



## **SCREENING TEST FOR EPSTEIN-BARR-VIRUS AUTOIMMUNITY (EBV)**

### 1. Past Trauma or Diseases: Have you had one or more of the following?

- |   |  |
|---|--|
| a. Infectious mononucleosis, Lyme, Covid, or other severe infection | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| b. Significant spine or skeletal trauma/accident                    | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| c. Ehlers-Danlos Syndrome (EDS) or other connective tissue disease  | <input type="checkbox"/> Yes <input type="checkbox"/> No |

### 2. Autoimmune Complications

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Arthritis                  | <input type="checkbox"/> Herpes (recurrent)     | <input type="checkbox"/> Spinal fluid leaks        |
| <input type="checkbox"/> Burning mouth, feet, groin | <input type="checkbox"/> Irritable bowel        | <input type="checkbox"/> Systemic lupus            |
| <input type="checkbox"/> Carpal tunnel              | <input type="checkbox"/> Migraine               | <input type="checkbox"/> Tarlov cysts              |
| <input type="checkbox"/> Cervical/neck pain         | <input type="checkbox"/> Psoriasis              | <input type="checkbox"/> Thyroiditis (Hashimoto's) |
| <input type="checkbox"/> Extreme fatigue            | <input type="checkbox"/> Pudendal neuralgia     | <input type="checkbox"/> TMJ                       |
| <input type="checkbox"/> Fibromyalgia               | <input type="checkbox"/> Rheumatoid arthritis   | <input type="checkbox"/> Trigeminal neuralgia      |
| <input type="checkbox"/> Herniated discs            | <input type="checkbox"/> Sjogren's              |  |
|   | <input type="checkbox"/> Small fiber neuropathy |  |

3. Interpretation: If you have had a past traumatic event or disease that reactivates EBV plus four or more autoimmune complications you should be tested for EBV antibodies to help confirm EBV autoimmunity.

4. Confirmatory EBV Blood Tests: Elevations above normal levels of the following IgG EBV antibodies are considered markers for EBV past reactivation(s) and subsequent autoimmunity. Early elevated EBNA IgG antibody indicates current reactivation of EBV.

- Viral capsid - (abbreviated, VCA) - elevated
- Nuclear antigen - (abbreviated, EBNA) - elevated
- Early nuclear antigen (abbreviated early EBNA) - reactivated or elevated

#### Reference:

- Harley JB, Chen X, Pujato M, et al. Transcription factors operate across disease loci, with EBNA2 implicated in autoimmunity. Nat Genet 2018;50:699-707.
- Houen G, Trier NH. Epstein-Barr virus and systemic autoimmune disease. Front Immunol 2020;11:1-13.
- Wood RA, Guthridge L, Thurmond E, et al. Serologic markers of Epstein-Barr virus reactivation are associated with increased disease activity, inflammation, and interferon pathway activation in patients with systemic lupus erythematosus. J Transl Autoimmune 2021;4:100177.

