



Deficiencies

What could you be missing?



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What is Deficiency?

de·fi·cien·cy

- də'fiSHənsē/

noun

noun: **deficiency**; plural noun: **deficiencies**

– a lack or shortage.

"vitamin A deficiency in children"

synonyms:

[insufficiency](#), [lack](#), [shortage](#), [want](#), [dearth](#), [inadequacy](#), [deficit](#), [shortfall](#); More
[scarcity](#), [paucity](#), [absence](#), [deprivation](#), shortness

- "a vitamin deficiency"

synonyms:

[defect](#), [fault](#), [flaw](#), [imperfection](#), [weakness](#), weak point,
[inadequacy](#), [shortcoming](#), [limitation](#), [failing](#)

- "the team's big deficiency"



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Types of Deficiencies

- **Nutritional-** Food Choices/Sources (Vitamins/Minerals/Phytonutrients)
- **Water Deficiency-** Dehydration
- **Sleep-** Are we meeting our daily requirements?
- **Relaxation-** How we manage our stress levels?
- **Vision Deficiency-** Color Blindness
- **Social-** What is our social interaction like?
- **Spirituality-** Are you connected? Meaning/Purpose?
- **Movement/Physical Activity-** Is your lack of activity affecting your health?
- **Financial-** How are we managing? Impacts?



Deficiency vs. Excess

When dealing with deficiency we need to discuss excess. These are two of the eight vital principles of Traditional Chinese Medicine that help acupuncturists decide how to treat patients.

If a patient is deficient, they need nourishing. If a patient is in excess they need draining or cleansing.

Essential Nutrients for your body

On a daily basis your body produces skin, muscle, bone. Your blood carries nutrients and oxygen to all the parts of your body. It sends nerve signals along thousands of miles of brain and body pathways. It also formulates chemical messengers that shuttle from one organ to another giving instructions to help sustain your life!

To do this your body requires raw materials. These include at Least 30 vitamins, minerals and dietary components that your Body needs but cannot manufacture on its own in sufficient Amounts.

Micronutrients role within the body

Vitamins and minerals are often referred to as Micronutrients because your body needs tiny amounts of them in the body. Failing to get even small doses needed virtually guarantees Disease.

The difference between Vitamins and Minerals:

Although considered micronutrients Vitamins and Minerals differ In basic ways. Vitamins are organic and can be broken down by Heat, air or acid. Minerals are inorganic and hold on to their Chemical structure. This means minerals in soil and water easily Find their way into your body through plants, fish, animals and Fluids you consume. However it is tougher to shuttle vitamins from Food and other sources into your body due to cooking, storage and Simple exposure to air that can inactivate these more fragile Compounds.

Vitamins

Water soluble vitamins are packed into the watery portions of the foods you eat. They are absorbed into the bloodstream as food is broken down during digestion or as a supplement dissolves. As so much of our bodies consist of water, many of these vitamins circulate easily. Your kidneys continuously regulate levels of water soluble vitamins shunting out excesses in your urine. (**Vitamins C/B Vitamins-Biotin B7/Folic Acid B9/Niacin B3/Pantothenic Acid B5/Riboflavin B2/Thiamin B1/Vitamin B6/Vitamin B12**)

Fat Soluble vitamins gain entry into your blood via the lymph channels in the intestinal walls. Many fat soluble vitamins travel through the body only under escort by proteins that act as carriers. Excesses of these vitamins are stored in the liver and fat tissues. As needed your body taps into these reserves, releasing into the bloodstream from the liver. (**Vitamins A/D/E/K**)

Examples of Vitamin Deficiencies

- **Scurvy**- Old time sailors learned that living without fresh fruit and vegetables for months (main sources of Vitamin C) causes the bleeding gums and listlessness of scurvy.
- **Blindness**- In some developing countries, people still become Blind from Vitamin A deficiencies
- **Rickets**- A deficiency in Vitamin D can cause Rickets, a Condition marked by soft weak bones that can lead to skeletal Deformities such as bowed legs.

Minerals

The body needs, and stores, fairly large amounts of the major minerals. These minerals are no more important to your health than the trace minerals; they are just present in your body in greater amounts.

Major Minerals travel through the body in various ways. Potassium for example is quickly absorbed into the bloodstream, where it circulates freely and is excreted by the kidneys, much like water soluble vitamins. Calcium is more like a fat soluble vitamin because it requires a carrier for absorption and transport.

Major Minerals: Calcium/Chloride/Magnesium/Phosphorus/Potassium
Sodium/Sulfur

Trace Minerals: Chromium/Copper/Fluoride/Iodine/Iron/Manganese
Selenium/Zinc

Minerals Interacting

Magnesium deserves a special mention because an estimated 80% of North Americans are deficient in it!

Magnesium is a crucially important mineral for optimal health, performing a wide array of biological functions.

Meanwhile Calcium tends to be a problem when taken in high quantities and can cause more harm than good. It is very important to have a proper balance between these two minerals.

Imbalances can cause muscles to spasm and this has consequences for your heart health in particular!

Phytonutrients

Phytonutrients are compounds found in plants. They serve various functions in plants, helping protect the plants vitality. Not only do phytonutrients benefit a plant, but they also provides benefit to those who enjoy the plant food. That's because they have health promoting properties including antioxidant, anti- Inflammatory, and liver health promoting activities.

