



HeartGems™



This formula is so powerful that it can be estimated how many minutes life will be extended for each serving ingested. The biologic effects of this formula are so profound that if it were widely used, actuarial survival for the entire country could be expected to increase, with significantly greater longevity, fewer and milder chronic diseases, and improved quality of life for the population as a whole. Dr. Paul Frankel, author of the book "The Methylation Miracle", has estimated that widespread use of this formula could save 50,000 lives per year in the US alone.

We are excited to announce the early results of our major randomized prospective, double blind, placebo controlled, clinical study, the first phase of which focused on the **HeartGems** formula and its effects on blood chemistry and clinical symptoms. In the following text are the dramatically positive results and their implications.

The main marker we used for age reversing effects on DNA is called homocysteine. Recent research indicates the lower the homocysteine, the younger and healthier the condition of DNA. Homocysteine elevation is also associated with increased cardiovascular risks, with the risk rising exponentially above a level of 6.3, as the following chart indicates:

Homocysteine Level <6.3 6.3 10 15 20

Relative Cardiac Risk <1 1 2 4 9

Thus at a level of 15, the risk of a major cardiac event is 4 times that of the general population. Also a recent study from Boston University indicates that a level over 14 carries double the risk of Alzheimer's disease. Noteworthy is that many labs call a level up to 15 normal, resulting in what is likely widespread under treatment of elevated levels.

In our double blind study 40 subjects above the age of 40 were split randomly into treatment and placebo control groups. The treatment group took increasing daily amounts of the **HeartGems** formula equivalent to 6, 12, and 18 capsules for one month each. The placebo group only received capsules of maltodextrin.

Statistical analysis was done on the results to derive scientific p values. A p value is the probability that a result will occur by chance alone. For example, the p value for tossing a tail in a coin flip is .5 or 50%. Values below .05 or 5% are felt to be statistically significant. The lower the value, the greater the significance of the results. A value of .001 is felt to be highly significant, and anything at or below .0001 is very highly significant for the difference between the treatment and control groups.

See Appendix A: Homocysteine results for the treatment group at baseline, 1, 2, and 3 months are as follows:

	<u>Baseline</u>	<u>1 month</u>	<u>2 months</u>	<u>3 months</u>
Homocysteine	9.2	7.1	6.8	6.1



P value .00001 .00001 .00001

The p values are treatment values compared to baseline, which are all very highly significant. The entire group, on average reduced to the lowest cardiac risk level.

See Appendix B: For the placebo control group the values are as follows:

	<u>Baseline</u>	<u>1 month</u>	<u>2 months</u>	<u>3 months</u>
Homocysteine	7.8	7.3	7.9	7.9
P value	ns	ns	ns	ns

The abbreviation ns means not significant. There was no significant change in control group levels throughout the course of the study period.

See Appendix C: Even more dramatic is the reduction in homocysteine for the treatment group subjects that started with high homocysteine levels at or above 10.

	<u>Baseline</u>	<u>1 month</u>	<u>2 months</u>	<u>3 months</u>
Homocysteine	13.2	9.3	8.3	7.3
P value	.009	.001	.00001	

This drop in homocysteine level is comparable to the chemistry of persons in their 60's becoming that of persons in their 20's or 30's. As each one-point drop in homocysteine may reduce cardiac risks 10-12%, this suggests an up to 60-70% risk reduction for this group.

Subjects also took intensive symptom surveys that compared them to the general population. The scores are in percentile rank, the higher the percentile the greater the symptoms. A person at the 60th percentile has more symptoms of that type than 60% of the population.

See Appendix D: For the anxiety scale, persons in the treatment group had the following results:

	<u>Baseline</u>	<u>1 month</u>	<u>2 months</u>	<u>3 months</u>
Percentile	56	40	27	24
P value	.05	.0001	.0001	

This indicates a very highly significant reduction in anxiety scale for the treatment group. There was no significant reduction in the placebo group.



Further preliminary analysis also suggests significant reductions in somatization or body aches & pains (Appendix E), depression (Appendix F), obsessive compulsive (Appendix G), paranoid (Appendix H), hostility (Appendix I), and global scales (Appendix J).

As the data analysis continues we will strive to share more information as appropriate.

Based on these results, it can be strongly recommended to take 3-6 HEARTGEMS daily for general health and well-being. Persons with known elevated homocysteine levels may require higher intake amounts for optimum results, best assessed with widely available blood testing.

HEARTGEMS is an activated combination of the most powerful nutrients ever studied for lowering harmful homocysteine in the blood while increasing the production of the highly beneficial SAMe (S-adenosylmethionine). *Homocysteine is highly toxic to blood vessels and its level may be up to 40 times more predictive of the risk of heart disease than the cholesterol level.* 44% of U.S. deaths are due to heart disease. The average homocysteine level in the U.S. population is at an unhealthy 10. Above the level of 7, every 3-point rise in homocysteine increases heart attack risk by 35%. Elevated homocysteine levels are also strongly associated with the development of Alzheimer's disease, strokes, and increased complications in diabetes, lupus, and other chronic diseases.

Homocysteine levels are increased with smoking, alcohol overuse, oral contraceptive use, red meat ingestion, high fat diets, and aging. One study showed that drinking 4 cups of coffee per day elevates homocysteine levels by 10%.

The action of **HEARTGEMS** is driven by TMG (trimethylglycine). **See Figure A on page 8.** TMG provides methyl groups to detoxify homocysteine. A methyl group consists of a carbon atom attached to three hydrogen atoms. Methyl groups are widely used in the body for detoxification and DNA repair. Choline also provides methyl groups, but only in the liver and kidneys, and the ingredient inositol may also help to lower homocysteine levels. Folic acid and vitamins B6 and B12 are key cofactors required for homocysteine detoxification and independently can reduce homocysteine levels. Zinc is another essential metabolic cofactor for lowering homocysteine that is provided as a highly absorbable and biologically active amino acid chelate.

