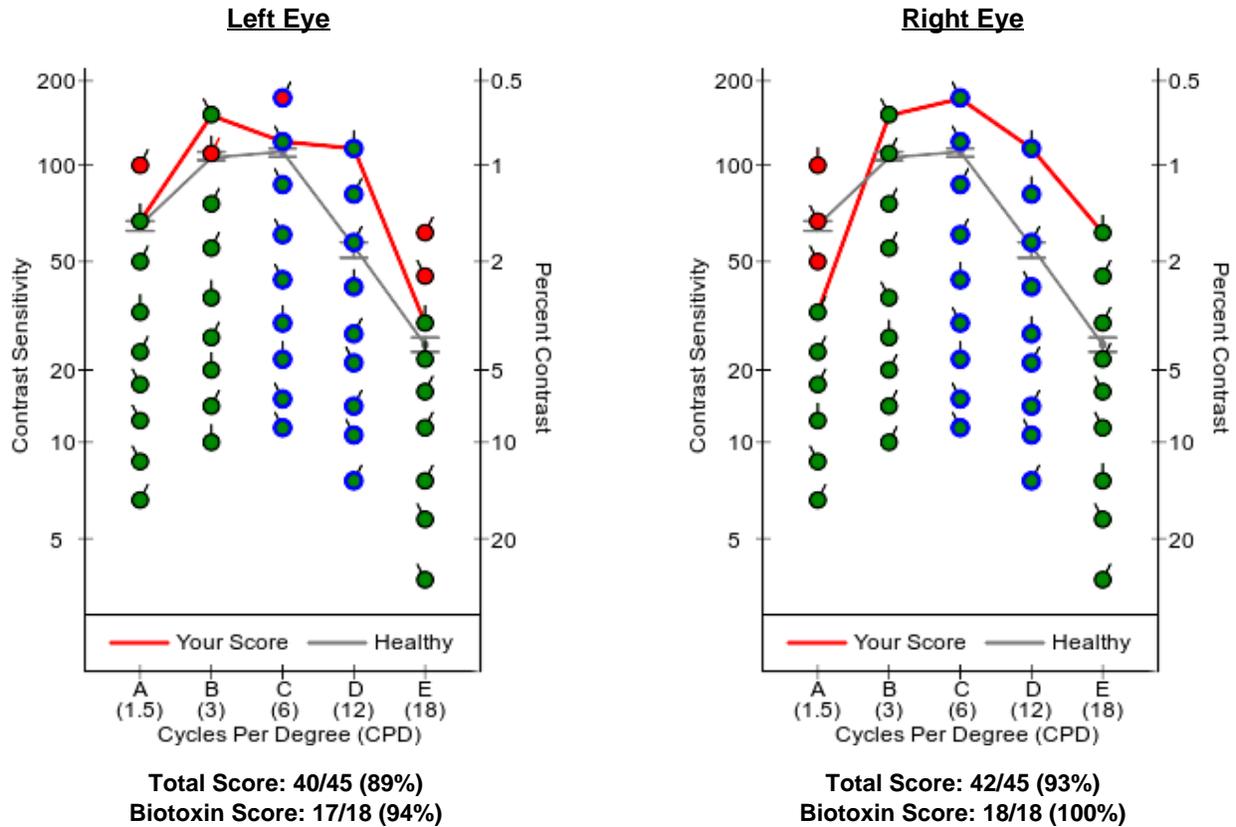


**Test Identifier:** 46602c84  
**Test Type:** OCST (2.1)  
**Calibration:** 02/13/17 @ 22:19 (25225 128/2.05/36)

**Test Date:** 02/13/17, 22:27  
**Name:** Ryer, Jason

**RESULTS: POSITIVE · TOTAL SCORE: 82/90 (91%) · BIOTOXIN SCORE: 35/36 (97%)**



The charts above plot the results of your contrast sensitivity test for each eye. The left axes represent contrast sensitivity, the right axes represent percent contrast, and the bottom axes represent the spatial frequency of the parallel bars in the test images in cycles per degree (CPD); the closer the bars, the higher the spatial frequency.

