

Here is my husband's (Dennis N Crouse) conclusions after reading the report included below by Galen Daryl Knight.

G.D. Knight has provided sufficient evidence to draw the following conclusions about taking DE:

- 1) Even though DE is more than 92% silicon dioxide, as per attached PDF from Perma-Guard, it leaches too much aluminum and too little silicon in the human gut.
- 2) Using strong acids with heating leached 10-fold more aluminum (640-1100ppm) from DE than silicon (5-50ppm).
- 3) As Knight points out stomach acid is also a strong acid but more dilute and therefore will leach less aluminum and silicon.
- 4) However, aluminum in his hair analysis increased while taking DE proving not only that aluminum is leached from DE in the human gut but also that the amount and/or form of silicon leached from DE is insufficient to prevent the accumulation of aluminum leached from DE.

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CHEMICAL ANALYSIS OF DIATOMACEOUS EARTHS

Three separate samplings and analyses of PermaGuard's Diatomaceous earth, compared with another brand available on the market for human consumption, indicates that the PermaGuard material has significantly fewer toxic minerals. These analyses were performed by extracting the diatomaceous earth with concentrated sulfuric or nitric acid for extended periods of time and analyzing the acidic extracts. The elements so removed are considered to be at far higher concentrations than the level of toxins that could be extracted by the much more dilute acid found in our stomachs. Note that only the aluminum in PermaGuard exceeds that of Brand X.

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CONFIDENTIAL TRACE METAL ANALYSIS REPORT

FOR: GALEN KNIGHT, Ph.D.
VITALE THERAPEUTICS, INC

CLIENT NO. 1867

TYPE SAMPLE: Diatomaceous Earth

DATE REPORTED: Mar 10, 1999

SAMPLE I.D.	PermaGuard			Brand X	
	3-A	3-B	3-C	3-C	METAL
METAL	VALUE *	VALUE*	VALUE*	VALUE*	
Calcium	1500	1500	900	13000	Calcium
Magnesium	833	872	547	4388	Magnesium
Sodium	840	740	460	1400	Sodium
Potassium	473	470	491	376	Potassium
Copper	4	4	4	7	Copper
Zinc	5	6	5	14	Zinc
Iron	860	970	1020	1600	Iron
Phosphorus	88	100	40	250	Phosphorus
Selenium	2	2	2	20	Selenium
Silicon	5	10	50	40	Silicon
Boron	8	8	5	226	Boron
Manganese	31	33	33	70	Manganese
Chromium	3	2	2	12	Chromium
Cobalt	5	6	6	15	Cobalt
Tin	4	4	3	27	Tin
Nickel	2	3	2	10	Nickel
Molybdenum	1	1	0	10	Molybdenum
Vanadium	4	4	4	11	Vanadium
Germanium	2	2	2	10	Germanium
Mercury	2	2	2	10	Mercury
Cadmium	1	1	1	2	Cadmium
Lead	5	5	5	38	Lead
Aluminum	1100	1100	1100	640	Aluminum
Arsenic	0	0	0	2	Arsenic
Lithium	3	3	3	6	Lithium
Strontium	24	18	18	720	Strontium
Barium	10	12	12	140	Barium
Gold	0.1	0.05	0.05	0.4	Gold
Tellurium	0	0	0	0	Tellurium
Thallium	0	0	0	0	Thallium
Beryllium	0.05	0.05	0.05	0.1	Beryllium
Bismuth	0	0	0	0	Bismuth

* µG/Gm

* µG/Gm

REPORTED BY: 

LIC # 32-1004



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This amount of aluminum is of minimal concern for several reasons. First, the amounts determined are only a small fraction of the aluminum that one normally

encounters in ones diet. Secondly, concerns about aluminum in antiperspirants seems to be secondary to [poisonings](#) with other metals such as nickel. In the authors case, DEtoxing to remove nickel poisoning caused his "allergies to antiperspirants" to go away. Thus, antiperspirants probably prevent the lymphatics and sweat glands from getting rid of metals and other toxins, essentially bottling these up inside of our skin and bodies.

The author also noted an increase in aluminum in his hair analysis while DEtoxing with PermaGuard's product. It is thought that since nickel ions are slightly larger than magnesium ions and aluminum ions are slightly smaller, that nickel and aluminum may have been deposited in his bones instead of magnesium. Stress fractures and tears in the articulation of tendons and ligaments with his bones could have accounted for the arthritic-like pains the author was experiencing. As the nickel was pulled out during the DEtox, it is thought that magnesium was then able to displace the aluminum, and the author has noted a continuing improvement in the strength and function of his joints as the aluminum seems to be dumping out of his system in his hair analysis. His knees do not even pop anymore, even when doing deep knee squats and holding a 150 to 200 lb. person in his arms (NOT RECOMMEND).

Further analysis of the Perma-Guard's product in a MALDI mass spectrometer with...

[DE MALDI](#)

....and without matrix.....

[DE Neat](#)

....and with the DiHydroxyBenzoic (DHB) acid matrix, but without diatomaceous earth.....

[DHB Blank](#)

....show that there are virtually none of the potential toxins identified supra available on the surface of this particular diatomaceous earth, the UV laser being unable to blast anything loose from the surface. This means that the diatomaceous earth surface coming in contact with the body is extremely clean, even lowering the background in the mass spectrometer in many instances.