Vitamin B-12 (Methylcobalamin) is a particularly important coenzyme that is required for the proper synthesis of DNA, which controls the healthy formation of new cells throughout the body. Methylcobalamin (B12) donates methyl groups to the myelin sheath that insulates nerve fibers and regenerates damaged neurons. In a B12 deficiency, toxic fatty acids destroy the myelin sheath but high enough doses of B12 can repair it. Vitamin B12 comes in several kinds including hydroxy-, cyano-, and adenosyl-, but only the methyl form is used in the central nervous system.

B12 also supports the action of vitamin C, and is necessary for the proper digestion and absorption of foods, for protein synthesis, and for the normal metabolism of carbohydrates and fats. Additionally, vitamin B12 prevents nerve damage by contributing to the formation of the myelin sheath that insulates nerve cells. B12 also maintains fertility, and helps promote normal growth and development in children. Deficiency states are fairly common and vitamin B12 deficiency mimics many other disease states of a neurological or psychological kind, and it causes anemia. Vitamin B12 deficiency is caused by a wide range of factors including low gastric acidity (common in older people,) use of acid blockers such as Prilosec™ or excessive laxative use, lack of intrinsic factor, poor absorption from the intestines, lack of Calcium, heavy metal toxicity, or excessive Vitamin B12 degradation.

In almost all cases, adjusting the intake level of this formula to the metabolic situation will be likely to lower homocysteine levels into the lowest risk zone below 7. Significant homocysteine lowering typically occurs within 1-3 months, which can be validated individually with a homocysteine blood test. Using this formula, one patient with serious heart disease



showed a lowering of homocysteine level from 18 to 4 in only 30 days, equating to an over 90% reduction in cardiac risk and warranting long term life extending use.

In addition to reducing homocysteine levels, the **HEARTGEMS** formula can also increase the beneficial internal production of methionine, SAmE, DMG (dimethylglycine), glutathione, and melatonin. For example, ingestion of the **HEARTGEMS** formula at higher levels may increase SAmE by 400%. Some of the more significant reported benefits of these internal **HEARTGEMS** byproducts are summarized in the following table:

Methyl Group Donation (TMG, SAmE, and Choline)

- Methyl groups break down harmful chemicals.
- Required for growth of new cells.
- Prevents DNA mutations and strand breaks.
- Prevents expression of disease causing genes.
- May reduce the risk of genetically induced cancers.
- Protects against alcohol induced liver injury.
- May slow and even reverse aging.

SAmE (S-adenosylmethionine)

- Increases serotonin levels and can be a potent mood elevator.
- Helps repair and preserve joint function.
- Potent relief of joint pain.
- Cell membrane stabilizer.
- Intimately involved in DNA protection and repair.
- Enhances ATP, the fundamental cellular energy molecule.
- Well being promoter.
- Repairs liver injury.
- Protects the heart.
- Builds myelin sheaths around nerves.
- Maintains and repairs brain cells.
- Treats schizophrenia and dementia
- Supports nerve repair in demyelinating diseases (like multiple sclerosis).
- May relieve symptoms in arthritis and **Fibromyalgia**.

Melatonin

- Promotes rejuvenative sleep.
- Immune enhancer.
- May reduce risk of cancer.

Glutathione

- One of the most powerful antioxidants ever studied.
- Potent anti-cancer effects.
- Anti-aging actions.

DMG (Dimethylglycine)

- Increases physical energy.
- Enhances athletic performance.



- Improves function of autistic children.

Folic Acid

- Reduces risk of heart attacks and stroke.
- Lowers risk of colon cancer.
- Decreases incidence of birth defects.

Lipotropic or Fat-directed Factors (Methionine, Choline, and Inositol)

- Improves fluidity of cell membranes (required for cell regeneration).
- Supports production and repair of myelin sheaths of nerves.
- Detoxifies heavy metals and environmental toxins.
- Reduces toxic effects of cigarette smoke and smog.
- Protects against injury from ionizing radiation.
- May enhance learning and memory.
- Improves metabolism of fat and cholesterol.

The **HEARTGEMS** components are activated with a patented laser technology designed to energize the methyl groups of trimethylglycine and promote their transfer.

*A 1998 article in Medical Hypothesis presents evidence that aging may be almost entirely due to a loss of methyl groups within the cells, with elevated homocysteine a marker for impaired methyl group transfers throughout the body. This study concludes that aging may be reversible if aged cells could be stimulated to restore methyl group transfer functions rather than losing them. **HEARTGEMS** provides all the essential factors required for methyl group transfers.*

Recommended Usage:

For many persons, the level of intake needed to reduce homocysteine levels to the lowest risk range is one capsule three times daily with meals. Some persons may require 3-6 times this basic amount for optimum results. This is especially true for persons with marked elevations of homocysteine, or for persons with severe liver disease or genetic enzyme abnormalities. Enhanced mood and increased physical energy are markers that suggest adequate intake. Blood testing for homocysteine levels is the most certain way to be sure the desired results have been achieved.

It is suggested that one capsule three times per day be taken for the first month. After that, the use can be increased to strive for desired levels of energy and mood enhancement, relief of joint symptoms, or support of liver or brain nutrition. This formula is a long-term rebuilder, restorer, and preventative, and usually requires several weeks of use before the effects are perceived.

The components of the formula are very safe. TMG has no side effects except for brief tension headaches if large quantities are taken on an empty stomach. Choline may occasionally deepen the depressive phase of manic-depressive illness. Chronic intake of large amounts of vitamin B6, over 300-500mg per day, may rarely cause nerve inflammation. Even at the highest suggested intake of **HEARTGEMS**, this threshold for B6 would not be exceeded. Although up to nine capsules three times per day may be safely taken, clinical studies have not shown further benefit beyond the levels of 6 capsules three times per day.

