

Chelation Therapy

Chelation (pronounced KEY-LAY-SHUN) is a treatment by which a small amino acid called ethylene diamine tetraacetic acid (commonly abbreviated EDTA) is slowly administered to a patient intravenously over several hours, prescribed by and under the supervision of a licensed physician. The fluid containing EDTA is infused through a small needle placed in the vein of a patient's arm. The EDTA infusion, bonds with unwanted metals in the body, and quickly carries them away in the urine.

EDTA was first introduced into medicine in the United States in 1948 as a treatment for industrial workers suffering from lead poisoning in a battery factory. Shortly thereafter, the U.S. Navy advocated chelation therapy for sailors who had absorbed lead while painting government ships and dock facilities. In the years since, chelation therapy has remained the undisputed treatment-of-choice for lead poisoning, even in children with toxic accumulations of lead in their bodies as a result of eating leaded paint from toys, cribs or walls.

EDTA has an affinity for the so-called transition metal, iron, and for the related toxic metals, lead, cadmium, nickel, aluminum and others, which are potent catalysts of excessive free radical reactions or other toxicity. Free radical pathology, it is now believed, is an important underlying process triggering the development of many age-related ailments, including cancer, senility and arthritis, as well as atherosclerosis. Thus, EDTA's primary benefit is that it greatly reduces the ongoing production of free radicals within the body by removing accumulations of metallic catalysts and toxins which accumulate at abnormal sites in the body as a person grows older and which speed the aging process.

Symptoms affecting many different parts of the body often improve. Blood flow increases in blocked coronary arteries to the heart, to the brain, to the legs, and all throughout the body. Heart attacks, strokes, leg pain and gangrene can be avoided using this therapy. Need for bypass surgery and balloon angioplasty often diminishes after chelation. Published research also shows that chelation therapy acts as prevention against cancer.

EDTA chelation therapy, administered by a properly trained physician in conjunction with a healthy lifestyle, diet, and nutritional supplements, is an option to be seriously considered by persons suffering from coronary artery disease, cerebral vascular disease, brain disorders resulting from circulatory disturbances, generalized atherosclerosis and related ailments which can lead to senility, gangrene, and accelerated physical decline.

Chelation therapy usually consists of anywhere from 20 to 50 separate outpatient infusions, depending on each patient's individual health status. Thirty treatments is the average number required for optimum benefit in patients with symptoms of arterial blockage. Some patients eventually receive more than 100 chelation therapy infusions over several years. Other patients receive only 20 infusions as part of a preventive program.

Each chelation treatment takes from two to three hours and patients normally receive one to three treatments each week. It is the total number of treatments that determine results, not the schedule or frequency. Over a period of time, these injections halt the progress of the free radical disease. Free radicals underlie the development of atherosclerosis and many other degenerative diseases of aging. Reduction of damaging free radicals allows diseased arteries to heal, restoring blood flow. With time chelation therapy brings profound improvement to many essential metabolic and physiologic functions in the body.

A course of chelation therapy for a patient with advanced hardening of the arteries generally requires from two to six months and costs up to \$3,500 or more for 30 treatments. A person can expect to pay approximately \$110 per treatment. Later patients will be switched to maintenance biweekly and then monthly therapy.

Chelation therapy benefits the flow of blood through every vessel in the body, from the largest to the tiniest capillaries and arterioles, most of which are far too small for surgical treatment or are deep within the brain where they cannot be safely reached by surgery. In many patients, the smaller blood vessels are the most severely diseased, especially in the presence of diabetes. The benefits of chelation occur simultaneously from the top of the head to the bottom of the feet, not just in short segments of a few large arteries, which can be bypassed by surgical treatment.

Being "chelated" is quite a different experience from other medical treatments. There is no pain, and in most cases, very little discomfort. Patients are seated in reclining chairs and can read, nap, watch TV, or chat with other patients while the fluid containing the EDTA flows into their veins. If necessary, patients can walk around. They can visit the restroom, being careful not to dislodge the needle attached to the intravenous infusion they carry with them.

EDTA chelation therapy is relatively non-toxic and risk-free, especially when compared with other treatments. Patients routinely drive themselves home after chelation treatment with no difficulty. Occasionally, patients may suffer minor discomfort at the site where the needle enters the vein. Some temporarily experience mild nausea, dizziness, or headache as an immediate aftermath of treatment, but in the vast majority of cases, these minor symptoms are easily relieved. When properly administered by a physician expert in this type of therapy, chelation is safer than many other prescription medicines. Statistically speaking, the treatment itself is safer than the drive in an automobile to the doctor's office.

If EDTA chelation therapy is given too rapidly or in too large a dose it may cause harmful side effects, just as an overdose of any other medicine can be dangerous. Reports of serious and even rare fatal complications many years ago stemmed from excessive doses of EDTA, administered too rapidly and without proper laboratory monitoring. If you choose a physician with proper training and experience, who is an expert in the use of EDTA, the risk of chelation therapy will be kept to a very low level.

While it has been stated that EDTA chelation therapy is damaging to the kidneys, the newest research (consisting of kidney function tests done on 383 consecutive chelation patients, before and after treatment with EDTA for chronic degenerative diseases) indicates the reverse is true. There is, on the average, significant improvement in kidney function following chelation therapy. An occasional patient may be unduly sensitive, however, and physicians expert in chelation monitor kidney function very closely to avoid overloading the kidneys. Chelation treatments must be given more slowly and less frequently if kidney function is not normal. Patients with some types of severe kidney problems should not receive EDTA chelation therapy.

