



JUNE 17-19, 2016
**EMPOWER YOUR
INNER HEALER**
with Dr. Ritamarie Loscalzo

Day 2: Discover

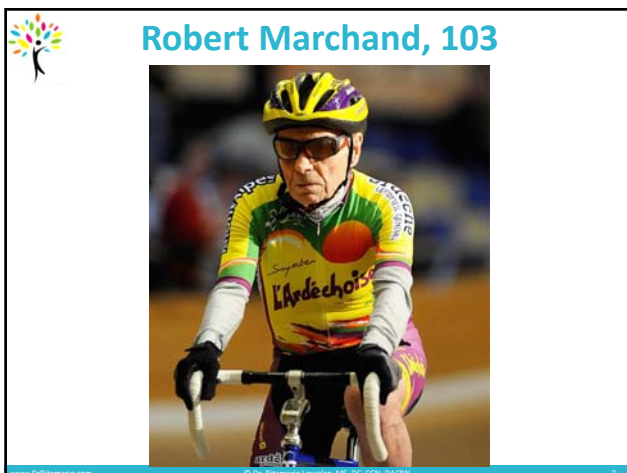


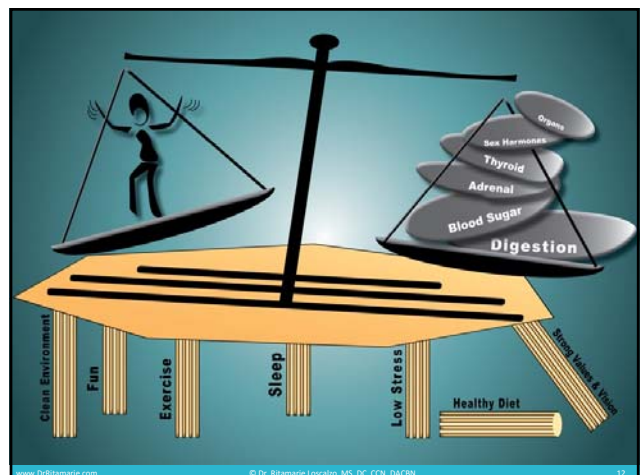
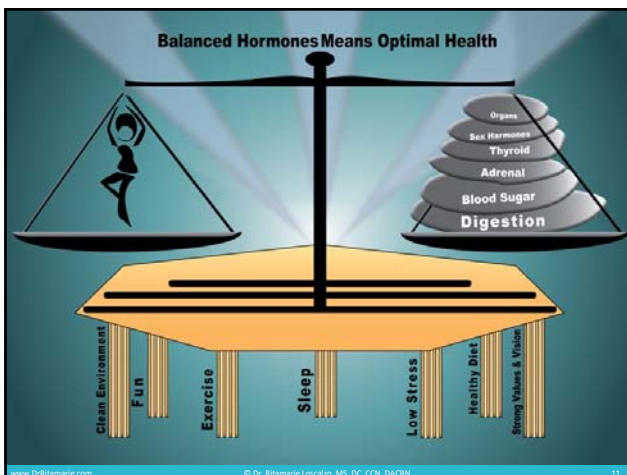
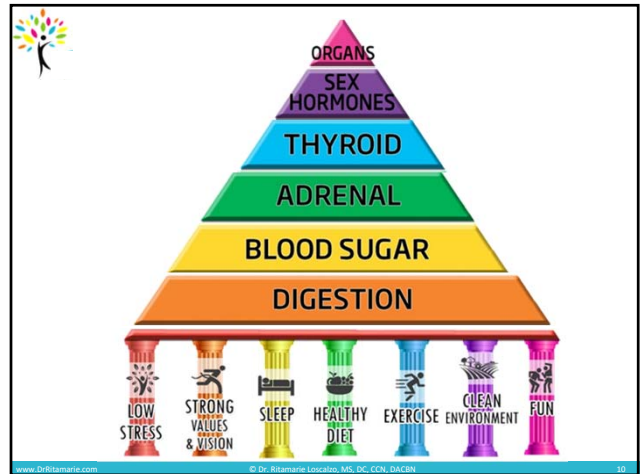
www.DrRitamarie.com © Dr. Ritamarie Loscalzo, MS, DC, CCN, DACBN

Medical Disclaimer: The information in this presentation is not intended to replace a one-on-one relationship with a qualified health care professional and is not intended as medical advice. It is intended as a sharing of knowledge and information from the research and experience of Dr. Ritamarie Loscalzo, drritamarie.com, and the experts who have contributed. We encourage you to make your own health care decisions based upon your research and in partnership with a qualified health care professional. This presentation is provided for informational purposes only and no guarantees, promises, representations or warranties of any kind regarding specific or general benefits, have been or will be made by Dr. Ritamarie Loscalzo, her affiliates or their officers, principals, representatives, agents or employees. Dr. Ritamarie Loscalzo is not responsible for, and shall have no liability for any success or failure, acts and/or omissions, the appropriateness of the participant's decisions, or the use of or reliance on this information.

www.DrRitamarie.com © Dr. Ritamarie Loscalzo, MS, DC, CCN, DACBN









Identifying Your Obstacles



INE

INSTITUTE OF

NUTRITIONAL
ENDOCRINOLOGY

GENERAL LIVES WITH
HEALTHY NUTRITION



- Stress
- Attitude
- Sleep
- Nutrition
- Exercise
- Environment
- Fun & Relationships

7 Pillars Scorecard Assessment

Pillar 1: Stress

Use the descriptions to choose the appropriate score. Calculate your results as go.

