

Adrenal insufficiency – how to stay safe on steroids

Why have I been given this leaflet?

Your healthcare professional thinks you are at risk of a condition called adrenal insufficiency, which can cause certain symptoms and make you feel unwell. This is usually because you are taking corticosteroids (steroids) for a medical condition.

You may be at risk of adrenal crisis if you become medically unwell, have a procedure such as an investigation or surgery, or go into labour and are not given additional steroids to cover this period. Adrenal crisis can be life-threatening if not treated.

This leaflet explains how to stay safe while you are taking oral, injected or topical steroid medication and after you stop using it. If you have any questions or concerns, please do not hesitate to speak to any member of the team caring for you.

What are steroid medications and what are they used for?

Corticosteroids (steroids) are an anti-inflammatory medicine prescribed for a wide range of conditions.

They are synthetic (manufactured) versions of a hormone called cortisol that your adrenal glands make naturally.

You can take them in different forms:

- tablets by mouth (orally)
- by injections into your joints (intra-articular) and/or muscles (intramuscular)
- by inhalers, nasal sprays or drops, eye drops, or lotions, gels or creams that you put on your skin or use on your genitals or rectum (topically).

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What makes me more likely to have adrenal insufficiency?

Taking steroid medication can interfere with your adrenal glands making cortisol and cause adrenal insufficiency.

Your risk of this happening increases if you:

- are on oral steroids for four weeks or longer
- take repeated short-term courses of oral steroids
- take high-dose inhaled steroids
- have repeated steroid injections into your joints or muscles
- use steroids in any form and take certain drugs, such as some antivirals, some antifungals and an antibiotic called clarithromycin, if used long term
- are on multiple preparations of steroids.

This risk lasts for up to 12 months after you stop regular steroid medication.

If you have been on a long course of steroids, as described above, you must not stop taking this medication unless you have been advised to do so by your healthcare professional.

What is adrenal insufficiency?

Cortisol is your body's natural steroid hormone. It plays many vital roles in maintaining and regulating normal healthy body functions, particularly when you are ill or under stress.

Adrenal insufficiency is where your adrenal glands do not make enough cortisol.

If you have adrenal insufficiency and do not get enough steroid medication, particularly when you are ill or having a procedure or surgery, you could become dangerously ill with adrenal crisis.

What are the symptoms of adrenal insufficiency?

Symptoms of long-term (chronic) adrenal insufficiency include:

- feeling more tired
- feeling dizzy
- feeling sick
- loss of appetite
- weight loss.

Symptoms of adrenal crisis (acute adrenal insufficiency), which means you need to seek medical attention urgently include:

- nausea and vomiting
- collapse
- low blood pressure
- confusion
- pale skin and sweating.

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What can I do to stay safe?

1. Always carry your Steroid Emergency Card with you. This tells other people that you are currently or were recently on steroid medication. Ask for one from your community pharmacy, GP (home doctor) or hospital team, or download it from: <https://pituitary.org.uk/media/615391/Steroid-card-v2-.pdf>



2. If you are on long-term steroids (year or longer) you can buy a medical alert bracelet at www.universalmmedicalid.co.uk or from your local pharmacy.

3. Take your steroid medication regularly as prescribed and do not stop unless advised to do so by your healthcare professional.

4. If you are advised to stop taking them by your healthcare professional, they will let you know if you need to slowly reduce your steroid dose to wean yourself off.

5. If you are advised to stop, your healthcare professional will ask you to let them know if you feel more tired, dizzy or sick when you are not taking the steroid medication. These symptoms may mean you have adrenal insufficiency, so they will ask you to start taking your steroid medication again while they plan extra checks for you.

6. If you are taking or have been on steroid medication and become unwell or need to have a procedure/surgery, you must follow the **Steroid Sick Day Rules**, page 6

Please note: The risk of adrenal insufficiency from steroid medication lasts for up to 12 months after your last dose or course.

Steroid Sick Day Rules

Please follow these rules if any of the following apply to you:

- you take steroids by mouth (orally)
- you have been taking 5mg or more of prednisolone (or equivalent) for more than four weeks
- you have a respiratory disease and are taking high-dose inhaled steroids with repeated short courses and you have been given a steroid emergency card.

