

Comprehensive Guide to Health

There are case studies in James Parkinson's essay that discusses patients he sees with shaking palsy. One of them only drank milk as their sustenance.

<https://neuro.psychiatryonline.org/doi/pdf/10.1176/jnp.14.2.223> (Pg 9 paragraph 4)

We can deduce the issue for this person to have:

- 1) lack of calories
 - 2) lack of nutrients
 - 3) animal fats and proteins causing endotoxemia, inflammation
 - 4) lethargy, lack of exercise, muscle degeneration
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Hypothesis of Health and Wellness

The Hypothesis of Health and Wellness seeks to eliminate all disease.

To find the answer to all symptoms of disease, we should seek a **common denominator** between all symptoms of diseases.

- Diet
 - Vitamin deficiency
 - Mineral deficiency
 - Oral health / microbiome
 - Gut health / microbiome
 - Endocannabinoid deficiency
 - Inflammation
 - External and Internal environment
 - Toxins (fungal, chemical)
-

What is Disease?

"Disease, any harmful deviation from the normal structural or functional state of an organism, generally associated with certain signs and symptoms and differing in nature from physical

injury. A diseased organism commonly exhibits signs or symptoms indicative of its abnormal state.”

<https://www.britannica.com/science/disease>

The normal state of the human body is health / ease / balance / homeostasis.

When an individual is in a state of dis-ease (a state of NOT being in ease or homeostasis) then they will be in discomfort.

The longer that a person is in a state of disease, the more likely they will show symptoms of dis-ease.

Hypothesis of Endotoxemia and Neurodegeneration

<https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-019-1564-7>

What is Endotoxemia?

“The presence of endotoxins in the blood, which, if derived from gram-negative rod-shaped bacteria, may cause hemorrhages, necrosis of the kidneys, and shock”

“Within two hours, individuals challenged with endotoxin typically develop depressive symptoms and negative mood, characterized by an increase in sadness, lassitude, anhedonia, and anxiety”

<https://www.nature.com/articles/s41380-020-00869-2>

“ Diets with large amounts of saturated fat, animal products, and refined carbohydrate may induce endotoxemia more markedly than diets containing fiber-rich plant-based food. “

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8431640/>

The Leaky Gut Cycle & LPS

<https://balancewomenshealth.com/wp-content/uploads/2020/03/Leaky-Gut-by-Jill-Carnahan.pdf>

“When a person has intestinal permeability or leaky gut syndrome, these LPS can leak through the gastrointestinal wall and into the bloodstream causing serious, bodywide inflammation. This can cause a vicious cycle of declining health that looks like this:

Inflammation of the gut lining leading to leaky gut and...

Poor nutrient absorption (especially vitamin B12, magnesium, and iron), which then causes...

A strong immune system response to the offending particles, which causes...

Gastrointestinal issues including food intolerances, celiac disease and eventually leading to various autoimmune diseases.

And autoimmune disease may cause inflammation of the gut lining, which starts this cycle over again.

Within this cycle, LPS is pouring from the gut lumen into the bloodstream, causing inflammation, and exacerbating every step along the way.

Metabolic Endotoxemia Symptoms

Because endotoxemia occurs after leaky gut, many of the symptoms are similar yet, in it's progressive and later stages.

LPS-induced Endotoxemia is linked to

- Leptin resistance and weight gain
- Chronic Constipation
- Mood disorders such as depression and anxiety
- Cognitive decline and memory issues
- Anorexia and other eating disorders
- Chronic pain
- Parkinson's disease and Alzheimer's disease
- Low testosterone
- Autoimmune disease”

<https://www.jillcarnahan.com/2018/04/30/what-is-metabolic-endotoxemia-a-toxic-overload-from-within/amp/>

Systemic LPS Causes Chronic Neuroinflammation and Progressive Neurodegeneration

Peripheral Inflammation Causes Progressive Dopaminergic Neurotoxicity

Peripheral Inflammation Induces a Delayed and Progressive Loss of Dopaminergic Neurons in the Substantia Nigra

Inflammation and microglial activation is a common component of the pathogenesis for multiple neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease (PD), Huntington's disease, Multiple sclerosis, and Amyotrophic lateral sclerosis (Nguyen et al., 2002). Microglia, the resident innate immune cells in the brain, actively monitor their environment and can become over-activated in response to diverse cues to produce cytotoxic factors, such as superoxide

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871685/>

Healing Leaky Gut

<https://www.blackburndistributions.com/blog/post/heal-your-leaky-gut>

Vitamin C to Heal Leaky Gut

<https://www.nativesunnutrition.com/common-imbalances/leaky-gut-gut-hyperpermeability>

“Diets with large amounts of saturated fat, animal products, and refined carbohydrate may induce endotoxemia more markedly than diets containing fiber-rich plant-based food.”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8431640/>

Neurodegenerative Diseases and Inflammation

“Neurodegenerative diseases including Alzheimer's disease, Parkinson's disease, Multiple Sclerosis, and Huntington's disease share a ubiquitous feature: chronic aberrant inflammation. This immune response in the central nervous system, particularly the activation of brain-resident microglia, is a double-edged sword.”

