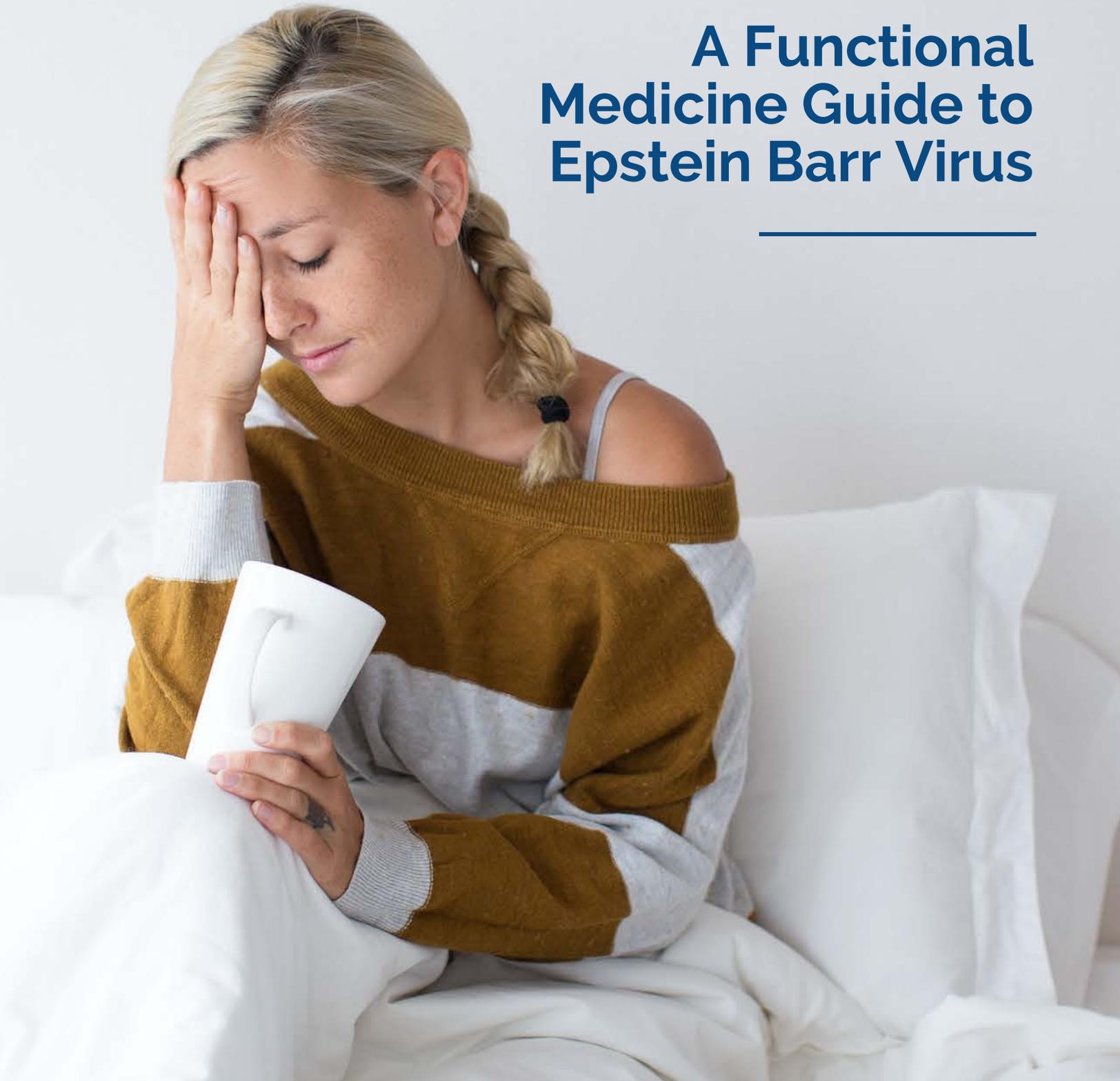


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A Functional Medicine Guide to Epstein Barr Virus



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Epstein Barr Virus

Epstein Barr Virus (aka Human Herpes 4, EBV) is one of the most common human viruses. More than 90% of the population have been infected with EBV by adulthood! EBV is transmitted via saliva, so around half of us are infected as toddlers and children, when the initial infection can be asymptomatic or just passed off as a common cold. Around 30-50% of those who are infected in adulthood become ill with the initial infection, and we call that acute illness Glandular Fever or Mono (aka the kissing disease due to the transfer via saliva), but many go undetected or pass their illness off as a bad flu.

