

# Parkinson's Disease

*Virtually no toxins came out in the first hair test, but a chelating agent pulled six times the expected amount of lead from his body.*

## Initial Symptoms-

- ✓ Tremors
- ✓ Heart Disease
- ✓ Dizziness and Balance Problems
- ✓ Developed Stutter/Stammer
- ✓ Guarded Gait – Leans On Wife
- ✓ Eye Pain/Problems Focusing Sight
- ✓ Chronic Fatigue
- ✓ Depression
- ✓ Tongue Quivers
- ✓ Taking Levodopa, Atavan, & Cialis

## In just 4 months- Patient notes 40% Overall Improvement!

- ✓ No Shaking
- ✓ Energy's Better
- ✓ Can Now Jog!
- ✓ Less Stuttering
- ✓ Started Preaching Again
- ✓ Emotions Under Control

*“Elevated levels of lead and mercury have been known to interfere with normal brain function, causing speech disturbances, poor memory, tremors, weakness and emotional instability.”*

*-Dr. Van D. Merkle*

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## 10-01-08 – PATIENT UPDATE!!

This patient walked a hard road, but three years after starting the trip, he is still improving and showing no signs of stopping. His tremors have practically disappeared. We are still working to get his thyroid under control but he has a part time job, still preaches and despite the degenerative nature of Parkinson's, walks three miles a day, lifts weights three times a week at a nearby gym and is incredibly independent. His cardiologist was ecstatic with the progress he's made and his neurologist was so thrilled with his condition that she agreed he did not need any medications for his Parkinson's.

He and his wife took their kids on vacation recently up in a mountainous region with lots of stairs and climbing and he had no problems keeping up – pretty amazing for a guy who three years ago could not walk down a hallway alone! The patient's wife wrote to me, "Thank you so much for all you've done for us and we Praise the Lord for leading us to you."

**Patient Profile:**

**04-19-05** - The 69-year old Patient presented with Parkinson’s symptoms being diagnosed by a neurosurgeon in August of 2004. At the time of the initial visit, he weighed 184 lbs at 5’10” and his blood pressure was 122/84. He walked down the office hall with a slow guarded gait leaning on his wife for support due to dizziness and balance problems. According to family members, he has been nervous and agitated for about 6 months and his personality and character have started to change. A constant tongue quiver, which started about 3 months ago, made it difficult for the patient to speak rendering him unable to continue preaching. Tremors from Parkinson’s made it impossible to shave using a regular razor and he appeared to have lost a sense of enjoyment in regular activities, spending most of his time sitting and staring. Doctors place him on Atavan to manage anxiety and Levodopa for Parkinson’s disease.

**Patient’s tests results:**

**04-21-05** – Blood tests showed a few low essential elements and reduced protein. We can also see signs of a low grade infection from the high Polys/Neutrophils and low Lymphocytes. The high SGPT is an indicator of mild inflammation of the liver.

**Results of Initial Blood Test:**

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
Uric Acid	04/21/2005	5.50	Opt			4.10 - 6.00	2.40 - 8.20
BUN (Blood Urea Nitrogen)		18.00	hi			13.10 - 18.00	5.00 - 26.00
Creatinine		1.00	hi			0.61 - 0.90	0.50 - 1.50
BUN / Creatinine Ratio		18.00	Opt			13.10 - 20.00	8.00 - 27.00
Calcium		9.20	lo			9.71 - 10.10	8.50 - 10.60
Phosphorus		3.30	lo			3.41 - 4.00	2.50 - 4.50
Calcium/Albumin Ratio		2.00	LO			2.10 - 2.50	2.03 - 2.71
Total Protein		7.10	lo			7.11 - 7.61	6.00 - 8.50
Albumin		4.60	hi			4.10 - 4.51	3.50 - 5.50
Globulin		2.50	lo			2.81 - 3.51	1.50 - 4.50
A/G Ratio		1.80	hi			1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.80	Opt			0.39 - 0.93	0.10 - 1.20
Alkaline Phosphatase 25-150		56.00	lo			65.00 - 108.00	25.00 - 150.00
T4 Thyroxine		3.40	LO			7.10 - 9.00	4.50 - 12.00
T3 Uptake		50.00	HI			29.10 - 35.10	24.00 - 39.00
T7 Free Thyroxine Index (FTI)		1.70	lo			2.61 - 3.60	1.20 - 4.90
White Blood Count		6.00	Opt			5.10 - 8.00	4.00 - 10.50
Red Blood Count		4.39	lo			4.51 - 5.50	3.80 - 5.60
Polys/Neutrophils (SEGS-PMNS)		75.00	HI			55.10 - 65.00	40.00 - 74.00
Lymphocytes		18.00	lo			25.10 - 40.00	14.00 - 46.00

