Cleveland's Center for Healing
HYPERION™
Functional Medicine



BREAST CANCERS AND ACTIVATION OF THE HPA AXIS

Women diagnosed with breast cancer like every cancer patient typically develop anxiety about their prescribed treatments, prognosis, and disruptions in their daily lives. Cancer related stress has been shown to have a negative impact on health. Cortisol and other adrenal hormones have been shown to contribute to cancer progression and negative health outcomes[1].

Cortisol is the human body's primary stress hormone discussed in this cancer root, and research suggests that high levels of cortisol may be positively correlated with breast cancer progression and a worse prognosis. There is a growing body of research both clinically and at a molecular level that's revealing the correlation between high cortisol levels in the advancement of breast cancer. Breast cancer patients have been shown to have high levels of cortisol and cortisol levels have been correlated with an increase in mortality and recurrence after treatment[2].

More than 60% of women with breast cancer have been found to have abnormal levels of cortisol during the day and mortality rate needs women was significantly higher than women with normal cortisol levels[3]. Studies have also revealed clearly that depression and negative emotional experience are linked to early development of breast cancer[4].

Understand what Symptoms of Elevated Cortisol are:

1. Elevated cortisol can cause rapid weight gain in the belly, but also in the face and chest. Cortisol affects levels of ghrelin and leptin. Ghrelin is referred to as the "hunger hormone" as it induces hunger. Leptin, on the other hand, will cause you to feel full or satiated. Cortisol lowers leptin while increasing ghrelin, leading to weight gain, especially in the abdominal area
2. Easy bruising and slow healing are also signs of elevated cortisol. Elevated cortisol affects the immune system.
3. Muscle weakness can occur and be noticed in the upper arms and thighs.
4. Chronic fatigue is a common symptom of elevated cortisol.
5. Cortisol has effects on the gastrointestinal system because it slows movement through the stomach and leads to bloating and indigestion. It can also lead to diarrhea. It negatively impacts the G.I. microbiome.
6. Increase in blood pressure can occur.
7. Bone loss can lead to Osteoporosis, increasing your risk of fractures.
8. Mood changes such as depression and anxiety, mood swings and sadness also tend to occur more frequently.
9. Cortisol influences our circadian rhythm, not just as a player in the stress response. Cortisol is released in large amounts in the morning but levels at night will be the lowest. The duration of stress can increase cortisol chronically and this can affect the circadian rhythm leading to fatigue, sleep difficulties and more. Chronic insomnia or frequent nighttime waking is a symptom.
10. Other biological changes can include elevated blood sugars, muscle pain, or muscle tension.

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Ways you can balance your cortisol levels in addition to continuing your oncology treatments

1. What you eat can not only impact your cancer, but also your cortisol levels, eating foods such as processed meats, high sugar foods, caffeine and alcohol, which provide little nutritional value, have been associated with more psychiatric symptoms and can increase cortisol levels. MD Anderson Center lists foods, like cookies, cakes, sugary drinks, white bread, and pasta as foods to avoid, they cause blood sugar levels to rise rapidly. The body then produces insulin to bring blood sugar levels back down, which can lead to a crashing period that affects other hormones, including cortisol . The resulting chronic elevation in insulin, known as hyperinsulinemia, over time, also drives cancer growth and metastasis.
2. Caffeine is known to increase cortisol, limiting caffeine intake is recommended to reduce elevated cortisol levels.
3. Relaxation techniques, like deep breathing exercises, yoga, mindful meditation, and prayer all will help reduce cortisol levels. In functional medicine we typically recommend regular meditation twice a day for 20 minutes. Reducing stress levels will help suppress the release of cortisol. Getting into a daily habit using these tools can help bring cortisol levels down.
4. Getting enough sleep is critical, sleep is the time for cellular healing in the body. Many times, elevated cortisol disrupts sleep. Typically, you find you wake up at 3 o'clock in the morning and can't go back to sleep. This is a sign of elevated cortisol as cortisol starts to rise early in the morning to get us ready for the day. It's already elevated, its effects are compounded. There are supplements that can assist patients in bringing their elevated cortisol levels down at night in addition to relaxation techniques. Adaptogenic herbs such as Ashwaganda and Rhodiola, Adaptogen's help the body adapt to stress. Holy basil tea is another action. Magnesium can also help patients relax.
5. In the warmer weather, spend as much time outside as possible: get your bare feet on the ground and practice grounding/earthing, here's a link to learn more about its effects on inflammation and healing:

