People with strong and healthy immune systems are either not getting sick at all, or are able to quickly recover.

Restore and Balance Immune Function

External Threat

Allergic Reactions

(Food Sensitivities, Hay Fever, Eczema, Asthma Hives...)

Internal Threat

Autoimmune Problems

(Rheumatoid Arthritis, Lupus, Inflammatory Bowel Disease, Type 1 Diabetes, Hashimotos Thyroiditis, Graves Disease...)

Immune Over-Reaction

A Balanced Immune System = Optimal Health & Effectiveness

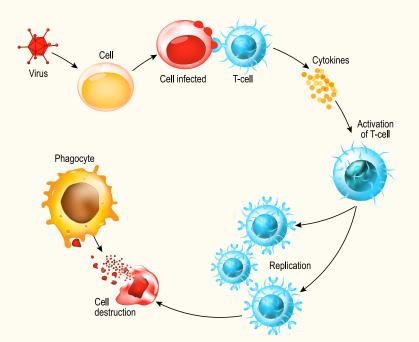
Immune Under-Reaction

Infections

(Bacteria, Viruses, Yeast / Candida, Mold, Parasites)

Immune Compromise

(Cancer, Hepatitis, HIV, Shingles..)



Immune System Response

- 1. Injury or foreign entity
- 2. Damaged or diseased cells
- 3. Detection
- Cytokine release causes "sickness behavior"
 - i. IL-1 = Malaise, fatigue, depression
 - ii. IL-6 = Anxious
 - iii. TNF-a = Cranky, fever
 - iv. Substance P = Pain
- 5. Recruit other immune cells
- 6. More cytokine release
- 7. Healing (if balanced)—Chronic (if imbalanced)

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What imbalances the immune system?

- Toxic Chemicals, preservatives, pesticides, smoking, exposure to second hand smoke...
- Binge Drinking
- Insufficient Sleep—8-9 hours boost melatonin
- Physical Inactivity—put on some fun music and dance, go for a walk, breath...
- Carrying Negative Emotions—turn off the news

- Avoiding Sunlight—it takes only 10-15 minutes of mid-day sun to boost vitamin D
- Chemicals in Personal Care Products
- Misuse of Antibiotics
- Not enough Hydration
- Electromagnetic fields—stimulate a protective biofilm so pathogens can hide undetected.

Wake up your immune system so it is properly vigilant!

Natural, therapeutic foods and nutrients:

Resveratrol—Red grape skins and seeds, juice, red wine; blueberries, raspberries, mulberries, cranberries; strawberries (mainly in the seeds); nuts especially peanuts and pistachios; raw cocoa; green tea.

Fiber—especially soft fibers from eating more plants and beans. Naturally lower cholesterol and maintain gut lining.

Potassium—include lemon or lime juice in your beverages (BTW bananas are not a great source and they are very high sugar); all plants are high in potassium.

Garlic—potent antiviral, anti-fungal, and anti-parasitic. Eat with chopped parsley if it gives you a strong smell.

Celery—with almond butter, perhaps, for resveratrol.

Vitamin D is a pro-hormone that turns genes on and off helps prevent viral and bacterial infections. It also boosts antimicrobial substances in the lungs. Just 10 minutes of midday sun (no sunscreen), 3-4 times weekly eat wild-caught fatty fish like salmon, tuna, cod... eggs from pastured hens (preferably organic) and use a quality Vitamin D supplement. that includes cofactors.

Natural vitamin A (not synthetic) improves secretory IgA—an immune molecule that helps protect mucous membranes lining the lungs, nasal passages, eyes, intestines, bladder, reproductive organs... Whole food sources include shrimp, eggs, salmon, sardines, pasture-raised chicken or turkey, beef liver (if 100 percent pastured), sweet potatoes, chard and other greens, carrots, winter squash, bok choy, cantaloupes, bell peppers. Mix it up.

Natural vitamin C keeps collagen intact—Whole food sources have bioflavenoids and other cofactors that help it work: green peppers, broccoli, Brussel's sprouts, cauliflower, spinach, Swiss chard, tomatoes, papayas, organic strawberries, kiwi, melons... Oranges not so much.

Zinc—vital for white blood cell (immune) function the most bioactive form is in seafood, pasture-raised beef (but not commercial or grain finished), and key seeds like sesame, pumpkin, quinoa, and legumes like lentils and chickpeas.

Selenium—Wild caught fish like tuna, red snapper, shrimp, lobster... Brazil nuts (3 per day gives the minimum you need), sunflower seeds sprinkled on salads. Mushrooms.

Mushrooms with key phytonutrients—drink a cup of chaga or turkey tail tea daily.

Iodine—Despite the blogosphere, proceed with caution: Iodine comes up on the "blogosphere" of self remedies. Iodine stimulates the thyroid and doing so stimulates the immune system to have both antiviral and antimicrobial properties. But... supplementing can overstimulate your thyroid and immune system. Foods tend to be safer: Eggs from pastured hens, all greens, sesame or pumpkin seeds, navy beans... all wild-caught and cold water ocean seafood.

Melatonin—the body's "sleep hormone"—is a powerful immune booster that can help combat viral infection and keep your gut healthy. Melatonin blocks the "cytokine storm" caused by an over-reactive immune system. But most over-the-counter melatonin supplements aren't well absorbed and are needed at super high doses. Talk to me.

Sleep—Get enough! Even just one night of sleep deprivation—less than the recommended 7 – 8 hours—can lower a person's immune function, disrupt melatonin production, and increase risk of falling ill with any communicable disease. Create a household pact to follow good sleep hygiene.

Hydration—Turmeric and/or ginger slices made into a tea, spiced chai, or turmeric latte—green tea, Rooibos tea, and others are packed with anti-oxidants that support the immune system.

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