<https://www.frontiersin.org/research-topics/9149/role-of-inflammation-in-neurodegenerative-diseases>

“Inflammation-mediated neurodegeneration may result from dysfunction of endogenous or exogenous immune cells. The two major endogenous cells in the CNS that drive inflammation are astrocytes and mononuclear phagocytes, which include microglia and perivascular macrophages.”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5617655/>

Neuroinflammation refers to the process whereby the brain's innate immune system is triggered following an inflammatory challenge such as those posed by injury, infection, exposure to a toxin, neurodegenerative disease, or aging

<https://www.news-medical.net/life-sciences/What-are-the-Types-of-Neuroinflammation.aspx>

Exposure to bacterial endotoxin generates a distinct strain of α -synuclein fibril

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4973277/>

Altered Gut Microbiome in Parkinson's Disease and the Influence of Lipopolysaccharide in a Human α -Synuclein Over-Expressing Mouse Model

<https://www.frontiersin.org/articles/10.3389/fnins.2019.00839/full>

Neuroinflammation induced by lipopolysaccharide causes cognitive impairment in mice

<https://www.nature.com/articles/s41598-019-42286-8>

Theory of Inflammation and Disease

“An increasing body of evidence shows that chronic inflammation causes and advances many common diseases. This opens new possibilities for treatment and therapy by blocking the inflammatory processes.

Inflammation has long been a well-known symptom of many infectious diseases, but molecular and epidemiological research increasingly suggests that it is also intimately linked with a broad range of non-infectious diseases, **perhaps even all of them.**”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3492709/>

What is inflammation?

“When your body encounters an offending agent (like viruses, bacteria or toxic chemicals) or suffers an injury, it activates your immune system. Your immune system sends out its first responders: inflammatory cells and cytokines (substances that stimulate more inflammatory cells).

These cells begin an inflammatory response to trap bacteria and other offending agents or start healing injured tissue. The result can be pain, swelling, bruising or redness. But inflammation also affects body systems you can't see.”

<https://my.clevelandclinic.org/health/symptoms/21660-inflammation>

What causes inflammation?

Causes of an inflammation:

Pathogens (germs) like bacteria, viruses or fungi. External injuries like scrapes or damage through foreign objects (for example a thorn in your finger) Effects of chemicals or radiation.

https://www.ncbi.nlm.nih.gov/books/NBK279298/#_i2137_causesofaninflammati

Foods that cause inflammation

Try to avoid or limit these foods as much as possible:

- refined carbohydrates, such as white bread and pastries
- French fries and other fried foods
- soda and other sugar-sweetened beverages
- red meat (burgers, steaks) and processed meat (hot dogs, sausage)
- margarine, shortening, and lard

A GUIDE FOR REDUCING INFLAMMATION

AVOID INFLAMMATORY FOODS



Fast foods

Hydrogenated oils
and trans fats



Meat and poultry

White flour (wheat)



Sugar

Food additives

Dairy Products



Alcohol



EAT MORE ANTI-INFLAMMATORY FOODS



Cold water fish

Vegetables high in
fructooligosaccharides



Brightly colored fruits
and vegetables

Grapes and berries



Olive oil

Nuts and seeds



Avocados

Cruciferous vegetables



TAKE ANTI-INFLAMMATORY SUPPLEMENTS



Omega-3
fatty acids

Glutathione



Ginger

Vitamin E



Turmeric

Vitamin D



Cinnamon

Quercetin



Probiotics

Bromelain



What is Candida?

“Refined sugars, carbs and high-lactose dairy products can encourage Candida and other “bad” microorganisms to grow. Eating too many of these foods may promote infection if you have a suppressed immune system”

<https://www.healthline.com/nutrition/candida-symptoms-treatment>

“What causes thrush? Most people have small amounts of the Candida fungus in the mouth, digestive tract and skin. They are normally kept in check by other bacteria and microorganisms in the body. When illnesses, stress, or medications disturb this balance, the fungus grows out of control and causes thrush.”

<https://my.clevelandclinic.org/health/diseases/10956-thrush>

Symptoms of Invasive Candidiasis

Some patients may develop fever with chills and tremors. Once the infection has spread to other organs symptoms affecting the organs like liver, kidneys, bones, eyes, joints, spleen etc. may show up.