The big question is: **If so many of us have EBV and are fine, why then are some people unaffected but others get SO sick from it?**

Epstein Barr has two stages of lifecycle, Lytic phase, which is the active infectious stage it was in when you caught it. Once in your body, it hides away in your cells and shuts down into the Latent stage of its lifecycle. Latent means hidden, but that does NOT mean inactive. Even in the latent phase EBV makes viral proteins that change the way your immune system works, and creates inflammation. When this is combined with other lifestyle and environmental factors, EBV can be triggered and can reactivate! And when this happens, that person may become very ill depending on their predispositions and existing health status.

Have you got chronic, reactivated EBV?

Common symptoms associated with EBV:

- Exhausted
- Cytomegalovirus or Strep infections
- Developed high blood pressure
- Skin issues
- Anxiety
- Corticosteroids medication makes you feel like you were hit by a truck
- I have had a blood transfusion
- I had glandular fever
- Developed strong sensitivity to mosquito bites
- I have been diagnosed with an auto-immune disease
- I have had cancer of the breast and stomach

Medical conditions:

EBV is a very common environmental factor involved in autoimmunity. Some of the EBV-associated autoimmune conditions include.

- Hashimoto's
- Graves diseases
- Sjogren's syndrome
- Chronic fatigue
- Autoimmune hepatitis
- Systemic lupus erythematosus (SLE)
- Rheumatoid arthritis
- Atherosclerosis
- Scleroderma



Click here to read more info on Epstein Barr in my article on EBV and autoimmunity.





How to test for Epstein Barr Virus?

Testing for EBV involves getting a blood test and if you have had a diagnosis of Chronic Fatigue Syndrome or Glandular Fever, you may have already been tested. But there are a few different tests involved that tell us different things about the status of EBV in the body. You may have only had one of these, or a couple. Getting a complete panel is not that common and some are only done privately.

- VCA IgG – comes up with first infection and stays for life so can be elevated with you having a reactivated virus – always elevated. So, if this is low then you have theoretically had no infection. High level is more than 600 (could be 603 or 5200).
- VCA IgM – this will be positive in the initial infection, so for chronic cases will usually be negative.
- Early Antigen – IgG – This is the antibody most associated with EBV reactivation. It is consistent and may correlate with your symptom severity.
- Nuclear antibody IgG – This antibody will come up positive a couple of months after the initial infection, but does not rise with reactivation.
- Ellispot. This test was developed for accurate detection of EBV before organ transplant. It is considered either positive or negative and shows us viral activity in the Latent or Lytic phase of the life cycle (available only privately in the UK and Europe).

Triggers and reactivation:

Here are some of the lifestyle and environmental triggers that lead to EBV reactivation.

- Stress is number 1. The 21st century syndrome means all of us are chronically stressed. We don't sleep enough, we work too hard and too long and don't wind down or switch off even 'at rest'. Chronic inadequate sleep, work stress, loneliness, surgery, trauma, mental and emotional stress or over-exercising all create significant changes to the immune system creating an environment for EBV to thrive.
- Hormonal changes such as puberty, menopause or postpartum.
- Toxins such as cigarette smoke and diesel exhaust..
- Poor nutrient status: a nutrient deficient person has higher oxidative stress and inflammation. Diet can be the factor that causes a virus to become virulent.
- Poor blood sugar control is an invitation to viral activity as it impairs immunity.
- Co-infections: non-related infections can reactivate EBV. If you have infections other than EBV, you can reactivate EBV, this can promote trans-activation of other viruses such as shingles, and bacteria such as helicobacter pylori or streptococcus.
- Immunosuppression medication such as steroids can cause a temporary calming of symptoms, followed by a flare.



"We don't sleep enough, we work too hard and too long and don't wind down or switch off even 'at rest'."

