

## Depression - seasonal affective disorder

Some people suffer from depression **only** during the winter months – this is called seasonal affective disorder (SAD). Usually, a person with SAD starts to feel better in the spring. Treatment may include antidepressant drugs, psychotherapy and bright light therapy. SAD is also known as winter depression.

The exact cause of SAD is unknown. Since depression is more common during winter and in the higher latitudes of the Northern Hemisphere, doctors believe that lack of sunlight alters brain chemistry in some people. SAD is less common in countries that receive a lot of sunlight, such as Australia.

### The cause is unknown

Most doctors think that a cascade of factors triggers SAD, including:

- **Genetic response to sunlight** – some animals, such as bears, hibernate in winter. Research suggests that reduced levels of sunlight also affect humans. However, some people are significantly more affected than others. This susceptibility may be partly genetic.
- **Circadian rhythm** – this 'internal body clock' is located in the brain and helps the body to regulate sleep and wake cycles. Regulation depends on sunlight. In some people, the shorter days in winter may disrupt the circadian rhythm and alter brain chemistry.
- **Altered brain chemistry** – melatonin is a brain chemical (neurotransmitter) that triggers sleep and is produced in response to reduced light. Daylight switches off its production in the body. The shorter daylight hours of winter encourages a longer duration of melatonin, which may be a cause for those susceptible to SAD. Mood is partly regulated by another neurotransmitter called serotonin and its production is improved in response to sunlight. There is a natural variation in levels of serotonin across the seasons, with less production of serotonin in the winter months. This mixture of longer night-time melatonin production and low levels of serotonin (or altered activity of serotonin receptors) may produce depression and associated symptoms in people who are genetically predisposed.

### Risk factors

Risk factors may include:

- **Age** – SAD is relatively rare in people under 20 years of age.
- **Gender** – while SAD is diagnosed more often in women, men have more severe symptoms.
- **Long, dark winter days** – SAD is more common in the Northern Hemisphere, above the latitude of 70 degrees, which typically receives less sunlight than the Southern Hemisphere and very little during winter.
- **Family history** – some studies suggest that SAD may run in families. However, other studies have failed to find evidence of genetic involvement.
- **Other factors** – factors working in combination (such as personality and environment) are involved in other types of depression and may also contribute to SAD.

### Symptoms

Signs and symptoms of SAD may include:

- Depression
- Anxiety
- Lethargy (lack of energy and enthusiasm)
- Weight gain
- Oversleeping
- Loss of libido
- Withdrawal from others
- Loss of interest in previously enjoyed activities

- Dietary changes – for example, increased appetite for carbohydrates
- Difficulty concentrating
- Depression pattern that follows the seasons – usually symptoms start in autumn, get worse in winter, ease during spring and disappear by summer.

### Diagnosis

The symptoms of depression are similar to the symptoms of various medical conditions such as hypothyroidism or hypoglycaemia, so diagnosis can be tricky. Diagnosis is made by clinical assessment – there are no blood tests available. Your doctor will conduct a detailed interview to help with diagnosis. Your answers to questions about onset, severity, whether the symptoms are different during the year, lifestyle factors, diet and sleeping habits can give the doctor valuable clues.

Tests used in the assessment for SAD aim to exclude other causes and may include:

- **Physical examination** – to check for an underlying physical disorder.
- **Diagnostic tests** – such as blood tests to rule out an underlying physical disorder.
- **Medical history** – for example, many types of medication can cause depression as a side effect.
- **Psychiatric history** – SAD may be confused with other types of depression.

### Treatment

Treatment options for SAD may include:

- **Light therapy (phototherapy)** – the controlled use of artificial light that mimics the sunlight spectrum. Your doctor may recommend light therapy in severe cases of SAD. Studies show that light hitting the back of the eye (retina) stimulates the brain to reduce melatonin, increase serotonin and reset the circadian rhythm. Daily sessions may range in duration from 20 to 60 minutes, depending on the severity of symptoms. Light therapy taken in the morning seems to be most effective in resetting the circadian rhythm. Uncommon side effects of light therapy may include eyestrain, headache and insomnia. In reality, this condition is so rare in countries like Australia that this treatment is seldom suggested. For most Australians, it is easy enough to increase exposure to sunlight, even in winter. This should be tried before light therapy.
- **Medications** – including antidepressant drugs. Most antidepressant drugs take a few weeks to work.
- **Psychotherapy** – a ‘talking’ therapy with a specialist doctor to help you identify and combat negative thoughts and behaviours that may contribute to depression.

### Self-help options

Be guided by your doctor, but recommended self-help options may include:

- **Increase sunlight exposure** – extra sunshine every day can ease symptoms. For example, put your work desk next to a window, if possible, or eat your lunch outdoors. Extra sunlight during the winter months may be the only treatment necessary in mild cases of SAD.
- **Bring sunshine into your home** – install skylights, keep the curtains open and cut back trees or bushes that block light from your windows.
- **Get some exercise** – regular exercise is an effective treatment for depression and anxiety. Boost the benefits by shifting your exercise routine to the outdoors, weather permitting.
- **Look after yourself** – exercise regularly, make sure you have good sleeping habits and eat a healthy diet. Avoid cigarettes, drugs and excessive amounts of alcohol.
- **Holiday in the sun** – try to holiday in warmer climates during winter.

### Uncommon SAD variations

While most people with SAD experience depression during the winter months, there are uncommon variations, including:

- **Reverse SAD** – the winter months trigger symptoms of mania including high energy levels, disproportionate zest and intense social activity.
- **Summer-onset SAD** – spring and summer cause insomnia, anxiety, reduced appetite and weight loss. The triggers are thought to be heat and humidity. People with summer-onset SAD should cut back on sunlight exposure, try to confine themselves to air-conditioned premises and take holidays in wintry places.

- **'Equinox' SAD** – perhaps the rarest type of weather-related depression is a combination of winter-onset and summer-onset SAD. Symptoms usually strike at the start of autumn and spring.

### Where to get help

- Your doctor
- Your local community health centre
- Psychologist
- Occupational therapist
- Find a GP near you who specialises in mental health issues through the [beyondblue](#) website
- [beyondblue](#) Info Line Tel. 1300 22 4636
- SANE Mental Health Information Line Tel. 1800 187 263, Monday to Friday, 9am to 5pm
- Mental Health Advice Line Tel. 1300 280 737
- Lifeline Tel. 13 11 14
- Mental Health Foundation Tel. (03) 9427 0407, Monday to Friday, 9am to 5pm
- SuicideLine Victoria Tel. 1300 651 251 – for counselling, **crisis intervention, information and referral** (24 hours, 7 days)

### Things to remember

- The cyclic return of depression during the winter months is called seasonal affective disorder (SAD).
- Treatment may include light therapy, antidepressant drugs and psychotherapy.
- Self-help options include spending time in the sun, taking regular exercise and holidaying in sunny climates during winter.

**This page has been produced in consultation with, and approved by:**

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