



# A Guide to **What Works for Depression**

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ISBN: 978-0-646-51812-1

Copyright: *beyondblue: the national depression initiative*,  
Jorm, Allen, Morgan & Purcell

Suggested citation: Jorm, AF, Allen NB, Morgan AJ, Purcell R.  
*A Guide to What Works for Depression*.  
*beyondblue*: Melbourne, August 2009.

The authors of this guide are researchers at Orygen Youth Health  
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# What is depression?

The word 'depression' is used in many different ways. People often say they are depressed when they are feeling sad or blue when bad things happen. In most cases, this sort of depressed mood will pass within a few hours or a few days. However, in some people the depressed mood does not go away and they develop other symptoms besides sadness. Because of these symptoms, they have difficulty doing their work or study and have problems interacting with family and friends. In the worst cases, the person will feel that they are better off dead and may make plans to end their life. When depressed mood becomes long-lasting, is accompanied by other symptoms, and interferes with the person's ability to fulfil their goals in life, the person has a *depressive disorder*. These disorders are sometimes also called *mood disorders* or *affective disorders*.

## Symptoms of a depressive disorder

If a person has a depressive disorder they would have, for at least two weeks, nearly every day, many of the following symptoms:

- An unusually sad mood
- Loss of enjoyment and interest in activities that used to be enjoyable
- Lack of energy and tiredness
- Feeling worthless or feeling guilty when they are not really at fault
- Thinking about death a lot or wishing to be dead
- Difficulty concentrating or making decisions
- Moving more slowly or sometimes becoming agitated and unable to settle
- Having sleeping difficulties or sometimes sleeping too much
- Loss of interest in food or sometimes eating too much. Changes in eating habits may lead to either loss of weight or putting on weight.

Not every person who is depressed has all these symptoms.

People differ in the number of symptoms they have and also how severe the symptoms are. A person who has *mild depression* would have five or six of the above symptoms.

They would be affected in their ability to function at work or in their family roles, or they might be able to function with unusual effort. A person who has *severe depression* would have most of the symptoms and would be clearly unable to function.

A person with *moderate depression* would be in between mild and severe.

Opposite is a Depression Checklist that can be used to find out whether a person has a depressive disorder. If a person scores positive on this questionnaire, they should see a GP about getting a full assessment of their mental health.

## Depression Checklist

To find out if you, or someone you know may have depression, complete the checklist below.

For more than **TWO WEEKS** have you:

Tick if Yes

- |  |                       |
|--|-----------------------|
| 1. Felt sad, down or miserable most of the time?               | <input type="radio"/> |
| 2. Lost interest or pleasure in most of your usual activities? | <input type="radio"/> |

**If you answered 'YES' to either of these questions, complete the symptom checklist below.**  
**If you did not answer 'YES' to either of these questions, it is unlikely that you have a depressive illness.**

- |  |                       |
|--|-----------------------|
| 3. Lost or gained a lot of weight? OR<br>Had a decrease or increase in appetite?   | <input type="radio"/> |
| 4. Sleep disturbance?  | <input type="radio"/> |
| 5. Felt slowed down, restless or excessively busy?   | <input type="radio"/> |
| 6. Felt tired or had no energy?  | <input type="radio"/> |
| 7. Felt worthless? OR<br>Felt excessively guilty? OR<br>Felt guilt about things you should not have been feeling guilty about? | <input type="radio"/> |
| 8. Had poor concentration? OR<br>Had difficulties thinking? OR<br>Were very indecisive?  | <input type="radio"/> |
| 9. Had recurrent thoughts of death?  | <input type="radio"/> |

Add up the number of ticks for your total score:

### What does your score mean?

(assuming you answered 'YES' to question 1 and/or question 2)

**4 or less:** Unlikely to have a depressive illness

**5 or more:** Likely to have a depressive illness

**For further assessment, please contact a doctor or another health professional.**

References: American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 4th ed (DSM-IV). Washington, DC: APA, 1994; and, International classification of diseases and related health problems, 10th revision. Geneva, World Health Organisation, 1992-1994.

## Different types of depressive disorders

Mental health professionals recognise different types of depressive disorders. The main ones are:

**Major depressive disorder.** Sometimes this is called ‘major depression’, ‘clinical depression’, ‘unipolar depression’ or simply ‘depression’. It involves low mood and/or loss of interest and pleasure in usual activities. In addition, the person will have other symptoms such as those described earlier. The symptoms are experienced most days, nearly every day and last for at least two weeks. The symptoms interfere with the person’s work and social relationships.

**Dysthymia** is milder than major depressive disorder, but lasts longer. A person has to have this milder depression more than two years to be diagnosed with dysthymia.

**Bipolar disorder.** This disorder used to be known as ‘manic depression’, because the person has periods of depression, but at other times periods of mania. In between they have periods of normal mood. Mania is like the opposite of depression and can vary in intensity. The person may feel great, have plenty of energy, talk fast, have racing thoughts and little need for sleep. The person may have difficulty focusing on tasks and may become frustrated and irritable. Sometimes the person loses contact with reality. For example, they could become convinced that they have special powers or are some important person (such as Jesus or a famous movie star). When in a state of mania a person can do foolish things such as get into debt or take serious risks. Treatments for bipolar disorder are different and are not covered in this guide.

Other types of depression are sometimes distinguished:

**Psychotic depression.** Sometimes a person with a depressive disorder can lose contact with reality (becomes ‘psychotic’). For example, they may falsely believe that other people are persecuting them or that they are being punished for bad actions in the past.

**Melancholia.** This is a more biological form of depression. The person is more likely to have depressed mood that feels different from normal sadness, early wakening, being slowed down, weight loss and excessive guilt. One of the major changes is that the person can be observed to move more slowly.

**Seasonal affective disorder.** This form of depression comes and goes with the seasons. The most common pattern is for the person to become depressed in the winter or autumn. This is sometimes called ‘winter depression’. Lack of sunlight is the cause. People with seasonal affective disorder are more likely to experience lack of energy, sleeping too much, overeating, weight gain and a craving for carbohydrates.

**Post-partum or postnatal depression.** Women are at an increased risk of depression following childbirth. Causes include hormonal and physical changes and the responsibilities of caring for the baby. For many women, this may only be mild ‘baby blues’. For other women it is longer lasting and interferes with their mothering in a significant way. The symptoms do not differ from depression at other times. However, depression at this time has an impact not only on the mother, but also on the mother-infant relationship and on the child’s development.

Depression commonly occurs together with other mental and physical health problems. For example, a person with a depressive disorder might also have an anxiety disorder or a problem with alcohol or other drugs. Depression also commonly occurs in people with physical health problems, like heart disease, cancer or thyroid conditions.

## Depressive disorders are common, but often untreated

Depressive disorders affect many people. A national survey of the mental health of Australians was carried out in 2007. This survey asked people about a range of symptoms of depression and other mental health problems. A special computer program was used to make a diagnosis based on the answers provided. Shown below are the percentages of people found to be affected.

### Percentage of Australians aged 16 years or over affected by depressive disorders<sup>1</sup>

Type of disorder	Percentage affected in previous 12 months	Percentage affected at any time in their life
Major depressive episode	4.1%	11.6%
Dysthymia	1.3%	1.9%
Bipolar disorder	1.8%	2.9%
Any depressive disorder	6.2%	15.0%

Although these disorders are common, many people affected by them do not get treatment. In the national survey, many of those who had a depressive disorder in the previous 12 months did not receive any professional help.

<sup>1</sup> Australian Bureau of Statistics. 2007 *National Survey of Mental Health and Wellbeing: Summary of Results*. (Document 4326.0). Canberra: ABS; 2008.

# Getting help for depression

There are several different types of health professional who can provide help for depression:

## General Practitioners (GPs)

GPs are the best starting point for someone seeking professional help. A good GP can provide the following:

- Make a diagnosis
- Check for any physical health problem or medication side-effect that may be the cause of depression
- Discuss treatment options available
- Work with the person to draw up a Mental Health Care Plan
- Provide brief counselling
- Prescribe medication
- Refer a person to a mental health specialist such as a psychologist or psychiatrist

When consulting a GP about depression, it is advisable to book a long appointment when the GP is less busy. It is also best to raise the issue of depression early in the consultation. Some GPs are better at dealing with depression than others. The GP should take the time to listen and discuss various treatment options, taking account of the person's treatment preferences. If the person is not entirely happy with the service provided by a GP, it is best to try another one.

## Psychiatrists

A psychiatrist is a medical practitioner who specialises in treating people with mental illnesses including depression. Psychiatrists mostly treat depression when it is severe or not responding to treatment provided by a GP. Psychiatrists are experts on medical aspects of depression and can provide medical (e.g. medication) and psychological treatment (psychotherapies). They can be particularly helpful where someone has depression combined with physical health problems. They can also help where there are complications

with medications, such as side-effects or interactions with other medications. Most psychiatrists work in private practice, but some work for hospitals and mental health services. To see a private psychiatrist requires a referral from a GP. The cost of seeing a psychiatrist is partly or wholly covered by Medicare.

## Psychologists

A psychologist is someone who has studied human behaviour at university and has had supervised professional experience in the area. Psychologists are registered with a state registration board. Some psychologists provide treatment to people with mental health problems, including depression. Psychologists do not have a medical degree, so do not prescribe medication. Some psychologists work for state health services, while others are private practitioners.

**A clinical psychologist** is a psychologist who has undergone additional specialist training in how to treat people with mental health problems. They are particularly skilled at providing cognitive-behaviour therapy and other psychological treatments. Many are members of the Australian Psychological Society's College of Clinical Psychologists. It is best to get a referral to a private clinical psychologist from a GP.

As part of a Mental Health Care Plan, a GP can refer a patient to a psychologist. The cost of treatment is then fully or partly covered by Medicare. Psychologists vary in the amount they charge per session. Medicare will cover up to 12 individual sessions and 12 group sessions per calendar year. The following types of treatment are covered by Medicare:

- Psycho-education (providing information about a mental health problem and how to manage it)
- Cognitive Behaviour Therapy
- Relaxation strategies
- Skills training (e.g. problem solving skills)
- Interpersonal therapy



# How family and friends can help

## Occupational therapists and social workers

Most occupational therapists and social workers work in state health or welfare services. However, a small number work as private practitioners and are registered by Medicare. They provide similar treatments to psychologists. The cost is fully or partly covered by Medicare if there is a referral from a GP who has drawn up a Mental Health Care Plan.

