

Chronic Skin Rash

One pound of cherries equals nearly 43g of sugar. One pint of blueberries equals 40g, an apple has 10g and a peach has 6.6g of sugar. That's like eating 25 teaspoons of sugar per day!

In just 3 months-

- ✓ **Triglycerides dropped 88 pts**
- ✓ **Cholesterol dropped 43 pts**
- ✓ **Vitamin D levels optimal!**
- ✓ **Better Energy/Stamina**
- ✓ **Glucose dropped 13 pts**

Initial Symptoms-

- ✓ **Recurring Skin Rash**
- ✓ **Type II Diabetes**
- ✓ **Overweight**
- ✓ **High Blood Pressure**
- ✓ **High Cholesterol Values**

“Sometimes too much of a good this is a bad thing. Is fruit a healthy food? Yes. Is it a healthy food for everyone? No. Eating lots of high carbohydrate fruits was not only bad for this patient’s diabetic condition, but it also likely played a big role with her chronic skin rash.”

-Dr. Van D. Merkle

Patient Profile:

10-07-08 - The 77-year old patient presented with Type II Diabetes, high blood pressure, high cholesterol and a chronic skin rash. At the time of the initial visit, she weighed 223 lbs at 5'7" (having lost 15 lbs in the past year) and her blood pressure was 140/68. Currently the patient takes 5 medications for high blood pressure, fluid retention and a heart murmur and 15 different supplements. She has been diagnosed with Diabetes, but does not take any medication for this issue and uses "diet control" to keep her Glucose in check. She does suffer from frequent urinary tract infections.

Two months prior, the patient had a bout with e-coli and was hospitalized. At the hospital she contracted a MRSA infection and shortly after a fungal infection on her under arms, breast, stomach and groin. She used several antibiotics, creams, medications and homeopathic remedies, yet the fungal infection did not get better. The dermatologist told her to "keep it dry and powdered". The patient claims to have grown up in a holistic environment and states, "I do NOT drink alcohol, pop or

smoke... very seldom do I use prepared or canned foods nor buy fast food. I eat out only once or twice a year and do use chicken, fish or tofu with plenty of fruits and vegetables. I limit my starch intake and do water aerobics and swim 3-4 times per week."

Patient's tests results:

10-10-08 – The most significant results which appeared in her blood test results were the elevated glucose and hemoglobin A1C, high triglycerides and total cholesterol, high CRP and very low vitamin D level.

Results of Initial Blood Test:

Legend: ■ Warning ■ High Risk ■ Critical ★ Optimal 😊 Improvement 😞 Worse ∅ No Improvement

Test Description	Current Rating 10/10/2008	Prior	Delta	Healthy	Clinical	Units
Glucose	131.00 High			80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	6.30 high			4.80 - 5.60	4.60 - 6.40	%
Total Cholesterol	231.00 High			140.00 - 170.00	100.00 - 199.00	mg/dL
Triglyceride	183.00 High			50.00 - 125.00	0.00 - 149.00	mg/dL
HDL Cholesterol	53.00 ★			39.00 - 120.00	36.00 - 140.00	mg/dL
VLDL Cholesterol	37.00 high			5.00 - 20.00	4.00 - 40.00	mg/dL
LDL Cholesterol	141.00 High			50.00 - 75.00	6.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	4.40 high			0.00 - 4.00	0.00 - 5.00	ratio
CRP C-Reactive Protein	5.20 High			0.00 - 1.50	0.00 - 4.90	mg/L
White Blood Count	6.70 ★			5.00 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	4.31 low			4.50 - 5.50	4.10 - 5.60	m/cumm
Hemoglobin	13.10 low			13.30 - 15.20	11.50 - 17.00	gm/dL
Hematocrit	39.40 low			39.50 - 47.00	34.00 - 50.00	%
MCV	91.00 ★			85.00 - 97.00	80.00 - 98.00	cu.m
MCH	30.40 ★			28.10 - 32.00	27.00 - 34.00	pg
MCHC	33.20 ★			33.00 - 34.00	32.00 - 36.00	%
RDW	15.50 High			11.10 - 14.50	11.00 - 15.00	%
Platelets	261.00 high			175.00 - 250.00	140.00 - 415.00	k/cumm
ESR-Erythrocyte Sed Rate, Westergren	9.00 high			0.00 - 6.00	0.00 - 20.00	mm/HR
Vitamin D 25-Hydroxy	21.90 Very Low			50.00 - 90.00	32.00 - 100.00	NG/ML

Doctor analysis:

10-22-08 – By looking at the test results, we see a few problems which all tie together. Firstly, the glucose and hemoglobin A1C clearly show that the patient's diabetes is not adequately diet controlled. The ESR and CRP are all a little high which indicates nonspecific inflammation likely due to the fungal infection. The vitamin D levels are very low and there are also signs of hyperlipidemia (too much fat in the blood) as seen with the cholesterol, triglycerides LDL and VLDL cholesterol. Diabetes and inflammation can be tied to hyperlipidemia along with poor diet, excess weight and lack of exercise. Low vitamin D levels are also known to increase insulin resistance which can further complicate her ability to control the diabetes. Getting this patient supplemented with vitamin D3 and altering her diet to include low glucose foods is really going to help with the

diabetes and excess weight. Also specific supplements for the inflammation like ginger and tumeric should help reduce the ESR and CRP.

