

## Targeted Nutrition to Build Resilience and Recovery

The ongoing pandemic and threats to our economy, ecology and social system, has opened a *Pandora's Box* of risk and opportunity. Information is being shared, worldwide on best practices for ways to manage risk and contain infection from Coronavirus-19 and subsequent variations. These threats can be the wakeup call our global family needs to pivot from feeling personally endangered to becoming collectively empowered.

### Promising Research on Using Nutrition to Build Resilience and Recovery

When people are stressed, their nutrient reserves are depleted. Often, they cope with stress by eating worse, and relying on drugs, alcohol, and distractions for temporary relief. With any viral infection, nutrient deficiencies increase the risk of complications, including the very uncomfortable, pain and fever symptoms of an inflammatory cytokine storm. Few studies have been done on the effect of a cooling, calming, nourishing, plant predominant diet on the prevention of COVID-19 and mitigation of its symptoms if it is contracted. However, a recent systematic review concluded that supplementation with many of immune supportive food, herbs and nutrients may be effective in improving the health status of patients with viral infections (Bour-Bour et al., 2020)

#### The Importance of Vitamin D and Zinc in Immunity

Two of the most essential nutrients for immune health are vitamin D and zinc. Vitamin D profoundly influences immunity, and a deficiency clearly increases the risk for respiratory infections. Many immune cells have vitamin D receptors that affect their function after ligand binding. A recent research review article highlighted the status of vitamin D deficiency, the mechanisms of action of vitamin D and the current literature on the topic, with a special focus on the potential implications for the COVID-19 pandemic (Verdoia et al., 2020). Several recent studies have concluded that low levels of vitamin D are associated with increased risk of COVID-19 and/or severity of COVID-19 infections (Mitchell, 2020; Merzon et al., 2020).

Even marginal zinc deficiency can negatively affect immunity. Zinc is important for the maintenance and development of cells in both the innate and adaptive immune systems. A deficiency results in impaired formation, activation, and maturation of lymphocytes, disturbs the intercellular communication via cytokines, and weakens the innate host defense (Mitchell, 2020; Merzon et al., 2020). Research studies suggest that zinc could have protective effects against COVID-19 by supporting anti-viral immunity and reducing inflammation.

#### Essential Fatty Acids and Inflammation

An inflammatory cascade (or 'cytokine storm') triggered by COVID-19 is one of the most dangerous aspects of the disease. It makes sense to consider dietary protocols that help the body naturally regulate inflammation. Essential fatty acids have long been recognized for their role in calming inflammation. Nutritional deficiencies in the essential fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) result in delayed or suboptimal resolution of inflammation (Hammock et al., 2020)

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection leads to severe tissue damage, which releases cell debris. Research shows that omega-3 fatty acid-derived EPA and DHA exhibit anti-inflammatory activity in various inflammatory diseases, including in the lung, heart, ocular angiogenesis, and pain (Schunck et al., 2018)

#### N-acetylcysteine (NAC) Blocks Inflammatory Cascade

N-acetylcysteine (NAC) is a potent redox-antioxidant, whose food source is the cruciferous vegetable family. Studies show that NAC is effective at reducing acute attacks of chronic bronchitis. A meta-analysis from 2000 looked at 8 different studies and concluded that NAC prevented acute exacerbations of chronic bronchitis (Moktari et al., 2017). Administration of NAC during the winter months appears to significantly reduce influenza and influenza-like episodes, especially in elderly high-risk individuals (De Flora, 1997). Since one of the main symptoms of COVID-19 is a cough, it's possible that NAC could help to reduce the severity of this symptom. It seems to help in a variety of lung disorders by affecting glutathione and reducing inflammation (Tiouvanziam et al., 2016)

## **Eat for Health™** (Bauman, 2022)

The basis of all evidence based nutritionally sound food plans is to eat a well-rounded, nutrient-dense, chemical free, whole food diet. The Bauman **Eating for Health™** model provides a unified food system consisting of beverages, colorful carbohydrates, booster food herbs, spices and condiments, quality protein and fats synergistically to build health. Other food models emphasize the value of one food category with a restriction of others. This reductionist approach is not only challenging to follow, but has diminishing returns over time, and certain valuable foods, such as complex carbohydrates or protein are limited.

