

STEROID SICK DAY RULES (HYDROCORTISONE & PREDNISOLONE)

The adrenal glands, located on top of the kidneys, release cortisol hormone (natural steroid hormone). This secretion fluctuates daily and increases when unwell or injured. Failure to produce enough cortisol can lead to a life-threatening adrenal crisis.

If you don't produce enough cortisol, you should know when to increase your cortisol level during stressful times or illness by taking extra steroid tablets or an injection.

The table below outlines common life events when cortisol increase is needed, including duration and form of administration (tablets, injection to muscle or vein).

Seek medical advice if you've used your emergency injection or if increased tablet dose has not resolved the symptoms.

When do I need an emergency injection?

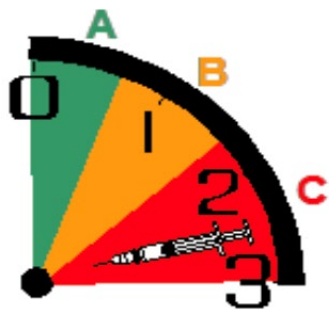
- If you can't keep down your tablets (persistent vomiting) or your condition worsens despite increasing the dose, this may happen gradually or rapidly

The cortisol clock below provides approximate times of need for emergency medical help and replacement.
Emergency cortisol replacement peak timings for clinical use

A = period of first feeling unwell (within, or up to, one hour)

B = period of increasing illness (failure to retain oral cortisol) (during 2nd hour)

C = DANGER ZONE - emergency cortisol injection needed (by the 3rd hour)



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Illness/Situation	Action to take	Level of Care Needed
Adrenal crisis – Severe vomiting, severe diarrhoea, severe weakness, faint, loss of consciousness.	Have an emergency injection of hydrocortisone 100 mg in the muscle. Self-administer or have it administered by a family member/NOK/carer/healthcare professional. Dial 999 and state “adrenal crisis”	Urgent – need hospital admission to stabilise.
If severely unwell (for example, with sepsis) or in the intensive care unit	Give 100 mg intramuscular or intravenous hydrocortisone. Then, give 200 mg intravenous hydrocortisone over 24 hours or 50 mg intramuscular or intravenous hydrocortisone 4 times a day.	In-Hospital intensive care. Seek endocrinology specialist advice.
High temperature, signs of infection or proven to have infection (i.e., urine tract, chest, tonsillitis etc) <i>Note: some people do not always present a temperature during infection. If there is a clear sign of infection, please follow the recommended increase dosing, but if unsure, contact your GP or endocrine team.</i>	Take hydrocortisone 20 mg at the onset and continue double the dose or 10 mg every 6 hours. If on prednisolone, take 10 mg per day (can be divided to 5 mg twice a day). Continue the above dose for 24-48hours or until feel better.	GP/self-care, if symptoms not resolved at 48 hours see GP as may need antibiotic treatment. If condition worsens call NHS 111 or 999.
Antibiotic treatment for infections. (This excludes prophylactic/prevention antibiotic regime)	Take hydrocortisone 20 mg at the onset and continue double the dose or 10 mg every 6 hours. If on prednisolone, take 10 mg per day (can be divided to 5 mg twice a day). Continue throughout the course (usually 5-7 days).	GP/self-care, if symptoms persist after the course of antibiotics see GP. If condition worsens, call NHS 111.

Vomiting with/without diarrhoea	Take hydrocortisone 20 mg at the onset and continue double the dose or 10 mg every 6 hours. If on prednisolone, take 10 mg per day (can be divided to 5 mg twice a day). Continue the above dose for 24-48hours or until feel better. Note: If vomiting recurs within 30 mins of taking hydrocortisone, take another 20 mg of another hydrocortisone tablet. If vomited again within 30 mins, administer emergency hydrocortisone 100 mg in the muscle.	Urgent - if unable to tolerate fluids/hydrocortisone tablets and emergency injection was used, admission is needed to stabilise. GP - if able to tolerate fluids and retain oral hydrocortisone, check sodium within range. Anti-sickness treatment may be needed
Diarrhoea (frequent watery stools)	Take hydrocortisone 20 mg at the onset and continue double the dose or 10 mg every 6 hours. If on prednisolone, take 10 mg per day (can be divided to 5 mg twice a day). Continue the above dose for 24-48hours or until feel better. Note: If severe diarrhoea (3 or more episode of loose/watery stools in a day), and accompanied with weakness and nausea, administer hydrocortisone 100 mg in the muscle.	GP/self-care – ensure adequate hydration with electrolyte replacement. Urgent - if unable to tolerate fluids and/or severe diarrhoea, administer emergency injection and call NHS 999. May need admission to stabilise.

Significant accident/falls/physical injury	Take hydrocortisone 20 mg at the onset and continue double the dose or 10 mg every 6 hours. If on prednisolone, take 10 mg per day (can be divided to 5 mg twice a day). If significant injury, i.e., head injury or broken bone, administer emergency injection.	GP/self-care Urgent if significant injury.
Severe shock- bereavement, road traffic accident, witness to trauma	Take hydrocortisone 20 mg at the onset and continue double the dose or 10 mg every 6 hours. If on prednisolone, take 10 mg per day (can be divided to 5 mg twice a day). If severe shock, i.e., sudden death of an immediate family member, an emergency injection may be needed if showing signs of an adrenal crisis.	See GP or hospital for further advice. Sudden and severe shock may be classed as emergency - seek medical attention if in doubt. Call NHS 111/999
Long haul flight over 12 hours	Take hydrocortisone 20 mg one hour before the flight and continue hydrocortisone 10 mg every 6 hours. If on prednisolone, take 10 mg one hour before the flight. Reduce back to normal dose after 24 hrs.	Self-care