Taking a higher dose of steroids for a short period of time while you are unwell is necessary and is not harmful. You do not need to change the doses of any other hormone or other tablets you take regularly.

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Why do I need to follow the Sick Day Rules?

When you become ill your adrenal glands naturally start producing more cortisol to help you maintain your normal body functions. But if you have adrenal insufficiency, you cannot produce the extra cortisol that your body needs.

If you are taking oral steroid medication you need to mimic your body's natural response by increasing the dose of your steroid medication.

The Sick Day Rules explain how to alter your dose of oral steroid medication tablets if you become unwell. For example, if you have an infection that is bad enough to make you want to stay indoors or in bed, or even consider going to hospital.

They also apply if you are:

- on high doses of inhaled corticosteroid and often require additional courses of oral steroids
- have repeated steroid injections, or
- on some types of antiviral, antifungal or antibiotic medication as well as steroids.

If you are unwell, you should contact your healthcare professional who may prescribe you oral steroids.

Sick Day Rule 1

- If you are ill with a fever, need bed rest or need antibiotics, you need to increase your steroid dose.
- The table on page 5 explains what to do with your steroid dose when you are ill or if you are having procedure or surgery.

Sick Day Rule 2

If you have any of the following you must seek urgent medical help because you may need a hydrocortisone injection:

- severe illness
- persistent vomiting or diarrhoea.

If you are taking oral steroids, the table on page 5 explains when and how to increase your dose of tablet steroid medication.

- **If you are taking prednisolone at a dose less than 10mg, increase it to 10mg where the table says 'double dose'.
- **If you have stopped using steroids in the past 12 months, use hydrocortisone 20mg twice a day or prednisolone 10mg once a day instead of the 'double dose' instruction.

You will be given an emergency injection of hydrocortisone if your illness is not relieved with a double dose of steroids. Contact your healthcare provider if you remain unwell after 5 days.

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Always show your Steroid Emergency Card to healthcare professionals involved in your care.

Summary of sick day rules

Note: This is a guide and does not supersede information that you might have been given by your healthcare provider.

Illness/stress situation	Increase of usual dose	Duration of dose change
Common cold but no fever	No change	Take usual dose
Fever/Flu/Infection	Double** your current dose	For as long as you have the fever or infection
Vomiting or diarrhoea	Double** your current dose when vomiting/diarrhoea starts	Start taking your usual dose once you are better
Severe illness	Seek urgent medical attention. If you have been given one, administer your emergency Hydrocortisone kit (100mg intramuscularly) and seek urgent medical attention.	Your healthcare provider will advise you.
Barium enema	Double** your usual dose before procedure after you have taken laxatives	Take your usual dose on the morning after the procedure
Colonoscopy	Double** your usual dose before you have taken laxatives	Take your usual dose on the morning after the procedure
Cystoscopy	Double** the usual steroid dose on the day before the procedure	Take your usual dose after the procedure
Gastroscopy	Your healthcare provider will advise you.	Your healthcare provider will advise you.
Minor surgery such as having a tooth out	Double** your usual dose before the procedure	Go back to your usual dose the next day

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Minor surgery with general anaesthetic, such as hernia repair	Your healthcare provider will advise you.	Your healthcare provider will advise you.
Major operation, such as gastrointestinal, respiratory, thyroid, neuro surgery	Your healthcare provider will advise you.	Your healthcare provider will advise you.
Labour and vaginal delivery or Caesarean section	Your healthcare provider will advise you.	Your healthcare provider will advise you.
Long Haul Flights (over 12 hours)	Double** your usual dose or take extra dose on day of flight	N/a
General stress/ taking exams Dental work such as fillings, cleaning	Not usually required	N/a
Shock/bereavement Road traffic accident	Your healthcare provider will advise you. If you cannot take a tablet Your healthcare provider will advise you	Go back to your usual dose once you feel stable See your GP/hospital doctor for more advice if you feel unwell

What can I do when travelling away from home?

Take an extra supply of oral steroid medication with you in case you need to increase your dose because of illness.

Who can I contact with queries and concerns?

If you have any questions, please contact your medical team or your GP, or phone 111. If it is an emergency, please call 999.

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