Fruits and Vegetables are concentrated sources of Phytonutrients; other foods like whole grains, legumes and beans, nuts and seeds and herbs and spices also contain phytonutrients. Since many phytonutrients serve as the pigment that give foods their deep hues, you can identify many phytonutrient Rich foods by looking for colorful foods ie. Blueberries/blackberries and Red Cabbage rich in flavonoids, carrots and melons rich in beta- carotene or green Foods such as spinach rich in chlorophyll. Don't overlook some off white foods as well such as garlic, onion and leeks which are rich in powerful sulfar-containing phytonutrients.

Antioxidants

Antioxidant is a catchall term for any compound that can counteract unstable molecules such as free radicals that damage DNA, Cell Membranes and other parts of cells. Your body's cells naturally produce plenty of antioxidants to put on patrols. The food you eat- and perhaps some of the supplements you take- are another source of antioxidant compounds.

Carotenoids (such as lycopene in tomatoes and Lutein in kale) and flavonoids (such as anthocyanins in Blueberries, quercetin in apples and onions, and catechins in Green tea) are antioxidants.

Vitamins C and E and the mineral Selenium also have antioxidant properties. Antioxidants neutralize marauders such as free radicals (a natural byproduct of energy metabolism, also generated by ultraviolet rays, tobacco smoke and air pollution) by giving up some of their own electrons.

The term antioxidant reflects a chemical property rather than a specific nutritional property, which slows or prevents damage to body cells

Signs and Symptoms of Nutritional Deficiency

- Cracks at the corners of your mouth(Iron/Zinc/Vitamins B2,B6/Folic Acid/Protein)
- Hair Loss, red scaly rashes (Biotin/Zinc/Vit B6/Selenium/Manganese/Niacin/Vit C/ Vit A)
- Red or White Acne Bumps (Cheeks,arms,thighs,buttocks) (Vitamin A /EFA-Omegas)
- Tingling, prickling and numbness in hands/feet (Biotin/Vit B1 /B6/B12/Vit D/Folate)
- Dry Skin (Vitamin A/C / Essential Fatty Acid – Omegas)
- Muscle Cramps (Toes/Calves/Back of Legs/Arches of feet)(Magnesium/Calcium/Potassium)
- Dry Eyes/Allergies/frequent colds and infections (B Vitamins/Vitamin A)
- Feeling Blue/depression/Mood disorders (Vitamin B3/B5/B6/B12/Vitamin D/Folic Acid)
- Head Sweating (Vitamin D)
- Fingernail cracks/ridges/spots/brittle(Vitamin A/Protein/Calcium/Vitamin A &C)
- Bags or dark rings around eyes (Allergies/Food Intolerances- Foundational Four)
- You are 50 or Older/ growth failure in children (Vitamin D/Choline)
- You have darker skin (Vitamin D)
- Lack of appetite/impaired sense of taste/smell (Vitamin B12/B3/Vitamin E)
- Stress
- Eczema (Vit C/B2/B6/Zinc/Magnesium/EFA)
- Headaches (Vitamin B5 Panthothenic Acid)



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Causes of Deficiency

- General Lack/Availability
- Poor choices
- Uptake blockers
- Inability to process
- Food- drug interactions
- Allergies
- Life planning



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Effects of Deficiency

Will a Deficiency cause long term Problems?

Many problems caused by nutritional deficiencies will stop once the deficiency has been resolved. However in some cases, there may be lasting damage. This typically occurs when the deficiency has been severe and has lasted a long time.



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Chronic Disease/Illness

According to the World Health Organization, chronic diseases are the major cause of death and disability worldwide. Chronic disease took the lives of over 35 Million people in 2005 and it is increasing every year. It is expected that this number will Increase 17% by 2015 if left unaddressed.

Chronic diseases include cardiovascular diseases, mainly heart disease and stroke, cancer, chronic respiratory diseases, diabetes and others such as mental disorders, vision and hearing impairment, oral diseases, bone and joint disorders and genetic disorders.

The total number of people dying from chronic disease is double that of all infectious diseases including Aids/HIV , tuberculosis and malaria.



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Getting what you need

- Planning Ahead
- Food Choices
- Supplementation
- Foundational Four and Specifics
- Balance within your week
- Keep on track- Regular Assessments



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Focusing on the Fab 7

- Breath- Focus on regular breathing exercises
- Eat- Focus on daily requirements and healthy food choices
- Drink- Focus on intake of daily suggested water
- Move- Focus on minimum 30 min daily activity
- Sleep- Ensure you get 7-8 Hrs of sleep nightly
- Talk – Focus on social activity on a regular basis
- Poop- Pay attention to regular habits 1-3/per day



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Testing and Treatment Options Available

- General Health Questionnaires
- Testing options available – Rocky Mountain Analytical
- Blood Testing/Hair Testing/Saliva Testing
- Diet changes- Assessment/Action
- Supplementation to assist
- Focus on Health



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Resources

- www.getbetterfaster.ca
- www.mercola.com
- www.healthsupplementsnutritionalguide.com

Along with these suggestions we would always
Recommend speaking to the Dr. Michael/ Dr. Sherra
and Dr. Danielle with any questions!

We also have a lending library within the clinic which is
Available to you at all times.