Blue = clinically very high or clinically very low  
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No significant levels of toxic elements appeared in the patient’s hair test which is bad and shows his body is unable to efficiently eliminate heavy metals. Several essential elements were also

low, which could simply point to an overall deficiency, or indicate that high levels of hidden toxic elements are depleting the body of nutrients. We will need to run a heavy metal test called a chelation challenge to be sure.

**Results of Initial Tissue Mineral Analysis:**

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
<b>Toxic Elements</b>							
Aluminum	04/26/2005	1.70	hi			0- 0.50	0.51- 8.00
Antimony		0.01	Opt			0- 0.03	0.04- 0.07
Arsenic		0.03	hi			0- 0.00	0.01- 0.08
Beryllium		0.01	hi			0- 0.01	0.02- 0.02
Bismuth		0.01	Opt			0- 0.03	0.04- 0.06
Cadmium		0.05	hi			0- 0.00	0.01- 0.15
Lead		0.18	hi			0- 0.01	0.02- 2.00
Mercury		0.20	hi			0- 0.00	0.01- 1.10
Platinum		0.00	Opt			0- 0.00	0.01- 0.00
Thallium		0.00	Opt			0- 0.00	0.01- 0.01
Thorium		0.00	Opt			0- 0.00	0.01- 0.00
Uranium		0.01	Opt			0- 0.01	0.02- 0.06
Nickel		0.02	Opt			0- 0.20	0.21- 0.40
Silver		0.01	Opt			0- 0.06	0.07- 0.12
Tin		0.07	Opt			0- 0.15	0.16- 0.30
Titanium		0.48	Opt			0- 0.50	0.51- 1.00
Total Toxic Representation		1.00	Opt			0- 2.00	2.01- 3.00
<b>Essential Elements</b>							
Calcium		604.00	hi			362.00- 417.00	200.00- 750.00
Magnesium		19.00	LO			43.00- 48.00	25.00- 75.00
Sodium		14.00	lo			37.00- 45.00	12.00- 90.00
Potassium		6.00	LO			19.00- 22.00	9.00- 40.00
Copper		11.00	lo			12.00- 15.00	10.00- 28.00
Zinc		170.00	hi			150.00- 165.00	130.00- 200.00
Manganese		0.06	LO			0.22- 0.31	0.15- 0.65
Chromium		0.20	LO			0.25- 0.31	0.20- 0.40
Vanadium		0.01	LO			0.04- 0.05	0.02- 0.06
Molybdenum		0.02	LO			0.04- 0.05	0.03- 0.06

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An alternative healer diagnosed the patient with adrenal fatigue a year ago so we ran a metabolic urine analysis to determine his status. We saw no signs of adrenal dysfunction; however there appeared to be insufficient urinary levels of antioxidants, calcium, zinc and other minerals. There were no signs of infection or other pathology.

**Doctor analysis:**

**05-30-05** – When toxins build up inside the body, they disrupt your ability to heal and depleting essential nutrients such as Calcium, Selenium, Zinc and Copper. These metals must be flushed from the system to allow the body to return to its healthiest state. By using the chelating agent DMSA, we ran a test that showed how many toxic elements were actually trapped within the patient's body. The column labeled "Pre-Chall" is the level of toxins the

body was able to remove on its own. The column labeled "DMSA" is toxins removed with a dose of chelating agent.

