

Immune System and Neurodevelopment Enhancing and Protection Session 4

Note:

The following references are offered to significantly increase the likelihood that readers will work with appropriate health care professionals (e.g. Nutritionists, MDs, NDs) to further explore the potential for supporters and people supported to have **enhanced immune systems functioning** to prevent critical and severe outcomes from Covid-19 and other pathogens and illnesses and to **prevent and treat symptoms of ASD/DD**.

Immune System Enhancing And Protection

Although there is no published research to date on how to best protect oneself and others from the Covid-19 virus beyond intensified personal hygiene and social distancing, keeping the natural immune system healthy is a very reasonable and responsible step as well.

In addition to all of the public health recommendations, we suggest exploring implementation of the following evidence-based and evidence informed health strategies.

Most statements are summarized from international research published, for example by the National Center for Biotechnology Information (NCBI). Please visit www.centreforconsciouscare.ca for more information and detailed references.

1. Increase Daily Mindfulness Practice To Boost The Immune System

Twenty years of research on the connection between mindfulness and building of the immune system continues to be very encouraging.

Please review the following:

'Alterations in brain and immune function produced by mindfulness meditation' –

Richard J. Davidson. PhD, Jon Kabot – Zinn, PhD.

“We found significant increases in antibody titres to influenza vaccine among subjects who completed an 8-week course in mindfulness meditation. These findings demonstrate that a short program in mindfulness meditation produces demonstrable effects on positive brain and immune function.”



‘Why mindfulness can help the immune system’ –

Dr. David R. Vago, Harvard Medical School.

“The majority of empirical evidence for meditation’s effect on the immune system support a protection and recovery model.”

‘Mindfulness meditation and the immune system – a systematic review of random controlled trials’ - Black and Slavich.

“Mindfulness meditation and immune system biomarkers: This systematic review of 20 randomized controlled trials, comprising more than 1600 participants, revealed replicated, yet tentative, evidence that mindfulness meditation is associated with changes in select immune system processes involved in inflammation, immunity, and biological aging.”

Visit our www.centreforconsciouscare.ca site for numerous guided mindfulness exercises for beginners to advanced practitioners.

2. **Adequate Testing** (e.g. the organic acid test – assesses 72 biomarkers)
3. **Nutrition** - Assess for food **Intolerances, Imbalances and Infections**
4. **Parasympathetic, Mindful Calming Breathing**
To decrease excessive levels of cortisol – one strong indicator of chronic anxiety:
 - Inhale to the count of 3;
 - Exhale to the count of 6.

5. **Breathing Exercises to Increase Lung Capacity**

The lungs carry oxygen to every cell in the body and extract carbon dioxide.

The more efficient this exchange the healthier the cells, including of course all cells related to the immune system.

- **Abdominal breathing**
 - inhale to fill abdomen and lungs to the count of 4;
 - hold breath for the count of 7;
 - and exhale slowly to the count of 8;
 - complete 10 repetitions per day.
- **Abdominal breathing #2**
 - inhale to fill abdomen and lungs 3 seconds;
 - rapid exhale for 1 second;
 - 20 repetitions;
 - after 20th repetitions hold breath for as long as possible.

6. Oximeter Testing for Blood Oxygen Levels to Prevent Silent Hypoxia

Ideal levels are 95 – 99.

If someone is admitted to a hospital in Ontario with readings below 90, they are routinely given oxygen.

7. Exercise

Cardio exercise continues to rank as a very high priority for immune system and neurodevelopment enhancement (e.g. interval training).

Reference Dr. John Ratey, Harvard Medical School - *Spark*.

8. Glutathione (GSH) (reference and see NCBI)

- GSH is one of the most powerful antioxidants in the body. One of its key functions is to reduce oxidative stress to remove toxins that produce brain inflammation. Brain inflammation is prevalent in the majority of people with ASD.
- Brain inflammation is possibly one of the main contributing factors for agitation, anger and aggression in people with ASD.
- Stanford University completed a randomized controlled study that resulted in the children given NAC (GSH supplement) had a reduction in irritability of 80% compared to the control group after 12 weeks.

Glutathione *continued*

- Many children with Autism have low levels of Glutathione.
- GSH is also required by the immune system to protect host immune cells and provide for optimal functioning of lymph and other cells of the immune system.
- GSH can be increased through nutrition such as sulfur based vegetables (e.g. broccoli) and supplements such as NAC.

