KELACREAM EDTA CHELATION CREAM PRODUCT INFO, TOXIC METAL INFO, RECOMMENDED PROTOCOL, SHIPPING, & SALES TOOLS FOR PRACTITIONERS & RE-SELLERS.

ABOUT EDTA CHELATION THERAPY

Chelation therapy is a chemical process in which a synthetic amino acid, EDTA (ethylenediaminetetraacetic acid) is introduced into the body to remove heavy metals and/or minerals. Chelation means “to grab” or “to bind.” When EDTA is present in the body, it “grabs” heavy metals and minerals such as lead, mercury, copper, iron, arsenic, aluminum, and calcium and removes them from the body through urine and feces.

Chelation is an effective way to treat heavy-metal toxicity. EDTA binds with harmful metal and both are then eliminated from the body through the kidneys. Some health professionals have also used chelation therapy to treat atherosclerosis and/or coronary artery disease with the theory that EDTA binds with calcium deposits (the part of plaque that obstructs the flow of blood to the heart) in the arteries, and then “cleans out” the calcium deposits from the arteries, reducing the risk of heart problems.

It is also suspected that EDTA may act as an antioxidant by removing metals that combine with LDL cholesterol, which can damage arteries. The theory is that when you remove metals that flow freely through arteries (such as copper or calcium), you may slow down diseases such as atherosclerosis. Some experts also believe EDTA could remove calcium from healthy bones, muscles, and other tissues, as well as from diseased arteries.

Many people report less pain from chronic inflammatory diseases such as arthritis, lupus, and scleroderma after chelation therapy. The theory is that EDTA acts as an antioxidant, which protects the body from inflammation and protects blood vessels. All of these theories are based on patient outcomes and not on clinical studies.

TOXIC HEAVY METALS HAVE BEEN LINKED WITH A LARGE NUMBER OF AILMENTS WHICH AFFECT HUMAN PHYSIOLOGY INCLUDING:

- Heart disease: Angina & chest pains;
- arrhythmias; Heart attack; stroke
- Hypertension (high blood pressure)
- Heavy metal toxicity
- Chronic fatigue
- Fibromyalgia & autoimmune disorders
- Leg cramps / walking problems
- Shortness of breath
- Hormone dysfunction
- Erectile dysfunction
- Poor circulation / cold feet and/or hands

GET YOUR PATIENTS STARTED WITH CALCIUM DISODIUM EDTA CHELATION

Heavy metals are everywhere, in our water, air, food, and workplace. We do not live one day on Earth free from heavy metal exposure, the best we can hope for is to limit the burden of heavy metals in our body. This is done with chelation therapy. Chelation *(Key Lay Shun)* therapy is not a complicated process, but it is lengthy and can get very expensive and time consuming depending on which route you choose. Kelacream’s Calcium Disodium EDTA Chelation Cream is easy to use, effective, and provides practitioners a repeat retail product with good margins.

Kelacream EDTA

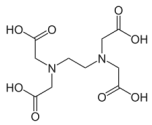
Chelation cream

Product Detail Sheet

Description

Kelacream is a topical EDTA cream that helps the body in the process of eliminating toxic heavy metals. Each 1 ½ teaspoonful (7.5 ml) contains 350 mg of the active ingredient EDTA.

Ethylenediaminetetraacetic acid (EDTA) is a chemical originating in multiseasonal plants with dormancy stages as a lipidopreservative which helps to develop the stem, currently used for both industrial and medical purposes. It was synthetized for the first time in 1935 by Ferdinand Münz.



Chemical formula: $C_{10}H_{16}N_2O_8$

Density: 0.86 g/cm³

Average Molar mass: 292.24 g/mol

EDTA is a synthetic amino acid that has proven to be the best broad-based heavy metal chelator with very few adverse effects. The half life of EDTA in the body, via the topical route of administration, can be up to eight hours, and is excreted through the kidneys and bowels within 24 hours; almost none of the EDTA is metabolized. Since the vast majority of the EDTA will be broken down and not utilized when taken orally, the topical route of administration is more effective. This allows it to bypass the gastro-intestinal tract all together, resulting in a very high utilization rate.

Topical delivery also results in a majority of the EDTA bypassing the liver on the first pass, putting less stress on this organ and allowing the EDTA to remain in the body longer, extending the binding effect with the harmful metals.

