

NIH Clinical Center Patient Education Materials

Sick Day Rules for Patients with Adrenal Insufficiency

Your body does not make enough cortisol, and, depending on your diagnosis, your body may not make aldosterone. Cortisol is a hormone that helps with many bodily functions, including maintaining blood pressure. Normally, cortisol is secreted in the body in small amounts every day by the adrenal glands. The body also has the ability to increase cortisol production in response to various stressors such as infection or trauma. Aldosterone is a hormone that is important in regulating salt and water balance. Sufficient aldosterone is necessary to prevent dehydration. You are replacing cortisol in your body by taking the medicine named hydrocortisone, and, depending on your diagnosis, you may also be replacing aldosterone by taking the medicine named fludrocortisone.

Sick day rules for patients on steroid replacement like Hydrocortisone, Dexamethasone, or Prednisone (Glucocorticoid)

- If your fever is 100.4°F or higher, then double your dose (____ mg).
 - If your fever is 102°F or higher, then triple your dose (____ mg).
 - If you experience vomiting and/or diarrhea, then double or triple your dose depending on severity. Take a double dose for mild to moderate symptoms and a triple dose for severe symptoms.
 - If you vomit, wait half an hour, and repeat the dose. If you are vomiting and cannot keep the hydrocortisone medicine down (vomiting less than one hour after the dose), you need to administer injectable hydrocortisone (Solu-Cortef) or dexamethasone, and contact your physician. Do not delay the injection; give the medicine first, and then call your doctor to discuss when you need to be seen. Drink small amounts of clear sugar-containing liquids frequently.
 - If you experience an emergency situation (severe illness or trauma, inability to take pills, significant blood loss), use an emergency injection. Encourage family members and/or friends to learn how to give you an emergency injection. If you are very sick, you may not be able to give yourself the injection and will need their help.
- Call your doctor if you experience any of the following:
 - Fever for more than three days
 - Change in behavior, such as acting confused
 - Vomiting and inability to keep down medication
 - Persistent or severe diarrhea
 - If you are living with someone, let them know to seek medical help on your behalf if you have a change in behavior and if you are acting confused, are unresponsive, or are difficult to arouse.
 - Do not increase your dose or take “extra” pills for emotionally stressful days, common colds, regular exercise, or airline flights. Discuss any concerns about this with your doctor.

The injectable form of hydrocortisone (Solu-Cortef) or dexamethasone must be kept for emergencies. It may be stored in a medication cabinet for several years in the unmixed form. Check the expiration date frequently, and get a prescription refill when needed. Also, make sure that you have the needle and syringe that you will need to inject the medication. When traveling, please be sure to take the injectable form of hydrocortisone or dexamethasone with you along with the needle and syringe. The emergency Solu-Cortef dose is 100 mg. The emergency dexamethasone dose is 4 mg.

Acute glucocorticoid (cortisol) deficiency

Be aware of the following signs, and notify your doctor if you believe that you are experiencing any of them:

- Headache
- Nausea
- Abdominal pain
- Dehydration

- Confusion
- Weakness
- Fatigue

Remember:

- When you are sick, you should drink sugar- and salt-containing liquids, like non-diet soda, 7-UP, Gatorade, popsicles, and soup, to help prevent dehydration.
- If you need to have surgery or extensive dental work, or if you have been in an accident, a larger dose of hydrocortisone will be needed. Also, make sure to:
 - Notify the doctor or dentist performing the procedure that you have a cortisol deficiency so that he or she can give you the proper amounts of hydrocortisone. He or she will most likely give you an increased dose before surgery or dental work. Some injuries and surgeries require more than one increased dose.
 - Always carry medical identification, like a bracelet or necklace, and a wallet card to alert people in times of emergency that you have adrenal insufficiency and are taking medication. It is also a good idea to have something on your driver's license identifying you as having adrenal insufficiency.

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

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