Persons who have taken this homocysteine lowering combination of nutrients for 10 or more years report a marked reduction in colds, increased energy and endurance, and reduced blood sugar levels. Fat may melt off the body with



ease with a return to more youthful body proportions. Some people describe that this nutrient blend makes them feel like young adults or even teenagers again.

Extended use of this formula is therefore recommended to get the greatest possible individual benefits. *Based on cardiac risk factor reduction considerations alone, it is estimated that with long term use each serving of HEARTGEMS may extend life 15 minutes or more.* HEARTGEMS may be the most powerful life extending and enhancing formula ever offered.

The following is a breakdown of the benefits of HEARTGEMS by body system:

Heart

- Reduction of total and LDL cholesterol, and total/HDL cholesterol ratio.
- Rapid lowering of homocysteine levels, reducing cardiac risks
- Reduction and even reversal of lesions that narrow coronary arteries.

Brain

- Provides essential elements to build insulating nerve coverings (myelin).
- Reduces risk of stroke and Alzheimer's dementia significantly.
- Supports production of serotonin, melatonin, and other neurotransmitters.

Blood Vessels

- Protects the integrity of blood vessels throughout the body.
- Lowers risk of peripheral vascular disease and gangrene.
- May reduce the risks of vascular complications of diabetes.

Digestive System

- Provides vital elements the liver uses to detoxify poisons.
- May prevent or retard alcohol related liver injury and improve digestion.
- May substantially reduce the risk of colon and liver cancer.

Lungs

- Has reversed pre-cancerous changes in bronchial lining cells to normal.
- Survival in operated lung cancer patients increased from 11 to 41 months.
- Helps protect the delicate air sacs of the lungs.

Sex Organs

- Reduces the risk of impotence.
- May lower the risk of cervical cancer.
- Helps metabolize and use sex hormones properly.



Metabolism

- Lowers total body fat while helping to build muscle.
- Improves metabolism of fat and cholesterol.
- Clears toxins from the body.

Immune System

- May help repair immune cells in autoimmune diseases like lupus.
- Helps to inactivate histamine in allergic responses.
- Beneficial effects in immune cell tumor called lymphoma.

Musculoskeletal

- May reduce the tendency to osteoporosis.
- Relieves the pain of arthritis and fibromyalgia.
- Repairs and rebuilds the cartilage of joints.

DNA

- Helps prevent DNA strand breaks and mutations.
- Preserves the integrity of every cell line in the body.
- May slow or stop telomere loss, retarding or reversing aging.

Life Extension

- Restores the chemistry of DNA to a much younger biological age.
- Loss of these nutrients greatly accelerates aging.
- Research suggests human life extension of 7 to 17 years or more.

Mood and Energy

- Generates internal production of SAME, a powerful natural anti-depressant.
- Boosts serotonin to elevate mood – may act faster than medications.
- May significantly enhance energy, athletic performance, and endurance.

A Word on Heavy Metal Toxicities

We have some new, exciting news regarding our **HeartGems™** product. The product was tested by a holistic dentist in Canada by the name of Dr. David Warwick. For the past 4 years, he has been seeking a product that can help his patients with heavy metal toxicities. He does fecal elements tests to determine the amount of toxins that are being excreted. He decided to test the product on himself because he has no heavy metal toxicity (no more than any of us do!) He likes to see what results he would get personally before testing it on his patients. He went on the product for 6 days taking 6 caps/day. He says it typically takes only 6 days if you are going to see any difference at all. He was astounded with the results, which were fantastic. The excretion of Mercury, Lead, Arsenic, Nickel, & Tungsten were dramatically increased, anywhere from 3 to 40 times as much as before taking the **HeartGems™**. Very encouraging.

Dr. Warwick commented that in his past 4 years of searching he has never seen a product work so well. He mentioned that many times other products he used would dramatically increase the excretion of 1



metal but for reasons unknown would actually DECREASE the excretion of others. **HeartGems™** had increases across the board with the exception of copper, which was the only metal tested, that remained the same. For the original lab results, or for information on contacting Dr. Warwick, DDS directly regarding Heavy Metal excretion please contact us and we will be happy to supply you with that information.

Doctor's Data Lab Test Evaluation: The Amount of Metals Excreted Before & After HeartGems™

PRE mg/kg	METALS	POST mg/kg
0.024	<.05 w/o amalgams Mercury	0.083
0.024	<.05 with amalgams Mercury	0.083
0.036	Antimony	0.093
0.15	Arsenic	0.20
< dl	Beryllium	0.004
0.025	Bismuth	0.070
0.68	Cadmium	0.73
50	Cooper	49
0.37	Lead	0.53
5.3	Nickel	6.1
< dl	Platinum	<dl
0.019	Thallium	0.025
0.020	Tungsten	0.758
0.137	Uranium	0.149

See Appendix K for more details on the Heavy Metal excretion associate with HeartGems.

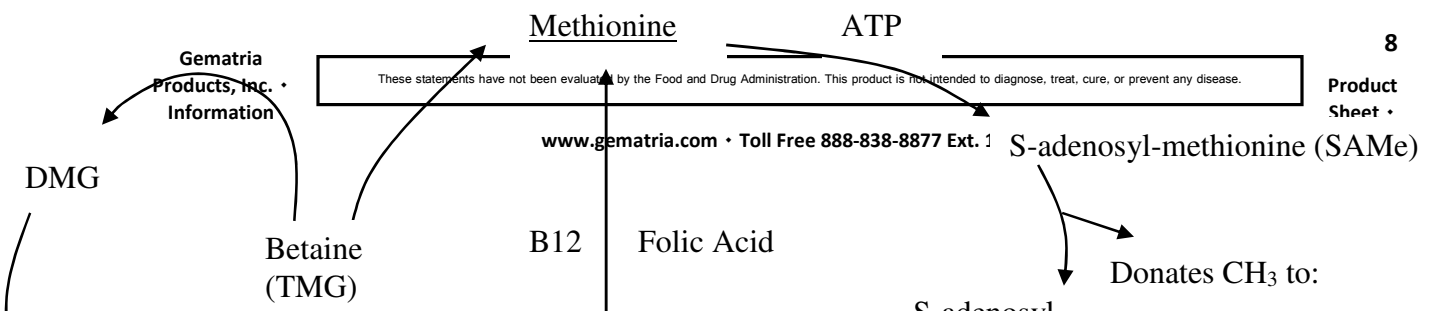
Suggested Usage: Take 1 capsule with each meal or as directed.