		0	1	2	3
Stress Part 1					
How often do you experience the state of accommodation or "letting go of passion?"	0 = 1-2 times per day 1 = 3-4 times per day 2 = 5-6 times per day 3 = 7-8 times per day				
How often are you experiencing stress management method or technique or meditation, yoga, visualization, etc?	0 = 1-2 times per day 1 = 3-4 times per day 2 = 5-6 times per day 3 = 7-8 times per day				
How often are you feeling "stressed out" (above a 7) on a stress scale from 1-10?	0 = About once in a month or less 1 = About once in 2 weeks 2 = A few to several times a day 3 = At least 4 or more times a day				
Total for Each Column (number of checkboxes is value)					
Subtotal Part 1 (Max 10)					
Stress Part 2					
Do you feel that about your work is OK?			YES	NO	
Do you feel that your stress level is more appropriate than you would like?					
Are you happy most of the time?					
Do you feel that you are enjoying your life?					
Do you feel that you are enjoying your life as a parent or family member?					
Do you feel that you are enjoying your life as a friend or community member?					
Do you feel that you are enjoying your life as a person?					
Total for Each Column (number of checkboxes is value)					
Subtotal Part 2 (Max 10)					
Stress Part 3					
Do you feel significantly less than you could if you age?			YES	NO	
Do you believe that it is important to maintain the quality of your life?					
How are you managing your stress or relationships?					
Do you appreciate the majority of your life and morning to fully appreciate and enjoy it?					
How often are you taking time to relax or meditate or visualize or pray?					
How often do you visualize a solution to a problem or your life that you want?					

Pillar	Max Score	Your Score	Priority:
Pillar 1: Stress	1556		
Pillar 2: Attitude and Beliefs	66		
Pillar 3: Sleep	51		
Pillar 4: Nutrition Part 1 - Negative Habits	126		
Pillar 4: Nutrition Part 2 - Positive Habits	66		
Pillar 5: Fitness	21		
Pillar 6: Environment	249		
Pillar 7: Fun	48		

1 = low (green)
 2 = medium (blue)
 3 = high (yellow)
 4 = very high (red)

Your Health Tracker



INE INSTITUTE FOR NUTRITION EDUCATION

Empowering People to Live Healthier Lives

Habits and Obstacles			
Client Name	Coach Name		
Habits and Obstacles	Positive Habits	Negative Habits	Challenges
Diet			
Movement			
Stress			
Sleep			
Schedule			
Environment			
Fun and Recreation			
Relationships			

© 2019, Reprinted permission from: CDC, 2014/2015

Nutrient Scorecards



A magnifying glass with a black handle and silver rim is positioned over a white plate. The plate is filled with a variety of fresh fruits and vegetables, including red berries, green leafy vegetables, yellow corn, and orange slices. The magnifying glass is focused on the center of the plate, highlighting the diverse colors and textures of the food.

Your Nutrient Status

Nutrient Balance Assessment Scorecard

Name: _____

Point Scale:
 0 = No, Never/Rarely or almost never
 1 = Mild/Sometimes experiences/effects
 2 = Moderate/Frequent experiences/effects
 3 = Yes, Severe/Daily experiences/effects

Section 1: Essential Fatty Acids	0	1	2	3
Do you experience pain relief with aspirin?	0	1	2	3
Do you crave fatty or greasy foods?	0	1	2	3
Do you have a history of following a low or reduced-fat diet?	0	1	2	3
0 = Never, 1 = years ago, 2 = within last year, 3 = within past 3 months	0	1	2	3
Do you experience tension headaches at the base of your skull?	0	1	2	3
Do you get headaches when out in the hot sun?	0	1	2	3
Do you burn easily or suffer sun poisoning?	0	1	2	3
Do your muscles easily fatigue?	0	1	2	3
Do you have dry, flaky skin?	0	1	2	3
Do you experience "goose flesh/goose bumps"?	0	1	2	3
Do you have ridged, cracked, and/or peeling nails?	0	1	2	3
Do you have magnesium or vitamin B6 deficiencies that don't respond to supplements?	0	1	2	3
Do you have rashes?	0	1	2	3
Do you have areas of inflamed soft tissue?	0	1	2	3
Do you have inflamed joints?	0	1	2	3
Do you have cracks in your heels?	0	1	2	3
Do you have red cuticles?	0	1	2	3
Do you have sores?	0	1	2	3
Do you have breast cysts?	0	1	2	3
Do you suffer from earplugs?	0	1	2	3
Do you have dry hair?	0	1	2	3
Do you have eczema?	0	1	2	3
Do you have excess earwax?	0	1	2	3
Do you have gall stones?	0	1	2	3
Have you experienced hair loss?	0	1	2	3
Do you suffer from any immune impairment?	0	1	2	3

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 17

Your Nutrient Scorecard

Percent score is calculated by dividing your score by the max score and multiplying by 100. Look up the % score in the chart below to determine priority.

Nutrient	Max Score	Your Score	Your % Score	Priority:
Essential Fatty Acids	99			
Amino Acids	24			
Vitamin A	30			
B Vitamins	45			

Score Interpretation:

- 0-10%: Overall good balance. Sound nutrition and healthy habits will maintain good balance.
- 11-25%: In need of a tune up to restore balance before serious illness sets in. Diet and lifestyle improvements should shift to normal.
- 26-50%: Your nutrient balance is compromised and likely to significantly affect your state of health, well-being, and energy level.
- 51-100%: Your nutrient balance is severely compromised and requires immediate attention. Take steps now to restore balance to your health, well-being, and energy level.

