

What you need to know about micronutrients [Vitamins & Minerals]

Meet Rochelle Kirkey, LPN

Sonoran Living Live!

Laura McKay's Recipe Corner



## Vitamins & Minerals



The food we eat today does not contain nearly as much natural vitamin and mineral content that was found in it 60 years ago. As a consequence, we do not always maintain a healthy balance of these micronutrients. While our efforts to supplement our diets with over-the-counter vitamins and minerals from our local stores, most of us are unaware of the actual levels of these micronutrients in our bodies.

Today, advanced clinical testing can tell us exactly how much or how little of these nutrients our bodies are utilizing. Establishing such a baseline is the first step in developing a vitamin and mineral supplement program to return you to optimal levels of the nutrients your body requires.

### Pollen Count

You can check the pollen count for your location by simply going to...

<http://www.pollen.com>

Greetings!

Fall is in the air and cooler temperatures prevail. To most of us, weather is a topic of everyday conversation. And in Arizona, we tend to take our wonderful weather for granted.... hot in the summer and absolutely wonderful the remainder of the year.

There is another topic that is often discussed these days and it involves micronutrients, otherwise known as vitamins and minerals. It seems that we like to share our vitamin/mineral regimen with our friends. It usually goes something like this..."I take this wonderful multi-vitamin I got on-sale from Costco. It's really working well for me." Sounds familiar doesn't it?

Micronutrients are comprised of vitamins and minerals, which are required in small quantities to ensure normal metabolism, growth and physical well being. The problem is that we consume these micronutrients without really knowing **how much or how little** of one or the other of these that our bodies really need.

**The answer** to this problem is the topic of this newsletter. It will answer a good many of your questions about the vitamins and minerals your body uses to maintain good health. And, we'll examine a new process that can establish a base-line of just where your body is with respect to its current supply and use of these micronutrients.



Other featured news includes a brief bio of our newest team member Rochelle Kirkey, LPN. the Environmental Treatment Center's appearance on ABC15's Sonoran Living Live and Laura McKay's latest recipe.

Laura's Recipe Corner has a great "Crustless" pumpkin pie recipe just in time for Thanksgiving meal planning. Laura tells us it is absolutely delicious. It should be a real hit with your family and guests this Thanksgiving. Enjoy!

Also, the final episode of The Allergy & Environmental Treatment Center's appearance on ABC15's KNXV-TV Sonoran Living Live show will take place on Thursday, December 8th in the 9:00 AM time slot. Mark your calendar.

Sincerely,

*Sharon Gwozdek*

Sharon Gwozdek, RN, BSN

Check Out Our Website!



Our new patient-centered website provides useful information about allergies, their causes and what can be done to effectively treat them. We invite you to pay us a visit. Go to.....

[www.allergyenvironmental.com](http://www.allergyenvironmental.com)

## What You Need to Know About Micronutrients

**Micronutrients [Vitamins and Minerals]** are needed only in minuscule amounts; these substances are the “magic ingredients” that enable the body to produce enzymes, hormones and other substances essential for proper growth and development along with detoxification.

The following two tables provide some insight as to what these vitamins and minerals do for you.

### Vitamins

VITAMIN	WHAT THE VITAMIN DOES
B1 (thiamin)	Supports energy metabolism and nerve function
B2 (riboflavin)	Supports energy metabolism, normal vision and skin health
B3 (niacin)	Supports energy metabolism, skin health, nervous system and digestive system
Biotin	Energy metabolism, fat synthesis, amino acid metabolism, glycogen synthesis
Pantothenic Acid	Supports energy metabolism
B6 (pyridoxine)	Amino acid and fatty acid metabolism, red blood cell production
Folate	Supports DNA synthesis and new cell formation
B12	Used in new cell synthesis, helps break down fatty acids and amino acids, supports nerve cell maintenance
C (ascorbic acid)	Collagen synthesis, amino acid metabolism, helps iron absorption, immunity, antioxidant
A (retinol)	Supports vision, skin, bone and tooth growth, immunity and reproduction
D	Promotes bone mineralization
E	Antioxidant, regulation of oxidation reactions, supports cell membrane stabilization
K	Synthesis of blood-clotting proteins, regulates blood calcium