### Results Of Chelation Challenge:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
Agent		DMSA		Pre-Chall			
Dose		2000mg					
Interval		6		6			
<b>Toxic Elements</b>							
Lead (UA)		30.00	HI	0.80	⊗	0- 4.00	4.01- 5.00
Mercury (UA)		4.70	HI	0.00	⊗	0- 2.00	2.01- 3.00
Nickel (UA)		4.00	Opt	0.50		0- 5.00	5.01- 10.00

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Just by completing this test, the patient noticed immediate improvement with his shaking, unsteadiness and speech. He was so impressed that he continued taking the chelating agent DMSA everyday. For a short time, this is okay but DMSA at that level will also slowly begin to cause a depletion of other beneficial nutrients so I recommended he start bimonthly cycles of DMSA alternated by a vitamin and mineral regimen based on deficiencies seen in the test results.

### Patient assessment:

**08-13-05** – In many cases four months is enough time for patient's to start feeling better, but in this case it completely altered his way of life. He noted a 40% improvement overall, stopped taking the Levodopa and was able to return to work! The shakiness disappeared, his emotions were in check, the stuttering significantly improved and best of all, whereas before he needed help even walking, he now jogs! All these changes mean a return to normalcy and a renewed independence. We didn't see many improvements with the second blood test; in fact the thyroid and lipid values got worse. This is not an uncommon finding during DMSA therapy, especially when mercury is involved which directly affects the thyroid.

### Results of 2nd Blood Test:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
Uric Acid	08/16/2005	6.00	hi	5.50	⊗	4.10 - 6.00	2.40 - 8.20
BUN (Blood Urea Nitrogen)		17.00	Opt	18.00	⊕	13.10 - 18.00	5.00 - 26.00
Creatinine		1.00	hi	1.00	⊕	0.61 - 0.90	0.50 - 1.50
BUN / Creatinine Ratio		17.00	Opt	18.00		13.10 - 20.00	8.00 - 27.00
Calcium		9.50	lo	9.20	⊕	9.71 - 10.10	8.50 - 10.60
Phosphorus		3.50	Opt	3.30	⊕	3.41 - 4.00	2.50 - 4.50
Calcium/Albumin Ratio		2.16	Opt	2.00	⊕	2.10 - 2.50	2.03 - 2.71
Total Protein		6.90	lo	7.10	⊗	7.11 - 7.61	6.00 - 8.50

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## 2nd Blood Test Continued:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	08/16/2005			04/21/2005			
Albumin		4.40	Opt	4.60	☺	4.10 - 4.51	3.50 - 5.50
Globulin		2.50	lo	2.50	☹	2.81 - 3.51	1.50 - 4.50
A/G Ratio		1.80	hi	1.80	☹	1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.60	Opt	0.80		0.39 - 0.93	0.10 - 1.20
Alkaline Phosphatase 25-150		58.00	lo	56.00	☺	65.00 - 108.00	25.00 - 150.00
T4 Thyroxine		3.10	LO	3.40	☹	7.10 - 9.00	4.50 - 12.00
T3 Uptake		50.00	HI	50.00	☹	29.10 - 35.10	24.00 - 39.00
T7 Free Thyroxine Index (FTI)		1.60	lo	1.70	☹	2.61 - 3.60	1.20 - 4.90
White Blood Count		6.00	Opt	6.00		5.10 - 8.00	4.00 - 10.50
Red Blood Count		4.49	lo	4.39	☺	4.51 - 5.50	3.80 - 5.60
Polys/Neutrophils (SEGS-PMNS)		76.00	HI	75.00	☹	55.10 - 65.00	40.00 - 74.00
Lymphocytes		16.00	lo	18.00	☹	25.10 - 40.00	14.00 - 46.00

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The second chelation challenge showed a significant decrease in lead and mercury but both are still at elevated levels.

## Results of 2nd Chelation Challenge:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	08/10/2005			05/30/2005			
<b>Toxic Elements</b>							
Lead (UA)		7.60	HI	30.00	☺	0- 4.00	4.01- 5.00
Mercury (UA)		4.10	HI	4.70	☺	0- 2.00	2.01- 3.00

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**11-17-05** – Partially due to the intensity of his program, the patient began to experience some DMSA sensitivity and developed a mild skin rash. We lowered his dosage to combat the side effects and then asked him to give his system a break by taking a few months off. We also retested his hair and thyroid values.