## Counsellors

Counsellors are people who can provide psychological support. However, counsellors are not a profession registered by the government, so anyone can call themselves a ‘counsellor’ without any qualifications. However, a well-qualified counsellor may be a registered psychologist and a member of the Australian Psychological Society’s College of Counselling Psychologists. Unless a counsellor is registered by Medicare, the client cannot claim a rebate and will have to pay the full fee.

## Complementary health practitioners

There are many alternative and complementary treatments for depression. However, many providers of these services will not be registered or covered by Medicare. Some services may be covered by private health insurance. If seeking out complementary treatments, it is best to check whether the practitioner is registered by a state board or a professional society. Also make sure the practitioner uses treatments which are supported by evidence as effective.

## Finding a GP or mental health practitioner with an interest in depression

*beyondblue* has a website giving contact details of GPs and other mental health practitioners who are interested in treating depression. This website can be found at: [www.beyondblue.org.au](http://www.beyondblue.org.au). (Click on the button that says Find a doctor or other mental health practitioner).






Family and friends can be an important source of support to a person who is depressed. They can assist the person to get appropriate professional help. They can also provide positive support which will help the person to recover. The following sources provide useful advice on how family and friends can help:

- *The beyondblue Guide for Carers* gives information on supporting and caring for a person with depression, anxiety and/or a related disorder. Also see *beyondblue*’s information card **Practical ways to help someone with depression**. These can be downloaded for free from the [Get Information](#) section of the *beyondblue* website [www.beyondblue.org.au](http://www.beyondblue.org.au) or printed copies ordered by calling the *beyondblue* info line **1300 22 4636**.
- Practical advice on how to provide initial help to someone who has become depressed is available at the Mental Health First Aid website [www.mhfa.com.au/Guidelines.shtml](http://www.mhfa.com.au/Guidelines.shtml). See the free downloadable guidelines on how to help someone who is depressed or suicidal.

# How to use this booklet

There is a wide range of treatments for depression available to choose from. While each treatment has its supporters, treatments vary a lot in how much supporting scientific evidence is behind them. The aim of this booklet is to assist people to make informed choices by providing a summary of what the scientific evidence says about each treatment.

We have rated the evidence for the effectiveness of each treatment using a 'thumbs up' scale:

	There are many studies showing that the treatment works
	There are a number of studies showing that the treatment works but the evidence is not as strong as the best treatments
	There are at least two good studies showing that the treatment works
	The evidence shows that the treatment does not work or there are significant risks involved in using the treatment
	There is not enough evidence to say whether or not the treatment works

When a treatment is shown to work scientifically, this does not mean it will work equally well for every person. While it might work for the average person, some people will have complications, side-effects or incompatibilities with their lifestyle. The best approach is to try a treatment that works for most people and that you are comfortable with. If you do not recover quickly enough, or experience problems with the treatment, then try another.

Another factor to consider is beliefs about treatment. A treatment is more likely to work if a person believes in it and is willing to

commit to it.<sup>2,3,4</sup> Even the most effective treatments will not work if they are used only sometimes or half-heartedly. Some people have strong beliefs about particular types of treatment. For example, some do not like taking medications in general, whereas others have great faith in medical treatments. However strong beliefs in a particular treatment may not be enough, especially if there is no good evidence that the treatment works. To help people make choices about treatment that suits their beliefs, and that have evidence for their effectiveness, we have organised the reviews in this booklet in three colour-coded sections:

- **Medical.** These treatments are generally provided by a medical practitioner.
- **Psychological.** These treatments can be provided by a range of health practitioners, but particularly psychologists and clinical psychologists.
- **Complementary and Lifestyle.** These treatments can be provided by a range of health practitioners, including complementary practitioners. Some of them can be used as self-help.

Each of these broad approaches includes treatments that are supported by scientific evidence as effective. We recommend that people seek treatments that they believe in and are also supported by evidence.

Whatever treatments are used, they are best done under the supervision of a GP or mental health professional. This is particularly important where more than one treatment is used. Often combining treatments that work is the best approach. However, sometimes there can be side-effects from combinations, particularly prescribed or complementary medications.

2 Sotsky SM, Glass DR, Shea MT, Pilkonis PA, Collins JF, Elkin I, et al. Patient predictors of response to psychotherapy and pharmacotherapy: findings in the NIMH Treatment of Depression Collaborative Research Program. *American Journal of Psychiatry*. 1991; 148:997-1008.

3 Krell HV, Leuchter AF, Morgan M, Cook IA, Abrams M. Subject expectations of treatment effectiveness and outcome of treatment with an experimental antidepressant. *Journal of Clinical Psychiatry*. 2004;65:1174-1179.

4 Priebe S, Gruyters T. The importance of the first three days: predictors of treatment outcome in depressed in-patients. *British Journal of Clinical Psychology*. 1995;34:229-236.

# How this booklet was developed

## Searching the literature

To produce these reviews, the scientific literature was searched systematically on the following online databases: the Cochrane Library, PubMed, PsycINFO and Web of Science. For many of the searches we relied on work that had been done for a recent review article by two of the authors: Morgan AJ & Jorm AF. Self-help interventions for depressive disorders and depressive symptoms: a systematic review. *Annals of General Psychiatry* 2008; 7:13.











## Evaluating the evidence



















Studies were excluded if they involved people who had not been diagnosed as depressed or sought help. Where there was an existing recent systematic review or meta-analysis, this was used as the basis for drawing conclusions. Where a systematic review did not exist, individual studies were read and evaluated. A study was considered adequate if it had an appropriate control group and participants were randomised.




























## Writing the reviews

The reviews were written for an 8th grade reading level or less. Each review was written by one of the authors and checked for readability and clarity by a second author. All authors discussed and reached consensus on the 'thumbs up' rating for each treatment.

# A summary of what works for depression

Medical Interventions	Our rating
<b>Antidepressants:</b> Adults with mild depression	
Adults with moderate to severe depression	  
<b>Antipsychotics:</b> For severe depression in combination with an antidepressant	 
<b>Electroconvulsive Therapy (ECT):</b> For severe depression that hasn't responded to other treatment	 
<b>Ketamine:</b> For severe depression that hasn't responded to other treatment	
<b>Transcranial Magnetic Stimulation (TMS)</b>	

Psychological Interventions	Our rating
<b>Acceptance and Commitment Therapy (ACT)</b>	
<b>Animal assisted therapy</b>	
<b>Behaviour Therapy/Behavioural Activation</b>	 
<b>Cognitive Behaviour Therapy (CBT)</b>	  
<b>Dance and Movement Therapy (DMT)</b>	
<b>Interpersonal Therapy (IPT)</b>	  
<b>Marital therapy</b>	 
<b>Mindfulness Based Cognitive Therapy:</b> For prevention of relapse	
<b>Problem Solving Therapy (PST)</b>	 
<b>Psychodynamic psychotherapy</b>	
<b>Reminiscence therapy:</b> For older people	

Complementary and Lifestyle Interventions	Our rating
<b>Acupuncture</b>	
<b>Alcohol avoidance:</b> In people with a drinking problem	
<b>Bibliotherapy:</b> With a professional	 
<b>Carnitine/Acetyl-L-Carnitine:</b> For dysthymia	
<b>Computer or internet interventions:</b> With a professional	 
Without a professional	
<b>Exercise:</b> For adults	 
<b>Folate:</b> In combination with an antidepressant	
<b>Light therapy:</b> Seasonal Affective Disorder	  
Non-seasonal depression in combination with an antidepressant	
<b>Massage</b>	
<b>Negative air ionisation</b>	
<b>Omega-3 fatty acids</b>	
<b>Pleasant activities:</b> With a professional	 
<b>Relaxation training</b>	
<b>Saffron</b>	
<b>SAMe</b>	 
<b>Sleep deprivation:</b> For short-term mood improvement	
<b>St John's Wort:</b> For mild depression	
<b>Yoga</b>	

# Medical Interventions

## Anti-anxiety drugs

Our rating

Short term use



Long term use



### **WHAT ARE THEY?**

Anti-anxiety drugs are used for severe anxiety. They may also be known as 'tranquillisers'. Because depression and anxiety often occur together, anti-anxiety drugs may also be used to treat depression. These drugs are usually used together with antidepressants, rather than on their own. Common types of anti-anxiety drugs include diazepam (Valium), alprazolam (Xanax), and oxazepam (Serepax).

### **HOW ARE THEY MEANT TO WORK?**

Anti-anxiety drugs work on chemicals in the brain to affect the central nervous system.

### **DO THEY WORK?**

Studies comparing anti-anxiety drugs with placebos (dummy pills) show mixed results depending on the type of drug. Some drugs, such as Xanax, seem effective in the short term, but others, such as Valium, are no better than placebo. Combining an antidepressant with an anti-anxiety drug has also been researched. Studies show that combining an antidepressant with an anti-anxiety drug was better in the short term (up to four weeks) than an antidepressant alone. However in the longer term (six to 12 weeks) there was no difference between the two treatments.

### **ARE THERE ANY RISKS?**

Long term use of anti-anxiety drugs can cause addiction. There can also be a range of side-effects, including sleepiness, dizziness, headache and in some cases, memory loss.

### **RECOMMENDATION**

There is some evidence for using anti-anxiety drugs as a short-term treatment for depression, but not all drugs are effective. Combining an anti-anxiety drug with an antidepressant may also be helpful, but only in the short term. Anti-anxiety drugs should only be used for a short time because of the potential side-effects and risk of addiction.

# Antidepressant drugs

## Our rating

Adults with mild depression



Adults with moderate to severe depression



Children and adolescents



## **WHAT ARE THEY?**

Antidepressants are drugs that are used to treat depression. They can only be prescribed by a doctor. There are many different types of antidepressants. The group of drugs that are used the most are called selective serotonin re-uptake inhibitors (SSRIs). Some examples of SSRIs are sertraline (Zoloft), escitalopram (Lexapro), citalopram (Cipramil), paroxetine (Aropax), fluoxetine (Prozac) and fluvoxamine (Luvox).

## **HOW ARE THEY MEANT TO WORK?**

Different types of antidepressants work in slightly different ways, but they all act on chemicals in the brain related to emotions and motivation.

## **DO THEY WORK?**

There has been a lot of research that has compared antidepressants to placebos (dummy pills). This research shows that antidepressants do improve depression, especially when it is severe. However, the level of improvement may only be small when the depression is mild. In this case, psychological therapy may be just as effective. Improvement does not happen right away, but can take up to four to six weeks to occur.

Antidepressants also reduce the chances of getting depression again if they continue to be taken.

There has been a lot of debate about giving antidepressants to children and adolescents. Antidepressants are not as effective in this age group, and they are not recommended as the initial treatment. It is important that if a young person is taking antidepressants, a doctor should check their progress often.