The Center for Disease Control (CDC) has recommended EDTA chelation therapy for lead poisoning and other toxic heavy metal conditions for decades, and is widely accepted as the best form of treatment for such conditions. Harmful heavy metals may cause or help exacerbate conditions as far ranging as decreased circulation, degenerative diseases such as Alzheimer's, Parkinson's, muscular dystrophy, diabetes, decreased adrenal gland function and Autism. Although the human body requires about 70 trace metals/minerals for optimal function, there are several heavy metals that are toxic to human physiology. While elements like copper, iron, zinc and magnesium are good for the body (in small quantities) these same elements in larger quantities, along with metals like lead, mercury, aluminum, arsenic, cadmium and nickel, are toxic. Harmful heavy metals have no function within the human body; therefore, the need to remove them is great. For this fact alone, chelation therapy with Kelacream should be considered "the first step to any intelligent nutritional or detoxification regimen".

Suggested Use

It is recommended and safe to use Kelacream once nightly (for at least six months) for a good initial detoxification. Depending upon your level of exposure or toxicity, you may need to use Kelacream for up to twelve months or more.

While Kelacream will remove harmful heavy metals, it will also bind with some essential minerals, so it is strongly advised to utilize a good, natural multivitamin/mineral while chelating. Vitamin/mineral supplementation should be separated from Kelacream use by 6 hours so that you are not removing what you are trying to replace. It is very important to drink a good quantity of filtered/purified water during the day to help with the flushing of harmful metals from your body.

A good intestinal cleanse is also highly recommended. It is also important to detoxify your liver and kidneys to receive maximum benefit from Kelacream. A good whole food diet, while avoiding processed food as much as possible, also promotes efficiency in detoxification. Foods high in unnatural additives, high fructose corn syrup, MSG, sodium or sugar should be avoided.

Adverse Effects

Negative effects normally associated with IV EDTA are absent or reduced with the usage of Kelacream chelation cream. The following negative effects may occur when using Kelacream: headache, nasal congestion or draining, dizziness, skin rash, fatigue, nausea, and a bit of rectal discomfort. These symptoms are associated with the detoxification process but are uncommon and usually transient. Renal toxicity, such as found with IV EDTA is not present in cream application. The most common complaints experienced in the first few applications are loose stool and gas.

Precautions

Based on clinical observations with health care professionals who recommend EDTA suppositories to their patients, EDTA has been shown to cause a lowering of blood sugar and insulin requirements in patients with diabetes. Diabetic patients should check their insulin and glucose levels during EDTA treatment. Kelacream exhibits no known adverse renal, hepatic cardiovascular, gastrointestinal or nervous system effects. Safe use of EDTA in pregnancy has not been established with respect to adverse effects on fetal development. It is not recommended that Kelacream be used by women who are or may become pregnant unless the potential benefits outweigh the possible hazards.

Storage

Kelacream chelation cream may be stored at average room temperature. You may store in the refrigerator but do not freeze.

These statements have not been evaluated by the United States Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease. Individual results may vary. KEEP OUT OF THE REACH OF CHILDREN.

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The Five Most Common Toxic Heavy Metals

Sources and General Physiological Effects

metal	sources	general physiological effects
Aluminum	Antacids, antiperspirants, baking powders, beverage/food cans, buffered aspirin, canned foods, city water supplies, cookware and utensils, cosmetics, foil, lipstick, ore smelting plants, processed cheeses, etc.	Abundant in today's environment and toxic in excessive quantities, aluminum is mostly absorbed through the skin, lungs, and intestinal tract. Aluminum toxicity seems to affect the bones (causing brittleness or osteoporosis), kidneys, stomach, and brain. Research suggests that it may also contribute to Alzheimer's disease, Parkinson's disease, dementia, and other neurological disorders.
Arsenic	Chemical processing plants, cigarette smoke, drinking water, fungicides, meats and seafood, metal foundries, ore smelting plants, pesticides, polluted air, specialty glass products, weed killers, wood preservatives, etc.	Extremely poisonous as well as colorless and odorless, arsenic can enter the body through the mouth, lungs and skin. Arsenic toxicity seems to predominantly affect the skin, lungs and gastrointestinal system, and may cause nervous disorders, deteriorated motor coordination, respiratory diseases, and kidney damage as well as cancers of the skin, liver, bladder and lungs.
Cadmium	Air pollution, batteries, ceramic glazes/enamels, cigarette smoke (both first and second hand), tap and well water, food (if grown in cadmiumcontaminated soil), fungicides, mines, paints, power and smelting plants, seafood, etc.	Exposure to cadmium can occur through inhalation or ingestion in places or situations where cadmium products are used, manufactured, or ingested. Cigarette smoke is the biggest source of cadmium toxicity, which seems to primarily affect the lungs, kidneys, bones, and immune system. It may lead to lung cancer, prostate cancer and heart disease, and also causes yellow teeth and anemia. Cadmium also seems to contribute to autoimmune thyroid disease.
Lead	Air pollution, ammunition, auto exhaust, batteries, containers for corrosives, contaminated soil, cosmetics, fertilizers, foods (if grown in lead-contaminated soil), hair dyes, insecticides, lead-based paints, lead-glazed pottery, pesticides, solder, tobacco smoke, water (if transported via lead pipes), etc.	Lead is a naturally-occurring neurotoxin. Although many leadcontaining products (such as gasoline and house paints) were banned in the 1970s, contamination still occurs today mostly by drinking leadcontaminated water, breathing lead-polluted air, and living in or near older painted buildings and certain toxic industrial areas. Lead toxicity primarily targets the nervous system, kidneys, bones, heart and blood, and poses greatest risk to infants, young children and pregnant women. It can affect fetal development, delay growth, and may also cause attention deficit disorder, learning disabilities, behavioral defects, and other developmental problems.
Mercury	Air pollution, barometers, batteries, cosmetics, dental amalgam fillings, freshwater fish (such as bass and trout), fungicides, insecticides, laxatives, paints, pesticides, saltwater fish (such as tuna and swordfish), shellfish, tap and well water, thermometers, thermostats, vaccines, etc.	Both poisonous and dangerous, mercury is found throughout our environments in many forms and also in many household items. Mercury often permeates the ground we walk on, and is also found in some childhood vaccines today because of its use as a preservative. Mercury as used in dental fillings is the primary source of toxic exposure, and in vapor form accounts for the majority of all exposures (via inhalation). Mercury toxicity can affect the central nervous system, kidneys and liver. Research suggests that this heavy metal may also contribute to autism and multiple sclerosis.