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 18

Nutrient Balance: General Assessment

Date of Assessment					
Essential Fatty Acid Needs					
Amino Acid Needs					

Nutrient Balance: Vitamin Assessment

Date of Assessment					
Vitamin A					
B Vitamins					
Vitamin B1 - Thiamin					
Vitamin B2 - Riboflavin					
Vitamin B3 - Niacin					
Vitamin B5 - Pantothenic acid					
Vitamin B6 - Pyridoxine					
Vitamin B7 - Biotin					
Vitamin B9 - Folic Acid					
Vitamin B12 - Cobalamin					
Vitamin C					
Vitamin D					
Vitamin E					
Vitamin K					

Nutrient Balance: Mineral Assessment

Date of Assessment					
Calcium					
Chromium					
Copper					
Iodine					
Iron					
Magnesium					
Manganese					
Phosphorus					
Potassium					
Selenium					

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 19

Body System and Organ Assessment

Date of Assessment: mm/dd/yy					
Digestion - Low Stomach Acid					
Digestion - Excess Stomach Acid					
Digestion - Liver and Gallbladder					
Digestion - Small Intestine and Pancreas					
Digestion - Large Intestine					
Cardiovascular System					
Kidney and Bladder					
Immune System					

Hormone and Gland Assessment

Date of Assessment					
Adrenal - General					
Adrenal Hypofunction					
Adrenal Hyperfunction (Cortisol high)					
Blood Sugar Dysregulation					
Blood Sugar Handling - Insulin Resistance					
Blood Sugar Handling - Glucose Fluctuation					
Thyroid Low (Hypo)					
Thyroid Excess (Hyper)					
Pituitary					
Male - Prostate					
Male - Hormones					
Female - Hormones					
Female - Menopausal					

Brain and Neurotransmitter Assessment

Date of Assessment					
General Brain Function					
Serotonin					
Dopamine					
GABA					

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 20

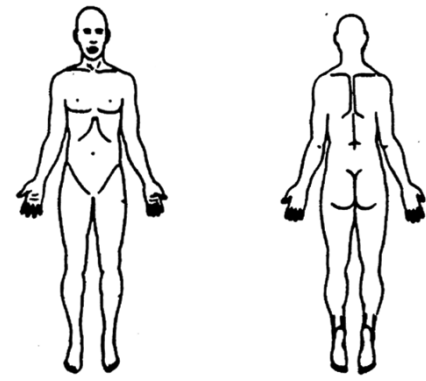
Home Assessment

- ✓ Symptoms and Signs
- ✓ Nutrient Assessments
 - Minerals
 - Vitamin C
- ✓ pH Balance
- ✓ Nitric Oxide
- ✓ Blood Sugar
- ✓ Ketones
- ✓ Oxidata
- ✓ Urinalysis



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 21

Body Scan



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 22

Mineral Test Kit



The test kits allow you to test for the following minerals:

1. Potassium	5. Chromium
2. Zinc	6. Manganese
3. Magnesium	7. Molybdenum
4. Copper	8. Selenium

<http://www.drRitamarie.com/go/EmersonEcologics>
Use code **fresh1** to access

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 23

Interpretation of Mineral Tests

Taste Test Score	Clinical implication
1 Sweet	Definitely need the mineral
2 Pleasant	Need the mineral
3 No Taste	Need the mineral
4 Hmmm...taste something	Sufficient
5 So-So, there is some taste	Do not need mineral
6 Don't like	Do not need mineral
7 Gross taste	Do not need mineral

- Write down the appropriate response on the score card
- Repeat this process for each of the remaining minerals

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 24

Vitamin C Testing

✓ **Vitamin C Urine Test Strips**

- Normal is greater than 20 mg/dL
- Ideal is greater than 40 mg/dL
- "A consistent urine Vitamin C of 20 mg/dL or lower may be trying to tell you something."

James A. Jackson, MT, Ph.D., Journal of Orthomolecular Medicine, Vol. 20, No. 4, 2005

✓ **Vitamin C Calibration**

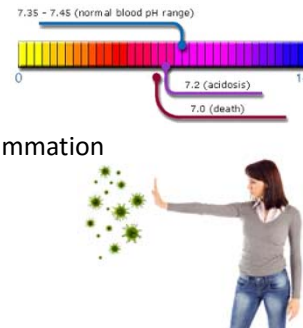
- Determine Bowel Tolerance Dose
- Take about 75% of dose that results in loose stools



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 25

Importance of pH Balance

- ✓ Optimum immune function
- ✓ Strong bones and teeth
- ✓ Efficient digestion
- ✓ Joint health
- ✓ Decreased pain and inflammation
- ✓ Protection from disease
- ✓ Increased energy



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 26




www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 27

Measuring Your pH

pHydriion paper – range 5.5 to 8

- ✓ **Saliva: 6.8 – 7.2**
 - First morning
 - During day
 - Acid challenge
- ✓ **Urine: 6.5 – 6.8**
 - First morning
 - Second morning
 - Later in day

<http://www.drritamarie.com/go/pHpaper>



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 28

 **pH Tracking**

Date	Morning Saliva pH	1 st AM Urine pH	2 nd AM Urine pH	Afternoon Saliva pH (2 hours after food)	Afternoon Urine pH (before dinner)

Saliva: 6.8 to 7.2

Urine: 6.4 to 6.8

www.DrRitamarie.com © Dr. Ritamarie Locatello, MS, DC, CCN, DACBN 29

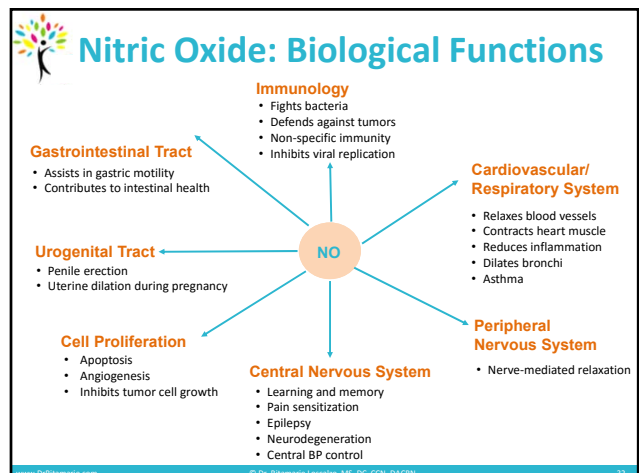


 **Nitric Oxide in Action** 

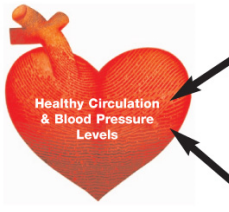
- ✓ Gas with chemical formula NO
- ✓ Important signaling molecule in mammals
- ✓ A toxic air pollutant produced by automobile engines and power plants
- ✓ Not nitrous oxide (N_2O), a general anesthetic
- ✓ It reacts with the oxygen to form nitrogen dioxide, a poisonous air pollutant
- ✓ A free radical



