



NEWSLETTER

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877.656.9596



newsletter@labrix.com



The Relationship of Cortisol Levels to Allergies

For many of us, the increased sunshine, longer daylight hours, birds chirping, bees buzzing and flowers blooming that come with onset of spring are most welcome after cold, gray winter days. However, for the allergy sufferer, these can be the signal of just another season of frustrating runny noses and itchy, watery eyes. While most of us remember to test cortisol in our fatigued or chronically stressed patients, it can also be quite useful to test cortisol levels in those suffering from chronic allergies.

Conventional approaches to treating allergic symptoms have often involved the use of a topical or inhaled corticosteroid. The corticosteroid, while effective at reducing the inflammation, does not address the underlying question of “Why can’t this patient tolerate seemingly benign environmental factors such as grass or pollen?”

What we know about the role of the hypothalamic-pituitary-adrenal axis (HPA) and allergies is complex. Research shows that even in early life, infants who have an atopic disposition have an aberrant cortisol response. Initially, in infancy, when a stressor is incurred, the infant with an atopic disposition produces a higher level of cortisol than his or her non-atopic counterparts. However, in atopic adults, we see an attenuated response of the HPA to a stressor. What is unclear is whether this reduced responsiveness represents a genetically determined predisposition or whether a hyporeactive HPA is a consequence of chronic inflammatory markers increasing negative feedback effects on the HPA over time.

Another interesting study shows that the hyporeactivity of the HPA in adult atopy may be related to disease severity. This suggests that adults with increased allergic or atopic symptoms may have increased hyporeactivity of their HPA than other atopic adults. Also, increased stress, in the form of anxiety, has been shown to heighten the magnitude of allergic symptoms. For clinicians, this makes sense as we often see an increase in atopic and allergic symptoms in our patients who are undergoing stressful life events.

Ultimately what this information gives us is an understanding that cortisol production in the atopic patient is irregular. In the very young infant or child, it can be quite elevated before the onset of disease or clinical manifestations. In the toddler, child or adult who has atopic symptoms, we can see depressed cortisol levels indicating hyporesponsiveness of the HPA and, often, the severity of the depression of cortisol levels can be correlated with the severity of symptoms. This information gives us great incentive for monitoring our atopic patients more closely with salivary cortisol levels in order to support their compromised HPA and help to holistically manage their symptoms.

References:

- *Buske-Kirschbaum A, Fischbach S, Rauh W, Hanker J, Hellhammer D. (2004). Increased responsiveness of the hypothalamic-pituitary-adrenal (HPA) axis to stress in newborns with atopic disposition.*

Psychoneuroendocrinology, 29(6), 705-11.

- Buske-Kirschbaum A, Ebrecht M, Hellhammer DH. (2010). Blunted HPA axis responsiveness to stress in atopic patients is associated with the acuity and severeness of allergic inflammation. *Brain, Behavior and Immunity*, 24(8), 1347-53.
- Kiecolt-Glaser JK, Heffner KL, Glaser R, Malarkey WB, Porter K, Atkinson C, Laskowski B, Lemeshow S, Marshall GD. (2009). How stress and anxiety can alter immediate and late phase skin test responses in allergic rhinitis. *Psychoneuroendocrinology*, 34(5), 670-80.
- Mizawa M, Yamaguchi M, Ueda C, Makino T, Shimizu T. (2013). Stress evaluation in adult patients with atopic dermatitis using salivary cortisol. *Biomedical Research International*, 2013:138027.
- Stenius F, Borres M, Bottai M, Lilja G, Lindblad F, Pershagen G, Scheynius A, Swartz J, Theorell T, Alm J. (2011). Salivary cortisol levels and allergy in children: The ALADDIN birth cohort. *Journal of Allergy and Clinical Immunology*, 128(6), 1335-9.



REGISTRATION IS OPEN!

Labrix Founder and Medical Director Dr. Jay Mead, CEO and Associate Medical Director Dr. Erin Lommen, and Staff Physicians Dr. Robyn Kutka, Dr. Lylen Ferris, and Dr. Sara Wood present the fundamentals of hormone balancing, broken down into simple core concepts and related in a single day of engaging presentations and discussions. This event is designed for the provider who is new to the field of hormone balancing or is looking to brush up on the basics.

Join us for this 8-hour training and leave with the tools and knowledge necessary to:

- Identify patients who would benefit from hormone balancing
- Understand the roles of major sex and adrenal hormones in men and women
- Appreciate the relationships between the various hormones and the entire endocrine system
- Recognize the role that sex and adrenal hormones play in several prominent disease processes
- Treat hormone imbalances with nutritional supplements, botanical medicines and BHRT

This event will be held on **Saturday, August 2nd, 2014** at the Hilton Portland & Executive Tower.

Labrix has secured a room block at the rate of \$179/night. [Click here to reserve your room.](#)

If you are serious about adding this powerful tool into your practice, register to attend and secure your seat.



Registration is \$150 and following successful completion of the course, you will receive a \$100 credit on your testing account.

This event is a non-CME event.

Sign Up Now For This CE Approved Live Webinar Event

Labrix is proud to sponsor the upcoming live webinar on Monday, May 19 at 11am PST: “Progesterone-A Powerful Hormone for Women and Men.” Dr. Gina Nick Cushman, NMD, PhD will present the webinar via FreeCe.com and will discuss utilizing an integrative approach to hormone balance and the prevention and treatment of many of the diseases of aging with the use of bioidentical progesterone.



Dr. Gina Nick Cushman, NMD, PhD

Dr. Gina Nick Cushman, NMD, PhD is a California and Hawaii licensed practicing physician who has treated thousands of patients using BHRT, and trained healthcare professionals worldwide on this emerging treatment modality.

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