The hair test showed increased elimination of aluminum, arsenic and mercury which is good. There were so many deficiencies and imbalances before starting the program that his body could not eliminate these toxic elements. The levels of several essential elements also improved.

## Results of 2nd Tissue Mineral Analysis:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	11/09/2005			04/26/2005			
<b>Toxic Elements</b>							
Aluminum		4.10	hi	1.70	☹	0- 2.20	2.21- 7.00
Antimony		0.02	Opt	0.01		0- 0.03	0.04- 0.07
Arsenic		0.05	hi	0.03	☹	0- 0.05	0.06- 0.08
Lead		0.27	Opt	0.18		0- 0.99	1.00- 2.00
Mercury		0.65	hi	0.20	☹	0- 0.50	0.51- 1.10

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## 2nd Tissue Mineral Analysis Continued:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
<b>Essential Elements</b>							
Calcium	11/17/2005	309.00	lo	604.00	☺	400.00- 417.00	200.00- 750.00
Magnesium		41.00	lo	19.00	☺	43.00- 48.00	25.00- 75.00
Sodium		24.00	lo	14.00	☺	37.00- 45.00	12.00- 90.00
Potassium		3.00	LO	6.00	☹	21.00- 22.00	9.00- 40.00
Copper		20.00	hi	11.00	☹	12.00- 15.00	10.00- 28.00
Zinc		160.00	Opt	170.00	☺	150.00- 165.00	130.00- 200.00
Manganese		0.06	LO	0.06	☹	0.22- 0.31	0.15- 0.65
Chromium		0.42	hi	0.20	☹	0.25- 0.31	0.20- 0.45
Vanadium		0.03	lo	0.01	☺	0.04- 0.05	0.02- 0.06
Molybdenum		0.03	lo	0.02	☺	0.06- 0.06	0.03- 0.06

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The mercury and lead levels are coming down but the thyroid has not yet responded. It is possible that some thyroid medication such as Synthroid may be of benefit. I recommended the patient consult his MD.

## Results of 3rd Blood Test:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
T4 Thyroxine	11/10/2005	3.50	LO	3.10	☺	7.10 - 9.00	4.50 - 12.00
T3 Uptake		49.00	HI	50.00	☺	29.10 - 35.10	24.00 - 39.00
T7 Free Thyroxine Index (FTI)		1.70	lo	1.60	☺	2.61 - 3.60	1.20 - 4.90

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**05-05-06** – It's been about 11 months since the patient's first appointment and he notes 95% improvement. His tremor is completely gone and he has built up to walking 3 miles, 3 times a week. He is now able to write his name which is something he has not done in two years! The stuttering and tongue quiver were resolved with the help of a mother of pearl button in the mouth. This gives his tongue something to do and helps him keep his mouth closed so he doesn't drool. A neurologist confirmed Parkinson's again last month and recommended the patient start doses of Levodopa, but he does not wish to do this. He is also down to half the dose of Atavan that he used take and plans to completely eliminate this medication soon.

**02-28-07** – Due to some stress related issues, the patient began taking Atavan and Lexapro again. His shakiness, anxiety, depression, stuttering and writing skills have all gotten worse so we ran a blood test and chelation challenge to pinpoint what was going wrong. We adjusted his vitamin and mineral regimen based on the imbalances in the blood work, specifically to help the thyroid and liver function.