Precautions: Advised against in persons with manic depressive illness or those taking anti-depressants such as SSRIs, Tricyclics, or MAO inhibitors because of the use of the ingredient Choline.

Ingredients: Trimethylglycine, Choline Bitartrate, Inositol, Vitamin B3 (as insotal hexanicotinate), Vitamin B6 (as pyridoxine hydrochloride and as pyridoxal-5-phosphate), Vitamin B12 (methylcobalamin), Folate (as folic acid) Magnesium (from magnesium chelate), and Zinc (from Zinc chelate). Also contains magnesium stearate and may contain silicon dioxide.

The above statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any diseases.

FIG.A - Methyl Group Transfer Metabolic Pathways

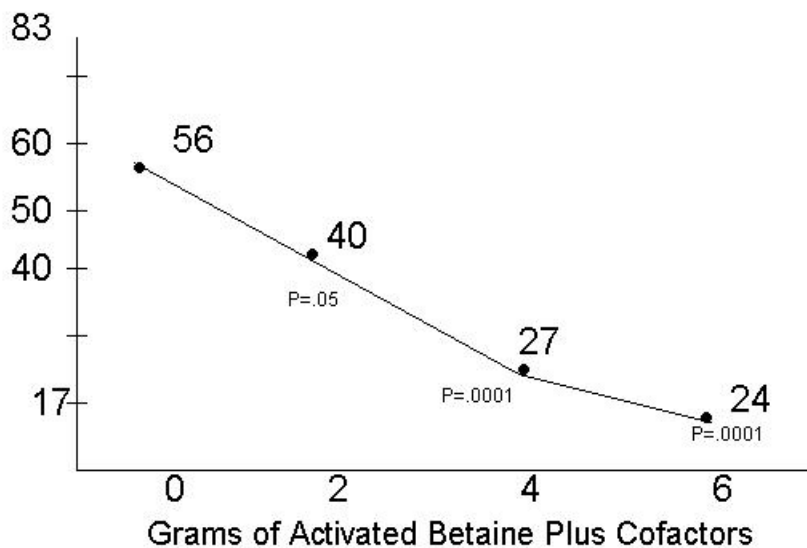






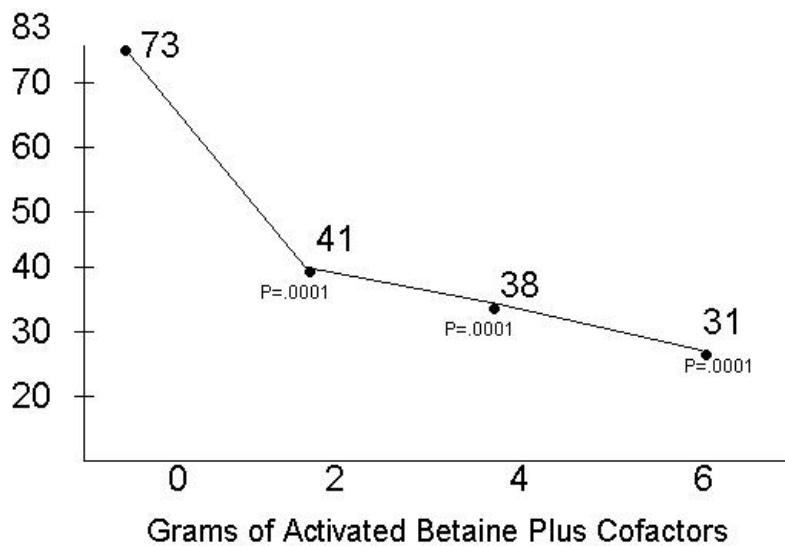
Appendix D: HeartGems Formula Study Dose Response Curve

Anxiety scale (n=23)





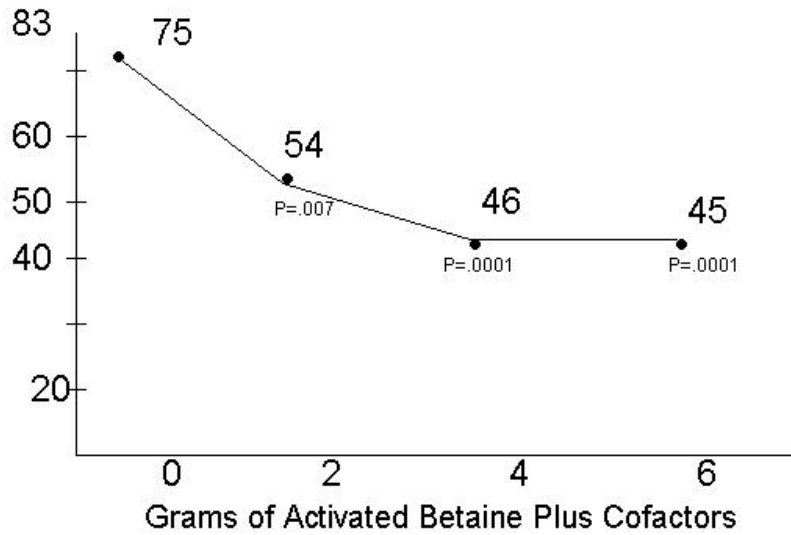
Appendix E: **HeartGems Formula Study**
Dose Response Curve
Somatization Scale (n=23)





