

# KELLEY CHIROPRACTIC CENTER

DIPLOMATE AMERICAN CHIROPRACTIC

September 4, 1996

#### CERTIFIED CLINICAL NUTRITIONIST

BOARD OF NUTRITION

The International and American Associations of Clinical Nutritionists Etherium Technology 16004 SW Tualatin-Sherwood Road, Suite 503 Sherwood, Oregon 97140

Attn.: Mr. Pat Bailey

### CERTIFIED NUTRITIONAL CONSULTANT

The American Association of Nutritional Consultants

Dear Mr. Bailey,

MEMBER American Chiropractic Association

MEMBER International Association of Healthcare Practitioners To further insure the complete safety of Etherium Technology's product, Etherium Gold, you requested an evaluation of the levels of toxic elements in a sample of your customers. Hair analysis was selected as the test vehicle because it is well recognized and documented in forensic science as a useful and reliable screen in the assessment of heavy exposures to toxic metals.

At your request I submitted hair samples from six (6) of your customers to a certified laboratory for analysis. I have personally utilized this laboratory for at least ten (10) years for hair analyses of my patients.

Subjects were selected who had been using Etherium Gold daily, for at least six months, at or above your recommended dosage. Personal affidavits from the test subjects, attesting to the dosage and time frame for using the product, have been received at my office. All meet the requirements for dosage and time of use.

Hair samples were collected and submitted between the first and last weeks of July of this year. Tests were completed and results returned to my office from the lab the first week of August of this year.

To preserve anonymity, the reports have been arbitrarily numbered one (1) to six (6) and will be referred to as such hereafter. Of the elements regarded as toxic and tested by the laboratory, Lead and Aluminum are two of fifteen. The others include Antimony, Arsenic, Beryllium, Bismuth, Cadmium, Mercury, Nickel, Platinum, Silver, Thallium, Thorium, Tin, and Uranium. Of these, Antimony, Bismuth, Nickel, Platinum, Thallium, and Thorium were not toxic in any of the subjects tested and will, therefore, not be addressed.

Of the nine toxic elements which tested above the mean at least once, common absorbable sources include:

Aluminum - antacid medications, aluminum cookware, baking powder, processed cheese, city water, and antiperspirants.

Arsenic - insecticides, smog, and industrial exposures, particularly in electroplating and the manufacture of electronics components.

Beryllium - tobacco, copper, fire retardant in metal forming and process industries.

Cadmium - foods such as fruits, oysters, and anchovies; refined carbohydrates, and cigarette smoke.

Lead - hair darkening agents or dyes, and dust in the air in industrial or mining locations.

Mercury - dental amalgams, seafoods, water supplies, hemorrhoidal preparations, and skin lightening agents.

Silver - marine organism (seafoods), metal and chemical process industries, photographic processes, jewelry making (especially if silver soldering is involved), and coal-fired power plants.

Tin - food, dental amalgams, cosmetics, preservatives, food/beverage containers, pewter, bronze and anticorrosive platings.

Uranium - glass manufacturing, ceramics, some chemicals, and drinking water.

## RESULTS AND COMMENTS:

Subject number 4 tested high in one toxic element, Tin. This person was 0.4 ppm above the mean of 1.2 ppm. With the extremely common and pervasive sources of Tin, and with this being the only elevated toxic element for this subject, and with no other subject testing high in Tin, the source of this toxic element is not likely the supplement being tested.

Subjects 1, 2, and 3 tested high in two toxic elements. Both subjects 1 and 2 tested high in Beryllium and Mercury. Subject 1 was 0.004 ppm higher than the 0.03 ppm mean for Beryllium. Subject 2 was 0.011 ppm higher than the mean. Similarly, subject 1 was 0.56 ppm higher than the 1.5 ppm mean for Mercury, while subject 2 was 1.56 ppm higher. Beryllium is poorly absorbed in the gastrointestinal tract but is readily absorbed by the skin and lungs. With the slight elevations noted here, the source is likely exogenous rather than from the supplement being tested. As for the Mercury, the sources listed above, especially dental amalgams, seafoods, and water supplies, are much more likely the causative contaminants for these two subjects, since they, apparently, reside in the same household and demonstrate the same two elevated toxic elements.

Subject number 3 was 1 ppm above the mean of 8 ppm for Aluminum and 0.199 ppm above the mean of 0.15 ppm for Arsenic. Only one other individual posted elevated levels of Aluminum and Arsenic. See subject number 5 below.

Subject number 6 had three elevated toxic elements. Beryllium was 0.02 ppm above the 0.03

ppm mean. See the note above on Beryllium. Mercury was 3.28 ppm above its 1.5 ppm mean. Silver was 0.04 ppm above its 0.4 ppm mean. For this subject, with both Silver and Mercury elevated, the most likely source for this exposure is dental amalgams, not the supplement being tested.

Subject number 5 had five elevated toxic elements. Aluminum was 11 ppm above its 8 ppm mean. Arsenic was 0.164 ppm above its 0.15 ppm mean. Cadmium was 0.055 ppm above its 0.25 ppm mean. Lead was 6.9 ppm above its 4.5 ppm mean. Uranium was 1.428 ppm above its 0.2 ppm mean. This subject is most likely receiving excessive environmental exposure to multiple sources of toxic elements.

#### SUMMARY AND CONCLUSIONS:

Of the six subjects tested, there were nine elevated toxic elements with a total of 15 elevations above the mean. Of these, two (13 1/3 %) were Aluminum, two (13 1/3 %) were Arsenic, three (20 %) were Beryllium, one (6 2/3 %) was Cadmium, one (6 2/3 %) was Lead, three (20 %) were Mercury, one (6 2/3 %) was Silver, one (6 2/3 %) was Tin, and one (6 2/3 %) was Uranium.

As a result of the comparisons and evaluations of the hair analysis results of the above six subjects, I can only conclude that the elevated toxic elements noted are, unquestionably, not a result of oral ingestion of the Etherium Technology's Etherium Gold.

Sincerely,

Ja Colony

I. F. Kelley, MA, DC, CCN, DACBN

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