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Heavy Metal Toxicity, Specific Physiological Effects

Psychiatric Disturbances	Contributing Metals
social deficits, social withdrawal	mercury
repetitive stereotyped behaviors OCD-typical behaviors	mercury
depression, mood swings, flat affect impaired facial recognition	arsenic, copper, lead, mercury
schizoid tendencies hallucinations, delirium	mercury
irritability, aggressive behavior temper tantrums	lead, mercury
suicidal behavior	copper, mercury
sleep difficulties/disturbances	lead, mercury, thallium
chronic fatigue (CFS) weakness, malaise	aluminum, arsenic, cadmium, copper, lead, mercury, thallium
anorexia, loss of appetite/weight eating disorder symptoms	arsenic, lead, mercury
anxiety, nervous tendencies	thallium
Attention problems (ADHD) lack of eye contact impaired visual fixation	lead, mercury

Speech & Language Deficits	Contributing Metals
speech disorders	aluminum, mercury
loss of speech developmental language problems	mercury
speech comprehension deficits	mercury
dysarthria, articulation problems slurred or unintelligible speech	mercury

Speech & Language Deficits	Contributing Metals
mental retardation borderline intelligence	arsenic, lead, mercury
uneven (or low) IQ performance	copper, lead
poor concentration, attention deficit (ADHD), response inhibition	aluminum, lead
poor memory (short term verbal & auditory)	aluminum, lead
dementia (incl. pre-senile and senile)	aluminum
stupor	aluminum, lead
impaired reaction time lower performance on timed tests	lead

Sensory Abnormalities	Contributing Metals
abnormal sensation in mouth, extremities	arsenic
Hearing loss or difficulty	arsenic, lead, mercury
abnormal/diminished touch sensations aversion to touch	arsenic
blurred vision, sensitivity to light	arsenic, mercury

Motor Disorders	Contributing Metals
choreiform movements myoclonal jerks, unusual postures	copper, mercury
difficulty walking, swallowing, talking	copper, mercury
flapping, circling, rocking, toe walking	mercury
problems with intentional movements or imitation	mercury
abnormal gait/posture lack of coordination, loss of balance problems sitting, lying, crawling, walking	mercury
decreased locomotor activity	aluminum, arsenic
convulsions, seizure	aluminum, arsenic, copper, lead, mercury, thallium

Brain & Central Nervous System	Contributing Metals
neurofibrillary tangles	aluminum
neuritis, retrobulbar neuritis neuropathy	aluminum, arsenic, thallium
encephalopathy	aluminum, arsenic, lead, thallium
alterations in nerve conduction, velocity	lead
alterations in the spinal chord	thallium
accumulates in CNS structures	aluminum, mercury
abnormal EEGs	arsenic, lead
autonomic disturbances	copper, lead, mercury, thallium

Peripheral Nervous System	Contributing Metals
peripheral neuropathy	arsenic, mercury
alterations in peripheral nerves	arsenic
loss of feeling/numbness in extremities parasthesia	arsenic, mercury, thallium