www.DrRitamarie.com © Dr. Ritamarie Locatello, MS, DC, CCN, DACBN 31



Two Pathways For NO Production



Pathway	Increased with	Affected by age?
Intake from salivary glands	Healthy diet having NO potential	No
Produced by endothelium	Regular exercise	Yes Endothelial production declines to 50% of what one needs by age 40. Even exercise cannot restore it all.

Healthy Circulation & Blood Pressure Levels

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 33

Nitric Oxide in Vegetables



Kale	6825
Swiss Chard	2055
Arugula	1452
Spinach	1123
Chicory	938
Wild Radish	814
Bok Choy	775
Collard Greens	697
Beets	632
Chinese Cabbage	499
Lettuce	388
Cabbage	312
Mustard greens	226
Cauliflower, Raw	167
Parsley	150
Kohlrabi	136
Carrot	127
Broccoli	122

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 34

Nitric Oxide Testing



Step 1: Wash hands

Step 2: Place saliva on test strip

Step 3: Compare test strip to color indicator

($\mu\text{mol/L}$)	<20	25-100	100-300	>300
	Depleted	Low	Normal	Neo Optimal

The deeper the red on the test strip, the more Nitric Oxide you have in your body

<http://www.neogenis.com>

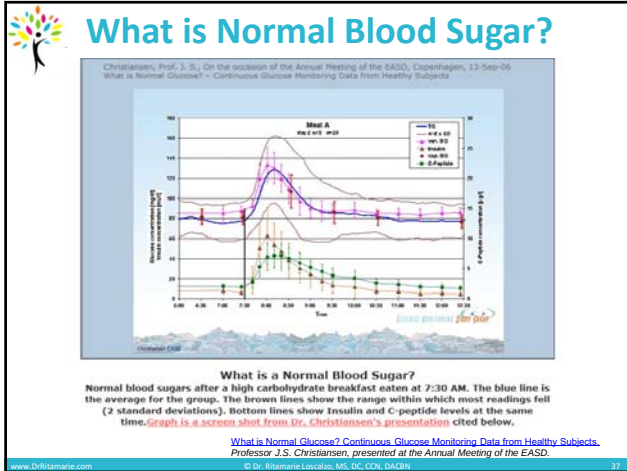
www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 35

Blood Sugar Measurement

- ✓ **TrueResults:** my desktop model
<http://www.drritamarie.com/go/TrueResultStarterKit>
- ✓ **True2Go:** portable
<http://www.drritamarie.com/go/True2GoPortableKit>
- ✓ **TrueTest Test Strips:**
use for both glucose meters
<http://www.drritamarie.com/go/TRUEtestTestStrips100>
- ✓ **Hemoglobin A1C:**
<http://www.drritamarie.com/go/HemoglobinA1C>




www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 36



Ketones

- ✓ Urine test
- ✓ Monitors quantity of ketones
- ✓ Ketogenic diets used for a variety of autoimmune and neurologic conditions and weight loss

Purchase on Amazon.com

www.drRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 38

Free Radical Testing at Home

- ✓ Measures amount of free radicals in minutes
- ✓ Free radicals have been implicated in countless disease processes
- ✓ Any molecule can become a free radical by either losing or gaining an electron

<http://www.drRitamarie.com/go/OxidataTest>

0	1	2	3	4	5
MINIMAL	LOW	HIGH	VERY HIGH	SEVERE	

Free Radical Activity as measured by MDA levels in the urine.

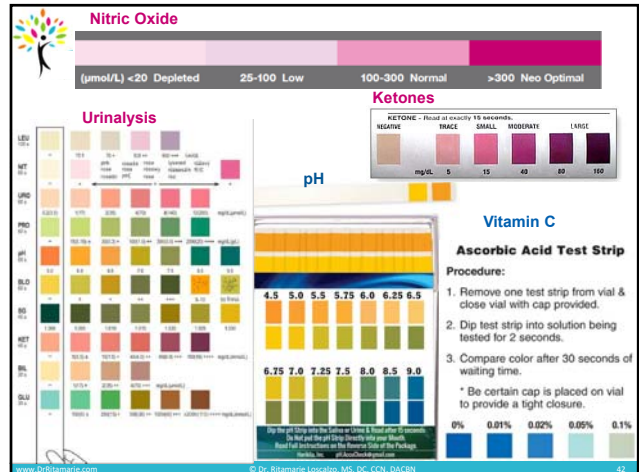
www.drRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 39

Urinalysis at Home

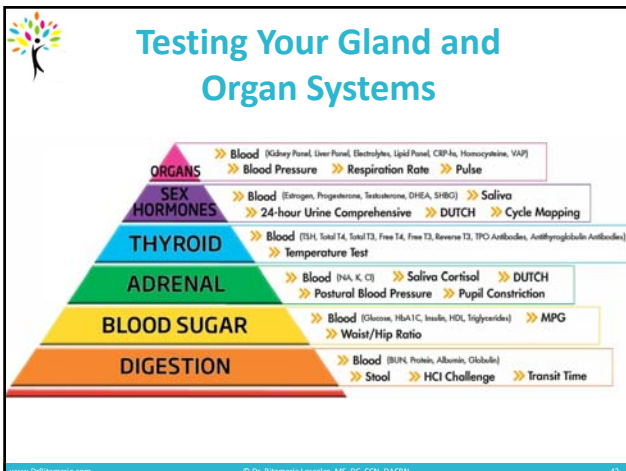
- ✓ Glucose
- ✓ Ketones
- ✓ Bilirubin
- ✓ Protein
- ✓ Nitrite
- ✓ pH
- ✓ Blood
- ✓ Specific gravity
- ✓ Leukocytes
- ✓ Urobilinogen