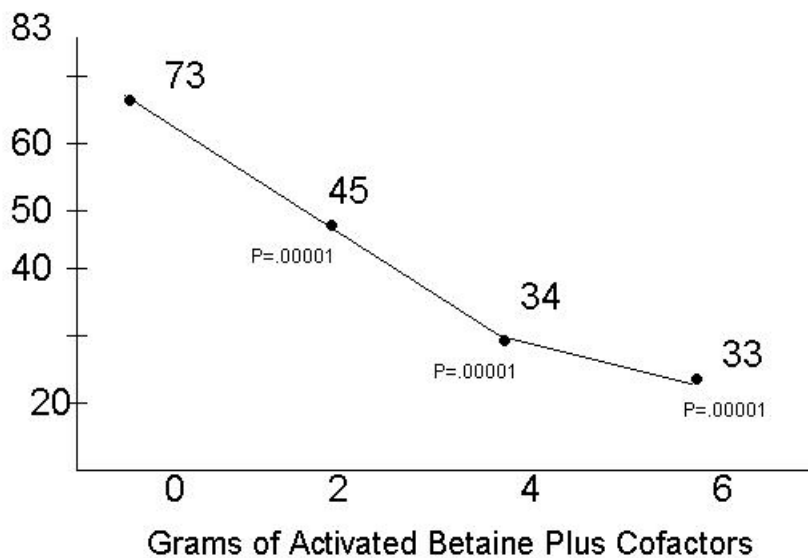
Appendix F: HeartGems Formula Study Dose Response Curve

Depression Scale (n=25)



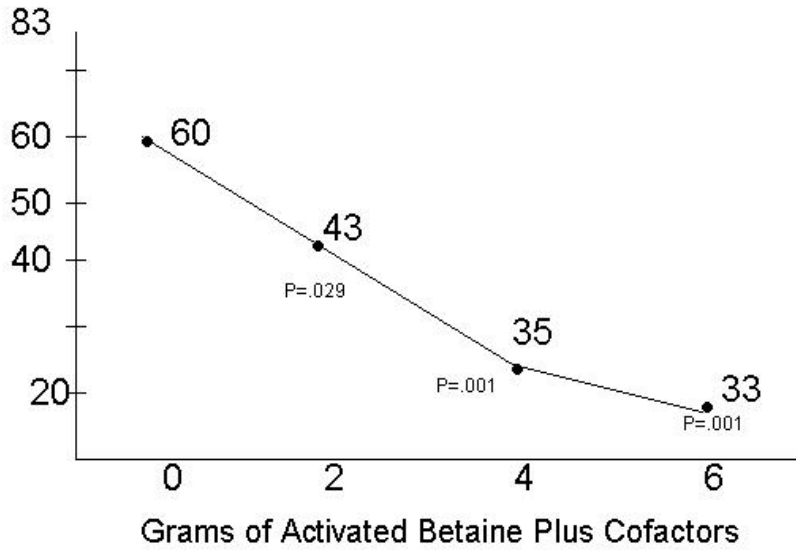


Appendix G: **HeartGems Formula Study**
Dose Response Curve
Obsessive Compulsive Scale (n=23)





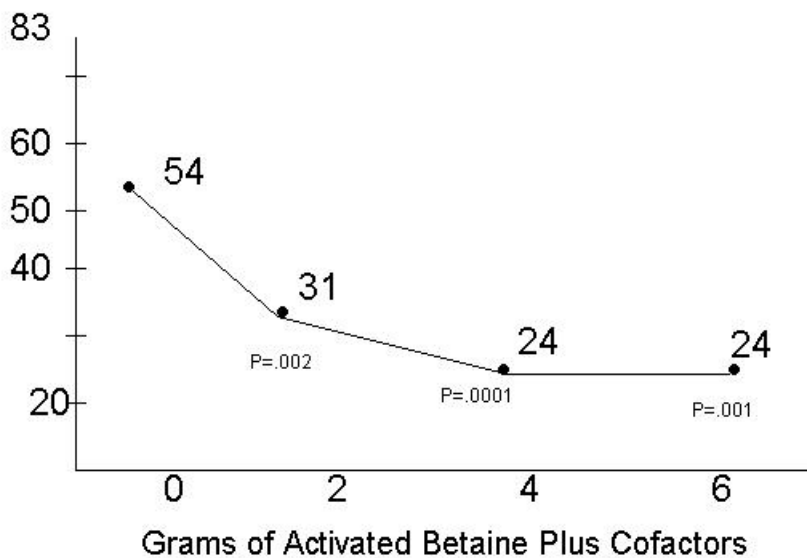
Appendix H: **HeartGems Formula Study**
Dose Response Curve
Paranoia Scale (n=25)





Appendix I: **HeartGems Formula Study**
Dose Response Curve

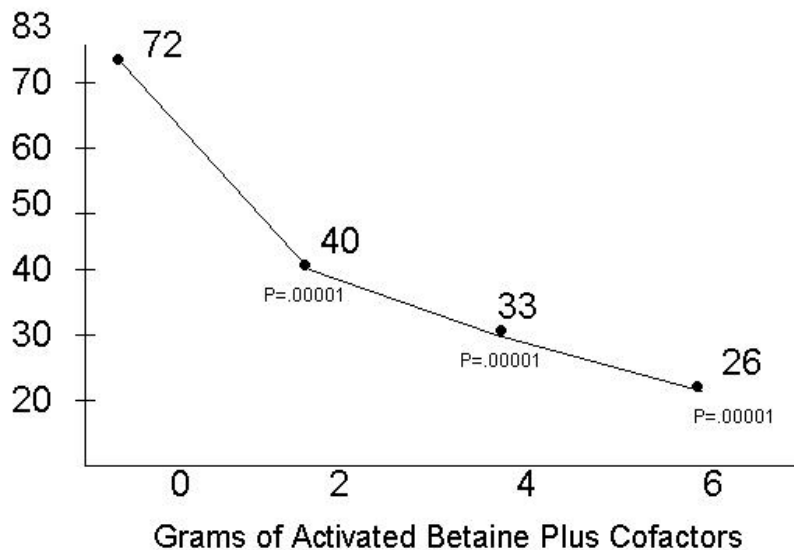
Hostility Scale (n=25)





