natural chemicals. Research has established its benefits for helping lower LDL (bad) cholesterol, reduce blood levels of homocysteine (a sign of inflammation), normalize blood pressure and keep blood thin, all of which shrink the risk for a heart attack or stroke. And the ability to chelate harmful substances and help detoxify the body is now included in its health boosting arsenal. Research shows that this herb can help remove lead, mercury, arsenic, cadmium, copper and other toxic substances.

In research published in the peer-reviewed journal C*irculation*, researchers at Sloan-Kettering Cancer Center and Cornell University, confirm the heart health benefits of garlic, stating that "…the published studies in their aggregate suggest that appropriate usage of allium derivatives from garlic may potentially play a role in the maintenance of optimum cardiac function."[88]

At the same time, researchers in Berlin reported in the peer-reviewed journal *Atherosclerosis* that garlic appears to prevent plaque build-up in arteries. After subjects in their study ate garlic powder for four years, they experienced up to an 18 percent reduc-

tion in arterial plaque and a 50 percent reduction of relative cardiovascular risk for heart attacks and strokes.[89]

Research also supports a long list of other garlic benefits:

- Clinical researchers from the Tulane University School of Medicine report that garlic can not only lower blood levels of total cholesterol, but also reduces dangerous LDL (bad) cholesterol by as much as 11 percent.[90, 91]
- Research published in the J*ournal of Orthomolecular Medicine* shows that garlic may inhibit the formation of blood clots that can deprive your brain of crucial oxygen and nutrients.[92]
- A study in the journal *Pharmacotherapy* notes that eating garlic for just seven days can reduce blood pressure by 20 points or more.[93]

BAL

BAL, scientifically known as dimercaprol, is sometimes used to treat victims of industrial accidents involving arsenic.[95] But, because of its toxicity, it is no longer used as a chelating agent.

Penicillamine

In the late 50s, the chelating agent penicillamine replaced BAL as the treatment of choice for copper poisoning. Penicillamine is still used for that purpose today. It is also plays a major role in the treatment of arsenic poisoning, lead poisoning and rheumatoid arthritis.[96]

DMSA

When they discovered the long term toxicity of the chelating agent BAL, scientists developed DMSA, dimercaptosuccinic acid, as a safer alternative treatment for mercury poisoning. This beneficial chelating agent allows patients with chronic mercury poisoning to avoid hospitalization by taking oral supplements.

In 2003, a study by Bose and O'Reilly demonstrated that DMSA was highly effective in treating patients from the gold-mining region of the Philippines who had suffered high-level mercury

poisoning. DMSA has also won approval from the FDA for the treatment of lead poisoning.[97]

DMPS

DMPS, dimertocapto-propans sulfanate, is a safe, virtually non-toxic and highly effective chelating agent. It is used for cases of severe acute mercury poisoning and severe acute arsenic poisoning.[98]

Deferoxamine

Deferoxamine has proven its effectiveness at treating acute iron poisoning. It is especially useful in therapy for small children, those who have genetic problems processing iron and anyone who suffers a chronic disease linked to excess iron.[99] Because deferoxamine is so effective at removing aluminum from the body, experts believe it may be able to alleviate the excess aluminum related to Alzheimer's. Chelation with deferoxamine for patients with chronic conditions, however, requires eight to 12 hours a day of therapy.[100]

CHAPTER 5

The Benefits of Chelation

EDTA is Safe for Everyone

From its first use, medical professionals recognized that EDTA was extremely safe. In 1963, a report in the *Journal of Chronic Disease* reported that EDTA possessed only about one-third the toxicity of aspirin. Other, contemporary toxicological studies indicated that EDTA may be as much as five times safer than aspirin. And keep in mind, these evaluations were made before researchers even recognized that aspirin could cause serious stomach bleeding.[101, 102]

Today, the leading authority on EDTA chelation, Dr. Garry Gordon, believes that, nearly 40 years after the initial studies on EDTA safety, medical science has established that EDTA is "300 times safer than aspirin."[103]

"Dr. Garry Gordon, a leading authority on EDTA chelation, believes that EDTA is '300 times safer than aspirin.'"