<http://www.drRitamarie.com/go/Urinalysis10>

www.drRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 40

[illegible]

Testing Your Gland and Organ Systems



Digestion

- ✓ HCl Challenge
- ✓ Transit Time
- ✓ Stool Testing
- ✓ Blood Tests
 - BUN
 - Protein
 - Albumin
 - Globulin



Transit Time

Time from mouth to anus should be 18 – 24 hours

- ✓ Swallow **4 charcoal capsules** at your evening meal. Record the date and time.
- ✓ After each bowel movement, *observe stool for first sign of black or grey.*
- ✓ Calculate number of hours between **Time Charcoal Taken to Time/Date Color First Appears**. Record.
- ✓ Continue to observe and note time and date when the color completely disappears.
- ✓ Wait 5 days to make sure all sign of charcoal has completely disappeared and try again.



www.DrRitamarie.com © Dr. Ritamarie Locascio, MS, DC, CCN, DACBN 43

HCL Challenge

- ✓ Home test – assess need for stomach acid
- ✓ **Start with ONE** 500-650 mg capsule (not tablet) containing both hydrochloric acid (HCL) and 150 mg of pepsin
- ✓ Take HCL after a few bites of food; **do not take on an empty stomach or after meals**
- ✓ If no discomfort (burning or warm sensation), add one capsule per meal.
- ✓ If pain, burning, or a warm sensation, take one of the following:
 - 1 teaspoon slippery elm in 8 ounces warm water
 - ¼ cup aloe vera juice
 - ¼ teaspoon baking soda in water or...
- ✓ Next meal, go back to the dose that caused no pain

DO NOT go above the maximal dose of 4 capsules per meal unless supervised.



www.DrRitamarie.com © Dr. Ritamarie Locascio, MS, DC, CCN, DACBN 46

Stool Microbial

BACTERIOLOGY CULTURE		
Expected/Beneficial Flora	Commensal (Imbalanced) Flora	Dysbiotic Flora
3+ Bacteroides fragilis group	1+ Beta strep, not group A or B	
4+ Bifidobacterium spp.	2+ Clostridium freundii complex	
NG Escherichia coli	1+ Clostridium freundii complex/Isolate 2	
NG Lactobacillus spp.	2+ Enterobacter cloacae complex	
NG Enterococcus spp.	3+ Gamma hemolytic strep	
NG Clostridium spp.	1+ Staphylococcus aureus	
NG = No Growth		

MICROSCOPIC YEAST		YEAST INFORMATION	
Result:	Expected:		
None	None - Rare		

The microscopic finding of yeast in the stool is helpful in identifying whether there is proliferation of yeast. Rare yeast may be normal. However, yeast observed in higher amounts (few, moderate, or many) is abnormal.

Yeast normally can be found in small quantities in the skin, mouth, intestine and mucocutaneous junctions. Overgrowth of yeast can infect virtually every organ system, leading to an extensive array of clinical manifestations. Fungal diarrhea is associated with broad-spectrum antibiotics or alterations of the patient's immune status. Symptoms may include abdominal pain, cramping and irritation. When investigating the presence of yeast, disparity may exist between culturing and microscopic examination. Yeast are not uniformly distributed throughout the stool. This may lead to underdetectable or low levels of yeast identified by microscopy, despite a cultured amount of yeast. Conversely, microscopic examination may reveal a significant amount of yeast present, but no yeast cultured. Yeast does not always survive transit through the intestines rendering it unusable.

Illness and fatigue. Chronic parasitic infections can also be associated with increased intestinal permeability, irritable bowel syndrome, irregular bowel movements, malabsorption, gastritis or indigestion, skin disorders, joint pain, allergic reactions, and decreased immune function.

In some instances, parasites may enter the circulation and travel to various

GIARDIA/CRYPTOSPORIDIUM IMMUNOASSAY			
	Within	Outside	Reference Range
Giardia intestinalis	Neg	Neg	
Cryptosporidium	Neg	Neg	

Giardia intestinalis (lambia) is a protozoan that infects the small intestine and is passed in stool and spread by the fecal-oral route. Waterborne transmission is the major source of giardiasis. Cryptosporidium is a coccidian protozoa that can be spread from direct person-to-person contact or waterborne transmission.

www.DrRitamarie.com © Dr. Ritamarie Locascio, MS, DC, CCN, DACBN 47

Stool Testing Functional

DIGESTION/ABSORPTION			
	Within	Outside	Reference Range
Elastase	445	>200	µg/mL
Fat Stain	Few	None - Mod	
Muscle Fibers	None	None - Rare	
Vegetable Fibers	Rare	None - Few	
Carbohydrates	Neg	Neg	

Elastase findings can be used for the diagnosis or the exclusion of exocrine pancreatic insufficiency. Correlations between low levels and chronic pancreatitis and cancer have been reported. **Fat Stain:** Microscopic determination of fecal fat using Sudan IV staining is a qualitative procedure utilized to assess fat absorption and to detect steatorrhea. **Muscle Fibers** in the stool are an indicator of incomplete digestion. Bloating, flatulence, feelings of "fullness" may be associated with increase in muscle fibers. **Vegetable Fibers** in the stool may be indicative of inadequate chewing, or eating "on the run". **Carbohydrates:** The presence of reducing substances in stool specimens can indicate carbohydrate malabsorption.