**Eating for Health™** encourages one to eat as much **S.O.U.L** (seasonal, organic, unprocessed, and local) food as possible. It suggests limiting or eliminating refined sugar, gluten (wheat, rye, barley, and oat) flour and grains, additives, preservatives, pesticides, fungicides, food coloring, and genetically modified food. These substances with an occasional or single exposure are tolerated by a healthy person. But, when combined and experienced daily, are disturbing to a compromised neurological, metabolic, and hormonal and or immune system. Repeated exposure to food and chemical antigens contributes to both hyper and hypo immune conditions, making a person more vulnerable to and slower to recover from a viral infection.

**Hydration may be more important than food**, as dehydration is both a cause and result of a compromised immune system. Caffeine, sugar, and sugar substitutes (sports drinks and Coke Zero) contribute to dehydration. As such, a liter of soda or several cups of coffee are not healthy fluids. Drink a half a cup of water or unsweetened tea per hour each day to be ideally hydrated. This is preferred to drinking several cups at a time and then not hydrating again for several hours. Green tea is a more immune supporting beverage than coffee. For most, 8-12 oz of coffee in the morning is acceptable. Thereafter, make a liter of bioflavonoid rich white or green tea, masala chai and/or herbal tea. Decaffeinated green and black teas are available for those with caffeine sensitivity.

**Minimizing one's intake of alcohol**, drugs, tobacco, stimulants, aspartame, sweets, and treats are suggested. For many, these are the substances they reach for when stressed or overwhelmed. **Eating for Health™** enables one to stay **C.A.L.M** (calm and living in the moment) rather than overwhelmed by **F.E.A.R.** (future expectations about reality). Exercise, meditation, and creative arts are also wonderful wellness behaviors to practice daily with more inner space now available due to social distancing.

**Intermittent fasting**, a practice wherein a person abstains from solid food for 12-14 hours a day, typically from an early dinner to breakfast the next day is a great way to enhance digestion, absorption, metabolism, and immune competency.

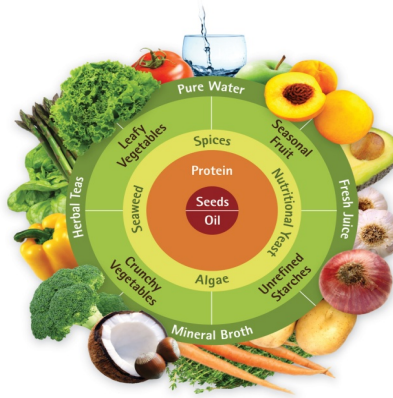
## **Integrative Health Solutions**

A recent meta-analysis evaluating the effectiveness of herbal medicines for managing the symptoms of COVID-19 found that combining herbal medicine with Western medicine significantly improved symptoms caused by the virus, including cough, sore throat, and fatigue.

*If this virus has taught us anything, it is that general health optimization is what really matters. Healing is not just about your immune system, or any one part of the body. Healing is about WHOLENESS and total VITALITY. All systems are connected, and therefore the foundation of what we do is to build robustness, enhance auto-regulation and auto-organization, and support adaptation and protection through herbal and nutritional support that is gentle, non-specific, and multi-faceted. (Donnie Yance, 2020)*

Below is the Eating for Health™ Model (Bauman, 2020). Look at which of these categories you are eating daily and which ones you can add to improve your diet.

## **BAUMAN EATING FOR HEALTH MODEL**



## Key Foods and Combinations

- Allium family of vegetables: onions, leeks, chives, scallions, and garlic
- Citrus fruit – lemon, orange, tangerine, lime etc. Fruit and peels Beets, cooked greens (nettles is #1),
- Fresh OJ is rich in vitamin c + quercetin, hesperidin and luteolin.
- Carrots, celery, celery root, artichoke, asparagus
- Cruciferous vegetables with shiitake mushrooms: broccoli, cauliflower, cabbage, Brussels sprouts,
- Fruit: pears (poached with ginger, honey, orange slices and a cinnamon stick),
- Homemade tomato sauce on spaghetti squash or spiralized zucchini
- pomegranates or pomegranate juice
- Apple cider drink – combine ¼ cup vinegar, ¼ lemon juice, ¼ raw honey, 1 tsp. ginger juice, pinch of cayenne and 1-quart water, or a tea-blend. Drink 3-4 oz with before or during meals
- Nuts, seeds, and seaweed
- Lentil or Chicken Soup with garlic, ginger, turmeric, curry, oregano, thyme

**Spice for Life™.** Adding herbs and spices to your meals, snacks and beverages will give you extra protections. A *Spice Warrior* blend consists of garlic, ginger, turmeric, ashwagandha, tulsi basil, pepper, and oregano to boost circulating and cellular immunity.