In fact, EDTA is so safe, the Food and Drug Administration (FDA) has approved its use in foods. The reason: EDTA is a simple amino acid, very similar in composition to household vinegar. It's used to keep potatoes from turning brown, to keep fish and shellfish looking fresh in the supermarket, to maintain the flavor and consistency of milk products, to protect canned vegetables and to stabilize oils, fats and vitamins.

EDTA is in so many of our foods that the average person consumes between 15 mg and 50 mg of EDTA per day in meals. From 1970 to 1980, approximately 1,000 patients received about

2 million treatments of EDTA chelation without any report of significant side effects.[104]

I would venture to say that this "drug" exceeds the safety of any and every other drug currently used in medicine. However, traditional doctors still claim EDTA chelation is a health hazard while doling out really dangerous drugs to their patients by the truckload.

Why Some Doctors Dispute EDTA's Value

Thousands of physicians have witnessed the value of EDTA chelation and have access to powerful scientific research that supports its use. These practitioners have little financial incentive to tout the benefits of EDTA chelation. They just want their patients to get better.

If EDTA chelation is so effective, why isn't it more widely accepted?

"Thousands of U.S. physicians have witnessed the value of EDTA chelation and have access to powerful scientific research that supports it."

It's sad, but most doctors either don't know about EDTA chelation or have been unfairly biased against it, and it's extremely difficult to publicize the true scientific facts about this therapy. Apparently, the medical establishment prefers to obscure EDTA's benefits and protect their own interests by obfuscating the facts.

If physicians delve into the National Library of Medicine's main database, they will find that only a tiny fraction of the research that's been performed on EDTA chelation is in the collection. About 80 percent is missing. And the information that does reside in that database tends to be skewed negatively or its positive findings misrepresented.

For example, if doctors perform computer searches on EDTA chelation, they find peer-reviewed studies from Denmark, New Zealand, Germany, Canada and other countries around the world. Many of these studies show positive results from EDTA chelation,

but the misleading summaries of the research are slanted to give the impression that EDTA is not especially useful for cardiovascular problems, or for anything other than treatment of lead poisoning.[105]

Why do researchers put this spin on their studies? Because certain doctors and scientists can't see past their negative biases against alternative medical techniques. Consequently, they use this type of opportunity to demean what they don't believe in. Their deceptive write-ups of EDTA appear in mainstream medical journals and, unfortunately, those are the reports that give the impression that treatment with EDTA is not a worthwhile therapy.

This type of slanted analysis has hampered the use of EDTA. Very few doctors understand the politics behind the suppression of EDTA.

Critics of EDTA Chelation

In a 1985 issue of *Medical Journal of Australia*, author R. Magee stated, "(EDTA) is a chelating agent which has no place in the treatment of atherosclerosis (hardening of the arteries) and its complications. Also, its toxic effects can cause other problems which may lead to a fatal outcome. Proper investigation and treatment may sometimes be delayed by a patient's faith in such therapy."[106]

This is not an isolated misstatement. Regrettably, R. Magee has long pursued a personal vendetta against alternative medicine. In 2002, he published an opinion piece in another Australian journal entitled, *"Quacks: Fakers and Charlatans in Medicine."* In this paper, he stated, "Alternative medicine has always had an attraction to some members of the community, and this has extended into the twentieth century. Examples are given of therapies, such as that for the treatment of cancer and arterial disease that can only be described as modern day quackery."[107]

Lamentably, this kind of diatribe incorporates many of the closed-minded attitudes that disparage chelation.

Research Proves EDTA Works

A close look at research into EDTA chelation offers compelling evidence for its usefulness.

For example, a study that appeared in the journal *Cardiovascular Nursing* concluded that "EDTA chelation therapy is a valuable therapeutic option for vascular disease, either alone or in conjunction with standard treatment protocols."[108]

Another study performed at the University of California at Berkeley found that EDTA chelation therapy in conjunction with fish oil offers profound cardiovascular improvements.