INFLAMMATION			
	Within	Outside	Reference Range
Lactoferrin	2.6	<7.3	µg/mL
Calprotectin*	68	10 - 50	µg/g
Lysosome*	271	<= 600	ng/mL
White Blood Cells	None	None - Rare	
Mucus	Neg	Neg	

Lactoferrin and Calprotectin are reliable markers for differentiating organic inflammation (IBD) from functional symptoms (IBS) and for management of IBD. Monitoring levels of fecal lactoferrin and calprotectin can play an essential role in determining the effectiveness of therapy, are good predictors of IBD remission, and can indicate a low risk of relapse. **Lysosome*** is an enzyme secreted at the site of inflammation in the GI tract and elevated levels have been identified in IBD patients. **White Blood Cells (WBC)** and Mucus in the stool can occur with bacterial and parasitic infections, with mucosal irritation, and inflammatory bowel diseases, such as Crohn's disease or ulcerative colitis.

IMMUNOLOGY			
	Within	Outside	Reference Range
Secretory IgA*	39.7	51 - 254	mg/dL

Secretory IgA* (sIgA) is secreted by mucosal tissue and represents the first line of defense of the GI mucosa and is central to the normal function of the GI tract as an immune barrier. Flattened brush of enteric tissue have been associated

www.DrRitamarie.com © Dr. Ritamarie Locascio, MS, DC, CCN, DACBN 48

Blood Sugar

- ✓ MPG: Map Postprandial Glucose
- ✓ Waist Hip Ratio
- ✓ Blood Tests
 - Glucose
 - HbA1C
 - Insulin
 - Antibodies
 - HDL
 - Triglycerides
 - HDL/Triglyceride Ratio

www.DrRitamarie.com © Dr. Ritamarie Locatello, MS, DC, CCN, DACBN 43

Blood Glucose Lab Testing

	Normal	Insulin Resistance	Metabolic Syndrome	Diabetes
Fasting Glucose	75-89	90-119	≥100	≥120
Triglycerides	>65	>90	>110	>110
HDL	50-90	<65	<55	<55
Fasting Insulin	2-5	Normal or >5 – varies on stage	>5	>5
Hemoglobin A1C	4.5-5%	5.3-6.5%	>5.7%	>5.7%

www.DrRitamarie.com © Dr. Ritamarie Locatello, MS, DC, CCN, DACBN 50

Adrenal

- ✓ Saliva Cortisol and DHEA
- ✓ DUTCH Test
- ✓ Blood Tests
 - Sodium
 - Potassium
 - Chloride

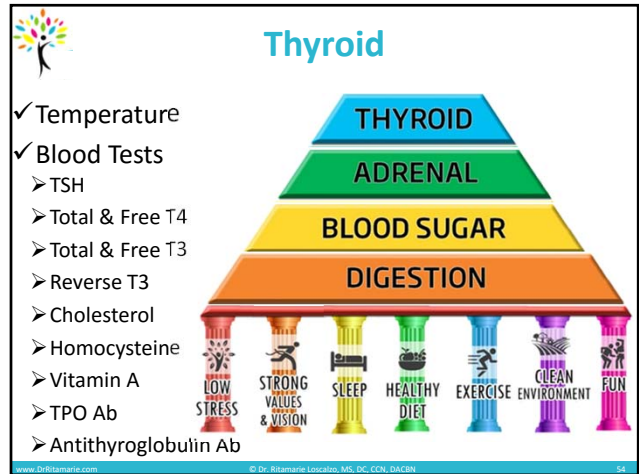
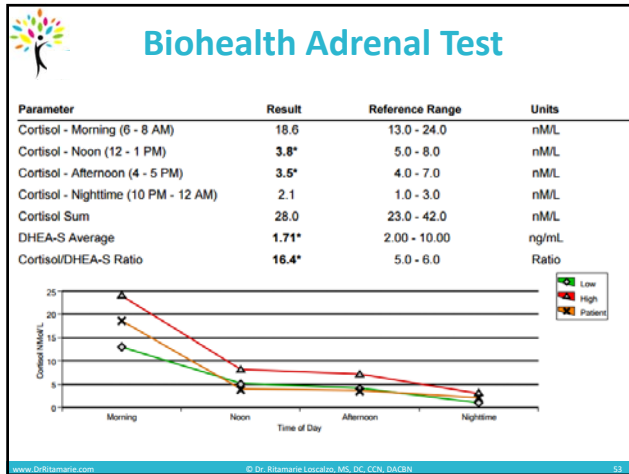
www.DrRitamarie.com © Dr. Ritamarie Locatello, MS, DC, CCN, DACBN 51

Adrenal Lab Analysis

- ✓ Adrenal Stress Index: Saliva Test
 - Cortisol x 4
 - DHEA x 2
 - Secretory IgA *
 - 17-OH-Progesterone *
- ✓ Blood Cortisol Levels – not functionally significant
- ✓ Blood DHEA-S Levels
- ✓ Ratios of Blood Sodium, Potassium, and Chloride

* Some labs include these

www.DrRitamarie.com © Dr. Ritamarie Locatello, MS, DC, CCN, DACBN 52



Thyroid Lab Analysis

- ✓ TSH
- ✓ Total T4 (thyroxine)
- ✓ Total T3 (triiodothyronine)
- ✓ Free T4
- ✓ Free T3
- ✓ Thyroid Antibodies
 - Thyroid Peroxidase
 - Antithyroglobulin
- ✓ Reverse T3
- ✓ Vitamin D
- ✓ Cholesterol

