

ADRENAL INSUFFICIENCY PATIENT RESOURCE

ADRENAL HORMONES

Adrenal hormones are produced by the 2 adrenal glands that sit on top of each kidney. Adrenal Insufficiency (AI) is a condition where the body cannot produce enough adrenal hormones which are essential to life.

Adrenal hormones are called “stress hormones” because they allow the body to respond to stress.

-  **Cortisol (a glucocorticoid hormone)**
Regulates blood pressure, wound healing, and blood sugar
-  **Aldosterone (a mineralocorticoid hormone)**
Regulates blood pressure, water, and salt balance

Primary Adrenal Insufficiency happens when the adrenal glands are directly affected (eg. from autoimmune disease, infection, or surgery), resulting in a lack of both cortisol and aldosterone.

Secondary Adrenal Insufficiency happens when the brain signals to the adrenal glands are affected (eg. from too much glucocorticoid for other conditions, opioid medications, or damage to the pituitary gland), resulting in a deficiency of only cortisol.

COMMON SYMPTOMS

- Fatigue/ exhaustion
- Fainting or dizziness on standing
- Low blood pressure
- Severe nausea, vomiting, and/or diarrhea
- Weight loss
- Back or abdomen pain
- Darkening of skin or gums (In primary AI only)
- Salt craving (In primary AI only)

WE RECOMMEND



Wear a medical alert bracelet or necklace with the term “ADRENAL INSUFFICIENT- STEROID DEPENDENT”.



Keep a wallet card, and/or a have letter from your doctor outlining the need for emergency medications and dosing recommendations

HOW AI IS TREATED?

Cortisol Replacement



hydrocortisone (Cortef™), cortisone acetate, dexamethasone, OR prednisone.

Aldosterone Replacement



(For primary AI only)

fludrocortisone (Florinef™)

TALK TO YOUR HEALTHCARE PROVIDER IF...



Dizzy when getting out of bed or changing position



Worsening energy



Unwanted weight loss or weight gain



Blood sugars too high or too low



Blood pressure too high (> 140/90 mmHg) or too low (< 90/60 mmHg)



Worsening salt craving



Mood changes (e.g. depression, anxiety, irritability)



Undergoing procedure or pregnancy

SPECIAL CIRCUMSTANCES

During illness, surgery, physical injury, or emotional stress, your body requires additional cortisol doses and in some circumstances this can be life threatening if not treated (Adrenal Crisis).

See your personal treatment plan regarding stress dosing and adrenal crisis management.



Ask your doctor about the need for an emergency glucocorticoid injection kit at home, which may be recommended in cases of significant illness or travel. Keep in mind, you still need to go to the hospital if you have adrenal crisis symptoms.



Ensure that friends/family can recognize the signs and symptoms of adrenal crisis and when to get help.



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WATCH OUT FOR



Pregnancy

- Speak to your doctor about dosing once you find you are pregnant or are planning pregnancy. **See Labor and vaginal delivery procedure*



Strenuous exercise

- Dosage: A temporary increase in stress hormone dosage may be required.
- Speak to your doctor for a personal plan.



Hot temperatures or conditions

- You may need extra doses of stress hormone or extra fludrocortisone.
- Stay hydrated; increase both salt and fluid intake.
- Speak to your doctor for a personal plan.



Medical/dental procedure or surgery:

- Dosage: Let your healthcare professional know of your adrenal insufficiency, as additional doses of stress hormones before and/or after maybe required. **See the dental procedures.*



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Ask your doctor about the need for an emergency glucocorticoid injection kit at home, which may be recommended in cases of significant illness or travel. Keep in mind, you still need to go to the hospital if you have adrenal crisis symptoms.



Ensure that friends/family can recognize the signs and symptoms of adrenal crisis and when to get help.

MEDICAL/DENTAL PROCEDURES



Admission to hospital or emergency department

- Notify the healthcare team of your diagnosis of adrenal insufficiency, and notify your healthcare provider's office if you are being admitted to hospital.



Minor Procedures with local anesthetic

- Post-op: An extra dose of oral stress hormone can be taken, only if adrenal insufficiency symptoms occur.



Labor/ Delivery

- Pre-op: 100 mg hydrocortisone IV or IM at onset then every 6 hrs until delivery
- Post-op: Double the regular dose of oral stress hormone for 24-48 hours then return to normal dose if well.



Minor Surgeries/Procedures Requiring General Sedation

- Pre-op: 100 mg hydrocortisone IV or IM.
- Post-op: Double the regular dose of oral stress hormone for 24 hours then return to normal dose



Bronchoscopy



Endoscopy: Gastroscopy and/ or Colonoscopy



Major or Emergency Surgery (eg. joint surgery. transplant procedures)

- Pre-op: 100 mg hydrocortisone IV or IM.
- Post-op: Double the regular dose of oral stress hormone for 48+ hours and taper back to the normal dose.



Dental procedures

- **Minor dental procedure:** Take an extra dose of oral stress hormone if you develop adrenal insufficiency symptoms (can be taken post-procedure).
- **Surgery with local anaesthetic:** Double the regular dose of oral stress hormone one hour prior to surgery and for 24 hours post-procedure then return to normal dose.
- **Major dental surgery:** 100 mg hydrocortisone IV or IM prior to anaesthesia. Double the regular dose of oral stress hormone for 24 hours post-procedure then return to normal dose.



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