According to the Berkeley research, "EDTA chelation therapy appears to achieve revitalization of the (heart muscle), and is a viable alternative or adjunct to (improve circulation). Fish oils are now proven to help revitalize (vessel walls) and to partially reverse damage from hardening of the arteries. Being safe and having proven benefits, chelation therapy and fish oils can be integrated together with nutrients, lifestyle-dietary revision, exercise, and medications as necessary, into a cardiovascular revitalization strategy."[109]

These represent only a few of the scientific studies that support EDTA chelation. Hundreds show the amazing positive changes, not only for your cardiovascular system, but for every single aspect of your health.

Hearty Improvements

In 1988, researchers Efrain Olszewer, M.D., and James P. Carter, M.D., Ph.D., performed a retrospective study on more than 2,800 patients who received EDTA chelation for hardening of the arteries and other cardiovascular problems. Their report showed:

- 89 percent of all the patients in the study had significant improvement—75 percent experienced dramatic results and 14 percent had good results.

- 94 percent of patients with coronary artery disease enjoyed significant improvement—77 percent with dramatic results and 17 percent with good results.
- 99 percent with clogged arteries leading to the hands and feet had significant improvement—91 percent with dramatic results and 8 percent with good results.
- 54 percent with blood vessel problems in their brains had significant improvement—24 percent with dramatic results and 30 percent with good results.
- Four patients with scleroderma had significant improvements—three with dramatic results and one with good results.[110]

EDTA Reduces the Need for Heart Medication, Bypass Surgery and Amputations

In 1993, two respected Danish doctors, Hancke and Flytlie, reported their findings after following 265 heart patients who received EDTA chelation over a six-year period. They found that:

- Overall, these patients experienced a 90 percent or more improvement in their coronary artery disease.
- Of the 65 patients slated to have bypass surgery, 58 improved enough with chelation to avoid the procedure.
- Of 27 patients awaiting foot or leg amputations, 24 improved so dramatically with chelation that they kept their limbs.[111]
- Among 207 patients taking nitroglycerine for angina (chest pain) 189 were able to reduce their dosage. Most stopped taking the medication altogether.[112]

Cardiovascular Benefits

In 1994, research that analyzed 19 studies of more than 22,000 patients who received chelation for heart problems found that, on average, about nine of every 10 patients enjoyed improved cardiovascular function after EDTA therapy.

And when the researchers interviewed more than 30 clinicians

about their experience with EDTA (they had treated 1241 patients with chelation), they found that 1,086 of their patients had improved significantly.[113]

Taking Out Toxic Metals for Better Health

When the University of Michigan hosted scientists and medical practitioners from around the world at a 2002 conference on heavy metals, researchers presented overwhelming evidence about the benefits of EDTA chelation for a wide-range of conditions involving metal toxicity.

In one study, urinalysis of patients ages 29 to 73 demonstrated how EDTA could help the body detoxify itself. The research compared the levels of heavy metal removal by the kidneys before and after a single dose of EDTA chelation:

- Lead in the urine was 350 percent higher.
- Mercury was 773 percent higher.
- Aluminum was 229 percent higher.
- Arsenic was 661 percent higher.
- Nickel was 9,439 percent higher.

The research confirmed EDTA's efficacy in safely and naturally removing staggering amounts of heavy metals from the body.[114]

Thins the Blood

There is also scientific evidence to suggest that EDTA chelation can:

- Help thin the blood by removing plaque-forming calcium.[115, 116]
- Reduce the risk of clotting.[117, 118, 119]
- Help lower total cholesterol.[120]

Benefits for Joint Pain, Muscle Pain and More

In other research, after 26 infusions with EDTA chelation plus multivitamin and mineral replacement, people reported the following:

- 31 percent experienced less joint and muscle pain.
- 28 percent with skin problems experienced improvements.
- 23 percent of those suffering neurological problems improved.[121]

Balances Blood Sugar and Insulin Levels

According to a study on patients with diabetes published in the December 1999 issue of *Biological Trace Element Research*, EDTA chelation, in tandem with supplemental chromium, was shown to:

- Regulate blood sugar.
- Reduce fatty blood.
- Improve insulin activity.[122, 123, 124]

Testimonials about these powerful benefits are mounting among diabetic patients who use oral EDTA supplements on a regular basis.