There has not been much research on antidepressants in women with post-natal depression. One study showed that an SSRI and psychological therapy had similar effects on mood.

Some antidepressants may improve depression more than others. However, the difference between them is likely to be small.

## **ARE THERE ANY RISKS?**

All antidepressants have side-effects. Some have worse side-effects than others.

SSRIs appear to have fewer side-effects than other types of antidepressants. Some common side-effects of SSRIs are mild headache, nausea, drowsiness, and sexual problems. Some of these last for only a short time.

There may be risks to an unborn child for women taking an SSRI in early pregnancy. The risks of antidepressants to children who are breastfed by mothers taking antidepressants are unknown.

In young people there has been a link between SSRIs and suicidal behaviour (increased by twofold). However, there may be a point at which the potential benefits are judged to outweigh the risks.

For everyone who begins taking an antidepressant, a doctor should frequently check if they are improving and whether there are side-effects or any sign of suicidal thinking. This is especially important in the first few weeks.

## **RECOMMENDATION**

There is strong evidence that antidepressants help reduce moderate to severe depression in adults.

## Anti-Glucocorticoid (AGC) drugs

Our rating

?

### **WHAT ARE THEY?**

AGCs are drugs that reduce the body's production of cortisol (the stress hormone). AGCs are prescribed by a doctor.

### **HOW ARE THEY MEANT TO WORK?**

Some of the symptoms of depression, such as memory and concentration problems, are thought to be caused by over-activity of the body's stress system. This can lead to too much cortisol. It is believed that drugs that target the stress system might also help treat depression.

### **DO THEY WORK?**

A review of five studies involving adults with major depression compared an AGC drug with a placebo (dummy pill). The treatments were given for up to six weeks. There was greater improvement in depression symptom scores in patients who received an AGC compared to the placebo group. In the largest study however, antidepressant medications were also given along with the AGC.

### **ARE THERE ANY RISKS?**

AGCs can cause a number of side-effects, including rash, fatigue, constipation, appetite changes and sleep problems.

### **RECOMMENDATION**

There is some evidence that AGCs may be helpful in the short term for people with depression. However more research is needed before the specific benefit of AGCs alone can be known.

## Antipsychotic drugs

Our rating

Overall



For severe depression in combination with an antidepressant



### **WHAT ARE THEY?**

Antipsychotics are usually used to treat psychotic disorders, such as schizophrenia. They have also been used for bipolar disorder (previously called 'manic-depression') and for severe depression that has not responded to other treatments. They may be used alone or with antidepressants.

### **HOW ARE THEY MEANT TO WORK?**

Different types of antipsychotics work in different ways, but they all act on chemicals in the brain.

### **DO THEY WORK?**

There have been two studies of antipsychotics in adults with major depression whose symptoms hadn't improved on antidepressants. They were given either an antipsychotic alone, an antidepressant alone, or both. The results of both trials showed that the combined treatment reduced depression symptoms more than the antipsychotic drug alone.

A review of studies looking at antipsychotics combined with an antidepressant has also been carried out. Ten trials involving treatment-resistant depression showed that the combination of an antipsychotic and antidepressant was more helpful than an antidepressant and a placebo (dummy) pill.

### **ARE THERE ANY RISKS?**

Common side-effects of antipsychotics include dry mouth, weight gain and movement problems in the limbs and face. Different antipsychotics may produce different side-effects. Some of these may need to be checked often.

### **RECOMMENDATION**

There is no evidence for using antipsychotics alone as a general treatment for depression. Given the potential side-effects, they are not recommended as a main treatment. In those with severe or long-standing depression, antipsychotics combined with an antidepressant appear to be more helpful than an antidepressant alone.



# Electroconvulsive Therapy (ECT)

## Our rating

Overall

For severe depression that hasn't responded to other treatment



### **WHAT IS IT?**

In ECT, electrical currents are passed through the brain to cause a seizure. The treatment is given under a general anaesthetic, along with muscle relaxants. Usually a series of ECT treatments are given over the course of several weeks. ECT is most often used for very severe depression that has not responded to other treatments, or where there is a risk of death from suicide or refusal to eat or drink. ECT may also be known as 'electroshock therapy'.

### **HOW IS IT MEANT TO WORK?**

It is not understood exactly how ECT works to treat depression, other than stimulating parts of the brain.

### **DOES IT WORK?**

One review of six good quality studies of adults with severe depression compared actual ECT with simulated (sham) ECT. Actual ECT was found to be more effective in reducing depression symptoms immediately after treatment than the sham treatment. However one study that examined the effects in the longer term (six months) found no benefit of actual ECT.

In a small study of adults with depression aged 60 years or older, actual ECT was shown to be better than the sham treatment. However this was based on only one poor quality study. There have been no studies comparing actual versus sham ECT in adolescents.

### **ARE THERE ANY RISKS?**

There are risks associated with having a general anaesthetic. The most common side-effects of ECT are confusion and memory problems.

### **RECOMMENDATION**

ECT reduces symptoms in severely depressed adults who have not had any benefit from medication or psychological therapies. However, any benefits must be weighed against the intrusive nature of the treatment, and the common side-effect of memory loss.

# Ketamine

## Our rating

For severe depression that hasn't responded to other treatments



For all other types of depression



### **WHAT IS IT?**

Ketamine is a fairly new treatment for depression. It is mostly used as an anaesthetic, especially with animals. It is also known as a street drug, which is sold under a number of names, including Kit Kat, Jet and Special K. When ketamine is used to treat depression, quite low doses are used.

### **HOW IS IT MEANT TO WORK?**

Ketamine affects different brain chemicals to other antidepressant drugs. It is thought to work by blocking a brain chemical called glutamate from sending its messages in the brain.

### **DOES IT WORK?**

Ketamine has been tested in a small number of studies with people whose depression had not responded to any other treatments. In these studies, the people who were given ketamine noticed a very quick improvement in their depression; usually within an hour or two. This is very different from the more usual antidepressants, which can take anywhere from days to weeks to work. Also, the improvement lasted at least a few weeks, even though they only had a single dose of ketamine. Ketamine did not make these people 'high', but seemed to return their mood to normal.

### **ARE THERE ANY RISKS?**

Used under medical supervision, ketamine is relatively safe. However, side-effects can be serious. These include changes to vision or hearing, confusion, high blood pressure, feeling 'high', dizziness, and increased interest in sex. Abuse of this drug can produce very serious health effects, including death.

### **RECOMMENDATION**

Ketamine is a promising approach to treating people whose depression has not improved with other treatments. It is not known whether it works for people who do respond to other treatments. Also, much more work is needed to explore the safety of this medicine.

## Lithium

Our rating



### WHAT IS IT?

Lithium is a drug that is mainly used to treat bipolar disorder (previously called 'manic-depression'). Because it has been found to be effective for treating bipolar depression, it has also been used to treat major depression.

### HOW IS IT MEANT TO WORK?

It is not clear how lithium works to treat depression, other than to act on neurotransmitters (chemical messengers) in the brain.

### DOES IT WORK?

A review of eight studies compared lithium to antidepressant drugs in adults with long-term depression. The results showed no difference between the lithium and antidepressant groups. There has been only one good quality study comparing lithium with placebo (dummy pills). It found no difference in improvement between lithium and placebo groups.

### ARE THERE ANY RISKS?

Common side-effects of lithium include headaches, nausea, and feeling dazed. High levels of lithium in the blood can be toxic and cause more serious side-effects, including tremor and convulsions, and in some cases death. People on lithium must have their blood monitored to make sure the dose is at a safe level.

### RECOMMENDATION

Lithium is not recommended as an overall treatment for major depression. It is not more effective than antidepressant drugs for treating long-term depression, but it has more serious side-effects.

## Oestrogen

Our rating



### WHAT IS IT?

Oestrogen is a hormone that occurs naturally in a woman's body. When used as a treatment, it is usually supplied as a tablet. It is also available in a skin patch, as a cream or gel, or injected or implanted just under the skin. Oestrogen is prescribed by a doctor.

### HOW IS IT MEANT TO WORK?

The amount of oestrogen in a woman's body varies. Since it drops after childbirth, it is thought that oestrogen can help treat post-natal depression by increasing the amount of the chemical serotonin in the brain.

### DOES IT WORK?

One trial compared oestrogen with a placebo in women with severe post-natal depression. The group that received oestrogen had lower depression symptom scores than the placebo group up to three months after the treatment ended. It is worth noting though that more people in the oestrogen group were also taking antidepressant drugs than the placebo group.

### ARE THERE ANY RISKS?

Oestrogen treatment increases the risk of cancer of the uterus and may increase the risk of breast cancer and blood clots in the veins. It can also cause a number of other problems such as tender breasts and vaginal bleeding. It is not known if oestrogen is safe in breast-feeding.

### RECOMMENDATION

More research is needed to work out whether oestrogen is an effective treatment for women with severe postnatal depression. Given its side-effects, oestrogen is not recommended as a main treatment for postnatal depression.

## Stimulant drugs

Our rating

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### **WHAT ARE THEY?**

Stimulants help improve alertness and energy levels. These drugs are not used as a regular treatment for depression, but may be used to treat certain symptoms of depression, such as fatigue, lack of energy or poor concentration. Only a doctor can prescribe these drugs. Common types of stimulants include amphetamines, methylphenidate (Ritalin – used to treat Attention Deficit Hyperactivity Disorder) and modafinil.

### **HOW ARE THEY MEANT TO WORK?**

Most stimulants work by increasing the activity of neurotransmitters (chemical messengers) in the brain. This is done in a different way to antidepressants, so the effect can be felt much more quickly.

### **DO THEY WORK?**

Three studies found that stimulant drugs were better than a placebo (dummy pill) in reducing depression symptom scores over a four week period. Fatigue levels also improved.

### **ARE THERE ANY RISKS?**

Side-effects may include headache, difficulty sleeping, a lack of appetite and nausea. As stimulants can be highly addictive, there are risks of abuse or dependence in some people.

### **RECOMMENDATION**

Stimulants may help to reduce certain symptoms of depression in the short term. However, there is no evidence of their longer-term benefits in treating depression.

## Transcranial Magnetic Stimulation (TMS)

Our rating



### **WHAT IS IT?**

TMS is a type of brain stimulation. A metal coil that contains an electric current is held to the side of the head. This produces a magnetic field that stimulates parts of the brain. TMS is usually given daily. It is mainly used for people who have tried other treatments but still have depression.

### **HOW IS IT MEANT TO WORK?**

It is not known exactly how TMS works to treat depression, other than stimulating parts of the brain.

