



FACT SHEET

General guidelines for stress dosing and sick day management

Healthy adrenal glands are able to quickly release cortisol into the blood stream to help the body cope instantly with the demands of extreme physical and mental stress. People with adrenal insufficiency may need to take **extra cortisol** in addition to their daily doses when they are sick, injured, before any kind of surgery or when undergoing times of physical or emotional stress. This is called **stress dosing or sick day dosing**.

Keep the following stress dosing guidelines handy and review them regularly

Examples below are for people taking hydrocortisone tablets. Consult your medical practitioner if you take a different medication for adrenal insufficiency or if you are a child under 12 years of age.

Stress	
Mild injury	Some individuals take a small dose of hydrocortisone for these events, but it is not universally required. The precise dosing is not known, but should not exceed 4-10mg hydrocortisone.
Exhausting, strenuous physical exercise if person is not used to it (e.g. hiking, mountain climbing for several hours).	
Major emotional or mental stress (eg: death of a close relative, funeral, before an important uni exam)	
Infection / fever	
<i>Note: Infections are the most frequent cause of adrenal crisis, including gastroenteritis. Maintain the extra doses until recovery, then reduce to the standard doses within 1–2 days.</i>	
Fever of more than 38°C	Double normal daily dose(s)
Fever of more than 39°C	Triple normal daily dose(s)
Severe infections (eg: pneumonia)	Early on: hydrocortisone IV every 6 hours until condition stabilises, then 2-3x normal dose
Vomiting / diarrhoea	
<i>Note: Vomiting and diarrhoea pose a particularly high risk as the absorption of hydrocortisone is compromised while the demand for cortisol is increased.</i>	
Any illness that includes vomiting and/or diarrhoea	Triple normal daily dose(s), sip rehydration/electrolyte fluids. If vomiting persists and medication cannot be kept down, use emergency injection kit (100mg IM/SC Solu-Cortef). Then call a doctor / go to the nearest emergency department.
Severe illness or injury	
<i>Note: Go to the nearest emergency department for hydrocortisone injection and fluids.</i>	
Severe infections, illness (e.g.: pneumonia) or injury	Early on: hydrocortisone IV every 6 hours until condition stabilises, then 2-3x normal dose

See over: Medication Requirements for Surgery and special diagnostic procedures



Medication requirements for surgical procedures

Always inform your doctor, dentist or any specialist of your condition before undergoing procedures. This includes invasive diagnostic tests such as a colonoscopy or barium enema, procedures under general anaesthesia, dental treatment or minor outpatient surgery.

Ensure your surgical team is aware of your need for extra cortisol/medication and that they have checked the surgical guidelines for stress dosing!

Type of Procedure	Perioperative needs (before surgery begins)	Postoperative needs (after surgery)
Major surgery with long recovery time e.g. cardiothoracic surgery, oesophagectomy, Whipple's procedure.	50mg hydrocortisone IV with induction (at time the anaesthetic is given)	Continue 50mg hydrocortisone IV every 6 hours for 24 hours. Taper to normal dose over 2-3 days
Moderate surgery e.g. open cholecystectomy, total joint replacement, hysterectomy, caesarean section. Includes dental surgery under general anaesthesia.	25mg hydrocortisone IV with induction	Hydrocortisone 25mg IV 8-hourly for 24 hours. Then return to normal oral dose.
Minor surgery e.g. cataract surgery, hernia repairs, laparoscopy with local anaesthetic, endoscopy. Includes dental surgery >1hr and with local anaesthetic.	25mg hydrocortisone IV or 20mg oral with induction/immediately prior to onset procedure	Continue with normal dose.
Labour and vaginal birth	25mg hydrocortisone IV at onset of labour, then 6 hourly until delivery. 100mg IV at time of delivery.	Double oral dose for 24-48 hours after delivery.
Invasive bowel procedures requiring laxatives e.g. colonoscopy, barium enema	Hospital admission overnight with IV fluids and 100mg hydrocortisone IV during preparation.	Hydrocortisone 20mg oral/by mouth 8-hourly for 24 hours then return to normal dose.

Source:

Neuke MA, Torpy DJ. Royal Adelaide Hospital.