Positive Changes

Even as researchers continue to generate reassuring findings about the efficacy of chelation, millions of Americans and people from around the world who have adopted EDTA chelation therapy continually report benefits not yet demonstrated in clinical studies. For example, I recently read testimonials for an oral EDTA chelation product that indicated rather amazing health advantages. Patients with significant health problems have now achieved:

- Normal homocysteine levels.
- Normal cholesterol levels.
- Normalized heartbeat.
- Fewer heart palpitations.
- Less chest pain.
- Less shortness of breath.
- Reduced blood pressure.
- Less numbness, cold and pain in their extremities.
- Less swelling in their extremities.

- Normal blood sugar.
- Fewer heart and brain blockages.
- Less joint pain and stiffness.
- Normal energy levels.
- Fewer chronic infections.
- Normal restful sleep.
- Less symptoms of enlarged prostate.
- Fewer floaters in their eyes.
- Less ulcers and digestive problems.
- Fewer age-related cognitive problems.
- Less age-related memory loss.
- Fewer skin problems.
- Normal veins in their legs.
- Less sciatica and back pain.
- Normal motor control.
- Less male erectile dysfunction.
- Normal sexual performance.

Pollution Protection

In today's polluted world you not only need protection from lead, you are at risk from mercury, cadmium and other heavy metals that can damage your brain, central nervous system and other organs as well as your cardiovascular system. Fortunately, EDTA chelation can slowly remove these poisons, sending them out through your urine as it does with dissolved plaque.

For nearly 60 years, doctors have been administering EDTA chelation to treat lead poisoning (called plumbism after the chemical name for lead, plumbum). The initial use of chelation as an antidote to lead poisoning took place when factory workers at a battery manufacturer were contaminated with this toxic metal. EDTA proved amazingly effective at chelating lead out of the employees and subsequently became the treatment of choice for lead poisoning and the removal of other heavy metals.

As I have pointed out, the dangers of lead are now widely

recognized. The U.S. government has banned the use of lead in gasoline and interior paints which had been a particular health danger to children. Today, more than 200,000 children in the U.S. have undergone EDTA chelation to treat their lead poisoning, which often occurs from the consumption of toxic paint chips.

Treatment Option

EDTA chelation has worked so well for lead that it has become a key tool for fighting heavy metal poisoning. That's important: Heavy metals are in our drinking water, air, soil, cosmetics, vaccines, fuel, appliances and other unsuspected hiding places. EDTA chelation is FDA-approved for heavy metal removal and the American Heart Association recommends massive IV doses after serious exposure to lead, mercury, cadmium and aluminum.

Reduce Your Health Risks

Every year, 960,000 Americans die from a deadly arterial blockage to the heart and brain, but you don't have to be one of them. EDTA chelation, given either by IV infusion or by oral supplement can often forestall these types of cardiovascular complications. This simple nutrient can scrub your arteries clean and unleash the flow of oxygenated blood to the heart, brain and the rest of the body.

With EDTA chelation you can also get rid of the heavy metals and other pollutants that you ingest and which contribute to clogged arteries and other health problems. Chelation's removal of metallic toxins can help eliminate many of the damaging free radicals generated by these contaminants. Free radicals are believed to be major contributors to chronic degenerative diseases. Cleansing your body of these chemicals protects your joints, kidneys, liver and other organs.

The scientific results of EDTA chelation for heart, brain and total health have been scientifically proven in study after study. More than 1,500 doctors in the United States have the certification to provide this treatment, and they offer it every single day in their

practices. Plus, none have ever reported a serious side effect among all the patients who've used this protocol.