### **DOES IT WORK?**

Several studies have given adults with major depression either actual TMS or a sham (fake) treatment. The treatments were given daily, usually over one to two weeks. The results found that active TMS was more effective than sham in reducing depression symptoms immediately after treatment, but not at short-term follow-up (two weeks after treatment).

### **ARE THERE ANY RISKS?**

There is a low risk of seizure with TMS given the use of electric currents. The effects of TMS on memory, attention and concentration are still being studied.

### **RECOMMENDATION**

TMS appears to be an effective treatment for depressed adults in the short term, but there are no studies of its long-term effects.

## Vagus Nerve Stimulation (VNS)

Our rating



### **WHAT IS IT?**

VNS is a type of brain stimulation. It requires surgery to insert a device (like a 'pacemaker') and wiring under the skin in the chest and neck. This sends electric signals to the vagus nerve, which is connected to the brain. VNS is mainly used for people with long-term, severe depression.

### **HOW IS IT MEANT TO WORK?**

This is unclear, but it is thought to affect brain chemistry and blood flow to different parts of the brain.

### **DOES IT WORK?**

One large study implanted the VNS device in adults who had experienced depression for at least two years, or had four or more episodes of depression. They were then given either 10 weeks of actual VNS treatment or sham (fake) VNS. There was no benefit of the actual VNS treatment on depression symptoms in the short term.

### **ARE THERE ANY RISKS?**

As surgery is involved in VNS, it is a highly invasive procedure. Voice changes are common, and neck pain can also occur.

### **RECOMMENDATION**

On the evidence available, VNS does not appear to work, and given the risks and side-effects, it is not a recommended treatment.

# Psychological Interventions

## Acceptance and Commitment Therapy (ACT)

Our rating



### **WHAT IS IT?**

ACT is a type of Cognitive Behaviour Therapy (CBT). However, it is different to CBT because it does not teach a person how to change their thinking and behaviour. Rather, ACT teaches them to 'just notice' and accept their thoughts and feelings, especially unpleasant ones that they might normally avoid. This is because ACT believes it is unhelpful to try to control or change distressing thoughts or feelings when depressed. In this way it is similar to Mindfulness Based Cognitive therapy (see page 24). ACT usually involves individual meetings with a therapist.

### **HOW IS IT MEANT TO WORK?**

ACT is thought to work by helping people to stop avoiding difficult experiences, especially by 'over thinking' these experiences. Over thinking occurs when people focus on the 'verbal commentary' in their mind rather than the experiences themselves. ACT encourages people to accept their reactions and to experience them without trying to change them. Once the person has done this, they are then encouraged to choose a way to respond to situations that is consistent with their values, and to put those choices into action.

### **DOES IT WORK?**

ACT has been tested in a number of well-designed studies, but the evidence on whether it works or not is still emerging. A recent report of a range of studies using ACT concluded that it has not yet been clearly shown to be effective. It is probably best to consider ACT a 'promising' rather than a 'proven' approach to treating depression.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

ACT is a promising new approach to psychological therapy for people who are depressed. Although more work is needed, it might be worth trying for those who have not found more established treatments (like CBT, IPT or antidepressants) to be helpful.

## Animal assisted therapy

Our rating



### **WHAT IS IT?**

Animal assisted therapy is a group of treatments where animals are used by a trained mental health professional in the therapy. Usually these are pets such as dogs and cats, but other animals like horses are also used. The interaction between the client and the animal is a focus of the treatment and is thought to have benefits for the person's mood and well-being.

### **HOW IS IT MEANT TO WORK?**

It has been claimed that interacting with animals has physiological benefits, both through increased levels of activity and the beneficial effects of being around animals. It is also believed that interacting with and caring for animals can have psychological benefits by improving confidence and increasing a sense of acceptance and empathy.

### **DOES IT WORK?**

Animal assisted therapy has been tested in a reasonable number of well-designed studies. In a recent review where they pooled five of these studies together, they found that, overall, animal assisted therapy did help people more than no treatment.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Animal assisted therapy appears to work for depression. However, some larger studies should be done so we can be more confident of this.

## Art therapy

Our rating

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### **WHAT IS IT?**

Art therapy is a form of treatment that encourages the client to express his/her feelings using art materials, such as paints, chalk or pencils. In art therapy, the client works with a therapist, who combines other techniques with drawing, painting or other types of art work, and often focuses on the emotional qualities of the different art materials.

### **HOW IS IT MEANT TO WORK?**

Art therapy is based on the belief that the process of making a work of art can be healing. Issues that come up during art therapy are used to help the client to cope better with stress, work through traumatic experiences, improve their judgment, and have better relationships with family and friends.

### **DOES IT WORK?**

Art therapy has not yet been properly evaluated in well-designed studies. There are only reports of treatments with a single person (case studies).

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

We do not yet know if art therapy works for depression.

## Behaviour Therapy/ Behavioural Activation

Our rating



### **WHAT IS IT?**

Behaviour Therapy (BT), also called behavioural activation, is a major component of Cognitive Behaviour Therapy (CBT, see page 21). However, it is different to CBT because it focuses on increasing a person's level of activity and pleasure in their life. Unlike CBT, it does not focus on changing the person's beliefs and attitudes. BT can be carried out with individuals or groups, and generally lasts between eight to 16 weeks.

### **HOW IS IT MEANT TO WORK?**

BT tries to help people who are depressed by teaching them how to become more active. This often involves doing activities that are rewarding, either because they are pleasant (e.g. spending time with good friends or engaged in hobbies) or give a sense of satisfaction. These are activities such as exercising, performing a difficult work task or dealing with a long standing problem that, while not fun, gives one a feeling of a 'job well done'. This helps to reverse patterns of avoidance, withdrawal and inactivity that make depression worse, replacing them with rewarding experiences that reduce depression.

### **DOES IT WORK?**

Because BT is such a large part of CBT, there have been few studies looking at BT alone. However, a number of well-designed studies have found that BT works as well as CBT, and given that CBT is a treatment with an established track record, this suggests that BT also works. Recent studies have suggested that BT might be more effective than CBT for severe depression.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

BT is an effective treatment for depression. It might be especially helpful for severe depression.

## Cognitive Behaviour Therapy (CBT)

Our rating



### **WHAT IS IT?**

In CBT, a person works with a therapist to look at patterns of thinking (cognition) and acting (behaviour) that are making them more likely to become depressed, or are keeping them from improving once they become depressed. For example, depressed people tend to view things as either all good or all bad. Once these patterns are recognised, the person can make changes to replace them with ones that promote good mood and better coping. CBT can be conducted in individuals meeting with a therapist or in groups. Treatment length can vary, but is usually four to 24 weekly sessions.

### **HOW IS IT MEANT TO WORK?**

CBT is thought to work by helping the person to recognise patterns in their thinking and behaviour that make them more likely to become depressed. For example, very negative, self-focused, and self-critical thinking is often linked with depression. In CBT, the person works to change these patterns to use more realistic and problem solving thinking. As well, depression is often increased when a person stops doing things they previously enjoyed. CBT helps the person to increase activities that give them pleasure or a sense of achievement. This is the behavioural component of CBT.

### **DOES IT WORK?**

CBT has been tested in more well-designed studies than any other form of psychological therapy for depression. It is effective for a wide range of people, including children, adolescents, adults and older people. Some studies show that it might be especially useful when combined with an antidepressant, but it can also be very effective on its own. CBT might also be good at helping to prevent depression from returning once a person has recovered.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

CBT is one of the most effective treatments available for depression.

## Dance and Movement Therapy (DMT)

Our rating



### **WHAT IS IT?**

DMT combines expressive dancing with more usual psychological therapy approaches to depression, such as discussion of a person's life difficulties. A DMT session usually involves a warm-up and a period of expressive dancing or movement. This is followed by discussion of the client's feeling and thoughts about the experience and how it relates to their life situation.

### **HOW IS IT MEANT TO WORK?**

DMT is based on the idea that the body and mind interact. It is thought that a change in the way someone moves will have an effect on their patterns of feeling and thinking. It is also assumed that dancing and movement may help to improve the relationship between the client and the therapist, and may help the client to express feelings they are not aware of otherwise. Learning to move in new ways may help clients to discover new ways of expressing themselves and to solve problems.

### **DOES IT WORK?**

DMT has been tested in a small number of studies with both adolescents and adults. Results so far are encouraging, and suggest that DMT is better than no treatment. However, we do not know if it works as well as the most effective treatments for depression. More good quality studies are needed before we can confidently say that DMT is an effective treatment.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

DMT appears likely to be a helpful treatment for depression. However, it is probably best used together with established treatments, rather than on its own.

## Eye Movement Desensitisation and Reprocessing (EMDR)

Our rating

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### **WHAT IS IT?**

EMDR is a form of treatment that aims to reduce symptoms associated with distressing memories and unresolved life experiences. It was primarily designed to treat Post-Traumatic Stress Disorder (PTSD) but is occasionally also applied to depression. During treatment with EMDR the client is asked to recall disturbing memories while making particular types of eye movements that are thought to help in the processing of these memories.

### **HOW IS IT MEANT TO WORK?**

EMDR takes the view that distressing memories that are poorly processed are a cause of many types of mental health problems. It is believed that focusing on these distressing memories while making certain eye movements helps the brain to process the memories properly, and this helps to reduce the distress they cause.

### **DOES IT WORK?**

Although EMDR has been carefully tested for treating PTSD, there have only been a few poor quality studies of EMDR for depression (generally only involving one client).

### **ARE THERE ANY RISKS?**

None are known, although it is possible that focusing on traumatic memories without the support of a skilled therapist could increase distress in some people.

### **RECOMMENDATION**

We do not yet know if EMDR is an effective treatment for depression.

## Family therapy

Our rating

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### **WHAT IS IT?**

Family therapy refers to a number of different treatment approaches that all treat family relationships as an important factor in mental health. Usually the whole family (or at least a number of family members) will attend treatment sessions, rather than just the family member who is suffering from depression. The therapist tries to help the family change their pattern of communication so that their relationships are more supportive and there is less conflict. Family therapy approaches are most often used when a child or adolescent is suffering from depression.

### **HOW IS IT MEANT TO WORK?**

Family therapists take the view that, even if the problem is considered an 'individual' problem rather than a 'family' problem, involving the family in the solution will be the most helpful approach. This is especially true when a child or adolescent is depressed. This is based on the idea that relationships play a large role in affecting how we feel about ourselves. When family relationships are supportive and honest this will often help to resolve problems and improve the mood of family members.

### **DOES IT WORK?**

Although there have been many studies that show that the family environment has a strong influence on mental health, there have been relatively few good quality studies of family therapy for depression specifically. Those that have been done do not provide strong support for its effectiveness. Some evidence suggests that family therapy is less effective than Cognitive Behaviour Therapy for adolescents experiencing depression.