[https://www.news-medical.net/health/Symptoms-of-Candidiasis-\(Thrush\).aspx](https://www.news-medical.net/health/Symptoms-of-Candidiasis-(Thrush).aspx)

Scientists at Rutgers and Emory universities have discovered that a **compound often emitted by mold may be linked to symptoms of Parkinson's disease.**

<https://www.rutgers.edu/news/symptoms-parkinsons-disease-linked-fungus>

Parkinson's Disease: A Comprehensive Analysis of Fungi and Bacteria in Brain Tissue

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7053320/>

Can Candida cause neurological problems?

A new study in mice reveals that *Candida albicans* — a fungus largely perceived as harmless — can cause memory problems and brain abnormalities that resemble those characteristic of Alzheimer's disease.

<https://www.medicalnewstoday.com/articles/324106>

Herpes simplex virus-1 entrapped in *Candida albicans* biofilm displays decreased sensitivity to antivirals and UVA1 laser treatment

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5686830/>

Symptoms of Fungal Infections

Symptoms of fungal infections can range from mild to very serious. The exact symptoms depend on the type of fungus that has caused the infection. Some common symptoms include:

- Asthma-like symptoms
- Fatigue
- Headache
- Muscle aches or joint pain
- Night sweats
- Weight loss
- Chest pain
- Itchy or scaly skin
- Fungal infections can affect many parts of the body, including:
 - Hair
 - Skin
 - Lungs
 - Bloodstream
 - Brain
 - Gastrointestinal system
 - Vagina

Many patients with memory loss and dementia are actually simply toxic from mold, which is a reversible condition.

<https://www.amenclinics.com/blog/mental-illness-mold-toxicity/>

What are Mycotoxin?

A mycotoxin is a toxic secondary metabolite produced by organisms of kingdom Fungi and is capable of causing disease and death in both humans and other animals. The term 'mycotoxin' is usually reserved for the toxic chemical products produced by fungi that readily colonize crops.

<https://en.m.wikipedia.org/wiki/Mycotoxin>

Mycotoxins and the Dairy Industry

“Mycotoxins are toxins that are produced by molds. Molds that are discussed often as it relates to the dairy industry are Penicillium, Aspergillus, and Fusarium which can be found in forages

and grains. Examples of the toxins produced are aflatoxins, vomitoxin, T-2, zearalenone, fumonisin, and ochratoxin.¹ Aflatoxins produced by *Aspergillus* have cancer-causing properties and can be excreted in the milk (AFM1) which is a major concern in the dairy industry as it pertains to public health.² As a result, aflatoxin levels in the milk are monitored and regulated”

“Dairy cattle are at increased risk because rations typically contain multiple sources of potentially affected feedstuffs. In dairy cattle, consumption of these toxins can have a negative impact on milk production, feed intake, gut health, immune function, and reproductive performance”

“Oxidative stress occurs when production of oxidants overwhelms the antioxidant capacity of the body and this can lead to a compromised immune system. The Mycotoxins are also toxic and negatively affect organ systems as well. During an aflatoxin challenge, the liver works harder to break down the toxin, undergoes oxidative stress and more protein breakdown occurs in the liver. Trace minerals such as Zinc (Zn), Manganese (Mn), Selenium (Se) and Copper (Cu) play an important role in prevention of oxidative stress because they form part of specific antioxidant enzymes.”

<https://www.multiminusa.com/news/mycotoxins-dairy-industry/>

Anti fungal Products

<https://www.amazon.com/gp/aw/d/B07RLW617S>

<https://www.amazon.com/gp/aw/d/B003N8GNDO>

How is your food intake?

Do you know your total caloric intake?

Have you heard of BMR, TDEE?

BMR is your base metabolic rate, how much calories you need to function.

Your TDEE is your total caloric expenditure. Exercise, daily work activities, etc.

<https://www.naturesbest.co.uk/sports/sports-articles/how-to-calculate-bmr-and-tdee-and-why-you-should>

These numbers are usually different. If you are below your BMR for too long, you will suffer weight loss and stress associated with that.

You should get an appropriate breakdown of fats, carbs and protein daily (tdeecalculator.net).

Over course of time, these issues exasperate and get worse with the same inputs (lack of calories, lack of nutrients, inflammation, endotoxemia)

I would recommend a plant based diet, as evidence below is showing that meat diet increases risk of Parkinson's, inflammation and endotoxemia.

Plant based diet + Parkinson's <https://pubmed.ncbi.nlm.nih.gov/11516224>

Hydration

Hydrate with 64 to 128 oz of water daily

“Alkaline water has a higher pH level than that of plain tap water. So proponents say that it can neutralize acid in your bloodstream. Some say that alkaline water can help prevent disease, such as cancer and heart disease.”