Sadly, mainstream doctors often try to convince people not to try EDTA chelation. But keep in mind, most of these physicians are either ignoring the positive benefits of EDTA or don't really understand how it works.

As a physician who has dedicated my life to identifying safe and effective natural alternatives, I invite you to take your health into your own hands and explore this powerful therapy. Millions of patients from around the United States and around the world already have enjoyed its benefits. EDTA chelation is Mother Nature's miracle for a strong, healthy heart and brain. It could be your miracle too.

About the Author

Dr. Michael Cutler, M.D.

Dr. Cutler is a Board Certified Family Physician specializing in chronic degenerative diseases, fibromyalgia, and chronic fatigue. He is a graduate of Brigham Young University (BYU), Tulane Medical School and Natividad Medical Center Family Practice Residency, in Salinas, California.

Dr. Cutler has successfully brought professionals of several healthcare disciplines together to bridge the gap between conventional medical training and effective complementary medicine. Through his patients' experiences, as well as his own, Dr. Cutler has found many complementary practices to augment conventional medicine as an integrative solution. Because of his understanding of nutritional and natural medicine, he strongly promotes self-reliance in healthcare.

Dr. Cutler has more than 18 years of clinical family practice experience. His focus in clinical care is a highly educational approach, with a focus on the cause of illness.

Dr. Cutler is uniquely qualified as a noted authority on preventive solutions to aging issues, general family ailments and nutrition, with an understanding and respect for the natural harmony of the human body. He has devoted his career to learning how to optimize health through simple changes in diet and lifestyle. His goal is to educate others so they can heal and teach others such principles of sustainable health, thereby shifting the paradigm of health care to one of personal empowerment and inspiration from God.

APPENDIX

Improving Your Heart Health

Reduce or Eliminate Your Chances of Heart Disease

Along with chelation, improving your cardiovascular health can be a fairly simple process for improving your well-being when you incorporate heart-healthy daily health habits.

Here are heart disease risk factors to consider and recommendations for improving the health of your heart:

To Improve High Blood Pressure

Cut down on your fat intake: Switch to a low-fat diet and take calcium, magnesium and potassium supplements and, minerals that support healthy blood pressure.

Exercise: Spend at least 30 minutes a day in regular, brisk exercise.

Trim down: Shed excess weight and ease the job of your heart and blood vessels in delivering oxygen and nutrients to the body.

Cut back on sodium: Avoid foods with a high salt content.

Eat plenty of seaweed and garlic: Seaweed has been shown to stabilize blood pressure and garlic can support lower blood pressure.

Eat foods loaded with carotenoids (natural pigments): Fill your plate with carrots, cabbage, winter squash, sweet potatoes and dark leafy greens.

Drink a glass of red wine twice per week: Red wine contains resveratrol, a powerful antioxidant.

Reduce stress: Learn techniques to lower stress, like meditation, which can, in turn, help lower blood pressure.

Use a home blood pressure monitor: These are sold at most neighborhood drugstores. Keep a log of your blood pressure readings, so you can see how your blood pressure shifts at various times of the day.

Quit Smoking

Quitting smoking is vital for your health no matter what your age. At any time, smoking cessation lowers your risk for cardiovascular complications.

But don't quit cold turkey. For the four to six weeks before you quit, nurture your body with a daily handful of sunflower seeds and a cup of a nettle or oat straw infusion. The sunflower seeds ease your body's nicotine cravings. Nettle and oat straw infusions help strengthen your blood vessels and nerves to cushion the stress of withdrawal.

Consult with your healthcare professional about smoking cessation aids like nicotine patches or gum, sprays and antidepressants. They might may help you get over the tumultuous first few days without cigarettes when the urge to resume smoking is strongest and most difficult to resist.

It will also help to join a support group. Embrace the support of other former smokers. You may find a group in your local classifieds or by searching online under "quit smoking" or "stop smoking."