Appendix J: HeartGems Formula Study Dose Response Curve

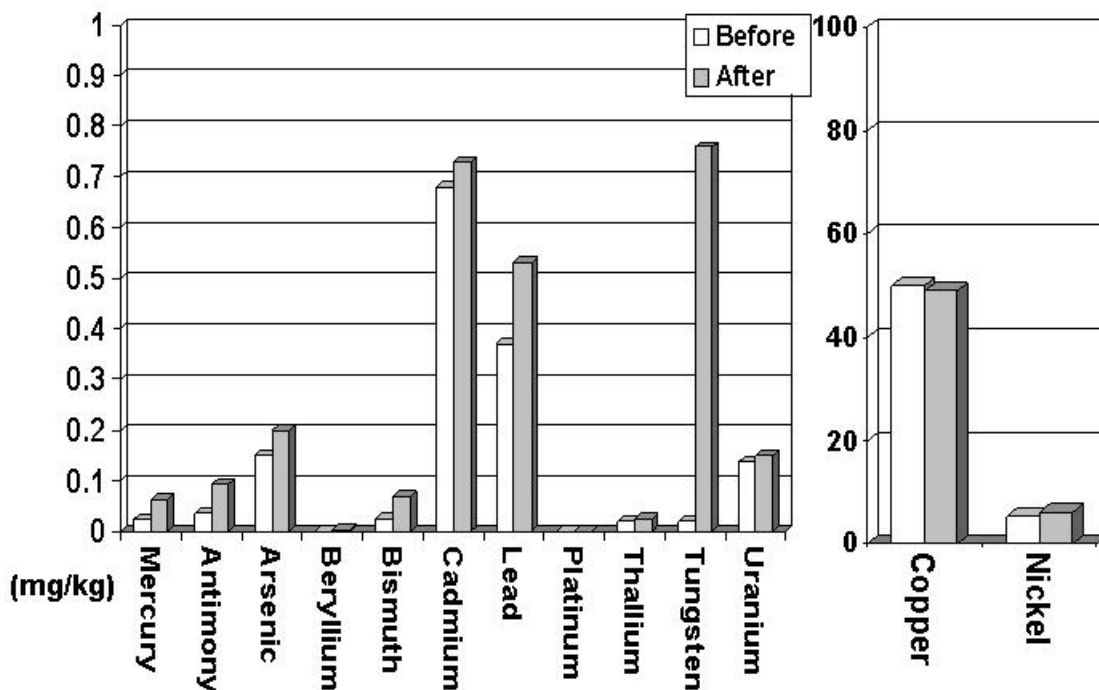
Global Severity Index (n=25)





Appendix K:

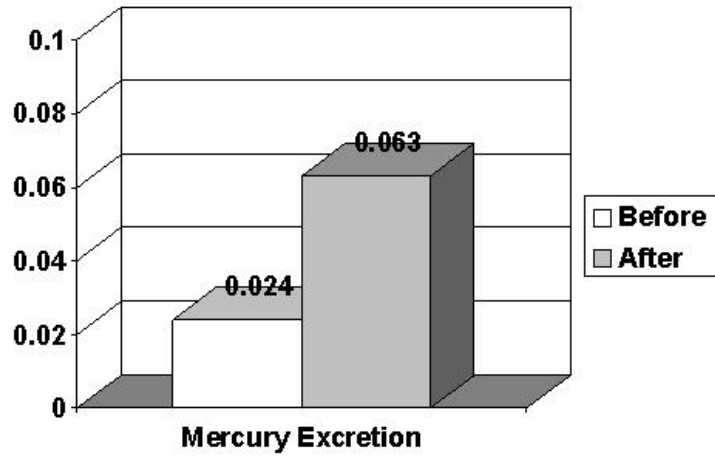
Fecal Excretion of Heavy Metals Before and 6 Days After HeartGems Formula



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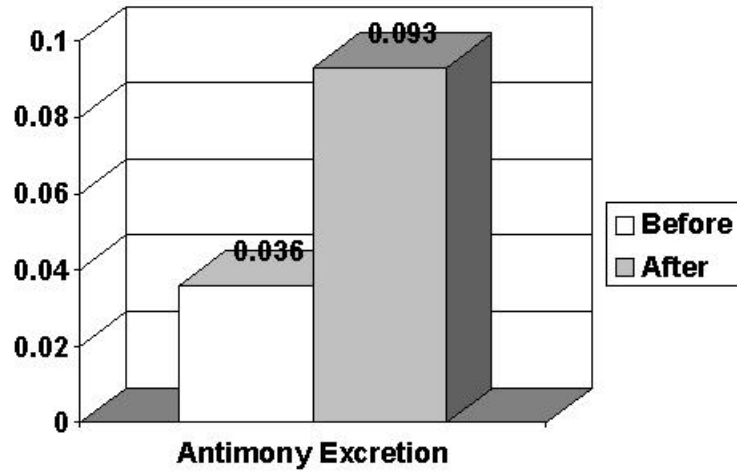