**VITAMINS & MINERALS**

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MINERAL	WHAT THE MINERAL DOES
Sodium	Maintains fluid and electrolyte balance, supports muscle contraction and nerve impulse transmissions
Chloride	Maintains fluid and electrolyte balance, aids in digestion
Potassium	Maintains fluid and electrolyte balance, cell integrity, muscle contractions and nerve impulse transmission
Calcium	Formation of bones and teeth, supports blood clotting
Phosphorus	Formation of cells, bones and teeth, maintains acid-base balance
Magnesium	Supports bone mineralization, protein building, muscular contraction, nerve impulse transmission, immunity
Iron	Part of the protein hemoglobin (carries oxygen throughout body's cells)
Zinc	A part of many enzymes, involved in production of genetic material and proteins, transports vitamin A, taste perception, wound healing, sperm production and the normal development of the fetus
Selenium	Antioxidant. Works with vitamin E to protect body from oxidation
Iodine	Component of thyroid hormones that help regulate growth, development and metabolic rate
Copper	Necessary for the absorption and utilization of iron, supports formation of hemoglobin and several enzymes
Manganese	Facilitates many cell processes
Fluoride	Involved in the formation of bones and teeth, helps to make teeth resistant to decay
Chromium	Associated with insulin and is required for the release of energy from glucose
Molybdenum	Facilitates many cell processes

*The level of nutrients and vitamins in our food supply has decreased dramatically over the last 60 or so years.*

As tiny as the amounts are however, the consequences of their absence are severe. Iodine deficiency disorders, Vitamin A deficiency, Iron deficiency anemia, and others are examples of micronutrient deficiency disorders.

The level of nutrients and vitamins in our food supply has decreased dramatically over the last 60 or so years. That's because today's agriculture depends more on chemical fertilizers than on the natural process of soil self-enrichment that replaces the variety of nutrients that humans and plants need to thrive. It was possible many years ago to obtain all the vitamins and minerals your body needed simply from the food you ate. Today, however, that is simply not the case.

In addition, exposure to chemicals requires additional nutrients in order to properly detoxify many of these chemicals.

The mineral content of milk and popular meats has also fallen significantly in the past 60 years, according to a new analysis of government records of the chemical composition of everyday food. The levels of iron recorded in the average rump steak have dropped by 55%, while magnesium fell by 7%. Looking at 15 different meat items, the analysis found that the iron content had fallen on average by 47%. The iron content of milk had dropped by more than 60%, and by more than 50% for cream and eight different cheeses. Milk appears to have lost 2% of its calcium, and 21% of its magnesium too. Most cheeses showed a fall in magnesium and calcium levels. According to the analysis, cheddar provides 9% less calcium today, 38% less magnesium and 47% less iron, while parmesan shows the steepest drop in nutrients, with magnesium levels down by 70% and iron all gone compared with its content in the years up to 1940.

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Today, sources for these micronutrients are the food we consume along with prescribed or over-the-counter supplements. And, it is here that we get tripped up on exactly what needs to be done in order to maintain an optimal level of these important nutrients.

Up to now, most of us haven't had much of a concern about such things and been content to take a multi-vitamin either because of a recommendation from a doctor, a friend or an article we read. Yet with all of that, we still don't know exactly at what level these micronutrients are at work in our bodies. And, what's more, if we are experiencing symptoms of one kind or another, they may well be caused by a vitamin or mineral deficiency.

And, if certain micronutrients are not at an optimal level, it is important to be able to identify them.

### **What can be done?**

Because your body requires a minimum daily requirement of micronutrients to maintain good health it is important to know what levels of these nutrients your body currently maintains.

To better able help health care providers to understand their patient's micronutrient utilization and to identify the consequences of subpar utilization, Micronutrient Testing techniques have been developed. Such a test provides key information, which includes:

- Status
- Function
- Deficiency Symptoms, and....
- Repletion Information

Such a test establishes a baseline from which a treatment program can be developed. In addition, with this information a patient is much more likely to become an active participant in the remedial care necessary to return to optimal health.

The following example Test Report illustrates the value of Micronutrient Testing. A typical testing result could report on several deficiencies. Each of which would be reported like our Zinc example.

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## **Zinc**

### **Status:**

The patient's lymphocytes have shown a deficient status for Zinc

### **Function:**

The primary role of zinc is to activate almost 200 enzymes with vital roles in cell regulation, immune function, acid/base balance, DNA, RNA, and protein synthesis, lipid metabolism, eicosanoid production, and digestion. Zinc also is a component of insulin (energy metabolism), thymic hormones (immune function) and gustin (taste acuity).

### **Deficiency Symptoms:**

Symptoms of zinc deficiency include fatigue, dermatitis, acne, loss of taste, poor wound healing, anorexia, decreased immunity, delayed growth hypogonadism and delayed sexual maturation, diarrhea, skeletal abnormalities, alopecia, behavioral disturbances, white spots on fingernails, infertility and night blindness.

Those at risk for zinc deficiency include alcoholics, malnourished, malabsorption (Crohn's Disease, celiac disease), Long-term parenteral nutrition, chronic renal disease, anorexics, dieters, pregnant women, elderly, and sickle-cell disease.