Oschman JL, Chevalier G, Brown R. The effects of grounding (earthing) on inflammation, the immune response, wound healing, and prevention and treatment of chronic inflammatory and autoimmune diseases. J Inflamm Res. 2015 Mar 24;8:83-96. doi: 10.2147/JIR.S69656. PMID: 25848315; PMCID: PMC4378297.

6. The Grounded Documentary (Steven Kroschel)--free on Youtube. He is a filmmaker for National Geographic and runs a wildlife rescue in Haines, Alaska. He tested it on his whole town. --Heal For Free.
7. Websites: http://earthinginstitute.net. Under the research tab you will find placebo-controlled studies on the benefits of grounding/earthing. You can also look under the FAQ tab at the about where to buy earthing products. It will send you to a different website from which you can order products.
8. http://www.intuition-physician.com. This is the website for Laura Koniver MD. She is an integrative physician and earthing expert and does web-based classes. She reviews articles for tvarious topics regarding the benefits of ground/earthing. She also sells grounding products. She is featured in the two documentaries above.
9. People: James Oschman PhD (cell biologist, and pioneer scientist in the field of energy medicine. Did some of the original research on the benefits of grounding. Also wrote the book: energy medicine: the scientific basis). Clint Ober--Brought a lot of momentum to considering the benefits of earthing. Co-wrote the book Earthing: The Most Important Health Discovery Ever? With Stephen Sinatra MD (integrative cardiologist and also expert on grounding) and Martin Zucker.
10. Joseph Mercola also talks about earthing

Hyperion Functional Medicine offers a plan to help all cancer patients reduce elevated cortisol levels. In the phase 1 functional oncology program, patients are given the tools they need to help reduce cortisol levels that may be driving cancer based on their symptoms and history. Working with the health coach to learn stress reduction techniques is a key part of our program. All patients are encouraged to see a therapist to reduce symptoms associated with the trauma of the cancer diagnosis often leading to elevated cortisol levels. Cortisol level testing is offered to patients who exhibit signs of elevated cortisol described above, not only to optimize a reduction in cortisol production, but for patients who desire to know what their cortisol levels are over time. Cortisol levels can be tested in the blood, saliva, and urine.

Reduction of cortisol levels will positively impact your cancer healing journey.

In partnership with healingstrong

1- Antoni MH, Lutgendorf S, Cole S, Dhabhar F, Sephton S, McDonald P, Stefanek M, Sood A. The influence of biobehavioral factors on tumor biology, pathways and mechanisms. Nat Rev Cancer. 2006;6:240–8

2 - Al Sorkhy, Mohammad. Fahl, Zina. Ritchie, Jenna. Cortisol and Breast Cancer: A Review of Clinical and Molecular Evidence. Ann. Cancer Res, ther. Vol26, No.1,pp. 19-25, 2018

3 - Turner-Cobb JM, Sephton SE, Koopman C, Blake-Mortimer J, Spiegel D. Social support and salivary cortisol in women with metastatic breast cancer. Psychosom Med. 2000 May-Jun;62(3):337-45. doi: 10.1097/00006842-200005000-00007. PMID: 10845347.

4 - Li P, Huang J, Wu H, Fu C, Li Y, Qiu J. Impact of lifestyle and psychological stress on the development of early onset breast cancer. Medicine (Baltimore). 2016 Dec;95(50):e5529. doi: 10.1097/MD.0000000000005529. PMID: 27977584; PMCID: PMC5268030.

5 - https://www.mdanderson.org/cancerwise/8-foods-that-impact-stress