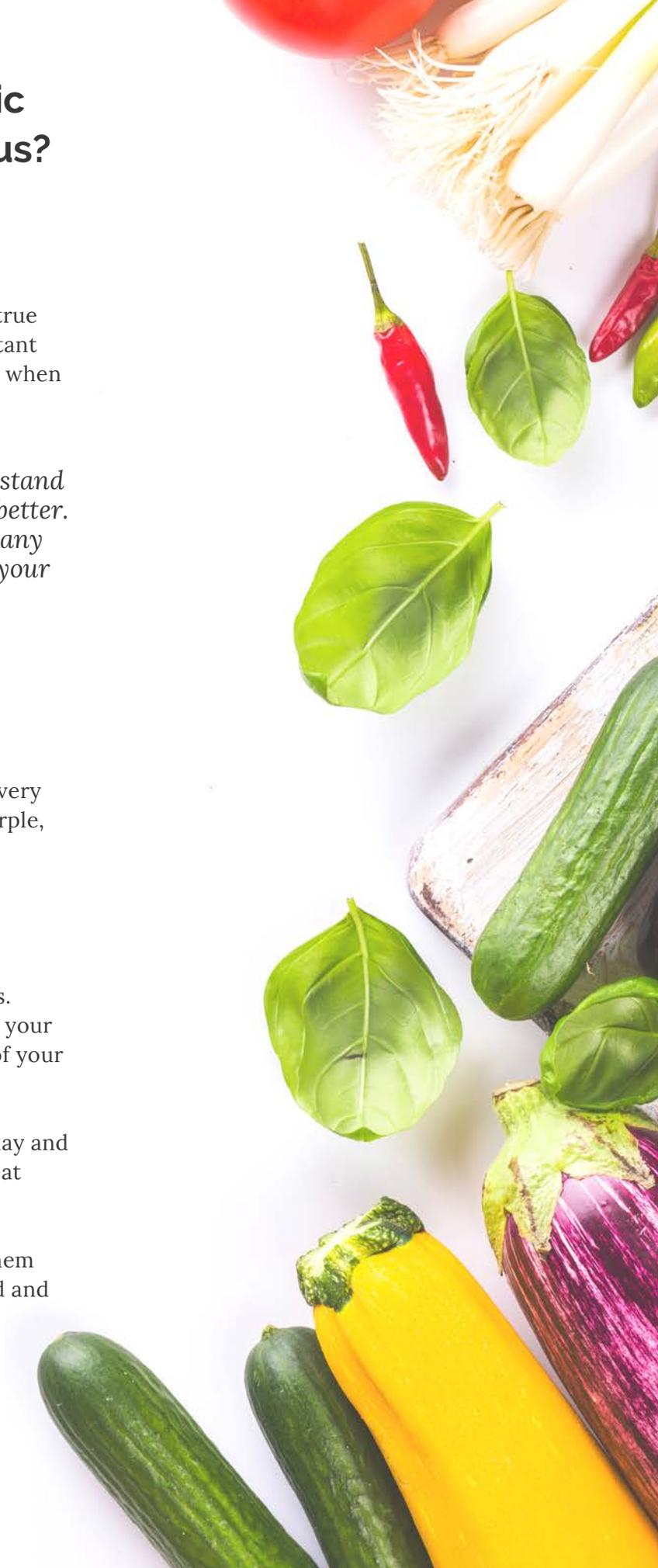
What do I do if I have chronic reactivated epstein barr virus?

Diet:

There is no perfect diet for everyone, and that is true for EBV too. However, there are some very important ways you can eat to support your immune system when you have EBV.

The first and most important thing to understand is the more fresh produce you consume, the better. Eat as many different types of plant, in as many different colours as you can. That should be your number one goal.

- Eat Organic
- As much as possible eat local and seasonal
- Eat the rainbow – aim for all 6 colours of veg every single day (red, orange, yellow, green, blue/purple, white/tan/brown)
- Go gluten free
- Eat sulphur containing veg such as cabbage, cauliflower, onions, garlic and brussel's sprouts. (Note, if these foods upset your gut, please see your doctor or nutritionist for testing and support of your gut bacteria)
- Eat leafy greens. At least 2 big handfuls every day and as many different types as you can. Don't just eat spinach and lettuce.
- Loads of fresh herbs. Again, handfuls. Throw them into or on top of every dish you eat, hot or cold and also into smoothies or juices.