Lose Weight

The more excess weight you carry, the harder your heart and blood vessels have to work to navigate the extra fat you are carrying around. Being overweight contributes

to high blood pressure, abnormal cholesterol levels and diabetes.

Exercise: Get 30- to 60 minutes of brisk exercise daily.

Don't eat saturated fats: Avoid red meat, egg yolks, butter, deep-fried foods, store-bought cookies, crackers and shortening.

Get rid of refined foods: Drastically minimize your consumption of refined sugar and products made with white flour, even if products are marked "fat free."

Cholesterol and Triglycerides

Healthy cholesterol levels vary from person to person, but the generally accepted guidelines are:

- Total blood cholesterol: Should be 200 or lower.
- HDL (good) cholesterol: Should be 45 or higher (the higher the better).
- LDL (bad) cholesterol and triglyceride levels: Should be under below 130 (the lower the better).
- Triglycerides: Should be under 200 (the lower the better).

Ways to Improve Cholesterol

Exercise: Helps raise your HDL cholesterol.

Eat plenty of fiber: Whole grains, fruits and vegetables may lower your total cholesterol.

Cook with olive oil: May lower LDL cholesterol.

Limit foods with hydrogenated oils: Avoid deep-fried foods, store-bought cookies, crackers, and shortening which may raise your LDL cholesterol.

Eat more fish: Fish contains omega-3 oils, which help lower triglycerides. But do not eat fish that is high in mercury. (See Chapter One.)

Stop eating refined foods: Replace refined sugar and products made with white flour with whole food desserts.

Stress

Stress grinds away at heart and body, making individuals much more susceptible to disease. Consequently, learning stress reduction techniques can add years to your life.

"A certain amount of stress helps increase your motivation to do better on the job or around the house," says job stress expert Angela Di Blasi, L.C.S.W. of the Psychiatry Department at Cedars-Sinai hospital. "But if you've got too much stress, your health will suffer."

Ways to control stress include:

Controlled, slow breathing: Centering yourself, slowing down and focusing on relaxed breathing slows the pulse and may, over the long run, help protect heart health.

Prioritize your life-tasks: Forget about the small stuff, break free of negative life patterns and make progress toward important goals.

Exercise: Even a moderate physical workout like walking offers de-stressing, emotional rewards and relieves stress.

Demonstrate affection: Numerous scientific studies show that people who experience loving touch every day experience fewer heart-related problems.

Diabetes

When diabetes causes prolonged high blood sugar levels, blood vessels suffer. About two of every three people with diabetes die of heart disease.[125]

Be screened for blood sugar abnormalities: Over seven million Americans have diabetes and don't know it. Get tested every three years if you think you're at risk and over age 45. You can suffer diabetes for a long time without knowing you have the disease.

Screen your children for blood sugar problems: If your children are overweight and your family has a history of the diabetes, you urgently need to screen them.

Follow your doctor's instructions: If you're diagnosed with diabetes, follow your doctor's orders precisely. If you need to lose weight, lose weight. If a physician prescribes medications, take them consistently until you can switch to a predominantly raw foods diet.

Environmental Threats to Your Heart

Electromagnetic frequencies (EMFs)

Controversy continues about what effects EMFs, the low-intensity radiation emitted by cell phones, microwaves, and hairdryers, may have on your health. On the one hand, doctors like G.J. Hyland, a physician at the University of Warwick in England, argue that their potential effects are merely "thermally-based," meaning that as long as a device doesn't heat your skin and tissues, it's safe.