<https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/alkaline-water/faq-20058029>

Sleep

“Adults should sleep 7 or more hours per night on a regular basis to promote optimal health. Sleeping less than 7 hours per night on a regular basis is associated with adverse health outcomes, including weight gain and obesity, diabetes, hypertension, heart disease and stroke, depression, and increased risk of death.”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4434546/>

Nutrient Intake

Do you take nutrients? When you stress, take in less calories and nutrients, and have an improper diet - it's likely to have an imbalance of nutrients.

Iodine and magnesium will help you with your stress and fight or flight, energy and fatigue.

“Iodine is a mineral found in some foods. The body needs iodine to make thyroid hormones. These hormones control the body's metabolism and many other important functions”

<https://www.eatright.org/food/vitamins-and-supplements/types-of-vitamins-and-nutrients/iodine-a-critically-important-nutrient>

“Magnesium helps to maintain normal nerve and muscle function, supports a healthy immune system, keeps the heartbeat steady, and helps bones remain strong.”

<https://medlineplus.gov/ency/article/002423.htm>

Vitamin D is a vitamin and a hormone and will help regulate your hormone levels.

“Vitamin D has several important functions. Perhaps the most vital are regulating the absorption of calcium and phosphorus and facilitating normal immune system function (1). Getting enough vitamin D is important for typical growth and development of bones and teeth, as well as improved resistance to certain diseases.”

<https://www.healthline.com/health/food-nutrition/benefits-vitamin-d>

“A deficiency in vitamin D can lead to lower estrogen levels, which can cause depression, hot flashes, mood swings, and much more. Parathyroid hormone imbalance. A vitamin D deficiency limits your body's ability to regulate calcium levels, which your parathyroid controls.”

<https://www.endocrine.org/patient-engagement/endocrine-library/hormones-and-endocrine-function/endocrine-related-organs-and-hormones>

Vitamin C (important)

“Vitamin C (ascorbic acid) is a nutrient your body needs to form blood vessels, cartilage, muscle and collagen in bones. Vitamin C is also vital to your body's healing processes”

<https://pi.oregonstate.edu/mic/vitamins/vitamin-C>

I would recommend **vitamins, minerals, probiotics and CBD** (regrows cells, reduces stress)

Vitamins and Minerals are Essential

“Vitamins and minerals are essential nutrients because they perform hundreds of roles in the body.

Every day, your body produces skin, muscle, and bone. It churns out rich red blood that carries nutrients and oxygen to remote outposts, and it sends nerve signals skipping along thousands of miles of brain and body pathways. It also formulates chemical messengers that shuttle from one organ to another, issuing the instructions that help sustain your life.

But to do all this, your body requires some 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.“

<https://www.helpguide.org/harvard/vitamins-and-minerals.htm>

16 vitamins

https://www.health.harvard.edu/staying-healthy/listing_of_vitamins

60 minerals

<https://healingwithminerals.com/90-essential-nutrients/>

Probiotics

<https://my.clevelandclinic.org/health/articles/14598-probiotics>

CBD

<https://www.healthline.com/nutrition/cbd-oil-benefits>

<https://www.healthcanal.com/health/benefits-cbd-oil>

Amino acids

<https://my.clevelandclinic.org/health/articles/22243-amino-acids>

Omegas

<https://my.clevelandclinic.org/health/articles/17290-omega-3-fatty-acids>

Nutrient Deficiencies

“Lack of essential nutrients is known to contribute to the onset of poor mental health in people suffering from anxiety and depression, bipolar disorder, schizophrenia and ADHD”

<https://theconversation.com/why-nutritional-psychiatry-is-the-future-of-mental-health-treatment-92545>

“Deficiencies in B vitamins, including Thiamine (B1), Riboflavin (B2), and B12, can lead to depression, anxiety, fearfulness, and irritability. B12 and folate (B9) are important vitamins for maintaining a healthy nervous system. Vitamin B12 and folate are needed for producing norepinephrine, serotonin, and dopamine.”

<https://sageclinic.org/blog/vitamins-and-mental-health/>

Immune system issues and nutrient deficiencies

Vitamin A

“This fat soluble vitamin is needed for the synthesis of immune system proteins and plays a role in killing off old cells. This vitamin is essential for building a strong immune system, A deficiency may be associated with autoimmune diseases such as RA and Type 1 Diabetes.”

B Vitamins

“B vitamins are essential for optimal function of our immune system, hormones, mood, sleep, nerves, circulation, and digestion. More than just for energy, vitamin B12, supports the production of white blood cells, one of the main components of the immune system. If you are deficient in B12, it is likely that your white blood cell count will be low too, contributing to a weakened immune system.”

