KelaminHM™

Detoxify: safely and effectively

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or visit www.**chelationhealthproducts**.com

KelaminHM™ Chelation Suppositories

Product Detail Sheet and Recommended Protocol

description

KelaminHM™ is a rectal, time-release suppository that binds and removes harmful heavy metals from your body. KelaminHM™ uses Calcium Disodium EDTA in a cocoa butter base with methocel E4M premium USP for a time-release effect. Each suppository dissolves through body heat and gradually spreads over the lining of the colon, and is then absorbed directly into the blood stream within 90-120 minutes.

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 rectal 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 rectal route of administration is more effective. This allows it to bypass the gastro-intestinal tract all together, resulting in a very high utilization rate. Rectal (suppository) delivery also results in a majority of the EDTA bypassing the liver and kidneys on the first pass, putting less stress on these organs 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 KelaminHM™ should be considered "the first step to any intelligent nutritional or detoxification regimen".

Suggested use

It is recommended and safe to use KelaminHM™ suppositories once nightly (for at least 90 days) for a good initial detoxification. Depending upon your level of exposure or toxicity, you may need to use KelaminHM™ for up to 180 days or more. Insert one KelaminHM™ suppository nightly right before bedtime, so that the EDTA will diffuse throughout your body while your metabolism is slowed, giving it more time to chelate. KelaminHM™ may also be utilized at other times during the day if necessary. It is recommended to use KelaminHM™ 2 - 3 hours after your last meal. This provides adequate time to produce a bowel movement, thus removing any excess matter in the rectum and reducing any potential metabolic competition. If possible, avoid a bowel movement for at least 2 hours after inserting the KelaminHM™ suppository. Using KelaminHM™ on a less frequent basis will not cause any problems but it may take longer to achieve the desired results.

While KelaminHM™ will remove harmful heavy metals, it will also bind with some essential minerals, so it is strongly advised to utilize a good, natural multi-vitamin/mineral while chelating. Vitamin/mineral supplementation should be separated from KelaminHM™ use by 8 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 highly recommended. It is also important to detoxify your liver and kidneys to receive maximum benefit from KelaminHM™. 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 KelaminHM™ EDTA suppositories. Renal excretory functions should be within normal limits prior to treatment. If not, please consult your health care professional. The following negative effects may occur when using KelaminHM™ suppositories: 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 suppository administration. 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. KelaminHM™ 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 KelaminHM™ be used by women who are or may become pregnant unless the potential benefits outweigh the possible hazards.

Storage

KelaminHM™ suppositories may be stored at average room temperature. You may store in the refrigerator but do not freeze. If subjected to temperatures above 95 degrees store right side up in the refrigerator for 45 minutes before using.

KelaminHM™ suppositories are manufactured for and distributed by: **Kelatox Products, LLC**· · Salt Lake City, UT | **866·573·9687**
www.**kelatoxproducts**.com

Calculating the Formation Constant
(strength of the metal ion chelate)

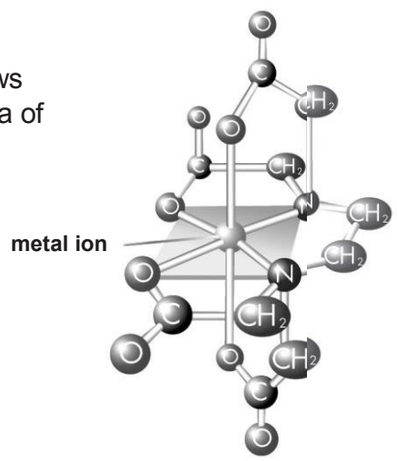
In an EDTA molecule, one metal ion, two oxygen atoms and two nitrogen atoms comprise a square (see graphic below). The metal ions are attracted to the EDTA molecule and are resultingly bound to it. This process of binding is called chelation. The level of attraction for an individual metal ion to the 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 when attached to an EDTA molecule. The higher the metal ion concentration, the stronger the chelate 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

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Professional Support Services

24 Hour Telephone Support

If you want to place and order or have a question or concern about KelaminHM™ suppositories, our staff is always available to help you. You may also refer your patients to us for questions if you do not have the time to answer or are unsure of the answer.

Health Care professional on Staff

For the detailed questions requiring expert advice, we offer a Compounding Pharmacist/Certified Clinical Nutritionist with over 30 years of clinical experience.

Educational Literature

We offer literature that explains what toxic heavy metals are and where they come from in the environment, their effects, and how KelaminHM™ works and can help remove these toxic heavy metals.

Customized Brochures

As a free service to our health care professionals, we will customize educational brochures for you to give to your patients. The back of the brochures will contain any information you desire to let your patients know how and where they can purchase KelaminHM™, intraMAX™, intraMIN™ and intraKID™. These brochures do not contain any information about how to contact the manufacturer.

Drop-shipping

For clinics who don't wish to stock KelaminHM™, intraMAX™, intraMIN™ and intraKID™, patients can purchase these products from you and their order will be drop-shipped the same business day. Shipping fees will apply to each order.

Referral/reimbursement Sales program

For Clinics who don't wish to stock KelaminHM™, intraMAX™, intraMIN™ and intraKID™ and don't want to drop ship, you can refer your patients to us. We will take their order, ship their order and reimburse you with a check at the end of the month for the difference of the retail price you wish to charge against your wholesale price.

Regional Heavy Metal reports

We offer you free reports to be shared with your patients, showing the average levels of heavy metals found in soil samples taken from your area by the United States Geological Survey (USGS) along with emission data for your region from the United States Environmental Protection Agency (EPA).

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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