Prior to commencing a course of chelation therapy a complete medical history is obtained. Diet is analyzed for nutritional adequacy and balance. Copies of pertinent medical records and summaries of hospital admissions may be sent for. A thorough physical examination will be performed. A complete list of current medications will be recorded, including the time and strength of each dose. Special note will be made of any allergies.

Blood and urine specimens will be obtained in a battery of tests to insure that no conditions exist, which may be worsened by chelation therapy. Kidney function will be carefully assessed. An electrocardiogram is usually obtained. Noninvasive tests will be performed, as medically indicated, to determine the status of arterial blood flow prior to therapy. A consultation with other medical specialists may be requested.

The American College for Advancement in Medicine (ACAM) conducts educational courses in the proper and safe use of intravenous EDTA chelation twice yearly. They also publish a physicians' protocol, which contains professionally recognized standards of medical practice for chelation therapy.

The approximately 1,500 American physicians practicing chelation therapy, plus hundreds of others in foreign countries, have countless files to prove they are able to reverse serious cases of arterial disease. Men and women often arrive at doctors' offices near death with diseases caused by blocked arteries. Weeks or months later, they're remarkably improved. There is a wealth of evidence from clinical experience that symptoms of reduced blood flow improve in up to 85 percent of patients treated. More than a million patients have thus far received chelation therapy, almost as many as have undergone bypass surgery.

In addition, several research studies have been published with results of before-and-after diagnostic tests using radio-isotopes and ultra sound which prove statistically that blood flow increases following chelation therapy. Even without blood-flow studies, if leg pain on walking is relieved, if angina becomes less bothersome, and if physical endurance and mental acuity improve, such benefits would be quite enough to justify EDTA chelation therapy. Improved quality of life and relief of symptoms are the most important benefits of chelation therapy.

Recently some nutritional supplements which contain EDTA have been alleged to be effective as oral chelation therapy. The problem is that only 5 percent or less of EDTA is absorbed by mouth. The same tiny percentage applies to rectal suppositories. The remainder is eliminated in the stool. And, it must be taken every day by mouth to absorb an effective amount of EDTA. When taken on a daily basis, oral EDTA binds essential nutrients in the digestive tract and blocks their absorption, causing deficiencies. When given intravenously, EDTA is 100 percent absorbed and can be given on only 20 to 30 days in any one year. Nutritional supplementation on a daily basis more than compensates for any losses caused by the intravenous EDTA chelation therapy.

Because the very aging process itself correlates with ongoing free radical damage, it is no surprise that a large variety of symptoms have been reported to improve following chelation therapy, even symptoms not directly caused by circulatory disease. While there is no scientific evidence that chelation is a cure for these diseases, symptoms of arthritis, Alzheimer's, Parkinson's, psoriasis, high blood pressure, and scleroderma have all been reported to improve with chelation therapy. In fact, there is no better treatment for scleroderma. Vision has been restored in macular degeneration. Patients generally feel younger and more energetic following therapy, even when taken for purely preventive reasons. In fact, chelation therapy is more desirable for prevention than it is for established disease. Preventive medicine is always preferable to late stage crisis intervention.

A recently published article from the University of Zurich in Switzerland reported an 18-year follow-up of a group of 56 chelation therapy patients. When comparing the death rate from cancer with that of a control group of patients who did not receive chelation therapy, the authors found that patients who received EDTA chelation therapy had a 90% reduction of cancer deaths. Epidemiologists from the University of Zurich reviewed the data and found no fault with the reported facts or the conclusions.

There is no evidence that chelation therapy is of benefit in the treatment of advanced cancer, once the diagnosis is made, but there is a large body of scientific research indicating that free radical damage to DNA is an important factor at the onset of most cancer. Chelation therapy blocks damaging free radicals.

Physicians who remain skeptical about chelation therapy are those who have never used it. They are either completely uninformed about the research that has been done to document the safety and effectiveness of chelation therapy, or they are committed by training or source of income to other therapeutic procedures, such as vascular surgery and related procedures. Many physicians have merely accepted criticisms of an editorial nature stemming from such source, without digging into the true facts for themselves. The bypass and cardiovascular drug industries have been extremely well marketed—to the medical profession as well as to the public.

A recent \$30 million dollar NIH funded clinical study for the efficacy of chelation therapy is underway. The new five-year TACT clinical trial will involve over 2,300 patients at more than 100 research sites across the country. In March 2003, the National Institutes of Health's alternative medicine center will begin enrolling participants at 100 different locations around the country. Participants will receive 40 intravenous infusions under methods endorsed by the American College for Advancement in Medicine.

Chelation therapy is only part of the curative process. Improved nutrition and improved lifestyle are absolutely imperative for lasting benefit from chelation treatments. Chelation is not in and of itself a "cure-all"—it merely reduces abnormal free radical activity and removes unwanted and toxic metals, allowing normal healing and control mechanisms to come in to play. Healing is thus facilitated, allowing health to be restored with the help of applied clinical nutrition, antioxidant supplementation and improved lifestyle. A full program of chelation therapy involves all of these factors. Chelation therapy is also compatible with other forms of therapy, including bypass surgery. If cardiovascular drugs are needed, they can be taken with chelation with no conflict.

In addition to receiving the recommended number of chelation treatments, patients eager for long-term benefits should follow a healthy lifestyle, take a spectrum of nutritional supplements, be physically active and eliminate destructive lifestyle habits such as tobacco and excessive alcohol.

You are encouraged to communicate with someone who's shared your dilemma, someone who can tell you about his or her own experience with chelation therapy. Feel free to contact others with problems similar to yours who have chosen chelation therapy. Most patients who have been helped will be happy to give you their side of the story.