### **ARE THERE ANY RISKS?**

No major risks are known.

### **RECOMMENDATION**

We do not yet know if family therapy works for depression.



## Hypnosis

Our rating

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### **WHAT IS IT?**

Hypnosis involves a therapist helping the client to get into a hypnotic state. This is an altered state of mind where the client can experience very vivid mental imagery. Time may seem to pass more slowly or more quickly than usual and the person often notices things that are passing through their mind that they might not otherwise notice. The person might also find that they are able to ignore or forget about certain painful experiences, including physical pain.

### **HOW IS IT MEANT TO WORK?**

Hypnosis is usually used along with another type of treatment, such as psychodynamic psychotherapy (see page 27) or Cognitive Behaviour Therapy (see page 21). This means that there are many different types of hypnosis treatments for depression. However, all of the treatments use hypnosis to help the person to make important changes, such as resolving emotional conflicts, focusing on strengths, becoming more active, or changing ways of thinking. It is believed that these changes are easier to make when the person is in a hypnotic state.

### **DOES IT WORK?**

There are very few well-designed studies that have tested whether hypnosis works for depression. One good study has shown that 'cognitive hypnotherapy' (a type of hypnosis combined with Cognitive Behaviour Therapy) was slightly more effective than Cognitive Behaviour Therapy. However, this needs to be shown again in a larger study. Other than that, there are mostly reports of treatments with a single person (case studies).

### **ARE THERE ANY RISKS?**

No major risks are known. However, hypnosis needs to be used by a properly trained mental health professional. Otherwise, it is possible that some people might become distressed by strong feelings or mental images or they might become dependent on their therapist.

### **RECOMMENDATION**

The combination of hypnosis with Cognitive Behaviour Therapy looks like it might be effective. However, some larger studies should be done so we can be more confident of this. We do not know if other types of hypnosis treatment are helpful.

## Interpersonal Psychotherapy (IPT)

Our rating



### **WHAT IS IT?**

IPT is a type of psychological therapy that focuses on problems in personal relationships, and on building skills to deal with these problems. IPT is based on the idea that these interpersonal problems are a significant part of the cause of depression. It is different from other types of therapy for depression because it focuses more on personal relationships than what is going on in the client's mind (e.g. thoughts and feelings). Although treatment length can vary, IPT for depression is usually conducted over four to 24 weekly sessions.

### **HOW IS IT MEANT TO WORK?**

IPT is thought to work by helping people to recognise patterns in their relationships with others that make them more vulnerable to depression. In this treatment, the client and therapist focus on specific interpersonal problems, such as grief over lost relationships, different expectations in relationships between the client and others, giving up old roles to take on new ones, and improving skills for dealing with other people. By helping the client to overcome these problems, IPT aims to help them improve their mood.

### **DOES IT WORK?**

IPT has been tested in a number of well-designed studies and has been found to be effective for a range of people, including adolescents, adults and older people, as well as women going through post-partum depression and people with HIV infection. There has been an especially large number of studies on IPT with adolescents.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

IPT is an effective treatment for depression.

## Marital therapy

Our rating



### **WHAT IS IT?**

Marital therapy focuses on helping a person who is depressed by improving their relationship with their partner. Both members of the couple come for a series of psychological therapy sessions over a period of eight to 24 weeks. A person does not have to be married to use this approach, but needs to be in a long-term relationship. It can also be used with gay and lesbian couples.

### **HOW IS IT MEANT TO WORK?**

Marital therapy for depression has two main aims. The first is to reduce negative interactions between partners, such as arguments, criticisms and abuse. The second aim is to increase supportive ones, such as praise, empathy, forgiveness and problem solving. It focuses on changing behaviour, assuming that if the couple's behaviour changes in a positive way, then their satisfaction with their relationship will improve, as well as the mood of the partner who is depressed.

### **DOES IT WORK?**

There are a number of well-designed studies on marital therapy. Marital therapy is much better than no treatment, and is about as effective as well established treatments. Some studies have shown that marital therapy is most effective for depression when the couple is having relationship problems. This is true of many, but not all, couples where one person is depressed.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Marital therapy is an effective treatment for depression, which is probably best used when there are relationship problems along with depression.

## Mindfulness Based Cognitive Therapy (MBCT)

Our rating

For treatment of depression



For prevention of relapse



### **WHAT IS IT?**

MBCT is an approach to preventing the return or relapse of depression in people who have recovered from an episode. It is generally delivered in groups. It involves learning a type of meditation called 'mindfulness meditation'. This type of meditation teaches people to focus on the present moment, just noticing whatever they are experiencing, including pleasant and unpleasant experiences, without trying to change them. At first, this approach is used to focus on physical sensations (like breathing), but later it is used to focus on feelings and thoughts.

### **HOW IS IT MEANT TO WORK?**

MBCT helps people to change their state of mind so that they can experience what is happening right now. It stops their mind wandering off into thoughts about the future or the past, or trying to avoid unpleasant thoughts and feelings. This is thought to be helpful in preventing depression from returning because it allows people to notice feelings of sadness and negative thinking patterns early on, before they have become fixed. It therefore helps the person to deal with these early warning signs better.

### **DOES IT WORK?**

MBCT has been tested in a number of well-designed studies. It has been found to help prevent the return of depression in people who have previously been seriously depressed. This is important because it is common for people who have experienced depression to find that it returns at some later time in their life. Some of the studies suggest that MBCT only works for people who have had experienced depression a number of times (three or more). There has only been one study using MBCT in people who are currently depressed. More work is needed on that topic before we can draw conclusions.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

MBCT appears to be effective at preventing the return of depression in people who have been depressed a number of times before. It is unclear whether it helps people who are currently depressed.

## Music therapy

Our rating

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### **WHAT IS IT?**

In music therapy a therapist uses music to help someone dealing with depression to overcome his or her problems. Music therapy is often combined with another approach to psychological therapy, such as behaviour therapy (see page 20), psychodynamic psychotherapy (see page 27) or Cognitive Behaviour Therapy (see page 21). Different approach to music therapy can include people either playing and making their own music, or just listening to music.

### **HOW IS IT MEANT TO WORK?**

Listening to music is thought to help depressed people because it directly causes physical and emotional changes. Sometimes people are asked to perform another activity while listening to music, such as relaxation, meditation, movement, drawing or reminiscing. Making one's own music is thought to help with depression by allowing the person to experience a good relationship with their therapist through making music together, and to explore new ways of expressing oneself (similar to art therapy, see page 20).

### **DOES IT WORK?**

Unfortunately music therapy has only been tested in a small number of poor quality studies. A recent review of these studies said that we cannot be confident that music therapy is effective.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

We do not yet know if music therapy is an effective treatment for depression.

## Narrative therapy

Our rating

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### **WHAT IS IT?**

Narrative therapy is an approach to psychological therapy that focuses on how people think about themselves and their life situations in terms of narratives, or stories. People come for psychological therapy either alone, with their partner, or with their families.

### **HOW IS IT MEANT TO WORK?**

Narrative therapy proposes that human problems are partly caused by the language we use to describe them. In particular, people tell themselves stories about their difficulties and the life situations in which they occur. Some of these stories can increase depression, especially stories where the person sees himself or herself as powerless or unacceptable. Narrative therapy helps people change these stories so that they are less likely to increase depression.

### **DOES IT WORK?**

Narrative therapy has not yet been properly evaluated in well-designed studies. There are only reports of treatments with a single person (case studies).

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

We do not yet know if narrative therapy is an effective treatment for depression.

## Neurolinguistic Programming (NLP)

Our rating

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### **WHAT IS IT?**

NLP is an approach to psychological therapy that was developed in the 1970s based on observing people who were thought to be expert therapists. NLP assumes that if we can understand the way these experts use language when they are counselling people, then others can be effective therapists by using language in a similar way.

### **HOW IS IT MEANT TO WORK?**

NLP emphasises changing the way we see ourselves and the things that happen to us by changing the language we use. In NLP, the therapist uses specific patterns of communication with the client, such as matching their preferred sensory mode – vision, hearing or touch. These help to change the way the client interprets their world. By changing the way people interpret their world, NLP aims to reduce depression. Negative and self-defeating perceptions are changed into ones that instil confidence and good moods.

### **DOES IT WORK?**

Despite its scientific sounding name, and the fact that it has been around for over 30 years, NLP has not been properly evaluated in well-designed studies. Only a few reports of treatments with a single person (case studies) have been published. These are not enough to provide convincing evidence that it is likely to work for most people. Also, some of the psychological theories that underlie NLP have not been supported when they were tested in careful research.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is no convincing scientific evidence that NLP is effective for depression.

## Problem Solving Therapy (PST)

Our rating



### **WHAT IS IT?**

PST is a type of psychological therapy where a person meets with a therapist and is taught to clearly identify their problems, think of different solutions for each problem, choose the best solution, develop and carry out a plan, and then see if this solves the problem.

### **HOW IS IT MEANT TO WORK?**

When people are dealing with depression, they often feel that their problems cannot be solved because they are too difficult or all encompassing. This will sometimes lead to the person either trying to ignore their problems, or resorting to unhelpful ways of trying to solve them. PST helps the person to use standard problem solving techniques to break out of this deadlock and discover new effective ways of dealing with their problems.

### **DOES IT WORK?**

There has been a large number of good quality studies on PST. When the results from these studies are pooled together, it seems that people do benefit from PST, although there are many differences between the specific studies. More research is needed to work out what causes these differences.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

PST is an effective treatment for depression. It includes some parts of the well-established Cognitive Behaviour Therapy treatment for depression (see page 21).

## Psychodynamic psychotherapy

Our rating



### **WHAT IS IT?**

Psychodynamic psychotherapy is an approach to psychological therapy that focuses on discovering how the unconscious patterns in a person's mind (e.g. thoughts and feeling they are not aware of) might play a role in their problems. Short-term psychodynamic psychotherapy usually takes less than a year (often about 20-30 weeks), while long-term psychodynamic psychotherapy can take more than a year, sometimes many years. Long-term psychodynamic psychotherapy is sometimes called 'psychoanalysis', and can involve lying on a couch while the therapist listens to the client talk about whatever is going through their mind, although more often the client and therapist sit and talk to each other in a similar way to other types of psychological therapy.

### **HOW IS IT MEANT TO WORK?**

In psychodynamic therapy the therapist uses the thoughts, images and feelings that pass through the client's mind, as well as their relationship with the client, in order to discover patterns that give clues about psychological conflicts that the client is not aware of, especially issues that are related to experiences early in life such as during childhood. By making the client more aware of these 'unconscious' conflicts, they can deal with them and resolve issues that can cause depressed moods.