However, an article in *Lancet* argued that this type of radiation may interfere with the similar oscillation patterns in the human body. For instance, the heart uses electricity, so it is possible these EMFs could have disastrous consequences over the long-term. And while studies of EMFS have not yet come to definite conclusions,[126, 127] the World Health Organization (WHO) has warned that EMFs may possibly cause cancer.[128]

Pesticides

Long-term studies have not been performed on the toxicity of pesticides and insecticides. However, it's clear that these substances present real dangers to your heart. In a case of insecticide poisoning of children seen in an emergency room in South Africa, almost 10 percent had heart arrhythmias.[129] Not only that, in a 2004 study of 37 adults admitted over a three-year period in Singapore with acute pesticide poisoning, cardiac complications developed in 62 percent of the patients.[130]

Processed Foods

The average American consumes 22 teaspoons of sugar per day according to the National Health and Nutrition Examination Survey (NHANES). A wealth of research indicates that this is harming our heart health. As a matter of fact, the situation is so serious that the American Heart Association has warned, "High intakes of dietary sugars in the setting of a worldwide pandemic of obesity and cardiovascular disease have heightened concerns about the adverse effects of excessive consumption of sugars."[131] Plus, there are more than 146 peer-reviewed studies showing the adverse health effects of refined high glycemic sugar. It's not good for your heart, especially if it leads to diabetes.[132]

In addition, when you consume fats called trans fats, which are created when food manufacturers hydrogenate oils, you up your risk of serious health risks like cancer and heart disease. Food companies put these artificial fats in processed foods to preserve them longer and improve their taste. But their health consequences are disquieting.

The large amount of evidence linking chemicals to disease has moved the FDA to require their listing on package labels. However, because any food that has less than .5 grams of trans fat in a serving can be labeled as "trans-fat free," you still may unknowingly consume significant amounts of these fats.[133] The government recommends consuming less than 1.1 grams of trans fat daily. But if a food has .49 grams of trans trans-fat per serving, and is listed as trans trans-fat free, after you consume three servings you already exceed the recommended daily allowance.

The answer, of course, is to fill your diet with whole, raw foods as much as possible. That lowers your risk of heart attack.[134, 135]

Animal Products

Studies show that your risk of heart disease significantly increases when your diet includes 10 percent or more animal proteins (usually from meat). Initially, a series of small studies in both animals and humans showed that animal protein is closely linked to heart attacks. Ultimately, though, the China Study exposed the size of this health hazard.

The researchers in the China Study published their data in the 1998 *Journal of Cardiology* after analyzing the diets and health of rural Chinese in 65 countries and 130 villages. Animal protein intake in these areas was very low, about 10 percent of the U.S. average. Also, their fat intake was half that of the American average while their fiber consumption was three times higher.

The average total serum cholesterol levels for the Chinese was 127 mg/dL, well below the 203 mg/dL for Americans. Meanwhile, researchers found the death rate to be 16.7 times greater for U.S. men and 5.6 times greater for U.S. women compared to their Chinese counterparts. At the same time, the rate of heart attacks climbed in people who ate more meat and dropped in those who limited their animal protein and ate plenty of green vegetables.[136]

Prescription Meds

While Americans take enormous amounts of prescription medication in an effort to support their cardiovascular health, researchers recognize that those pharmaceuticals can compromise heart health in important ways.

A statin drug like Lipitor (which does about $7 billion in business in the U.S. each year) may lower cholesterol and reduce the risk of heart and brain attacks but it also depletes the body's supply of CoQ10, the crucial enzyme that helps mitochondria produce energy for cellular physiology and helps the heart beat properly. That's why doctors who prescribe Lipitor also tell their patients to take CoQ10 supplements.

But Lipitor isn't alone in depleting CoQ10. About 80 other medications also lower your coenzyme Q10.[137]

You Heart Is What You Eat

A diet rich in heart-healthy nutrients is crucial for keeping your cardiovascular system in working order. You must eat a diet rich in whole raw foods that are high in fiber, enzymes, antioxidants, vitamins, minerals and healthy oils.

Basic guidelines for this type of diet include:

Vegetables: Eat at least six servings daily and make at least half of them raw vegetables, getting your remaining vegetables from steamed and, as the last resort, frozen sources.

Legumes: Beans, lentils, peas and peanuts make up the legume family. (Limit your peanuts and don't eat them roasted or salted.) Legumes are rich in protein and soluble fiber.

Soybean products: Fermented soy foods like tempeh and miso may improve your heart health.