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## Repletion Information:

Dietary sources rich in Zinc (per serving) are:

Nutritional Supplements	Oysters
Red Meats	Wheat Germ
Seeds	Nuts
Soybean Products	Legumes
Potatoes	Zinc-Fortified Cereal Products

Compounds found in meats enhance absorption of zinc from plant sources

The **1989 RDA for zinc is 12-15 mg.** In general, daily doses up to 50mg of elemental zinc appear safe. Acute toxicity (nausea, vomiting, diarrhea, fever, muscle pain) may occur after intake of 1-2 grams of zinc. Chronic intakes of 150 mg of zinc for several months may impair certain immune responses, decrease high-density lipoprotein levels, or impair copper status (possibly leading to normocytic anemia). Significant differences in tolerability between inorganic zinc salts and organic zinc chelates exist with organic chelates recommended for supplementation.

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Without question, micronutrient testing provides the specificity and accuracy that establishes a baseline from which your health care provider can help you return to a normal and vibrant lifestyle.



**SPECTRACELL LABORATORIES**  
ADVANCED CLINICAL TESTING

The Allergy & Environmental Treatment Center offers the Micronutrient Testing service and recommends it to patients whose long-term care and health status require a close examination of any and all factors that may be causing a distressed state of health.

In addition, the Allergy & Environmental Treatment Center offers pharmaceutical grade nutritional health supplements matched to deficiency indications reported in Spectracell Testing results.



**For more information call 480-634-2985**

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## Meet Rochelle Kirkey, LPN



Rochelle earned her Associates Degree and LPN designation from Mesa Community College in Mesa, Arizona in 1997. Rochelle's career spanned 22 years with a private OB/GYN practice prior to joining the AETC Medical Team. The knowledge and skills Rochelle acquired from her health care experiences are invaluable to AETC and its patients. From administration to practical nursing skills, Rochelle is a valued member of our medical team. A long time resident of Arizona, Rochelle is an avid reader and loves the outdoors and hiking.

## SONORAN LIVING LIVE



The Valley's premier magazine show, Sonoran Living featured the Allergy & Environmental Treatment Center's medical team on its program on November 4th. It was the second in a three part series.

This episode was filmed at the clinic itself and featured actual patients telling their stories about how they were helped.

The Clinic's appearance will take place on Thursday, December 8th.

The show runs each weekday beginning at 9AM on ABC15.

The clinic's expertise is well known and highly respected among patients and medical professionals.



*The Valley's premier magazine show, Sonoran Living will feature The Allergy & Environmental Treatment Center's medical team on its program for three consecutive months beginning Thursday, October 6th and then on Friday, November 4th and Thursday, December 8th.*



## “No Crust” Pumpkin Pie

Pumpkin Pie (non-rotate, holiday recipe)  
*Courtesy of Living Without, Oct/Nov 2010*  
*Modified by Laura McKay*

Makes one 10-inch pie  
This quick and easy pumpkin pie doesn't need a crust. The flour settles to the bottom, forming a natural crust. It can be made two days ahead and stored in the refrigerator.

### Ingredients

- 1 (15 oz.) can pumpkin puree
- 1 cup milk or dairy-free vanilla flavored milk of choice (rice, coconut, soy, hemp, almond)
- 2 Tbsps. melted butter or dairy free substitute (ghee)
- 3 Tbsps. bourbon or spiced apple cider (use the apple cider)
- 1 Tbsps. lemon juice
- 2 Tbsps. gluten-free all-purpose flour blend or blend of choice (use Bob's Red Mill all-purpose)
- 1/2 cup packed brown sugar
- 1/4 cup sugar
- 2 large eggs or flax gel
- 1/2 tsp. salt 2 tsps. Cinnamon
- 2 tsps. Pumpkin pie spice (or 1 1/2 tsps. ground nutmeg + 1/2 tsp. ground cloves)

### Directions

1. Preheat oven to 450 degrees. Grease a 10-inch pie pan.
2. Mix together all liquid ingredients in one bowl.
3. In a separate bowl, whisk together dry ingredients. Slowly pour dry ingredients into liquid, stirring to combine. Then beat until totally combined.
4. Pour batter into prepared pie pan, leaving at least 1/2 inch between batter and the rim of the pan. Pour any remaining batter into greased ramekins. Smooth top with a spatula.
5. Place pie in preheated oven and bake 15 minutes. Reduce heat to 375 degrees and bake for 30 more minutes or until a knife inserted into center comes out clean.

### Bon Appétit



Dr. Lawrence Liszewski  
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Allergy & Environmental  
Treatment Center  
provides quality care to  
individuals suffering from  
a variety of debilitating  
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We offer state-of-the-art  
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Schedule your visit  
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