General stress, exams, etc.	Not usually required. Ask GP or your endocrine team if concerned. Alternatively, you can also contact our endocrine nurse helpline for further guidance.	Self-care
Dental Treatments		
Major dental surgery i.e., dental extraction/s under local or general anaesthetic	Administer hydrocortisone 100 mg intramuscularly before induction of anaesthetics. Take hydrocortisone 10 mg every 6 hours for 24 hours then return to usual dose.	Dentists/anaesthetists to monitor during procedure and follow adrenal crisis management guideline if needed.
Minor dental surgery i.e., root canal	Take hydrocortisone 20 mg one hour before the surgery then, continue double the dose of hydrocortisone or 10 mg every 6 hours for 24 hrs then return to usual dose. If on prednisolone, take your usual dose in the morning and then take 10 mg one hour before the surgery	Dentists/anaesthetists to monitor during procedure and follow adrenal crisis management guideline if needed. GP/self-care – to monitor for any signs of post-procedural complications and follow sick day rules as appropriate.
Minor dental procedures i.e., cleaning, scale and polish and fillings	Take hydrocortisone 20 mg one hour before the procedure. If on prednisolone, take your usual dose in the morning and then 10 mg one hour prior to the procedure. Return to usual dose the next day.	Dentists/anaesthetists to monitor during procedure and follow adrenal crisis management guideline if needed. GP/self-care – to monitor for any signs of post procedural complications and follow sick day rules as appropriate.
Surgery/Procedures		

Surgery with long recovery under general anaesthetics- i.e., heart, bowel, kidney	Hydrocortisone 100 mg IV with anaesthetic, then 50 mg IV every 6 hrs or 200 mg continuous IV over 24 hrs until able to eat/drink. Then hydrocortisone 10 mg tablets every 6 hours for 24 hrs, then return to usual dose.	In-hospital monitoring and post-op review by the surgical team. GP/self-care - to monitor for any signs of post-procedural complications and follow sick day rules as appropriate.
Surgery with quick recovery - i.e., joint replacement	Hydrocortisone 100 mg IV with anaesthetic, then 100 mg IV every 6 hrs or 200 mg continuous IV over 24 hrs until able to eat/drink, then double, then hydrocortisone 10 mg every 6 hours for 24-48 hrs then return to usual dose.	In-hospital monitoring and post-op review by the surgical team. GP/self-care - to monitor for any signs of post-procedural complications and follow sick day rules as appropriate.
Minor surgery (day case)- i.e., cataract, hernia	Hydrocortisone 100 mg intramuscularly pre-anaesthetic, then hydrocortisone 10 mg every 6 hours for 24-48 hrs then return to usual dose.	In-hospital monitoring and post-op review by the surgical team. GP/self-care - to monitor for any signs of post-procedural complications and follow sick day rules as appropriate.
Minor surgery with local anaesthetic - mole removal	Take hydrocortisone 20 mg one hour before the procedure. If on prednisolone, take your usual dose in the morning and then 10 mg one hour prior to the procedure. Return to usual dose the next day.	In-hospital monitoring and post-op review by the surgical team. GP/self-care - to monitor for any signs of post procedural complications and follow sick day rules as appropriate.
Colonoscopy/Barium enema	Take hydrocortisone 20 mg as soon as the preparatory laxatives take effect and then 10 mg every 6 hrs throughout the preparation. If on prednisolone, take 10 mg	In-hospital monitoring and post op review by the admitting team (endocrine/gastroenterology).

	per day (can be divided to 5 mg twice a day). For colonoscopy only: a 100 mg of hydrocortisone injection 30 minutes before procedure to be given by doctor. Take usual dose on the morning of procedure. Some centres may want to admit you to hospital the night before, to give the bowel prep and provide hydrocortisone cover.	GP/self-care – to monitor for any signs of pre-procedural adrenal crisis symptoms and post-procedural complications and follow sick day rules as appropriate.
Gastroscopy/Cystoscopy	100 mg intramuscular or intravenous at the start of procedure.	In-hospital monitoring by Gastroenterology/Urology team.
Pregnancy		
Immediately once confirmed pregnancy; 1 st trimester and 2 nd trimester	Take usual dosing and follow sick day rules if needed.	Inform the endocrine team regarding your pregnancy and your obstetrics team that you are steroid dependent.
Hyperemesis Gravidarum	Immediately administer 100 mg hydrocortisone intramuscularly and go to the emergency department or early pregnancy unit. <u>Hospital guidance:</u> At the hospital, give antiemetics and hydration	Urgent - Manage hyperemesis gravidarum in an inpatient setting rather than an outpatient setting.

	• For people who have been admitted to hospital with hyperemesis gravidarum, give 200 mg intravenous hydrocortisone over 24 hours or 50 mg intramuscular or intravenous hydrocortisone 4 times a day • Seek specialist advice from the obstetric medicine team or endocrinology team about the dosage and duration of high-dose hydrocortisone during the hospital stay • After discharge, follow sick-day dosing in until daily vomiting stops	
3 rd Trimester (Depending on clinical symptoms, sodium levels and blood pressure)	Consider increasing the dose. Discuss with the obstetrics/endocrine team	Self-care

Reference:

NICE. Adrenal insufficiency: identification and management London: National Institute for Health and Care Excellence; 2024 [Available from: <https://www.nice.org.uk/guidance/ng243>].