Patient assessment:

01-13-09 - After just *three months* under our care, the patient’s test results showed marked improvement with glucose control, significantly reduced cholesterol levels, optimal vitamin D levels and decreased inflammatory markers. She also told me she had better energy and stamina. Her blood pressure now typically runs under 100/70 so I suggested she discuss reducing her medications with her physician. The fungal infection has not gone away but has not gotten any worse. She states that she really misses eating fruits.

Results of 2nd Blood Test:

Legend: ■ Warning ■ High Risk ■ Critical ★ Optimal 😊 Improvement ☹️ Worse ⊘ No Improvement							
Test Description	Current Rating 01/13/2009		Prior 10/10/2008	Delta	Healthy	Clinical	Units
Glucose	118.00	High	131.00	😊	80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	6.00	high	6.30	😊	4.80 - 5.60	4.60 - 6.40	%
Total Cholesterol	188.00	high	231.00	😊	140.00 - 170.00	100.00 - 199.00	mg/dL
Triglyceride	95.00	★	183.00	😊	50.00 - 125.00	0.00 - 149.00	mg/dL
HDL Cholesterol	63.00	★	53.00		39.00 - 120.00	36.00 - 140.00	mg/dL
VLDL Cholesterol	19.00	★	37.00	😊	5.00 - 20.00	4.00 - 40.00	mg/dL
LDL Cholesterol	106.00	High	141.00	😊	50.00 - 75.00	6.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	3.00	★	4.40	😊	0.00 - 4.00	0.00 - 5.00	ratio
CRP C-Reactive Protein	5.10	High	5.20	😊	0.00 - 1.50	0.00 - 4.90	mg/L
White Blood Count	7.50	★	6.70		5.00 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	4.48	low	4.31	😊	4.50 - 5.50	4.10 - 5.60	m/cumm
Hemoglobin	13.70	★	13.10	😊	13.30 - 15.20	11.50 - 17.00	gm/dL
Hematocrit	40.10	★	39.40	😊	39.50 - 47.00	34.00 - 50.00	%
MCV	89.00	★	91.00		85.00 - 97.00	80.00 - 98.00	cu.m
MCH	30.60	★	30.40		28.10 - 32.00	27.00 - 34.00	pg
MCHC	34.30	high	33.20	☹️	33.00 - 34.00	32.00 - 36.00	%
RDW	14.70	high	15.50	😊	11.10 - 14.50	11.00 - 15.00	%
Platelets	269.00	high	261.00	☹️	175.00 - 250.00	140.00 - 415.00	k/cumm
ESR-Erythrocyte Sed Rate, Westergren	7.00	high	9.00	😊	0.00 - 6.00	0.00 - 20.00	mm/HR
Vitamin D 25-Hydroxy	60.80	★	21.90	😊	50.00 - 90.00	32.00 - 100.00	NG/ML

08-12-09 – It’s been about six months since her last blood test and this patient is now doing much worse. She is having major problems with skin rashes and infections, has had several recent urinary tract infections and her glucose levels and inflammatory markers are much higher than when she first came!

Results of 3rd Blood Test:

Legend: ■ Warning ■ High Risk ■ Critical ★ Optimal 😊 Improvement ☹️ Worse ⊘ No Improvement							
Test Description	Current Rating 08/12/2009		Prior 01/13/2009	Delta	Healthy	Clinical	Units
Glucose	142.00	High	118.00	☹️	80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	6.60	High	6.00	☹️	4.80 - 5.60	4.60 - 6.40	%