### **DOES IT WORK?**

There have been relatively few good quality studies of psychodynamic psychotherapy for depression specifically. However, recent studies that have pooled the results of studies on a range of mental health problems have found that both short-term and long-term psychodynamic therapy are better than no treatment and are just as effective as other standard treatments, such as cognitive behaviour therapy, for mental health problems in general, including depression. However, more studies are required before we can be confident about this conclusion for depression specifically.

### **ARE THERE ANY RISKS?**

No major risks are known. However, the long-term therapy can be expensive and time consuming. It might be important to consider whether a short-term treatment might not be just as effective.

### **RECOMMENDATION**

Both short- and long-term types of psychodynamic psychotherapy appear to work for depression. However, some larger studies should be done so we can be more confident of this.

## Reminiscence therapy

Our rating

For older people



For other age groups



### **WHAT IS IT?**

Reminiscence therapy has been mainly used with older people with depression. It involves encouraging people to remember and review memories of past events in their lives. Reminiscence therapy can be used in groups where people are encouraged to share memories with others. It can also be used in a more structured way, sometimes called 'Life Review'. This involves focusing on resolving conflicts and regrets linked with past experiences. The person can take a new perspective or use strategies to cope with thoughts about these events.

### **HOW IS IT MEANT TO WORK?**

Reminiscing might be particularly important during later life. Scientists have proposed that how you feel about your own 'life story' can strongly affect your well-being. Resolving conflicts and developing a feeling of gratitude for one's life are thought to help reduce feelings of despair.

### **DOES IT WORK?**

Reminiscence therapy has been evaluated in a number of studies. Pooling data from 20 of these studies shows that reminiscence therapy is generally an effective treatment for older people who are depressed. It also might be a good alternative to other types of psychological therapy. It has not been evaluated in other age groups.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Reminiscence therapy appears to be an effective approach to treating depression in older people.

## Supportive therapy

Our rating

?

### **WHAT IS IT?**

Supportive therapy is a type of psychological therapy that aims to help the client to function better by providing personal support. It is usually provided over a long period, sometimes years. In general, the therapist does not ask the client to change; rather, they act as a support person, allowing the client to reflect on their life situation in an environment where they are accepted.

### **HOW IS IT MEANT TO WORK?**

Supportive therapists believe that for some people with long-term problems the most helpful approach is to provide them with a reliable, accepting environment. This helps them cope with the challenges of day-to-day life and is especially useful for dealing with long-term problems that are difficult to change. The relationship of support and acceptance with the person's therapist is critical to helping them to cope better, even if they cannot change many of the problems they are facing.

### **DOES IT WORK?**

There have been very few good quality studies on the outcome of supportive therapy. In one good quality study, supportive therapy was compared to Cognitive Behaviour Therapy (CBT) and family therapy for treating depressed adolescents. Supportive therapy was found to be less effective than CBT in the short term, although the long-term outcomes were about the same.

### **ARE THERE ANY RISKS?**

No major risks are known.

### **RECOMMENDATION**

We do not know if supportive therapy is an effective treatment for depression in the long-term. However, it is likely that it does not work as well as the most helpful treatments, like CBT, in the short term.

# Complementary and Lifestyle Interventions

## 5-hydroxy-L-tryptophan (5-HTP)

Our rating

?

### **WHAT IS IT?**

5-HTP is an amino acid. Amino acids are building blocks of proteins. It is produced in the body from L-tryptophan and may also be purchased as a dietary supplement.

### **HOW IS IT MEANT TO WORK?**

5-HTP is converted into serotonin, a chemical messenger in the brain. Low levels of serotonin are thought to be related to depression. 5-HTP supplements may therefore increase the amount of serotonin.

### **DOES IT WORK?**

Only one small study of good scientific quality has been carried out. This was in severely depressed inpatients who took a placebo (dummy pill) or up to 3g 5-HTP per day for three weeks. None of those taking placebo improved, whereas three of five who took 5-HTP improved.

### **ARE THERE ANY RISKS?**

Common side-effects are nausea, vomiting, and diarrhoea. There are concerns that supplements may be linked with eosinophilia myalgia syndrome (a serious neurological disease), but this is unlikely to be a risk for 5-HTP.

### **RECOMMENDATION**

There is not enough good evidence to say whether 5-HTP works.

## Acupuncture

Our rating



### **WHAT IS IT?**

Acupuncture is a technique of inserting fine needles into specific points on the body. The needles can be rotated manually, or have an electric current applied to them. A laser beam can also be used instead of needles. Acupuncturists can be found in the Yellow Pages. Professional associations also keep a list of accredited members. These include: the Australian Acupuncture Chinese Medicine Association, the Chinese Medicine Registration Board, the Australian Natural Therapists Association, and the Australian Traditional Medicine Society. Acupuncture is not covered by Medicare, but may be available as an extra with private health insurance.

### **HOW IS IT MEANT TO WORK?**

This is not clear. Traditional Chinese medicine believes it works by correcting the flow of energy in the body. Western medicine believes it may stimulate nerves which results in the release of serotonin and norepinephrine. These are chemical messengers in the brain thought to be involved in depression.

### **DOES IT WORK?**

Eight small studies with depressed people have compared acupuncture with 'sham' acupuncture. Sham acupuncture involves choosing different needle sites or only pricking the skin's surface. The number of sessions varied between 10 and 30. These studies varied a lot in their design and some were of low scientific quality. However, a pooling together of the results from the eight studies found that acupuncture reduced depression symptoms.

### **ARE THERE ANY RISKS?**

Acupuncture is not free of risk, but is relatively safe when practiced by an accredited professional. Minor bleeding and bruising may occur.

### **RECOMMENDATION**

There is some evidence to suggest that acupuncture may work for depression. More research is needed to find out what kind of acupuncture is best.

## Drinking alcohol

Our rating



### **WHAT IS IT?**

Many people report that they drink alcohol to feel good or to relieve feelings of depression or tension.

### **HOW IS IT MEANT TO WORK?**

Alcohol has effects on multiple areas in the brain. Positive effects on mood could be caused by its involvement with parts of the brain that control euphoria, alertness, pain relief, and reward. It also has effects on thinking that could enhance mood, such as disrupting the ability to assess situations as stressful.

### **DOES IT WORK?**

Drinking alcohol has not been researched as a treatment for depression. Research in non-depressed people has found that alcohol's effect on mood is complex. Small amounts can have a stimulant-like effect but large amounts act like a sedative. Drinking in groups can lead to euphoria, but drinking alone often results in depression and sedation. Its effects also depend on the drinker's expectations, whether blood alcohol concentration is rising or falling, and other factors.

### **ARE THERE ANY RISKS?**

Studies in non-depressed people have shown that drinking heavily for days or weeks actually *increases* feelings of depression. In fact, depression in some alcoholics is caused by alcohol, and recovery can occur by stopping all alcohol consumption. Intoxication (drunkenness) may lead to violence and anti-social behaviour, and increases the risk of accidents and injury. Long-term heavy use can have serious health consequences, such as liver disease.

### **RECOMMENDATION**

Small amounts of alcohol may sometimes initially reduce feelings of depression. However, drinking alcohol could worsen depression or lead to an alcohol problem. There are also risks of harm to physical health or the chance of injury. Therefore, drinking alcohol should not be used as a way of dealing with depression.

## Alcohol avoidance

Our rating

In people with a drinking problem



In people without a drinking problem



### **WHAT IS IT?**

Alcohol avoidance means reducing or stopping drinking alcohol.

### **HOW IS IT MEANT TO WORK?**

Alcohol is a typical depressant drug and alcohol intoxication (drunkenness) may cause temporary depressive symptoms. Changes to the brain in response to long-term, heavy drinking may lead to depression. Heavy drinking can also cause unpleasant life changes, such as job loss, which can lead to depression. For these reasons, it may be helpful to avoid drinking alcohol when depressed.

### **DOES IT WORK?**

Many people who enter treatment for alcohol problems are diagnosed with depression. A number of studies in these people has looked at the effect of detoxification on depression. These show a large improvement in depression after a few weeks of avoiding drinking alcohol. This means that in many people with drinking problems, alcohol was the cause of their depression.

There have been no studies of reducing alcohol in depressed people who do not have an alcohol problem.

### **ARE THERE ANY RISKS?**

Suddenly stopping or reducing alcohol after heavy, long-term use can lead to withdrawal symptoms. These can be life-threatening. Giving up alcohol altogether may also increase risk of some health problems. For example, moderate alcohol consumption may protect against heart disease.

### **RECOMMENDATION**

Depression in people with a drinking problem may be improved by not drinking alcohol. There is not enough evidence to say whether avoiding alcohol is helpful for depression in people without an alcohol problem.



## Aromatherapy

Our rating

?

### **WHAT IS IT?**

Aromatherapy is the use of essential oils for healing. Essential oils are highly concentrated extracts of plants. They can be diluted in carrier oils and absorbed through the skin, or heated and vaporised into the air.

### **HOW IS IT MEANT TO WORK?**

This is not known. Mood could be affected by the pleasant odour or by memories and emotions that are triggered by the smell. Alternatively, the oil's chemical components may have drug-like effects.

### **DOES IT WORK?**

Only one study has been done on aromatherapy on adults with mild depression. Adults who were given regular aromatherapy massages improved their depression. However, there was no comparison group.

### **ARE THERE ANY RISKS?**

Essential oils should not be used undiluted as they can irritate the skin. Some oils may interact with conventional medicine. Some essential oils are not recommended for use during pregnancy.

### **RECOMMENDATION**

There is not enough good evidence to say whether aromatherapy works.

## Autogenic training

Our rating

?

### **WHAT IS IT?**

Autogenic training is the regular practice of simple mental exercises in body awareness. The exercises involve concentration on breathing, heartbeat, and warmth and heaviness of body parts.

### **HOW IS IT MEANT TO WORK?**

Autogenic training promotes relaxation and stress-relief.

### **DOES IT WORK?**

One study of depressed adults compared autogenic training with psychological therapy and a group who received no treatment. The autogenic training group had greater improvement in their depression than the no treatment group. However, they did not improve as much as the psychological therapy group.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not enough good evidence to say whether autogenic training works.

## Bach flower remedies

Our rating

?

### WHAT ARE THEY?

Bach (pronounced 'batch') flower remedies are a system of highly diluted flower extracts. A popular combination of five remedies is sold as Rescue Remedy®.