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 55

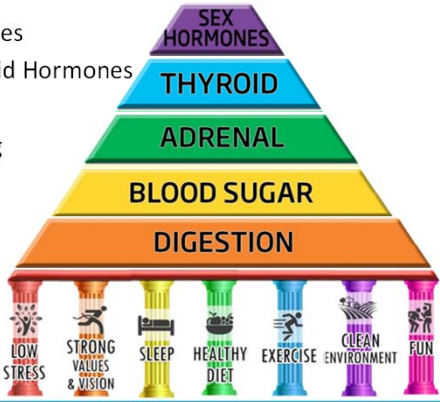
Thyroid Self-Assessment

- ✓ Symptom Survey
- ✓ Physical Signs
 - Cold hands and feet
 - Loss of lateral 1/3 of eyebrow
 - Dry skin and hair
 - Scalloped edges and teeth marks on tongue
 - Eyes "bug-out"
- ✓ Basal Body Temperature: Broda Barnes
- ✓ Average Body Temperature: Wilson's Temperature Syndrome

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 56

Sex Hormones

- ✓ Saliva Hormones
- ✓ 24-Hour Steroid Hormones
- ✓ DUTCH
- ✓ Cycle Mapping
- ✓ Blood Tests
 - Estrogen
 - Progesterone
 - Testosterone
 - DHEA
 - SHBG



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, NC, CCN, DACBN

Female Hormone Testing

Blood Testing

- Progesterone
- Pregnenolone
- Estrogen
- Testosterones
- DHEA-S
- Thyroid
- Estriol

Specialty Testing

- **Female Hormone Panel - Saliva**
 - Estradiol x 11
 - Progesterone x 11
 - Testosterone average
 - DHEA
 - LH x5 (expanded panel)
 - FSH x5 (expanded panel)
- **24-Hour Urine Comprehensive**
- **Dried Urine 4 Collection Test**
- **Fatty Acid Profile**
- **Adrenal Stress Index**



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN

Male Hormone Testing

Blood Testing

- DHEA-S
- Testosterone
- Dihydrotestosterone
- Creatinine +
- Monocytes +
- PSA
- Progesterone
- Estrogen
- Thyroid

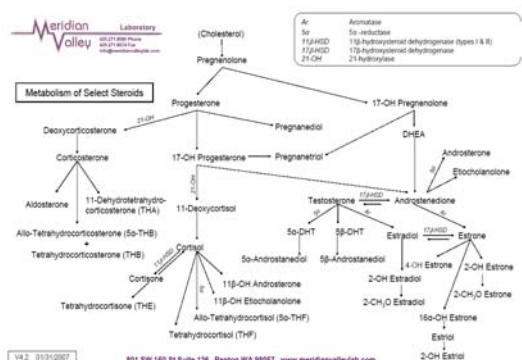
Specialty Testing

- **Male Hormone Panel - Saliva**
 - DHEA
 - Androstenedione
 - Testosterone
 - Dihydrotestosterone
 - Estrone
 - Progesterone
 - LH (expanded panel)
 - FSH (expanded panel)
- **24-Hour Urine Comprehensive**
- **Dried Urine 4 Collection Test**
- **Fatty Acid Profile**
- **Adrenal Stress Index**

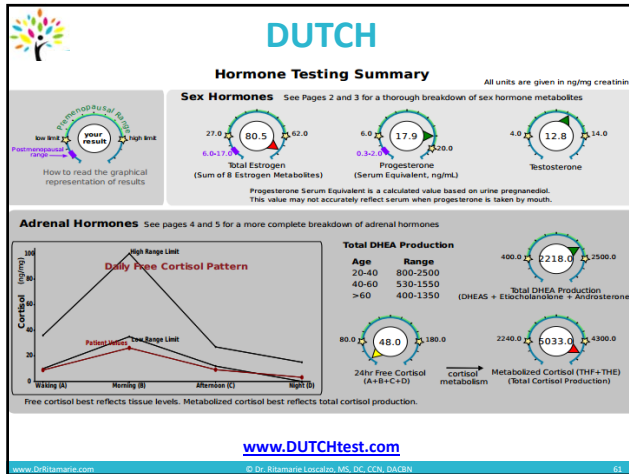


www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN

24-Hour Urine Steroid Test



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN

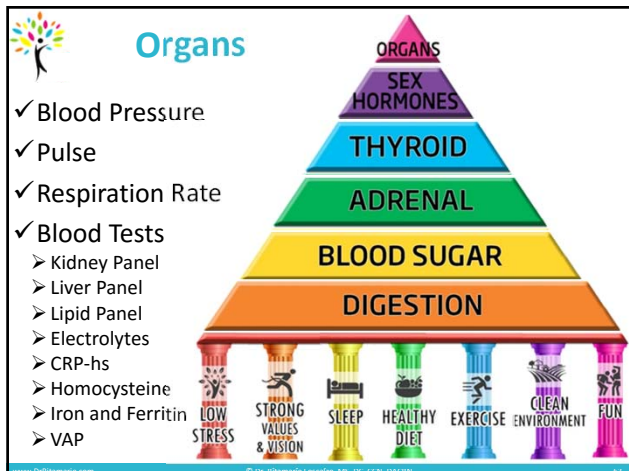


DUTCH

Progesterone Metabolism				
b-Pregnanediol	Within range	996.0	ng/mg	450 - 1400
a-Pregnanediol	High end of range	499.0	ng/mg	120 - 500
Androgen Metabolism				
DHEAS	Above range	428.0	ng/mg	23 - 350
Androsterone	Above range	1400.0	ng/mg	399 - 1364
Etiocholanolone	Low end of range	390.0	ng/mg	371 - 765
Testosterone	High end of range	12.8	ng/mg	4 - 14
5a-DHT	Within range	2.1	ng/mg	0 - 8.8
5a-Androstanediol	Within range	53.1	ng/mg	22 - 66
5b-Androstanediol	Within range	12.1	ng/mg	6 - 32
Epi-Testosterone	Within range	14.1	ng/mg	4.5 - 22.3
Estrogen Metabolites				
Estrone(E1)	Above range	42.5	ng/mg	12 - 26
Estradiol(E2)	Above range	7.4	ng/mg	1.8 - 4.5
Estriol(E3)	Above range	22.5	ng/mg	5 - 18
2-OH-E1	Below range	3.7	ng/mg	4.6 - 14.4
4-OH-E1	Within range	1.1	ng/mg	0 - 1.8
16-OH-E1	Within range	2.9	ng/mg	1 - 3.5
2-Methoxy-E1	Below range	1.2	ng/mg	2 - 5.5
2-OH-E2	Within range	0.4	ng/mg	0 - 1.2

www.DUTCHtest.com

© Dr. Ritamarie Loscalzo, MS, DC, CCN, DACBN



Blood Testing for Organs and Body Systems

- ✓ Kidney Panel
- ✓ Liver Panel
- ✓ Lipid Panel
- ✓ Electrolytes
- ✓ CRP-hs
- ✓ Homocysteine
- ✓ Iron and Ferritin
- ✓ VAP