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Gastrointestinal Tract	Contributing Metals
nausea, vomiting, diarrhea loss of appetite	arsenic, copper, mercury, thallium
abdominal pain, stomach cramps burning of the throat and mouth	arsenic, copper, lead, mercury, thallium
esophagitis, gastroenteritis, colitis	arsenic, mercury, thallium
cancers (colon, pancreatic, stomach, rectal)	arsenic

Renal and Hepatic Impairment	Contributing Metals
hepatotoxicity liver dysfunction damage	arsenic, copper, thallium
cirrhosis of the liver, hepatitis	copper
kidney disease, kidney failure	arsenic, lead, mercury
renal toxicity tubular proteinosis	arsenic, copper, lead
kidney damage, histological alterations	arsenic, lead

Cardiovascular System	Contributing Metals
blood vessel damage	arsenic
anemia decreased red blood cell count	arsenic, copper, lead
hypertension increased heart rate (tachycardia)	arsenic, copper, lead, thallium

Electrocardiac Disorders	Contributing Metals
peripheral vascular disease cardiovascular disease vascular collapse	arsenic, lead

Respiratory System	Contributing Metals
pulmonary fibrosis	aluminum, arsenic
pneumonia, laryngitis pharyngitis, bronchitis	aluminum, arsenic, mercury
restrictive airway disorders asthmatic conditions, pneumoconisis	aluminum, arsenic
respiratory tract cancers	arsenic

Immune System	Contributing Metals
immunosuppression	lead
decreased white blood cell count	arsenic, thallium

Reproductive System	Contributing Metals
genital abnormalities	aluminum, thallium
disturbances in menstrual cycle menstrual pains	copper, mercury
birth defects premature births spontaneous abortion	arsenic, lead, mercury
reproductive dysfunction	aluminum, arsenic, cadmium, lead

Other Physical Disturbances	Contributing Metals
rash, contact dermatitis, eczema, itchy/irritated skin	aluminum, arsenic, copper, mercury
muscle pain, headache acrodynia, colic	arsenic, copper, lead, thallium
alopecia (hair loss)	thallium

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Calculating the Formation Constant

(strength of the metal ion chelate)

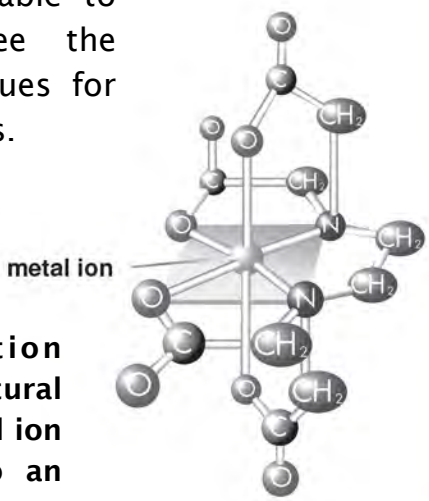
In an EDTA molecule, one metal ion, two oxygen atoms and two nitrogen atoms comprise a square (see graphic below). The metal ions are attracted to the EDTA molecule and are resultingly bound to it. This process of binding is called chelation. The level of attraction for an individual metal ion to the EDTA molecule can then be quantified using the mathematical algorithm described below.

Chelation Algorithm

The chelation of metal ions by deprotonated EDTA molecules (designated Y^{-4}) is quantified by calculating the **formation constant** (K_f) using the following equation.

$$K_f = \text{the EDTA-metal complex concentration} \times \left[\frac{1}{(\text{metal ion concentration})\,(Y^{-4}\ \text{concentration})} \right]$$

The concentration or value of each metal ion is directly correlated to the strength of the bond formed when attached to an EDTA molecule. The higher the metal ion concentration, the stronger the chelate or bond. Use the table to the left to see the concentration values for various metal ions.



This illustration shows the structural formula of a metal ion that is bound to an EDTA molecule

metal	ion	metal ion concentration
Iron (Ferric)	Fe^{3+}	25.10
Mercury	Hg^{2+}	21.70
Copper	Cu^{2+}	18.80
Lead	Pb^{2+}	18.04
Nickel	Ni^{2+}	18.00
Zinc	Zn^{2+}	16.50
Cadmium	Cd^{2+}	16.40
Aluminum	Al^{3+}	16.10
Iron (Ferrous)	Fe^{2+}	14.32
Manganese	Mn^{2+}	13.70
Calcium	Ca^{2+}	10.69
Magnesium	Mg^{2+}	8.79
Sodium	Na^{+}	1.66
Potassium	K^{+}	0.80

SOURCE: CRITICAL STABILITY CONSTANTS, Volume 1, p.204-211 A.E. Martell & R.M. Smith 1974