### HOW ARE THEY MEANT TO WORK?

Bach flower remedies are believed to contain small amounts of the plant's life force energy, which heals emotional imbalances.

### DO THEY WORK?

There are reports that Bach flower remedies have been used to treat adults and children with depression. However, no scientific study has been carried out.

### ARE THERE ANY RISKS?

None are known.

### RECOMMENDATION

There is not enough good evidence to say whether Bach flower remedies work.

## Bibliotherapy

Our rating

With a professional



Without a professional

?

### WHAT IS IT?

Bibliotherapy is a form of self help that uses books or other written material. The books provide information and homework exercises that the reader works through on their own. Two self-help books for depression have been researched and are available to buy. These are *Feeling Good* and *Control Your Depression*. Other similar books that may be helpful are *Mind over Mood*, *Overcoming Depression* and *Overcoming Depression: a Five Areas Approach* (details of these books are in the References section on pages 62 to 65).

### HOW IS IT MEANT TO WORK?

Most bibliotherapy teaches a person how to use Cognitive Behaviour Therapy (CBT) on themselves. CBT is helpful for depression when delivered by a professional (see page 21).

### DOES IT WORK?

There have been many studies carried out of bibliotherapy for depression. In all studies, participants were in contact with professionals. A pooling of data from 17 of these studies found that bibliotherapy reduced depression much more than no treatment. Six studies have evaluated a specific book: *Feeling Good* by David Burns. Pooling of data from these studies also found that the book reduced depression more than no treatment. Results from four studies suggest that bibliotherapy may be as helpful as therapy from a professional.

### ARE THERE ANY RISKS?

There are no known risks. However, bibliotherapy may not be suitable for everyone. Some people may lack enough concentration or have poor reading skills.

### RECOMMENDATION

Bibliotherapy appears to be helpful for depression when a professional is involved.

## Borage

Our rating

?

### **WHAT IS IT?**

Borage (*Borago officinalis* or *echium amoenum*) is a herb originating in Syria.

### **HOW IS IT MEANT TO WORK?**

This is not known. Borage is used in traditional Iranian medicine for mood enhancement.

### **DOES IT WORK?**

One study of depressed adults gave groups borage extract or placebos (dummy pills) for six weeks. The borage group showed greater improvement in depression after four weeks. However, the benefit had disappeared after six weeks.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not enough good evidence to say whether borage works.

## Caffeine consumption or avoidance

Our rating

Consumption

?

Avoidance

?

### **WHAT IS IT?**

Caffeine is a stimulant that is found in coffee, tea, cola drinks, and chocolate. Some people believe that caffeine improves mood and energy. Others say that avoiding caffeine altogether may be helpful for depression.

### **HOW IS IT MEANT TO WORK?**

Caffeine is a central nervous system stimulant. It increases the release of several chemical messengers linked to depression. Some people may be extra sensitive to caffeine's effects, and therefore avoiding caffeine may be helpful for these people.

### **DOES IT WORK?**

Depressed people tend to consume more caffeine than other people. This may be because depressed people self-treat with caffeine. However, there have been no scientific studies of caffeine as a treatment for depression.

One small study has been carried out of caffeine avoidance. Depressed adults whose depression was thought to be caused by diet were involved. One group removed caffeine and refined sugar from their diet, while the other group cut out red meat and artificial sweeteners. The group which removed sugar and caffeine improved more than the other group.

### **ARE THERE ANY RISKS?**

Anxiety may occur with large doses (e.g. about five cups of coffee). More severe side-effects occur at much higher doses. High doses of caffeine may increase the risk of miscarriage. Suddenly stopping caffeine consumption may cause headaches, fatigue and irritability.

### **RECOMMENDATION**

There is no good evidence to say whether caffeine consumption or avoidance is helpful for depression.

## Carbohydrate-rich protein-poor meal

Our rating

?

### **WHAT IS IT?**

It has been proposed that a meal rich in carbohydrates but low in protein lifts mood.

### **HOW IS IT MEANT TO WORK?**

It is thought that a meal which is almost completely carbohydrate increases the level of tryptophan in the brain. Tryptophan is a building block of serotonin, a chemical messenger believed to be involved in depression. However, for this to work, the meal must be very low in protein. Most high-carbohydrate meals contain enough protein to block this mechanism.

### **DOES IT WORK?**

One study has been carried out in adults with winter depression. The effects on depressed mood of eating a carbohydrate-rich but protein-poor meal was compared with eating a protein-rich but carbohydrate-poor meal. The meals did not differ in their effects the way that was expected. However, the results were hard to interpret due to the way the research was designed.

### **ARE THERE ANY RISKS?**

Eating a diet very low in protein would harm health in the long term.

### **RECOMMENDATION**

There is not enough good evidence to say whether eating carbohydrate-rich but protein-poor meals works.

## Carnitine/ Acetyl-L-Carnitine

Our rating

For dysthymia



For other types of depression



### **WHAT IS IT?**

Carnitine is a nutrient involved in energy metabolism. It is produced in the body and is available in food such as meat and dairy products or as a supplement. Acetyl-L-Carnitine (ALC) is a form of carnitine that easily enters the brain.

### **HOW IS IT MEANT TO WORK?**

This is unknown. It could work by reducing stress hormone levels or through effects on lipids (fats) in the membranes (outer walls) of brain cells.

### **DOES IT WORK?**

Three studies have been carried out on ALC in people with a long-term low level of depression (known as dysthymia). Two studies in older adults found that a 3g daily dose was better than placebo (dummy pills). The other study found that a 1g daily dose was of similar benefit to an antipsychotic medication used to treat dysthymia.

### **ARE THERE ANY RISKS?**

Long-term supplementation of doses up to 2g per day appear safe. Higher doses may be safe, but there is less evidence.

### **RECOMMENDATION**

There is some evidence on ALC to indicate that it may work for dysthymia.

## Chocolate

Our rating

?

### **WHAT IS IT?**

Many people, including some people with depression, report craving chocolate when in a low mood and eating it to boost their mood.

### **HOW IS IT MEANT TO WORK?**

Chocolate contains several compounds that could have antidepressant effects, such as caffeine, theobromine, tyramine, and phenylethylamine. However, the amount of these substances in chocolate is so small that it is unlikely they influence mood. Also, there are other foods with higher amounts of these substances that do not improve mood. Some people think that the carbohydrate content of chocolate boosts serotonin. Serotonin is a chemical messenger in the brain thought to be involved in depression. However, the protein content in chocolate would block this effect.

### **DOES IT WORK?**

Chocolate has not been tested as a treatment for depression. However, studies in non-depressed people have found only a brief positive effect on mood followed by feelings of guilt. Any mood-lifting effects are likely to be due to its uniquely appealing combination of sweetness and fat. Its pleasant taste and texture could stimulate the release of endorphins (feel-good substances that reduce pain).

### **ARE THERE ANY RISKS?**

Chocolate is high in fat, sugar and kilojoules.

### **RECOMMENDATION**

There is no evidence that chocolate is helpful for depression.

## Chromium

Our rating

?

### **WHAT IS IT?**

Chromium is an essential trace mineral involved in carbohydrate, fat and protein metabolism. Chromium is available in food or as a supplement.

### **HOW IS IT MEANT TO WORK?**

This is unknown. However, it could involve effects on neurotransmitters (chemical messengers in the brain) by increasing sensitivity to insulin.

### **DOES IT WORK?**

One study of chromium in depressed adults gave groups either chromium supplements or placebos (dummy pills) for eight weeks. Chromium did not improve depression more than the placebos.

### **ARE THERE ANY RISKS?**

There are few harmful effects linked to high intakes of chromium. However, some medications may interact with chromium, especially when taken on a regular basis.

### **RECOMMENDATION**

There is not enough good evidence to say whether chromium works or not.

## Computer or internet interventions

### Our rating

With a professional



Without a professional



### WHAT ARE THEY?

Computer or internet interventions are websites with information on depression or Computerised Cognitive Behaviour Therapy (CCBT). CCBT involves structured sessions of CBT on computers and is similar to bibliotherapy. It can be delivered over the internet or via interactive CD-ROM. Professionals can be involved, but they do not need to be (similar to bibliotherapy, see 32). Some CCBT programs are only available through a health professional. However, there are several that are freely available on the internet:

- MoodGYM <http://moodgym.anu.edu.au>
- Living Life to the Full (a companion site to the Overcoming Depression: A Five Areas Approach book and CD-ROM) [www.livinglifetothefull.com](http://www.livinglifetothefull.com)
- BluePages <http://bluepages.anu.edu.au> (this website provides information only).

### HOW ARE THEY MEANT TO WORK?

CBT is helpful for depression when delivered by a professional. Its structured nature means it is well suited to computers.

### DO THEY WORK?

Several studies of CCBT for depression have been carried out. Pooling data from these studies has found a small benefit for CCBT over control groups when no professional is involved. However, when there is contact with a professional, it is even more helpful. This may be because a professional motivates the person to complete the program.

One study has shown that using a depression information website (BluePages, see above) reduced depression more than a control (dummy) treatment and as much as CCBT.

### ARE THERE ANY RISKS?

None are known.

### RECOMMENDATION

Computer or internet interventions appear to be helpful for depression. This is especially so when a professional is involved.

## Distraction

### Our rating

?

### WHAT IS IT?

Distraction is directing attention away from depression and towards pleasant or neutral thoughts and actions.

### HOW IS IT MEANT TO WORK?

Depressed people tend to ruminate (e.g. think too much about) how they are feeling. They believe that this will lead to a greater understanding of why they are depressed and how they can get better. However, ruminating while feeling depressed may lead to more negative thinking and make depression symptoms seem an even bigger problem. Distraction may interfere with rumination and stop negative thinking. Once the depressed mood has lifted, more effective problem solving can occur.

### DOES IT WORK?

A number of studies have been carried out on the effects of distraction on mood in people with depression. These studies have looked at whether distraction is helpful for temporarily improving depressed mood. Different distraction tasks have been used. These include thinking about and visualising neutral things (e.g. the shape of the African continent or the layout of a typical classroom), describing pictures, playing a board game, or thinking about broad social issues. Distraction was compared with a rumination task involving focusing on 'your feelings right now and why you are feeling this way'. These studies usually find that rumination increases or maintains depressed mood, whereas distraction reduces depressed mood. Distraction also appears to be better than alternatives such as sitting quietly.

### ARE THERE ANY RISKS?

None are known.

### RECOMMENDATION

Distraction appears to be helpful for temporarily improving depressed mood. Other treatments are needed for more lasting improvements.

## Dolphins (swimming with)

Our rating

?