Vitamin D

“Even if you get outside everyday and get plenty of sunlight, chances are your vitamin D levels are below optimal. For those with autoimmune disease, this can be even more problematic. Vitamin D plays a crucial role in the immune system by regulating and preventing autoimmunity.

Vitamin D stimulates regulatory T cells whose job is to differentiate between dangerous invaders and our own cells. Essential these cells teach the immune system not to attack itself.

Vitamin D supports a strong immune system and increases your ability to fight off viral or bacterial infections.”

Vitamin K2

“The role of vitamin K2 is to put calcium where it belongs in the body, like your teeth and bones. In the past, it was thought that you did not need to worry about a vitamin K2 deficiency because it is made by our body from vitamin K1. However current research tells us that most people eating a western diet are not only deficient in vitamin K1 but K2 as well.

A vitamin K deficiency may play a role in autoimmune disease.”

Omega 3's

“The standard american diet is abundant in inflammatory polyunsaturated vegetable oils and lacks omega 3 fatty acids. Omega 3 oils can lower inflammatory responses by enhancing B cell activation and antibody production. This allows your immune system to fight off unwanted pathogens.”

Iron

“Iron deficiency anemia is common in those suffering with autoimmune diseases. But why? The storage form of iron, ferritin, is absorbed through the intestines. It is common for those with autoimmunity conditions to have damage to their gut lining or leaky gut syndrome making it hard to absorb. We work around this by first, healing the gut (the underlying cause) and supplementing if necessary.”

Magnesium

“Those who are chronically-stressed or eat high-sugar diets tend to have lower levels of magnesium. This mineral is important for supporting immune function and heart health. A magnesium deficiency may cause increased production of inflammatory chemicals in the body, raising your inflammation contributing to autoimmunity.”

Selenium

“This trace mineral works in conjunction with vitamin E to help prevent oxidative damage in the body. Selenium is a powerful antioxidant that has anti-inflammatory properties. It is also a vital nutrient for thyroid function. Studies show that increasing selenium in those with hashimoto's (an autoimmune thyroid condition) decreased thyroid antibodies..”

Zinc

“This essential trace mineral plays a role in over a hundred enzymatic reactions in the body. It helps to decrease oxidative damage, aids in wound healing, and helps with the formation of hemoglobin. Research suggests that people with zinc deficiency are more susceptible to pathogens.”

<https://lifestreammed.com/9-nutrient-deficiencies-commonly-linked-to-autoimmune-disease/>

Importance of Gut Health

“(Gut health)It aids in the digestion of the foods you eat, absorbs nutrients, and uses it to fuel and maintain your body. So, if your gut is imbalanced and your immune system isn't working properly, your serotonin and hormones won't either, making it more challenging to stay healthy.”

<https://www.parkview.com/community/dashboard/the-importance-of-gut-health>

”You have many bacteria in your body. In fact, you have more of them than you have cells. Most are good for you. The ones found in your gut not only help you digest foods, they work all over your body and can be good for your physical and mental health.”

Unhealthy Gut Balance

“Studies have found that if you have too much of a certain kind of bad bacteria in your gut microbiome, you're more likely to have:

Crohn's disease

Ulcerative colitis

Irritable bowel syndrome (IBS)

Researchers are looking into new treatments for them that target the bacteria in the gut microbiome.”

Gut Bacteria and Your Heart

“Some kinds of gut bacteria may be part of the link cholesterol has to heart disease. When you eat foods like red meat or eggs, those bacteria make a chemical that your liver turns into something called TMAO (trimethylamine-N-oxide). TMAO may help cholesterol build up in your blood vessels.”

Gut Bacteria and Your Kidneys

“Too much TMAO also may lead to chronic kidney disease. People who have the disease don't get rid of TMAO like they should. That surplus can lead to heart disease. Researchers think it's possible that too much TMAO might make you more likely to have chronic kidney disease in the first place.”

Gut Bacteria and Your Brain

“Your brain sends messages all over your body. Researchers believe your gut may talk back. Studies show that the balance of bacteria in the gut microbiome may affect your emotions and the way your brain processes information from your senses, like sights, sounds, flavors, or textures.

Scientists suspect that changes in that balance may play a role in conditions like autism spectrum disorder, anxiety, and depression, as well as chronic pain.”

Gut health and Obesity

"An unhealthy balance in your gut microbiome may cause crossed signals from your brain when it comes to feeling hungry or full. Researchers think there may be a link to the pituitary gland, which makes hormones that help set your appetite. That gland can affect the balance of bacteria in your gut, too. Some studies on treating obesity are exploring this link."

<https://www.webmd.com/digestive-disorders/ss/slideshow-how-gut-health-affects-whole-body>

Gut Brain Axis

"The gut-brain axis (GBA) consists of bidirectional communication between the central and the enteric nervous system, linking emotional and cognitive centers of the brain with peripheral intestinal functions."