Total Cholesterol	174.00	high	188.00	😊	140.00 - 170.00	100.00 - 199.00	mg/dL
Triglyceride	133.00	high	95.00	😞	50.00 - 125.00	0.00 - 149.00	mg/dL
HDL Cholesterol	56.00	★	63.00		39.00 - 120.00	36.00 - 140.00	mg/dL
VLDL Cholesterol	27.00	high	19.00	😞	5.00 - 20.00	4.00 - 40.00	mg/dL
LDL Cholesterol	91.00	high	106.00	😊	50.00 - 75.00	6.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	3.10	★	3.00		0.00 - 4.00	0.00 - 5.00	ratio
CRP C-Reactive Protein	15.10	Very High	5.10	😞	0.00 - 1.50	0.00 - 4.90	mg/L
White Blood Count	7.30	★	7.50		5.00 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	4.46	low	4.48	😞	4.50 - 5.50	4.10 - 5.60	m/cumm
Hemoglobin	13.60	★	13.70		13.30 - 15.20	11.50 - 17.00	gm/dL
Hematocrit	40.40	★	40.10		39.50 - 47.00	34.00 - 50.00	%
MCV	91.00	★	89.00		85.00 - 97.00	80.00 - 98.00	cu.m
MCH	30.60	★	30.60		28.10 - 32.00	27.00 - 34.00	pg
MCHC	33.70	★	34.30	😊	33.00 - 34.00	32.00 - 36.00	%
RDW	14.80	high	14.70	😞	11.10 - 14.50	11.00 - 15.00	%
Platelets	273.00	high	269.00	😞	175.00 - 250.00	140.00 - 415.00	k/cumm
ESR-Erythrocyte Sed Rate, Westergren	12.00	high	7.00	😞	0.00 - 6.00	0.00 - 20.00	mm/HR
Vitamin D 25-Hydroxy	38.70	low	60.80	😞	50.00 - 90.00	32.00 - 100.00	NG/ML

When she came in to discuss the results, I asked “What happened?” I found out that she was eating too much of a supposedly good thing – FRUIT! Every day she consumed one quart of blueberries, a pound of cherries and at least 2 other fruits (apple, peach, etc.). She loved the taste of fruit and hoped the antioxidants in the berries would help her fungal infection. However, one pound of cherries equals nearly 43g of sugar. One pint of blueberries equals 40g, an apple has 10g and a peach has 6.6g of sugar. That’s like eating 25 teaspoons of sugar per day! And, she’s diabetic! I told her to eat NO FRUIT for 4 days and see what happens.

08-23-09 – I received an email from the patient and knew it was good news when she opened by saying “Ok, you won”. She stopped eating all fruit and within a very short time, the redness from her fungal infection turned very pale and for the first time in years it looked like it might clear up!

Dr. Merkle’s Final Thoughts:

When you eat, the glucose (sugar) in your food is moved into cells by insulin where it is stored to be used as energy. When you have type II diabetes, a problem occurs called insulin resistance where the glucose is not properly stored in your fat, liver and muscle cells and instead builds up in the blood. All this glucose has to go somewhere, so it will often exit the body thru the urinary tract or attach to other tissues within the body. When this happens, bacteria quickly multiply in the sugar filled tissues and infections can develop. Diabetics are especially prone to infections of the skin and urinary tract.¹

To fight off the infection the body releases hormones called “counter-regulatory hormones” which tell the liver to release extra glucose to give you

an extra energy boost. These hormones also reduce insulin effectiveness to allow the glucose to stay in the blood stream.²

It's a viscous cycle as the high level of sugars cause a weakened immune system allowing for increased susceptibility to infection. When the body tries to fight off the infection, more glucose is released into the body once again allowing for increased bacteria growth.

Because diabetics already have trouble with insulin and glucose control, eating foods with higher glycemic indexes (basically more carbohydrate and/or sugar content) places the body under more stress. Cutting out carbohydrates and all but one piece of fruit daily, as well as eating a diet high in protein and vegetables is an easy way to help ease that burden. However it is also important to remember that some vegetables are also high in carbohydrate content. Corn, Potatoes, Sweet Potatoes, Yams, Bananas, Figs, Prunes and Dried Fruit all have very high glycemic indexes.

For diabetics it is better to consume vegetables (and the occasional fruit) that rest in the lowest glycemic index such as asparagus, bean sprouts, broccoli, carrots, cauliflower, celery, swiss chard, cucumber, endive, lettuce, mushrooms, mustard greens, radishes, spinach, string beans, beets, brussels sprouts, eggplant, onion, peppers, etc. Lower glycemic fruits would include cantaloupe, strawberries, melon, rhubarb, etc.

Sometimes too much of a good this is a bad thing. Is fruit a healthy food? Yes. Is it a healthy food for everyone? No. Eating lots of high carbohydrate fruits was not only bad for this patient's diabetic condition, but it also likely played a big role with her chronic skin rash.

-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.

¹ Web MD [Internet]. New York (NY). Web MD, LLC; c2005-2011. Diabetes and Infection [modified 2009, March 8, cited 2011 April 20]; [one screen]. Available from: <http://diabetes.webmd.com/guide/infections-linked-diabetes>

² Pallarito K. Health [Internet]. Birmingham (AL). Health Media Ventures, Inc; c2011. Diabetes and Sick Days: Expect a Rise in Blood Sugar [modified 2009, July 22; cited 2011 April 20]; [one screen]. Available from: <http://www.health.com/health/condition-article/0,,20189164,00.html>