### Results of 4th Blood Test:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	02/26/2007			03/31/2006			
Uric Acid		4.60	Opt	6.20	☺	4.10 - 6.00	2.40 - 8.20
BUN (Blood Urea Nitrogen)		15.00	Opt	22.00	☺	13.10 - 18.00	5.00 - 26.00
Creatinine		0.90	hi	1.00	☺	0.61 - 0.90	0.50 - 1.50
BUN / Creatinine Ratio		17.00	Opt	22.00	☺	13.10 - 20.00	8.00 - 27.00
Calcium		9.80	Opt	9.50	☺	9.71 - 10.10	8.50 - 10.60
Phosphorus		3.80	Opt	3.30	☺	3.41 - 4.00	2.50 - 4.50
Calcium/Albumin Ratio		2.08	lo	2.20	☹	2.10 - 2.50	2.03 - 2.71
Total Protein		7.10	lo	7.10	☹	7.11 - 7.61	6.00 - 8.50
Albumin		4.70	hi	4.40	☹	4.10 - 4.51	3.50 - 5.50
Globulin		2.40	lo	2.40	☹	2.81 - 3.51	1.50 - 4.50
A/G Ratio		2.00	hi	1.60	☹	1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.60	Opt	0.60	☺	0.39 - 0.93	0.10 - 1.20
Alkaline Phosphatase 25-150		50.00	lo	54.00	☹	65.00 - 108.00	25.00 - 160.00
T4 Thyroxine		2.50	LO	3.10	☹	7.10 - 9.00	4.50 - 12.00
T3 Uptake		48.00	HI	49.00	☺	29.10 - 35.10	24.00 - 39.00
T7 Free Thyroxine Index (FTI)		1.20	LO	1.50	☹	2.61 - 3.60	1.20 - 4.90
White Blood Count		7.00	Opt	8.00	☺	5.10 - 8.00	4.00 - 10.50
Red Blood Count		4.29	lo	4.52	☹	4.51 - 5.50	3.80 - 5.60

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The chelation challenge showed increased lead and mercury levels, which means there are still significant stores in his body. Since he had some difficulty with the DMSA, we used a milder chelating agent called PCA-Rx and increased a few elements essential to brain function. I also recommended he play piano as exercise for his brain. Within a month, he was feeling better and was able to reduce the Lexapro and stop taking Atavan.

### Results of 3<sup>rd</sup> Chelation Challenge:

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	02/28/2007			08/10/2005			
Lead (UA)		15.00	HI	7.60	☹	0- 4.00	4.01- 5.00
Mercury (UA)		4.90	HI	4.10	☹	0- 2.00	2.01- 3.00
Nickel (UA)		9.00	hi	0.00	☹	0- 5.00	5.01- 10.00

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### Dr. Merkle's Final Thoughts:

While there is no known cause for Parkinson's disease, several studies have found a correlation between symptoms and environmental exposures to toxins such as lead and pesticides. This research shows the disease has increased occurrence based on geographic location rather than genetics. For example, a study in "Neurotoxicology" found that Parkinson's is more common in rural areas where resident's main water source comes from wells.

Another clue that factors may be environmental is that while main symptoms (tremors, balance problems, slowness of movement and rigidity) are easily recognizable, the disease was not medically remarked upon until beginning of



the Industrial Revolution when many jobs required the constant presence of toxic chemicals.

Elevated levels of lead and mercury have also been known to interfere with normal brain function, causing speech disturbances, poor memory, tremors, weakness and emotional instability. By clearing toxic elements out of his body, we can hopefully reduce future damage to the delicate nerve cells in the brain.

-Dr. Van D. Merkle

This case report showcases a real patient's results using the Science Based Nutrition™ system of analysis, which takes into account hundreds of numeric data and their roles, combinations and inter-relationships as related to disease diagnosis. This patient is/was under the care of Dr. Van D. Merkle, creator and founder of Science Based Nutrition™, Inc. and is meant to serve as an example of results achieved using the Science Based Nutrition™ report. Contact your local health professional and ask him/her to provide you with the Science Based Nutrition™ report. Results will vary based on patient ability/willingness to follow the recommended nutritional protocols, among many other factors. Any suggested nutritional advice or dietary advice is not intended as a primary treatment and/or therapy for any disease or particular bodily symptom. Nutritional counseling, vitamin recommendations, nutritional advice, and the adjunctive schedule of nutrition is provided solely to upgrade the quality of foods in the patient's diet in order to supply good nutrition supporting the physiological and biomechanical process of the human body.