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4367209/>

Mental illness and Poor Gut Health

"Increasing evidence has associated gut microbiota to both gastrointestinal and extragastrointestinal diseases. Dysbiosis and inflammation of the gut have been linked to causing several mental illnesses including anxiety and depression, which are prevalent in society today."

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5641835/>

Oral Microbiome / Health

Finally, how is your oral health? Do you floss regularly? Brush? Do you rinse?

" Researchers know there's a synergic relationship between oral health and overall wellness. Gum disease is linked to a host of illnesses including heart disease, diabetes, respiratory disease, osteoporosis, and rheumatoid arthritis."

<https://www.webmd.com/oral-health/features/oral-health-affects-wellness>

" Although still preliminary, current evidence suggests that older people with neurodegeneration have worse orodental health status. The likely reasons for this association range from increasing difficulties with oral health self-care to inflammatory mechanisms."

<https://www.tandfonline.com/doi/abs/10.1080/09638288.2022.2088866?journalCode=idre20>

I recommend rinsing your mouth multiple times a day with the appropriate mouthwash to restore oral microbiome balance.

The food we eat, and lack of oral care, can create an imbalance of bacteria in the mouth which can spread around the body through the blood stream and enter the gut and upset the gut microbiome balance.

Oral health and Mental Health

“Studies have shown that mental health and oral health may be correlated, with associations demonstrated between mental health problems and tooth loss, periodontal disease, and tooth decay. The COVID-19 pandemic had alarming implications for individuals' and communities' mental and emotional health.”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8859414/#abstract-1title>

<https://www.dentalhealth.org/mental-illness-and-oral-health>

<https://health.clevelandclinic.org/link-between-dental-health-and-mental-health/amp/>

Oral Health and Heart Disease

“Gum disease (periodontitis) is associated with an increased risk of developing heart disease. Poor dental health increases the risk of a bacterial infection in the blood stream, which can affect the heart valves. Oral health may be particularly important if you have artificial heart valves.”

<https://www.mayoclinic.org/healthy-lifestyle/adult-health/expert-answers/heart-disease-prevention/faq-20057986>

Links:

Vegan diet + Parkinson's

<https://pubmed.ncbi.nlm.nih.gov/11516224/>

Endocannabinoid System

“The endogenous cannabinoid system, named after the plant that led to its discovery, is perhaps the most important physiologic system involved in establishing and maintaining human health. Endocannabinoids and their receptors are found throughout the body: in the brain, organs, connective tissues, glands, and immune cells. In each tissue, the cannabinoid system performs different tasks, but the goal is always the same: homeostasis, the maintenance of a stable internal environment despite fluctuations in the external environment.

Cannabinoids promote homeostasis at every level of biological life, from the sub-cellular, to the organism, and perhaps to the community and beyond. Here’s one example: autophagy, a process in which a cell sequesters part of its contents to be self-digested and recycled, is mediated by the cannabinoid system. While this process keeps normal cells alive, allowing them to maintain a balance between the synthesis, degradation, and subsequent recycling of cellular products, it has a deadly effect on malignant tumor cells, causing them to consume themselves in a programmed cellular suicide. The death of cancer cells, of course, promotes homeostasis and survival at the level of the entire organism.

Endocannabinoids and cannabinoids are also found at the intersection of the body’s various systems, allowing communication and coordination between different cell types. At the site of an injury, for example, cannabinoids can be found decreasing the release of activators and sensitizers from the injured tissue, stabilizing the nerve cell to prevent excessive firing, and calming nearby immune cells to prevent release of pro-inflammatory substances. Three different mechanisms of action on three different cell types for a single purpose: minimize the pain and damage caused by the injury.

The endocannabinoid system, with its complex actions in our immune system, nervous system, and all of the body’s organs, is literally a bridge between body and mind. By understanding this system we begin to see a mechanism that explains how states of consciousness can promote health or disease.

In addition to regulating our internal and cellular homeostasis, cannabinoids influence a person’s relationship with the external environment. Socially, the administration of cannabinoids clearly alters human behavior, often promoting sharing, humor, and creativity. By mediating neurogenesis, neuronal plasticity, and learning, cannabinoids may directly influence a person’s open-mindedness and ability to move beyond limiting patterns of thought and behavior from past situations. Reformatting these old patterns is an essential part of health in our quickly changing environment.”

<https://norml.org/marijuana/library/recent-medical-marijuana-research/introduction-to-the-endocannabinoid-system/?amp>

Cannabinoids and Human Breast milk

“Human breast milk naturally contains many of the same cannabinoids found in marijuana, which are actually extremely vital for proper human development.