**Rest to Recover.** Fatigue lowers our immunity and makes us more vulnerable to infection, injury, and chronic illness. It slows our recovery. A personal or small group self-healing retreat in a low-risk area is a great way to create viral protection and recovery rather than being the subject of a forced quarantine. Both are a withdrawal from the outside world, but with a different mindset.

## FOUNDATIONAL NUTRIENTS

Research is abundant that the following supplements, herbs, spices, essential oils, and remedies significantly decrease the frequency and severity of viral illness. Your diet should be checked first to see which of the following are most needed. It is advised to work with a certified nutrition consultant, naturopathic or integrative health provider to select the proper combination of nutrients and dosage that fits your age, health status, environmental exposures, and health condition.

- **Zinc: 30-45 mg, 2 x day**
- **Vitamin C:** 500 mg, 3-5 x day. Best forms are amla (from gooseberries) buffered, liposomal or ester Vit C
- **Vitamin D:** 2000 -5000 IU/day based upon health status and body weight.
- **Probiotics:** These friendly bacteria, vital for good health, immunity, and digestion. They have been shown to decrease the number of upper respiratory infections significantly. 50 billion units of a mixed flora product.

- **Essential Fatty Acids:** EPA/DHA from fish or algae is essential for our brain, nerves, and immune system to work efficiently. Under stress, systems become inflamed. Recommendation: 2-3 grams EPA/DHA per day.
- **N-acetylcysteine (NAC) 300 mg, 2-3 x day**

### **FOR GREATER ANTI-VIRAL PROTECTION FOR ANYONE OVER 60 OR IN POOR HEALTH**

- Liposomal Glutathione: 250 mg, 2 x day
- Quercetin: a cell protective bioflavonoid. 500 -1000 mg/day
- Vitamin A: 10,000 iu/day
- Selenium: 200 mcg, 2-3 x day
- Melatonin: 2-5 mg before bed

### **HERBAL SUPPORT FOR AFFECTED BODY SYSTEMS**

It is advised to work with a skilled herbalist or naturopathic physician to select the proper blend, dose, and duration for you given your age, exposures, and health condition.

**Immune System: Select one or more of the following: taken 2-4 times per day**

- Medicinal mushrooms
- Propolis
- Astragalus,
- Eleuthero
- Licorice
- Garlic

### **Anti-Viral Herbs for prevention and treatment of chronic or acute viral infection**

- Osha Root
- Lomatium
- Andrographis
- Oregon grape
- Scutellaria baicalensis
- Yarrow

### **Cool Inflammation, Lessen Pain, Regain Vitality**

- Turmeric
- Astragalus
- Rhodiola
- Japanese knotweed
- Kudzu

- Huang Qin (*Scutellaria baicalensis*)
- Cordyceps
- Boneset

### Respiratory Support

- Licorice
- Mullein
- Wild cherry
- Lobelia
- Marshmallow
- Ginger
- Thyme
- Elderberry

### Lymphatic Support

- Red root
- Cleavers
- Mullein
- Spilanthes
- Figwort

**Essential Oils:** Add several drops of one or more into a diffuser, in a bath or rubbed onto the soles of your feet

- Lavender
- Eucalyptus
- Clove
- Grapefruit
- Thyme
- Tea tree
- Lemon grass
- Frankincense
- Myrrh

### Conclusion

A virus or other pathogen gains a foothold into our cells via a chronically weak or compromised body system. As such, being a health warrior is far better than being a disease worrier. Co-VID 19 is in our biome, our world. A vaccine does not insure total protection. Rather, it slows disease progression for one infected. Our best defense is staying away from crowds and toxic environments, and improving our **Wellness Practices**, which include (1) Eating for Health, (2) Joyful Movement, (3) Mindfulness, (4) Healing Relationships, and (5) Spiritual Practice. Our health is in our hands. It is ours to protect and improve. Let's not lose control of our health freedom or abdicate our responsibility to stay well., it limits disease progression. Panic feeds pandemics. It weakens our individual and collective body. Listen and follow guidance

from sane and reliable sources, including your own inner knowing. To stay abreast of evidence based scientific research from allopathic, naturopathic, and integrative sources.

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