Fecal Excretion of Mercury Before and 6 Days After HeartGems Formula



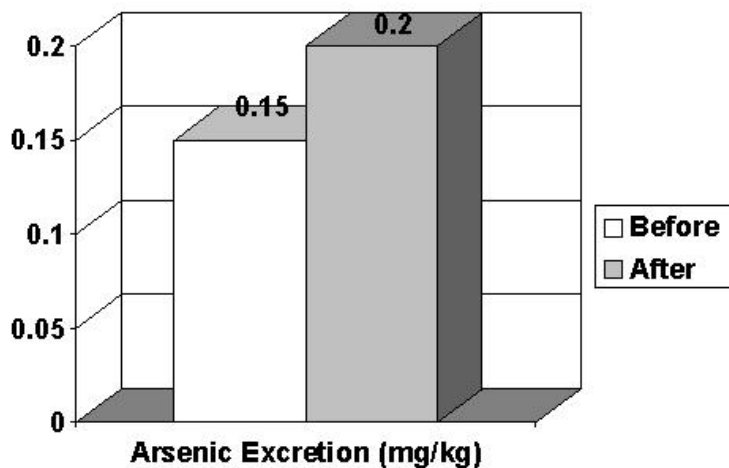


Fecal Excretion of Antimony Before and 6 Days After HeartGems Formula





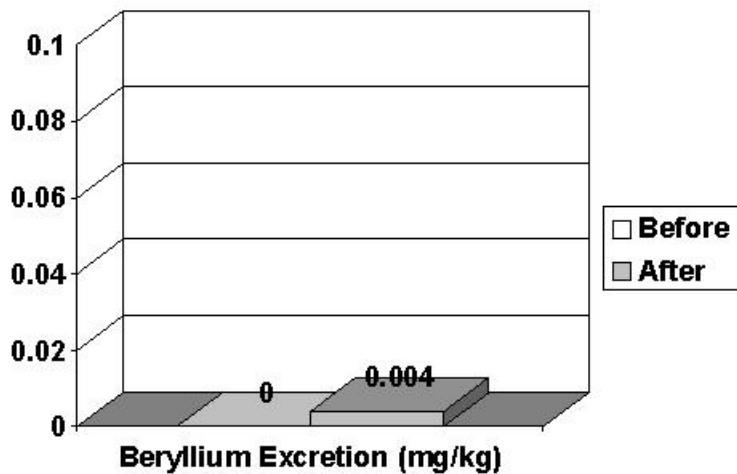
Fecal Excretion of Arsenic Before and 6 Days After HeartGems Formula



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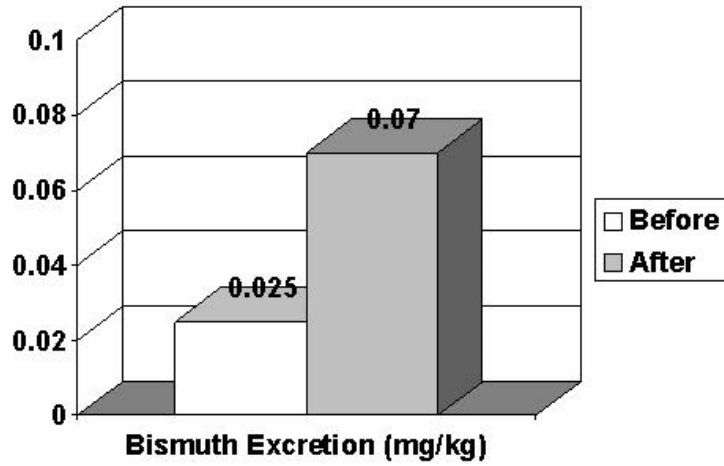
Fecal Excretion of Beryllium Before and 6 Days After HeartGems Formula



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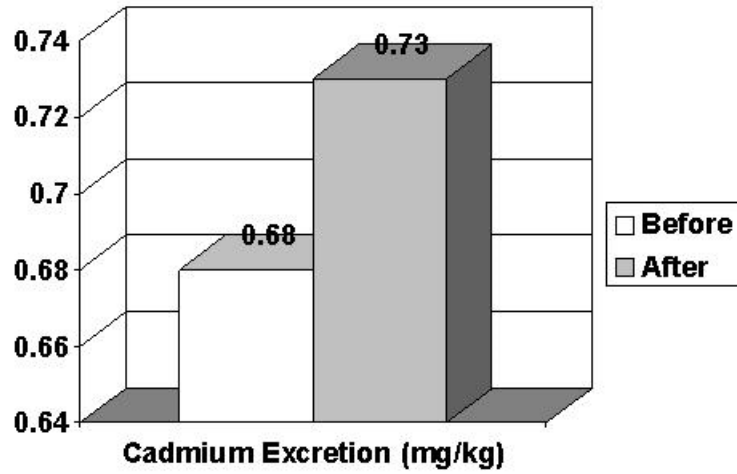


Fecal Excretion of Bismuth Before and 6 Days After HeartGems Formula



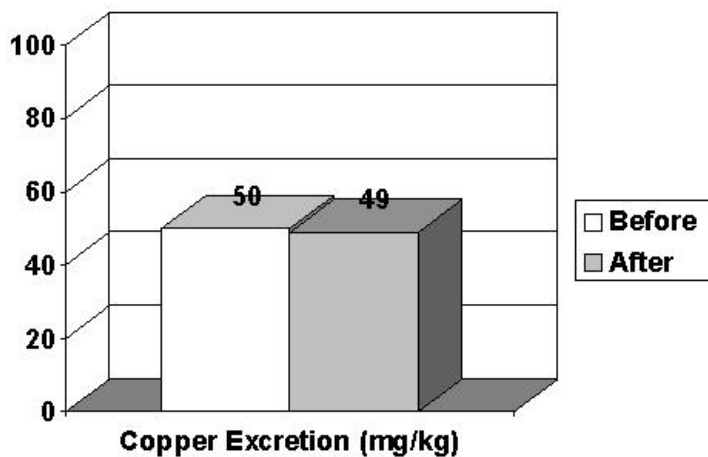


Fecal Excretion of Cadmium Before and 6 Days After HeartGems Formula





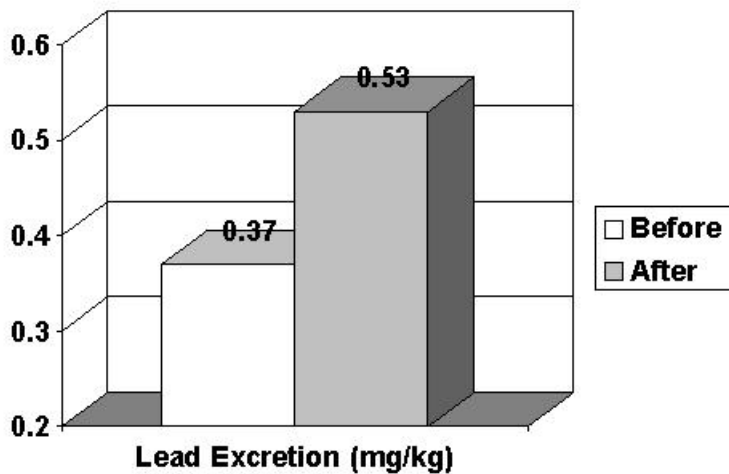
Fecal Excretion of Copper Before and 6 Days After HeartGems Formula



