

## EMERGENCY TREATMENT OF CORTISOL DEFICIENCY

**Keep this in a safe place near your bottle of injectable Cortisol.**

CORTISOL (also known as **hydrocortisone**) is a hormone produced by the adrenal glands. Cortisol is necessary for daily functions. During times of stress (such as during illness, surgery and accidents) **normal** adrenal glands produce extra amounts of cortisol, which helps the body recover from stress. There are many forms of cortisol that are made synthetically. Some of these forms include: Cortef, Hydrocortisone, Solu-cortef, Cortisone, Prednisone, Decadron, Medrol, etc. Although they are all derivatives of cortisol, they all differ in their potency (how strong they are).

**CORTISOL DEFICIENCY** can occur in several disorders, including congenital adrenal hyperplasia, pituitary gland malfunction, malformations of the adrenal glands, Addison's disease or after stopping cortisone (Cortef, Prednisone, Decadron, Medrol, etc) treatment. Your child has been diagnosed with cortisol deficiency which is due to **Congenital Adrenal Hyperplasia**. Because of this deficiency, your child may need extra amounts of cortisol in order to recover from major stressful events. This extra amount of cortisol can usually be given by increasing amounts of the pill or liquid form of cortisol which your child takes every day. Usually, one triples the dose of cortisol. In some cases, however, children with cortisol deficiency are too sick to take medicines by mouth and must receive the extra cortisol by injection. The instructions below describe what you should do if your child needs extra cortisol.

If your child is also on **Florinef**, the Florinef **does not** need to be increased during most types of stress - you should continue with the same dose unless your physician recommends a change.

Your child should **always** wear an identification bracelet or necklace with the words "**Congenital Adrenal Hyperplasia**", "**Cortisol Deficiency**" or "**Adrenal Insufficiency**", "**takes Cortef and Florinef**" or a similar statement. This is to inform medical personnel that your child needs extra cortisol during stresses such as accidents or sudden illnesses. You may not be immediately available or you may be unable to speak for your child during these events. A wallet ID is **NOT** adequate since this can be misplaced during an emergency.

**EMERGENCY PHONE NUMBERS:**

**Nearby Emergency Room** \_\_\_\_\_

**Pediatric Endocrine Associates:** **(303) 783-3883**

**Pediatrician or Family Physician:** \_\_\_\_\_

**ALWAYS CALL IF YOU ARE UNSURE OF WHAT TO DO.**

If your child is scheduled for any surgical procedure (including dental surgery), please have the surgeon, dentist, or anesthesiologist call us (303) 783-3883 for advice regarding the cortisol dose.

**For MINOR illness or stress**, such as: colds, mild "flu" or other illness with minimal fever, ankle sprains, or minor injuries:

**Double each dose of cortisol (hydrocortisone, Cortef).** For instance, if your child's usual dose is one pill 3 times a day, increase this to two pills, 3 times a day. If your child is on cortisol only once or twice a day, give 2 times the usual amount once or twice a day. During these illnesses, you should call our office (783-3883) so that we can give you advice on how long to continue with the higher cortisol dose. You should **always** contact us or your family physician as soon as possible if your child has an illness with vomiting. Extra amounts of salt may also be necessary during these illnesses, especially if your child is an infant. Consult your physician for further advice.

After your child has recovered from the minor illness or injury, the dose of cortisol can be decreased to the usual amount. In most cases, your child will not require the increased dose of cortisol for more than 2 or 3 days.

For **MORE MAJOR** illnesses, associated with a **fever over 101 degrees and/or vomiting/diarrhea**:

**Triple each dose of cortisol (hydrocortisone, Cortef).**

For **MAJOR** illness or stress, such as: severe dehydration; unconsciousness; illnesses with **continuous vomiting or diarrhea**; accidents with multiple broken bones, internal injuries or unconsciousness.

**CALL** your physician or take your child to the **NEAREST** hospital **IMMEDIATELY**. If this is not possible, or there is a delay, give your child an intramuscular injection of cortisol as follows:

1. **DO NOT PANIC.**
2. Twist the rubber top on the **Solu-Cortef 250 mg/2cc Mix-O-Vial** so that the liquid enters the powder section.
3. Mix gently by shaking or rolling until the mixture is clear.
4. Clean the rubber stopper with alcohol or water.
5. Stick the needle through the rubber stopper. Then turn the bottle upside-down (with the needle still in it) and draw up \_\_\_\_\_ cc of the cortisol into the syringe.
6. Inject into a muscular part of the body, such as the thigh or upper arm. If possible, clean the injection site first.

**TWIST          MIX          DRAW UP          INJECT**

**THEN TAKE YOUR CHILD TO A DOCTOR OR CALL FOR HELP.**

- Notes:
1. Be sure that you have an un-expired **Solu-Cortef 250 mg/2cc Mix-O-Vial** readily available.
  2. If Decadron (or dexamethasone) has been prescribed instead of the Solu-Cortef Mix-O-Vial, be sure that the Decadron is not expired and that you know how to give the Decadron injection.
  3. Be familiar with the injection method **BEFORE** you need to use it, and

review the procedure occasionally.

4. If you plan to be away from your child for several days, be sure that the babysitter or caretaker is familiar with your child's condition and knows what to do in an emergency.
5. Your child's teacher should also be aware of your child's diagnosis and what to do in an emergency.
6. The amount for the injection will change according to your child's size at about the age of 5, 10 and 15 years - check with your physician for recommendations.