BUN	7	
Creatinine, Serum	0.68	
eGFR: If Non-African Am	104	
eGFR: If African Am	120	
BUN-Creatinine Ratio	10	
Sodium, Serum	139	
Potassium, Serum	4.3	
Chloride, Serum	101	
Carbon Dioxide, Total	23	
Calcium, Serum	8.9	
Phosphorus, Serum	3.2	
Protein, Total, Serum	6.6	
Albumin, Serum	4.1	
Globulin, Total	2.5	
A/G Ratio	1.6	
Bilirubin, Total	0.3	
Alkaline Phosphatase, S	80	
LDH	149	
AST (SGOT)	15	
ALT (SGPT)	14	
GOT	23	
Iron, Serum	42	
Cholesterol, Total	194	
Triglycerides	222	HIGH
MTW (Total Testosterone)	16	

www.DrRitamarie.com

© Dr. Ritamarie Loscalzo, MS, DC, CCN, DACBN

Lab Testing Resources

- ✓ **Blood Testing**
 - Direct Labs: <http://www.DirectLabs.com/drritamarie>
 - All blood tests
 - Some functional tests: Genova, Doctor's Data
- ✓ **Saliva Adrenal Stress Testing**
 - Genova: <http://www.gdx.net>, via www.directlabs.com
 - BioHealth: <http://www.biohealthlab.com>
 - ZRT Labs: www.zrtlab.com
- ✓ **Steroid Hormones with Metabolites**
 - Meridian Valley: <http://www.meridianvalleylab.com>
 - Genova: <http://www.gdx.net>, via www.directlabs.com
 - Precision Analytics: <https://dutchtest.com/>



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 65

Special Lab Tests You Can Order

<http://www.DirectLabs.com>

- ✓ **Blood Testing**
 - Comprehensive Wellness Profile
 - Blood Hormone Levels
 - Specialty Tests
- ✓ **Adrenal**
 - Adrenal Stress, Saliva-MetaMetrix KIT – 4x cortisol
 - Adrenal Stress-Sabre Science KIT – 6x cortisol
- ✓ **Digestion**
 - CDSA-Comprehensive Digestive Stool Analysis – Genova KIT
 - Comprehensive Stool Analysis with Parasitology – Doctors Data
- ✓ **Hormone Balance**
 - Circadian Profile (Male or Female ages 13+) – Sabre Sciences



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 66

Nitric Oxide

(µmol/L) <20 Depleted 25-100 Low 100-300 Normal >300 Neo Optimal

Urinalysis

Ketones - Read at exactly 15 seconds.

pH

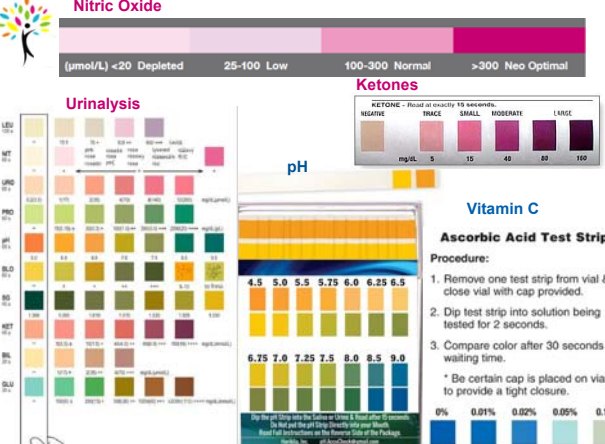
Vitamin C

Ascorbic Acid Test Strip

Procedure:

1. Remove one test strip from vial & close vial with cap provided.
2. Dip test strip into solution being tested for 2 seconds.
3. Compare color after 30 seconds of waiting time.

* Be certain cap is placed on vial to provide a tight closure.



www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 67

Lab Testing Handout

Lab Results - U.S.

Client Name	Date	Lab Name	Result	Reference Range	Interpretation
CATEGORIES					
Lab Markers					
Glucose, serum	mg/dL	80.0	100.0	70.0	80.0
Uric acid, serum (female)	mg/dL	2.8	7.0	5.3	5.5
Uric acid, serum (male)	mg/dL	2.8	7.0	5.7	6.0
Blood urea nitrogen (BUN), serum	mg/dL	6.0	20.0	10.0	18.0
Creatinine, serum	mg/dL	0.5	1.2	0.7	1.1
Estimated glomerular filtration rate (eGFR), serum	mL/min/1.73 m ²	90.0	—	90.0	—
Estimated glomerular filtration rate (eGFR), creatinine, serum	mL/min/1.73 m ²	90.0	—	90.0	—
BUN/Creatinine Ratio	—	6.0	27.0	6.0	27.0
Sodium, serum	mEq/L	135.0	145.0	135.0	145.0
Potassium, serum	mEq/L	3.5	5.5	4.0	4.5
Chloride, serum, plasma	mEq/L	96.0	110.0	100.0	108.0
Carbon dioxide, total, serum	mEq/L	23.0	31.0	23.0	30.0

www.DrRitamarie.com © Dr. Ritamarie Locatelli, MS, DC, CCN, DACBN 68