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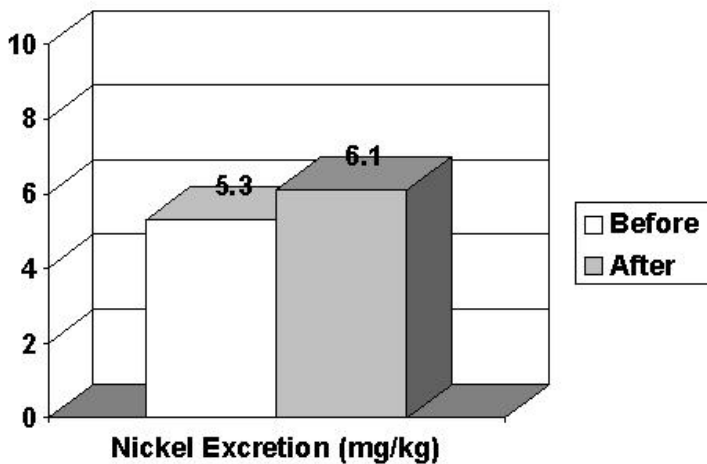


Fecal Excretion of Lead Before and 6 Days After HeartGems Formula





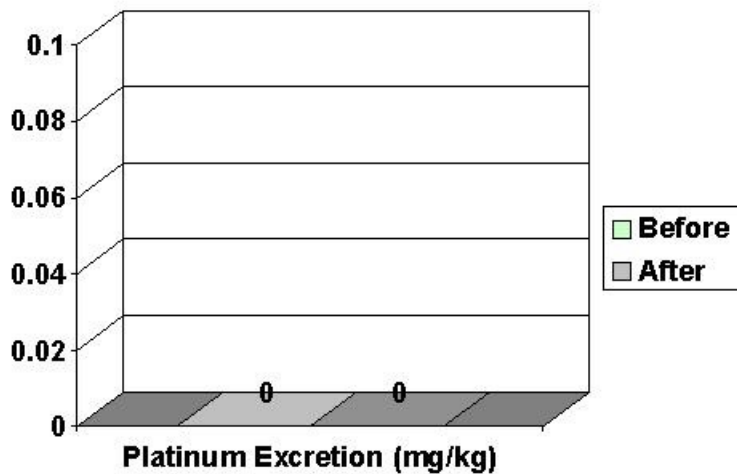
Fecal Excretion of Nickel Before and 6 Days After HeartGems Formula



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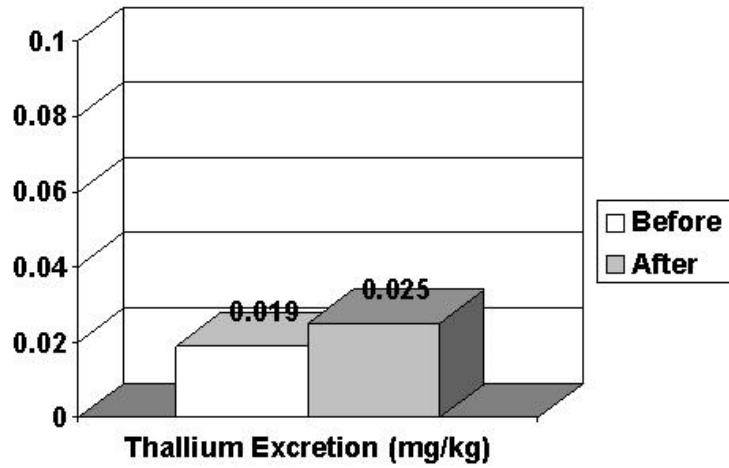


Fecal Excretion of Platinum Before and 6 Days After HeartGems Formula



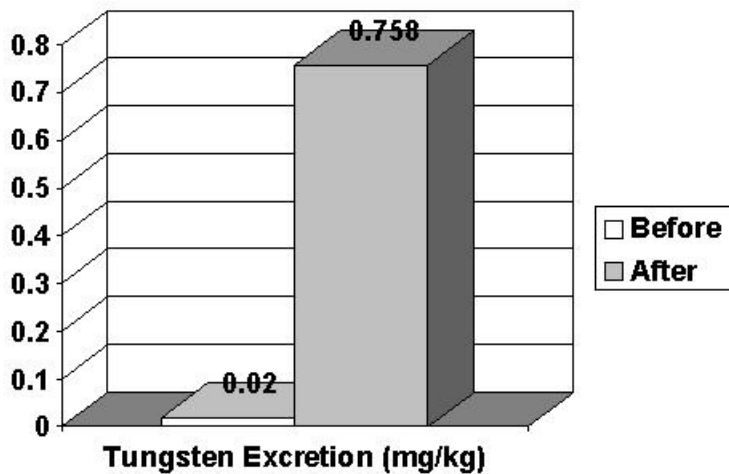


Fecal Excretion of Thallium Before and 6 Days After HeartGems Formula





Fecal Excretion of Tungsten Before and 6 Days After HeartGems Formula



These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



Fecal Excretion of Uranium Before and 6 Days After HeartGems Formula

