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ADRENAL HORMONE INSUFFICIENCY & TREATMENT

HYDROCORTISONE/CORTISOL (brand name: CORTEF) – an adrenal hormone that helps our bodies adapt to every type of stress, reduces inflammation, helps maintain normal blood sugar and blood pressure, enables normal immune response and thyroid metabolism and more.

Too little: *Fatigue, low blood pressure, dizziness on standing, palpitations, allergies & abnormal sensitivities, inflammation, autoimmune disease, low immunity, digestive problems like nausea & loose stool, chronic pain/joint pain, loss of appetite, weight loss, sugar/starch/salt cravings, anxiety & depression, swollen glands and more.*

Too much: *weight gain, high blood sugar, high blood pressure, bone thinning, swelling, ulcer, cataracts, adrenal suppression, impaired immunity and more (*see pharmacy insert). Low doses of 20mg or less have little risk. Occasionally even low doses cause weight gain, anxiety and sleep disruption. Report side effects to your physicians/Dr. Doyle.*

To limit side effects: **Report any weight gain** or other side effects immediately. Avoid taking anti-inflammatory meds such as ibuprofen and aspirin regularly due to increased risk of stomach ulcers. Maintain healthy levels of thyroid hormones, DHEA, vitamin D, and magnesium (possibly combined w/ calcium) and **avoid excess dietary sugars and starches.**

Usual Dosing: 5mg tabs, usually 2-4 tabs/day with food.

Equivalents: Hydrocortisone 20mg = Prednisone 5mg = Prednisolone 5mg = Medrol (methylprednisolone) 4mg.

Remember: If you regularly take 20 mg or more of Cortef per day or the equivalent, you should wear a Medic-Alert bracelet that says you are on cortisone treatment. **See MedicAlert.org.**

***Stress Dosing:** Higher doses may be needed for brief periods during stress --- infection, emotional stress and physical trauma. The usual dose for minor stressors such as colds and respiratory infections is **2 tabs four times a day** (breakfast/lunch/dinner/bed time). Take this dose for 2-5 days - until well - then reduce to usual dose. *Contact your physician if your symptoms are worsening, or if you are not getting well within 3-5 days. For prednisone/prednisolone/methylprednisolone: take **1 tab twice a day at breakfast and dinner**, then reduce as above.

DHEA – Another Adrenal Hormone

Too Little: *low energy, depression, anxiety, low libido, loss of body hair, possibly weight gain, high blood sugar and more. Helps balance the effects of cortisol and seems to reduce side effects of cortisol.*

Too Much: *oily skin, acne, facial hair, insomnia, edginess. DHEA can aggravate prostate enlargement and may accelerate cancers such as prostate, testicular or breast cancers (these have not been seen in humans).*

Usual Dosing:

Women: 5 - 25 mg per day. Take as 1 dose at breakfast. Decrease if side effects occur.

Men: 10- 40 mg per day. Take as 1 dose at breakfast. Decrease if side effects occur.

FLORINEF (FLUODROCORTISONE) -- synthetic form of aldosterone

Too Little: *fatigue, low blood pressure, dizziness or weakness when standing.*

Too Much: *headaches, swelling and high blood pressure, low potassium.*

Note: Serum potassium must be monitored during Florinef/fludrocortisone treatment.

Usual Dosing: .1 mg tablet. 1/4 - 1 tablet as directed. Start with one quarter tablet at breakfast.

REFERENCES/ADDITIONAL READING

My Website: See Adrenal Info and Myths at StamfordIntegrativeMedicine.com/About

Website of William Mck. Jefferies, MD: (reproduced on my website)- see "Adrenal Basics" .

Book: Safe uses of Cortisol. 3rd Edition. William Mck. Jefferies, MD

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ADRENAL MYTHS

Myth #1: Cortisone is a drug

Facts: Cortisone is a natural hormone that is made in the adrenal glands. A form called cortisol or hydrocortisone is one of the most important hormones in the human body, helping to keep us alive every day.

My conclusion: Cortisol (a.k.a. hydrocortisone) is a natural adrenal hormone of great importance.

Myth #2: Cortisone is dangerous.

Facts: Too much or too little cortisol is dangerous. Having the right amount is necessary to stay healthy and alive. Harvard-trained endocrinologist, William McK. Jefferies, MD, spent the last 50 years of his life making this point. He demonstrated that taking cortisol at the levels needed to restore health and metabolism is extremely safe and that side effects only occur when the dose is excessive.¹ Many studies have supported this view.² In fact, when the head of Rheumatology at Emory University reviewed decades of evidence, he concluded that low doses of synthetic cortisone were actually safer and more effective than ibuprofen-type medications.³

My conclusion: Dr. Jefferies was correct. Hydrocortisone is extremely effective for a wide variety of conditions ranging from autoimmune diseases to allergies to chronic fatigue and more. Side effects are generally due to excessive doses or to deficiencies of other hormones such as thyroid hormone and DHEA.

Myth #3: Cortisone routinely suppresses the immune system.

Facts: Cortisone is necessary for a healthy immune response. Too much or too little can harm the immune system. For example, Prednisone, the most common synthetic form, has only been shown to suppress the immune system at double the dose that Dr. Jefferies recommended.⁴

My Conclusion: Only excessive amounts of cortisone suppress the immune system. Healthy levels are necessary for normal immune function.

Myth #4: There is a "right" way to test for cortisol deficiency.

Facts: There is no such thing as a perfect test. Cortisol is particularly difficult to test because blood levels can vary by the minute. Some people are even resistant to the effects of this hormone.^{5,6} So, even normal levels may be enough to keep these people healthy. In his book, Dr. Jefferies addresses this difficulty and recommends that a "therapeutic trial" is often the best approach.⁷ Jefferies is reported to have told his students, "When in doubt, treat the patient."

My Conclusion: Use appropriate testing, but "when in doubt, treat the patient" and closely monitor for benefits and/or side effects. Modify or withdraw treatment when it is not helping.

Adrenal References

1. <http://members.aol.com/jefferiesw/>
2. Wein Klin Wochenschr. 2003 Jan 31;115(1-2):6-21.
3. Arthritis Rheum. 2001 Oct 45(5): 462-7.
4. Arthritis Rheum. 2001 Oct 45(5): 462-7.
5. Horm Metab Res. 2007 June;39(6):425-9
6. J Psychopharmacol. 2006 Jul;20(4Suppl):79-84
7. Safe Uses Of Cortisol. Third Edition. 2004. by William McK. Jefferies, MD. p 37.