9. Solutions to Protect Against EMF and RWF

(reference Dr. Martha Herbert – How Might EMF Contribute to Autism)

How to reduce the negative consequences of EMF and RWF environmental toxicity:

- **Reduce Inputs:**

Turn off WiFi and AC power sources when not in use e.g. 10:00 p.m. to 7:00 a.m. (Automatic on/off timer is suggested). Keep wireless devices on *airplane mode* or *off*.

- **Hard Wiring:**

Hardwire all computer connections, including keyboard, and use WiFi as little as possible.

- **WiFi Shielding:**

Keep hand held devices in cases that eliminate WiFi skin exposure. Reinforce case with 12 x aluminum foil backing and the Harmonic Shield Technology for all wireless devices. Never use a laptop on your lap.

Use only 'hard wired' external speaker connections with telephone devices and connectors e.g. *safe* ear buds. (Reference Environmental Health Trust and the Bio-Initiative Report).



- **Nutrition and EMF protection:**

EMF is basically Positive Ions (PI) – Free Radicals.

Negative Ions (NI) are required to neutralize PI.

Antioxidants are NI, therefore are recommended by qualified professionals.

Nutrition/Supplements to enhance antioxidants could include **Glutathione/NAC, sulphur rich vegetables, iodine, melatonin, omega 3, D3 and zinc.**

- **Exposure to Negative Ions (a positive thing to do):**

Walk on earth, basement floors, swimming in lakes, salt baths and showers.

- **Use AC Outlet Filters as Recommended.**



10. Vitamin D to Prevent and Treat Some Autism Symptoms (reference NCBI Research)

Note:

The purpose of this section is to continue to motivate readers to consult with appropriate health care practitioners for safe and effective nutritional treatment options.

- **The American Academy of Pediatrics recommends vitamin D supplements during infancy and childhood.**
- Vitamin D is a neuro steroid hormone responsible for essential neuro development. In one controlled study of newborn children of women who had given birth to one Autistic child, the risk of expected incidents of Autism in future children decreased from 20% to 5% with vitamin D supplements.

Vitamin D to Prevent and Treat Some Autism Symptoms *continued*

- Serotonin is one of the brain's major calming neurotransmitters.

Vitamin D supplementation increases Brain Serotonin concentration and therefore helps prevent some behavioural symptoms of ASD with no side effects. (Reference www.bioticsresearch.com).

- Two research trials found that sufficient doses of Vitamin D improved several core symptoms of ASD in about 75% of children.
- Ensure that magnesium levels are adequate to obtain optimal benefits of Vitamin D.

- The Association for Child and Adolescent Mental Health conducted a double blind vitamin D supplement clinical trial of 109 boys and girls with ASD along with a control group. Pre and post testing of behaviours were compiled using the following instruments:
 - The childhood Autism rating scale;
 - Aberrant behaviour check list;
 - Social responses scale;
 - The Autism treatment evaluation check list.

Symptoms greatly improved in the vitamin D supplement group and no change could be measured in the placebo control group (reference Journal of Child Psychology and Psychiatry 2018).

11. Vitamin D and the Immune System

Can vitamin D lower the risk of severe Covid-19?

- There are many international research studies continuing to show the correlation between Covid-19 sick patients who are the sickest and who die, having vitamin D deficiencies.

While 'correlation is not causation', these studies offer positive indicators of vitamin D's role in enhancing the immune system.

- 25 randomized controlled trials from around the world demonstrate that researched supplementation of vitamin D reduced the risk of acute respiratory infection by more than 50%.
- 70% of people living in the USA are 70% vitamin D insufficient and 30% deficient.

12. Over Use of Antipsychotic Medication – A Concern

56% of individuals with developmental disabilities residing in a group home were prescribed an antipsychotic medication.

43% of these individuals did not have a documented psychiatric diagnosis.

This evidence supporting the use of antipsychotic medication in the absence of a psychiatric diagnosis is **inconclusive**.

(Reference The Canadian Journal of Psychiatry – Dr. Yona Lunsky, Centre for Addiction and Mental Health – CAMH).

Health Enhancement Summary – Next Steps

It is recommended that relevant enhancement and protection suggestions be explored with the appropriate health care professionals.