

Dietary Recommendations for Neurotransmitter Testing

The Doctor's Data neurotransmitter collection recommendations include a list of foods that can elevate neurotransmitter levels and should be avoided for 48 hours before and during urine collection. These foods include:

- Avocados
- Eggplant
- Tomatoes
- Bananas
- Melons
- Pineapple

- Grapefruits
- Plums
- Nuts / nut butters
- Wine
- Cheese
- Chocolate

It is well established that neurotransmitters are synthesized from amino acids found in the diet. For this reason, it would make sense that the foods one eats can have an impact on things like mood, energy, and motivation. In fact, when feeling low, some patients may habitually reach for comfort foods dense in naturally occurring serotonin or catecholamine precursors, unknowingly "self-medicating."

As we strive to measure total body neurotransmitters, these foods may cloud the picture and potentially impact treatment protocols. Wine, cheese, and chocolate have been shown to influence catecholamine secretion, and the other listed foods can make serotonin and 5-HIAA levels appear higher than expected. In fact, four hours after the consumption of these foods, solely food-induced elevations in serotonin, dopamine, norepinephrine and epinephrine have been observed, with some elevations lasting up to 16 hours.

While avoidance of these foods may be an inconvenience to patients, think of it like a fasting blood draw for glucose. If a patient wakes up and has a pastry for breakfast before having their blood drawn, the glucose may appear elevated. The same may hold true with the above-mentioned foods and neurotransmitter levels. It's best practice to avoid these interfering factors for a more precise measurement of endogenous neurotransmitter levels, which may then lead to the most appropriate and therapeutic treatment plan.

References:

Jong, W. H., Post, W. J., Kerstens, M. N., Vries, E. G., & Kema, I. P. (2010). Elevated Urinary Free and Deconjugated Catecholamines after Consumption of a Catecholamine-Rich Diet. The Journal of Clinical Endocrinology & Metabolism,95(6), 2851-2855. doi:10.1210/jc.2009-2589.

Kema IP, Schellings AM, Meiborg G, Hoppenbrouwers CJ, Muskiet FA. Influence of a serotonin- and dopamine-rich diet on platelet serotonin content and urinary excretion of biogenic amines and their metabolites. Clin Chem. 1992 Sep;38(9):1730-6.

Wurtman, R. J., & Wurtman, J. J. (1995). Brain Serotonin, Carbohydrate-Craving, Obesity and Depression. Obesity Research, 3(S4). doi:10.1002/j.1550-8528.1995.tb00215.x