Cell membranes in the body are naturally equipped with these cannabinoid receptors

Cell membranes in the body are naturally equipped with these cannabinoid receptors which, when activated by cannabinoids and various other nutritive substances, protect cells against viruses, harmful bacteria, cancer, and other malignancies. And human breast milk is an abundant source of endocannabinoids, a specific type of neuromodulatory lipid that basically teaches a newborn child how to eat by stimulating the suckling process.

There are two types of cannabinoid receptors in the body -- the CB1 variety which exists in the brain, and the CB2 variety which exists in the immune system and throughout the rest of the body. Each one of these receptors responds to cannabinoids, whether it be from human breast milk in children, or from juiced marijuana, for instance, in adults.

This essentially means that the human body was built for cannabinoids, as these nutritive substances play a critical role in protecting cells against disease, boosting immune function, protecting the brain and nervous system, and relieving pain and disease-causing inflammation, among other things. And because science is finally catching up in discovering how this amazing cannabinoid system works, the stigma associated with marijuana use is, thankfully, in the process of being eliminated.

In another study on the endocannabinoids published in the journal *Pharmacological Reviews* back in 2006, researchers from the Laboratory of Physiologic Studies at the National Institute on Alcohol Abuse and Alcoholism uncovered even more about the benefits of cannabinoids. These include their ability to promote proper energy metabolism and appetite regulation, treat metabolic disorders, treat multiple sclerosis, and prevent neurodegeneration, among many other conditions.

With literally thousands of published studies now showing their safety and usefulness, cannabinoids, and particularly marijuana from which it is largely derived, truly are a health-promoting "super" nutrient with virtually unlimited potential in health promotion and disease prevention."

<https://bestdoulas.com/wp-content/uploads/2020/07/cannabinoids-in-breastmilk.pdf>

CBD and Neurogenesis

(regrowing of cells, dopamine promote)

"cannabinoid-induced increases in dopamine neural activity were abolished following administration of rimonabant, which shows that cannabinoids increase dopamine neural activity through a CB1 receptor-dependent mechanism. "

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3405830/>

“ The second phytocannabinoid, CBD, also proved to have effects on neurogenesis, but it is dose-dependent. Repeated doses of CBD (3, 10 and 30 mg/kg) have a comparable effect as imipramine in reducing anxious behaviors, and lower dose of CBD increase cell proliferation and neurogenesis.”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8541184/>

CBD for spinal cord injury / regeneration

“CBD use has been shown to be protective against disc degeneration, spinal cord injury, arthritic pain, and post-surgical pain. It may promote bone healing after fractures and increase bone density.”

<https://texasback.com/should-you-try-cbd-for-spine-issues/>

Stimulates Neuroprotective Response

“After a spinal cord injury in the acute phase, researchers have discovered that cannabis can stimulate a neuroprotective response, helping activate two important sectors CB1 and CB2, which helps promote spontaneous recovery.”

<https://www.spinalcord.com/blog/how-medical-cannabis-cbd-can-help-people-with-spinal-cord-injuries>

CBD Inflammation

“Cannabidiol (CBD) is a non-intoxicating phytocannabinoid from cannabis sativa that has demonstrated anti-inflammatory effects in several inflammatory conditions including arthritis.”

<https://www.nature.com/articles/s41419-020-02892-1>

“Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/>

“Cannabidiol induces programmed cell death in breast cancer cells by coordinating the cross-talk between apoptosis and autophagy”

<https://pubmed.ncbi.nlm.nih.gov/21566064/>

CBD / CBG and COVID

“Research Found That CBD & CBG May Prevent Coronavirus”

<https://healthylivingmarket.com/research-found-cbd-cbg-may-prevent-coronavirus/>

“Cannabidiol inhibits SARS-CoV-2 replication through induction of the host ER stress and innate immune responses”

<https://www.science.org/doi/10.1126/sciadv.abi6110>

“Oregon State research shows hemp compounds prevent coronavirus from entering human cells”

<https://today.oregonstate.edu/news/oregon-state-research-shows-hemp-compounds-prevent-coronavirus-entering-human-cells>

“When COVID-19 or flu viruses kill, they often have an accomplice – bacterial infections”

<https://theconversation.com/when-covid-19-or-flu-viruses-kill-they-often-have-an-accomplice-bacterial-infections-187056>

Cancer

“Cancer refers to any one of a large number of diseases characterized by the development of abnormal cells that divide uncontrollably and have the ability to infiltrate and destroy normal body tissue. Cancer often has the ability to spread throughout your body. Cancer is the second-leading cause of death in the world.”