Carefully Balance your Blood Sugar:

- The only thing that should change after you eat, is that you are no longer hungry. If you have more energy or better mental function after eating, then your blood sugar was too low between meals. If you feel tired after eating, then your blood sugar regulation is poor.
- Don't ever skip meals. Eat three main meals per day, each with protein, abundant vegetables and a little healthy fat such as olive oil, hemp oil, pumpkin seed oil, or coconut oil to cook with.
- If you currently have poor blood sugar regulation, then snack as often as you need to, to keep your blood sugar stable. In this instance, try a fruit and a vegetable together plus some nuts or seeds. Eg: An apricot, cucumber sticks and 2 brazil nuts.

Fruits:

People are very scared of eating fruit, and they have a reputation for having 'sugar' and this is bad. But fruit is a powerhouse of nutrition and should not be feared. Here are some tips for including fruit in your immune-nutrition diet.

- Get wild fruits if you can find them, and tree ripened if possible.
- Be careful with grapefruit if you have poor liver function or are taking prescription medication
- For people with IBS symptoms related to small intestinal bacterial overgrowth, fruits such as apples, pears and watermelon may be problematic. Try eliminating these foods and reintroducing after 2 weeks. If they upset your gut please see your doctor or nutritionist for further testing and advice.

- For those with fructose intolerance it is best to eat fruit where glucose is in excess of fructose these include stone fruits such as apricots, berry fruits, citrus fruits and ripe banana, kiwi, passion fruit, pineapple or rhubarb... these should be better tolerated.

Be very careful of:

- Commercial food products, even if they are marketed as 'healthy' options.
- Avoid vegetable oil and most seed oils, including the ones marketed as healthy such as rapeseed (* known as canola in the US).
- Try eliminating these specific foods: Eggs, dairy, corn, soya, rapeseed/canola, GMO. Replace with fish, nuts and seeds, fresh veggies and the fats listed above.
- Maximise nutrient status – when this drops viruses become more virulent
- No artificial sweeteners of any kind and no refined sugar. Try raw honey!

The more you eat out, the harder it is to avoid GMOs and vegetable oils. Try to come up with some new ways to spend time with friends and family such as visiting a park or museum, or hosting game night at your place!

Herbs and Nutritional Supplementation.

Antiviral strategy actually has more pathways than just the 'anti-viral' part. And they are equal in terms of importance due to the many mechanisms via which chronic viruses affect the body and immune system.

Antivirals:

- Licorice, Lemon Balm, Zinc, Bee Propolis, Rosemary, Milk thistle.

Anti-Replication Agents:

- NAC, Vitamin D3, Turmeric, B12 and Folate, B6. Exercise (even walking in the garden with bare feet, yoga).





Immunomodulation:

- Probiotics
- L-Glutamine
- N-Acetyl-Cysteine

Cell System Support

- CoQ10
- Probiotics
- Acetyl-L-Carnitine
- Magnesium
- **Sleep!! Get as much sleep as you possibly can. Preferably more than 8 hours per night.**
- **Anti-stress techniques and strategies such as diaphragm breathing, yoga, meditation and gratitude journalling.**

Detoxification

- Glycine
- N-Acetyl-Cysteine
- Cruciferous vegetables: Broccoli, cauliflower, cabbage, kale, bok choi. Eat at least 2 every day.
- Detox your home: Change to natural cosmetics and cleaning products and stop using artificial air fresheners, dry cleaning or plastic food wrap and containers.
- Water and air filtration – not optional, this is essential! I recommend a [Berkey water filter](#) and a [Blue Air air purifier](#), but any improvements you make in this area will be helpful.

As well as foods, what you drink during the day and evening can have powerful benefits. The following delicious drinks are considered to have anti-viral or immune-nutritional properties.

- **Golden Milk!** Very popular on social media now. Make sure you heat the turmeric with coconut milk or another full fat milk for best absorption and utilisation of the turmeric. See my upgraded recipe for Masala Golden Milk for added spice benefits:
- Liquorice Tea – Great for energy or if you have low blood pressure but please avoid if you have high blood pressure and/or heart palpitations, and consult your doctor if you are not sure.

The following herb teas can be made with fresh herbs from your garden or farmer’s market, or from dried.

- Lemon balm
- Echinacea
- Star anise
- Stinging Nettle
- Rose Hip
- Hibiscus
- Dandelion

Resources:



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