Healthy beverages: Herbal teas, fresh vegetable juices, fresh fruit juices, cereal grain beverages (often sold as coffee substitutes), Capra Mineral Whey, purified mineral water, and natural lemonade (freshly squeezed lemon with some Grade B syrup in 16 ounces of water) convey important phytochemicals that protect the heart.

Cultured milk products: Try to include at least one cup daily of plain yogurt, sour cream, buttermilk, cottage cheese or kefir in your meal plans. Small amounts of butter are okay. The best animal milk is raw goat's milk, goat cheese, goat whey or organically-fed raw cow's milk that omits the chemicals found in commercial brands. Preferable to cow's milk are rice, soy and almond milks.

Eggs: Boiled or poached are okay, but limit your intake to four a week. Frying increases the amount of free radicals in these foods.

Fish: Eat broiled or baked fish, not fried. Fish rich in heart-protecting omega-3 fatty acids include white fish, salmon and water-packed tuna. Make these less than 10 percent of your total calories by eating them, such as in soups or on top of a huge salad.

Fruit: At least three servings daily. Don't peel before eating, if at all possible.

Grains: Whole grains and products containing whole grains are rich sources of insoluble fiber.

Nuts: All fresh raw nuts and seeds contain healthy fats and fiber. Only eat peanuts (which are legumes) in moderation.

Oils (fats): Consume these in in limited amounts: Oils are best from the whole foods themselves. Don't fry foods, but mist with oil after steaming or baking. I recommend all cold-pressed oils that are high in omega-3 monounsaturated oils, such as olive, flax, evening primrose, black cumin seed, hemp seed, borage seed and grape seed oils. Even coconut and macadamia nut oils are high in omega-3.

Seasonings: Garlic, onions, cayenne, Spike® seasoning, all herbs, dried vegetables, apple cider vinegar, and seaweed support better health. Other useful plant seasonings include basil, oregano, cilantro, pepper, etc.

Soups: Homemade (salt- and fat-free) bean, lentil, pea, vegetable, barley, brown rice, and onion soups are filling and filled with beneficial phytochemicals. Vegetable- or herb-flavored bouillon makes a soup that assists in cleansing the digestive tract.

Sprouts and seeds: Raw sprouts (broccoli, wheatgrass and alfalfa) and seeds (sunflower, pumpkin, etc.) are rich in fiber, antioxidants and phytochemicals.

Sweets: Small amounts of raw honey, pure maple syrup, stevia, unsulfured blackstrap molasses, agave nectar, turbinado (crystallized sugar cane extract) or fruit extract offer more nutrition than plain sugar or high fructose corn syrup. Please do not use artificial sweeteners.

Heart Healthy Supplements

Supplementing your diet with antioxidants and other heart-supporting nutrients can minimize free radical damage to your cardiovascular system. The most appropriate supplements include:

Nattokinase: An enzyme taken from fermented soy. It reduces blood thickness and hardening of the arteries.

Coenzyme Q10: Boosts the strength of the heart.

Alpha Lipoic Acid: An antioxidant that also boosts levels of the antioxidant glutathione.

L-Carnitine: An amino acid that helps move fats into the mitochondria, helping the heart muscle function.

D-Ribose: A specialized form of sugar that helps boost personal energy.

Green Tea: Contains antioxidants called polyphenols that help protect arteries.

Quercetin: A flavonoid found in apples, onions and tea that helps protect arteries by limiting the oxidation of LDL cholesterol.

Hawthorne Berry: An herbal heart tonic.

Ginkgo Biloba: A botanical that supports increased blood flow.

Garlic: Contains powerful antioxidants that may reduce arterial plaque, limit blood clotting, beneficially increase vessel elasticity, lower cholesterol and normalize blood pressure.

Magnesium and Calcium: These minerals work synergistically to support the function of the heart muscle and lower blood pressure.

L-Taurine: An amino acid that may reduce the risk of irregular heartbeat.

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Index

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

Z

Notes:

Notes:

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