<https://www.mayoclinic.org/diseases-conditions/cancer/symptoms-causes/syc-20370588>

“If a person has an error in a DNA repair gene, mistakes remain uncorrected. Then, the mistakes become mutations. These mutations may eventually lead to cancer, particularly mutations in tumor suppressor genes or oncogenes. Mutations in DNA repair genes may be inherited or acquired.”

<https://www.cancer.net/navigating-cancer-care/cancer-basics/genetics/genetics-cancer>

”Mutations in genes can cause cancer by accelerating cell division rates or inhibiting normal controls on the system, such as cell cycle arrest or programmed cell death. As a mass of cancerous cells grows, it can develop into a tumor.”

<https://www.nature.com/scitable/topicpage/cell-division-and-cancer-14046590/>

Apoptosis in Cancer

“The loss of apoptotic control allows cancer cells to survive longer and gives more time for the accumulation of mutations which can increase invasiveness during tumor progression, stimulate angiogenesis, deregulate cell proliferation and interfere with differentiation”

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5855670/#sec2-ijms-19-00448title>

What do we need to provide the body in order for it to process cell turnover normally?

What do we need to provide the body to prevent errors in cell replication?

What do we need to provide the body in order to create apoptosis for those cancerous cells which have undergone mutation?

Is it possible to clear the body of cancer cells naturally?

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/>

Cannabidiol induces programmed cell death in breast cancer cells by coordinating the cross-talk between apoptosis and autophagy

<https://pubmed.ncbi.nlm.nih.gov/21566064/>

Weight Lifting

I would suggest weight lifting. Purchasing a few dumbbells to work on your bicep, triceps and shoulder routines. Weakness in your arms can be overcome.

Glutes and hips are the weakness points for the lower body.

Biceps

<https://www.setforset.com/blogs/news/dumbbell-biceps-exercises>

Shoulders

<https://www.coachmag.co.uk/fitness/shoulder-exercises>

Triceps

<https://www.bustle.com/wellness/best-tricep-exercises-with-dumbbells/amp>

Back

<https://www.self.com/gallery/dumbbell-back-workout/amp>

Legs

<https://www.womenshealthmag.com/fitness/a19982843/best-leg-exercises/>

Plant based shakes (meal replacement)

(Goal is to get above or at your TDEE)

Half scoop hemp protein

<https://www.vitaminshoppe.com/p/plnt-hemp-protein-1-powder/vs-3324>

Full scoop ladder protein

<https://www.vitaminshoppe.com/p/ladder-plant-protein-chocolate-2-lb-powder/lad0004>

1 teaspoon spirulina

<https://www.vitaminshoppe.com/p/nutrex-natural-spirulina-5-oz-powder/kh-1003>

2 table spoons mct / coconut oil (30 g of fat)

This will be around 33grams of fat, 11 grams of carbs, 30 grams of protein.

Cals fats carbs protein

Shake1 480 33 11 30

3 times a day:

1449 calories, 99 fat, 33 carbs, 90 protein

To increase carbs: add powdered carbs or grind up oatmeal and blend.

1 cup of oatmeal would be around 60 total carbs.

This (total) will be around 33 grams of fat, 69 grams of carbs, 30 grams of protein.

Cals fats carbs protein

Shake2 693 33 69 30

3 times a day:

2070 calories, 99 fat, 207 carbs, 90 protein

NOTE: You shouldn't consume more than 30 grams of protein per 1.5 hours.

You could lower the fat and increase carbs. Up to you. Very tasty as well.

Premade shake (bottled)

<https://www.amazon.com/Soylent-Chocolate-Protein-Replacement-Bottles/dp/B08H6FB43L>

Meals and Total Sustenance

Rice and veggies is a go to meal as well (frozen, microwave packets)

Other easy to make plant based protein meals would be ideal. Sandwiches, cereal, plant based meats, fruits, vegetables.

Plant based grocery list

<https://www.eatingwell.com/article/7878282/complete-plant-based-diet-grocery-list/>

You could get all of your sustenance through liquids if necessary, following the plant based meal replacement.

I would recommend a liquid vitamin and mineral to receive all of the nutrients required for normal body functions.

Here is an example of a calculator I use to calculate my daily intake of calories to make sure I meet my caloric needs.

FDCALC	Cal	Fat	Carb	Pro	
Shake1	461	33	11	30	7-10 am
Cereal bfst	677	9	115	34	
Avobread	417	31	29	5.5	
Rice	414	6	82	8	
Veggies	230	10	32	4	
Enchilada	330	12	45	10	
Shake1	441	5	69	30	
CUR	2970	106	383	121.5	
GOAL	2985	113	342	151	
REMAIN	15	7	-41	30	
BMR	1846				
TDEE	2492				
%/BMR	60.89				
%/TDEE	19.18				
%/GOAL	-0.51				
WT	180				
H20(oz)	70				

Thank you

- James