Each plotted circle represents an image from your test, and its position corresponds to its contrast level and spatial frequency. The biotoxin columns - 6 and 12 CPD (columns C and D) - are outlined in blue. A green-filled circle indicates that you answered correctly when asked to identify the tilt of the bars, whereas a red-filled circle indicates that you answered incorrectly. The black 'tails' point in the direction the bars in the test images were tilted in your test, and where you answered incorrectly the red tails point in the direction you indicated.

The gray line represents the contrast sensitivity curve (average, both eyes) over the tested range of spatial frequencies among healthy individuals as published in Dr. Shoemaker's research, and the red line is the curve formed by the highest level of contrast you were able to see in this test. Higher contrast sensitivity numbers are better, and if the red line is generally above the gray line you outperformed Dr. Shoemaker's healthy research subjects. If, on the other hand, the red line dips substantially below the gray line at any point, you may have a health-affecting condition and should consider seeing your healthcare provider.

**RESULTS - OVERALL: POSITIVE**

Your test results indicate that you were able to discern the tilt of the bars in the test images 82 times out of 90, for a 'Total Score' of **82**, or **91%**. As indicated above, your right visual system generally performed better than your left visual system.

Your results suggest that you may be suffering from a condition affecting your visual system, and you should consider seeing your healthcare provider, or a provider who understands contrast sensitivity testing. Note that those who have or have had cataracts may have reduced contrast sensitivity, and should be evaluated by an ophthalmologist or a healthcare provider familiar with contrast sensitivity testing.

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**RESULTS - BIOTOXINS: NEGATIVE**

In the biotoxin columns - 6 and 12 CPD (columns C and D) - which are generally considered most relevant and suggestive of biotoxin-related illness, you answered correctly 35 times out of 36, for a 'Biotoxin Score' of **35**, or **97%**.

Your score does not suggest the presence of biotoxins or related visual system-affecting neuropathology; however, keep in mind that contrast sensitivity tests can give a false-negative result up to 10% of the time, and if you have other signs, symptoms, or concerns, you should see your healthcare provider.

**RESULTS - NUTRITIONAL DEFICIENCY: POSITIVE**

Though conclusive data is limited, anecdotal information suggests that impaired contrast function at 1.5 and/or 3 CPD (columns A and B) may be linked to nutritional deficiency and related conditions; cigarette and tobacco use may also affect contrast function at these spatial frequencies.

In columns A and/or B you generally scored below the average among healthy test subjects; accordingly, you should consider whether nutritional deficiencies could be affecting your health.

Nutritional deficiencies can generally be caused by inadequate or inappropriate diet, poor digestion, impaired absorption or utilization, and/or by increased demand for certain nutrients.

Those suffering from chronic illness should strongly consider following an organic Paleo diet, which is often most beneficial in restoring health because it maximizes amounts of healthy, whole foods, and excludes foods known to adversely affect health. Note that in cases of illness, RDAs are often inadequate to restore health.

Poor digestion and absorption can be caused by many things, including but not limited to, and in no particular order: pancreatic insufficiency; inability to produce sufficient quantities of stomach acid; liver dysfunction and inability to produce sufficient bile (and related difficulty digesting and absorbing fats); gut microbiota overgrowths, imbalances, and/or insufficiency; candida, parasite, bacterial, fungal and other like overgrowths or infections; dietary allergies, sensitivities, or intolerances; increased intestinal permeability, known as leaky gut; exposure to toxic substances (molds, bacteria, volatile organic compounds, pesticides/herbicides, heavy metals, etc.); and others.

Increased nutrient demand can be caused by other health issues, toxic exposures, stress, and sustained strenuous physical activity, among other things.

**RESULTS - OTHER: NEGATIVE**

Contrast function at 18 CPD (column E) is often affected in cases of biotoxin illness, and is often used to measure progress during biotoxin illness treatment, as contrast sensitivity at this spatial frequency generally improves faster than at other spatial frequencies. It is also correlated with a number of risk factors, including use of cigarettes and other tobacco products, alcohol consumption, blood lead level, exposure to certain volatile organic compounds, and age and socioeconomic status.

There is no indication that either biotoxins or any of the above risk factors are affecting your visual system at 18 CPD.