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Addison's Disease & Adrenal Insufficiency

Diagnosis & Treatment

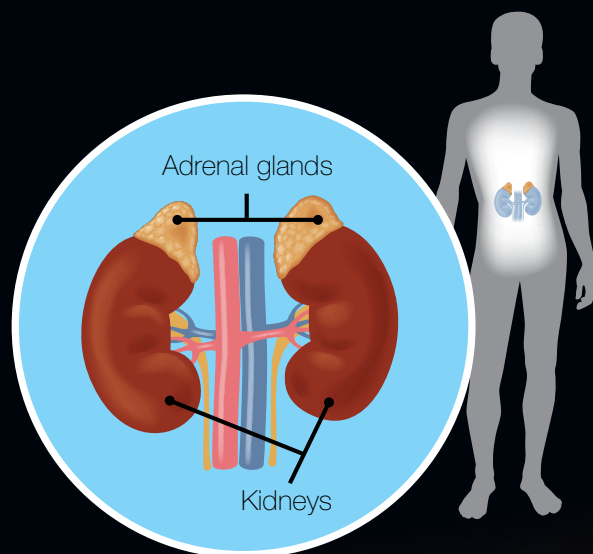


Adrenal Insufficiency

Addison's disease (primary adrenal insufficiency) is a rare, but treatable endocrine condition occurring when the adrenal glands cease to function. The adrenal glands produce the hormones cortisol (a glucocorticoid) and aldosterone (a mineralocorticoid).

Secondary adrenal insufficiency occurs when the hormone adrenocorticotropin (ACTH), produced by the pituitary gland, fails to stimulate the adrenal glands.

Both carry a serious risk of an adrenal crisis during medical or physical stress which is potentially life-threatening. It can affect people of all ages.



Primary adrenal insufficiency also known as Addison's disease

- Occurs when the adrenal glands stop producing cortisol and often aldosterone.
- Treatment involves daily doses of a glucocorticoid and fludrocortisone.
- Caused by: autoimmune disease (most common), surgery, cancer, tuberculosis, injury/bleeding, fungal infection, genetic (Congenital Adrenal Hyperplasia and Adrenoleukodystrophy).
- Other autoimmune diseases affecting organs beyond the adrenal glands may occur.

Secondary adrenal insufficiency

- Occurs when the adrenal glands stop producing sufficient cortisol due to low ACTH production by the pituitary gland.
- May be reversible, in some cases, but in other cases adrenal insufficiency is permanent.
- Treatment involves daily doses of a glucocorticoid.
- Caused by: Long-term, high-dose steroid therapy for chronic conditions resulting in suppression of cortisol production, surgical removal of pituitary gland, tumour, infection, radiation or reduced blood flow to pituitary gland, opiate usage.



Symptoms

Symptoms of adrenal insufficiency may include:

- Loss of appetite, nausea, vomiting, diarrhoea, weight loss, abdominal pain.
- Fatigue, weakness, headache, dizziness (especially on standing).
- Difficulty concentrating, mood swings, depression.
- Salt cravings and darkening of skin and mucous membranes (in Addison's disease).
- Irregular menstruation in women.
- Low blood pressure.

Diagnosis

Primary adrenal insufficiency:

- Low blood pressure (especially on standing).
- CT scan of adrenal glands may be required.
- Blood test results may indicate:
 - Low cortisol
 - High ACTH
 - Low blood sugar
 - Low sodium
 - Low aldosterone
 - Low cortisol response to synacthen test
 - High potassium
 - High renin
 - Adrenal 21 hydroxylase antibodies

Secondary adrenal insufficiency:

- Blood test results may indicate:
 - Low cortisol
 - Low ACTH
 - Low cortisol response to synacthen test
 - Low cortisol response to metyrapone test

Treatment & Monitoring

- Cortisol (a glucocorticoid) is replaced by hydrocortisone, cortisone acetate, prednisolone, prednisone or dexamethasone.
- Aldosterone (a mineralocorticoid) is replaced by fludrocortisone.

All patients with adrenal insufficiency need:

- Prescribed oral steroid replacement at prescribed times daily, usually oral tablets.
- A sick day plan of increased daily doses.
- Regular review by an endocrinologist/physician.
- Regular blood tests to ensure optimal treatment.
- Medical alert identification worn at all times.
- Specific treatment instructions from their endocrinologist and an emergency card.
- To know the signs and symptoms of an **adrenal crisis** - an acute deficiency of cortisol. See below.

Adrenal crisis:

- Abdominal pain, vomiting, weakness, dizziness, confusion, headache, low blood sugar, low blood pressure.

Adrenal crisis may occur:

- If an acute illness, infection, injury or medical procedure or surgery increases the body's cortisol requirements.
- If doses are missed for longer than 24 hours.
- Prior to the diagnosis of adrenal insufficiency, a crisis may be the first presentation of the life-threatening condition.



Adrenal crisis needs immediate medical attention and administration of hydrocortisone injection





Staying well with Adrenal Insufficiency

- Keep medication organised and take it regularly.
- Wear medical alert identification.
- Have a sick day plan.
- Understand your condition.
- Have an advocate who can tell medical staff you have adrenal insufficiency and require treatment.
- Be realistic, learn to live with the adjustments adrenal insufficiency requires.
- Include enjoyable activities.
- Fatigue is a common and real symptom of a person with adrenal insufficiency: rest when needed.
- Eat a healthy diet.
- Exercise regularly and safely.
- Communicate your needs respectfully and clearly to family and friends that adrenal insufficiency is a chronic illness with life-threatening risks.
- This chronic illness is 'invisible'; feelings of hopelessness are not uncommon when "looking well" but feeling very unwell. Please seek help if this continues.

Australian Addison's Disease Association Inc.

A not-for-profit support group for people medically diagnosed with adrenal insufficiency.

Gain knowledge and support from one another.

Raise awareness with medical professionals.

Visit our website for membership application, newsletters and updates on information and events.

Email: info@addisons.org.au

Website: www.addisons.org.au

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