

Cortisol Dosing During Times of Stress and Illness

What is cortisol?

Cortisol is a hormone produced by the adrenal glands under the direction of the pituitary hormone ACTH. Cortisol is needed by the body to maintain energy and blood sugar, to control the body's reaction to changes (stress) and is essential to maintain life. The amount of cortisol prescribed for your child is replaces what the child cannot produce naturally. This daily dose is not harmful to your child, and should not be confused with large doses of "steroids" given for illnesses like arthritis or cancer. Large doses of "steroids" may have side effects but since your child's dose is only what the body should make, no side effects will occur.

What are signs of cortisol deficiency?

Signs of cortisol deficiency include headaches, nausea, abdominal pain, dehydration, weakness, fatigue, or vomiting. Symptoms could also be due to low blood sugar include drowsiness, confusion, pallor, anxiety, or inability to stay awake.

Why is cortisol important during times of illness or stress?

During illness there is a greater need for cortisol and sugar. With minor illnesses such as those that keep your child home from school, the daily dose of oral cortisol should be increased 2-3 times what is usually given at each dose. The dose can return to normal 24 hours after illness ends. If your child vomits when given the pills, wait 30 minutes and give the pills again. Your child should be offered a SUGAR containing liquid such as 4 ounces of juice, 1 tablespoon of pancake syrup, popsicles, or sports drinks. If your child is too sleepy or ill to drink, prepare to give the injection.

For times of anticipated stress, such as surgery or wisdom tooth extraction, talk with your doctor. They will provide you with a plan.

What adjustments should be made for a child with significant illness or trauma?

For a child with significant illness or trauma, it is necessary to give cortisol by injection. At these times, your child will need a very large amount of cortisol very quickly. Situations that require a shot include broken bones or vomiting several times in an hour. Without this injection, your child will become severely ill and may go into shock. A child might become seriously cortisol depleted without an obvious reason. You will need to give a shot if your child feels cold and clammy; cannot stand or walk; is unable to take fluids by mouth; vomits more than twice in an hour; is turning blue; or when you are unable to wake your child. **After giving the shot, call us for advice. Give sugar containing fluids as soon as your child can swallow safely.**

Parents worry that they might harm their child by giving an unneeded shot. More harm can be done if a shot is not given when needed. When in doubt, always give the extra dose. Before rushing your ill or injured child to a local emergency room, give the shot at home.

What other precautions should I take for my child?

Your child must wear a Medical Alert tag. It should state Cortisol Dependent. Infants cannot wear such tags, but should have a Medic Alert tag taped to their infant car seat.

Disclaimer: This document is for informational purposes only and is not intended to take the place of the care and attention of your personal physician or other professional medical services. Talk with your doctor if you have Questions about individual health concerns or specific treatment options.

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