### **WHAT IS IT?**

It has been suggested that swimming with dolphins may be helpful for depression. Swimming with dolphins is usually only available through a tour operator in selected locations.

### **HOW IS IT MEANT TO WORK?**

This is unclear. Dolphins use sonar signals to navigate, which could affect cell membranes in the brain. Alternatively, the natural setting or the enjoyment from the activity could also help to reduce depression.

### **DOES IT WORK?**

One study with 30 mildly depressed adults has evaluated swimming with dolphins. Half spent an hour a day swimming and playing with bottlenose dolphins for two weeks, and the other half swam and learnt about the marine ecosystem as a control. Both groups improved, however the dolphin group improved more. Other researchers have questioned these findings. They have argued that the swimming-only group would have been disappointed to miss out on interacting with dolphins and that the disappointment made them improve less.

### **ARE THERE ANY RISKS?**

Swimming skills are required and there is a risk of accidental injury.

### **RECOMMENDATION**

There is not enough good evidence to say whether swimming with dolphins works.

## Exercise

Our rating

Children and adolescents

?

Adults



### **WHAT IS IT?**

The two main types of exercise are aerobic (exercises the heart and lungs, such as jogging) or anaerobic (strengthens muscles, such as weight training).

### **HOW IS IT MEANT TO WORK?**

This is unclear, however low levels of physical activity are often linked with depression. There are a few ideas on how exercise might work, such as by:

- improving sleep patterns
- changing levels of chemicals in the brain, such as serotonin, endorphins or stress hormones
- interrupting negative thoughts that make depression worse
- increasing perceived coping ability by learning a new skill
- socialising with others, if the exercise is done in a group.

### **DOES IT WORK?**

A pooling of results from 25 studies looking at exercise for depression in adults found it moderately helpful. Exercise was compared with a placebo (such as social activity) or no treatment in these studies. It also seems to be as helpful as psychological therapy and antidepressants. Aerobic exercise such as running or walking was used in most of these studies. However, more research is needed to work out the best type of exercise, how often and for how long it should be done, and whether it is better in a group or individually.

There are only a few studies of exercise for depression in children and adolescents. These have not found any benefit, but the studies were low in scientific quality.

### **ARE THERE ANY RISKS?**

People may injure themselves by exercising. The benefits may be lost if exercise is stopped.

### **RECOMMENDATION**

There is good evidence that exercise is helpful for depression in adults. The benefits in young people need more study. As it is not yet known which kind of exercise is best, depressed people should choose a form they like, so that they will stick with it.

## Folate

### Our rating

As an addition to antidepressants



as a treatment on its own



### WHAT IS IT?

Folate is a nutrient found in a variety of foods or in dietary supplements, usually as folic acid.

### HOW IS IT MEANT TO WORK?

Depressed people often have lower levels of folate in their blood than non-depressed people. Lower folate levels are also linked with less benefit from treatment with antidepressants. It is not known exactly how folate works. However, it is involved in the production of serotonin, a chemical messenger in the brain that is involved in depression. It is also important in the creation of S-adenosylmethionine (see page 53), another brain chemical involved in mood. It is unclear whether folate is helpful for people with normal folate levels or only for those with low folate levels.

### DOES IT WORK?

Two studies have been carried out of folate in addition to an antidepressant. Both studies found a benefit of taking folate over placebo (dummy pills) alongside antidepressants. Two studies have also been carried out of folate as a treatment on its own. One was in depressed older adults who also had dementia. This study did not show a benefit in taking folate. The other study in depressed older adults found folate was very helpful. However, there was no comparison group, so these results are hard to interpret. Little is known about the best dosage of folate, but between 0.8mg and 2mg folic acid per day may be suitable.

### ARE THERE ANY RISKS?

Folate supplements have few or no side-effects. However, high folate intake may hide vitamin B12 deficiency or interact with epilepsy medicine.

### RECOMMENDATION

Folate may be helpful for depression when taken with antidepressants. There is not enough good evidence to say whether folate works as a treatment on its own.

## Ginkgo biloba

### Our rating



### WHAT IS IT?

Extracts from the leaves of the ginkgo biloba (maidenhair) tree are available in tablet form.

### HOW IS IT MEANT TO WORK?

Ginkgo has been shown to reduce the production of stress hormones, which may play a role in depression. Ginkgo may also improve blood flow to the brain.

### DOES IT WORK?

One study in adults with winter depression showed no benefit from ginkgo extract.

### ARE THERE ANY RISKS?

None are known.

### RECOMMENDATION

There is not enough good evidence to say whether ginkgo works for depression.



## Glutamine

Our rating

?

### **WHAT IS IT?**

Glutamine is an amino acid (one of the building blocks of protein) and is found in foods high in protein. It is available as a supplement from health food shops.

### **HOW IS IT MEANT TO WORK?**

This is unknown. However, glutamine is a building block of two neurotransmitters (chemical messengers in the brain). It is promoted in health food shops as a 'brain food' that gives more energy and improves mood.

### **DOES IT WORK?**

There are two reports of cases where glutamine was used successfully in adults and children with depression. However, no scientific study has been carried out with an untreated comparison group.

### **ARE THERE ANY RISKS?**

Glutamine supplementation of up to 14g per day appears safe. Higher doses may be safe, but there is less evidence.

### **RECOMMENDATION**

There is not enough good evidence to say whether glutamine works or not.

## Homeopathy

Our rating

?

### **WHAT IS IT?**

Homeopathy uses very small doses of various substances to stimulate self healing. Substances are selected that produce, in a healthy person, symptoms similar to those of the illness when used undiluted. Treatments are also based on the patient's symptoms rather than their diagnosis. This means that two patients with the same illness may receive different treatments. Treatments are prepared by diluting substances with water or alcohol and shaking. This process is then repeated many times until there is little or none of the substance left. Homeopathic treatments are available by visiting a practitioner or buying over the counter.

### **HOW IS IT MEANT TO WORK?**

Homeopathy is based on the principle of 'like cures like'. The diluting and shaking process is thought to have two functions. It removes any harmful effects of the substance, while the water retains the memory of the substance.

### **DOES IT WORK?**

One study has been carried out on homeopathy for depression. Although homeopathy showed a benefit over placebo (dummy pills), the research was of low quality.

### **ARE THERE ANY RISKS?**

Homeopathy is thought to be safe because of the small doses involved.

### **RECOMMENDATION**

There is not enough good evidence to say whether homeopathy works.

## Humour/ Humour therapy

Our rating

?

### **WHAT IS IT?**

Humour could be used by an individual to help improve their depression, or as part of therapy provided by a professional.

### **HOW IS IT MEANT TO WORK?**

Laughter has similar physiological effects to vigorous exercise. These include reducing stress hormones, relieving tension, and releasing endorphins into the brain. Responding to a stressful situation with humour may also help depression by causing a shift in thinking, promoting objectivity and distance from the threat or problem.

### **DOES IT WORK?**

One study had 33 adults who listened to a different short humorous tape each day for eight days. This had no effect on depression symptoms. One study of group humour therapy has been carried out in depressed older adults. Both the humour therapy and the comparison group improved depression. Another study looked at whether a short humorous film could temporarily reduce depressed mood in depressed inpatients. It found that the humorous film was better than a neutral film in reducing depressed mood, but it is not clear if this had a longer-term effect on their depression.

### **ARE THERE ANY RISKS?**

Humour is a low-risk treatment.

### **RECOMMENDATION**

There is not enough good evidence to say whether using humour or humour therapy works.

## Hydrotherapy

Our rating

?

### **WHAT IS IT?**

Hydrotherapy includes hot air and steam baths or saunas, wet packings, and various kinds of warm and cold baths.

### **HOW IS IT MEANT TO WORK?**

Hydrotherapy was a popular historical treatment for depression. It could be used for relaxation or stimulation.

### **DOES IT WORK?**

One study of hydrotherapy in depressed adults has been carried out. Multiple sessions of dry sauna over several weeks were compared with resting in a temperature controlled room. Neither group showed an improvement in depression. Cold showers have also been suggested to be helpful for symptoms of depression, but no scientific studies have been carried out.

### **ARE THERE ANY RISKS?**

Hydrotherapy is a low risk treatment.

### **RECOMMENDATION**

There is not enough good evidence to say whether hydrotherapy works or not.

## Inositol

Our rating

?

### **WHAT IS IT?**

Inositol is a compound similar to glucose. The average adult consumes about 1g daily through diet, but supplements are also available at health food shops.

### **HOW IS IT MEANT TO WORK?**

This is unclear, however levels of inositol in cerebrospinal fluid (fluid surrounding the brain) are low in people with depression. It may work because it helps to produce substances that are involved in signals within brain cells.

### **DOES IT WORK?**

One small study has looked at inositol as a treatment for depression. The study involved 28 severely depressed adults (both unipolar and bipolar) who took either 12g inositol or placebo (dummy pills) for four weeks. Inositol was found to be more helpful than placebo. The effect was seen most in females with unipolar depression.

### **ARE THERE ANY RISKS?**

No serious ill effects have been reported. However, no long-term safety studies have been carried out.

### **RECOMMENDATION**

There is not enough good evidence to say whether inositol works for depression.

## Lavender

Our rating

?

### **WHAT IS IT?**

Lavender is a plant that is popular in herbal medicine. Essential oil extracts are obtained from the flowering tops.

### **HOW IS IT MEANT TO WORK?**

Lavender is a traditional herbal remedy that may aid sleep and relaxation.

### **DOES IT WORK?**

One study in depressed adults compared lavender with an antidepressant. Groups received either lavender drops plus placebo (dummy) tablet, lavender drops plus an antidepressant, or an antidepressant plus placebo drops. Depression improved in all groups, but more so in the antidepressant group.

### **ARE THERE ANY RISKS?**

No risks are known. Lavender is thought to be the mildest of essential oils.

### **RECOMMENDATION**

There is not enough good evidence to say whether lavender works.

## LeShan distance healing

Our rating

?

### **WHAT IS IT?**

LeShan distance healing is a meditation technique designed to help the healing of another person's medical problems. It can be done either at a distance or in the presence of the person being healed. It is a skill that can be learned by people with no experience in healing or meditation.

### **HOW IS IT MEANT TO WORK?**

The healer's state of mind is thought to lead to an improvement in the person's self-healing abilities.

### **DOES IT WORK?**

One small study has been carried out of LeShan distance healing. Adults receiving treatment for depression were randomly divided into two groups. One group received no extra treatment. People in the other group were assigned to a stranger who performed daily distance healing for six weeks. These healers never met the participants. The study did not find a benefit from the healing.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not enough good evidence to say whether LeShan distance healing works or not.

## Light therapy

Our rating

For Seasonal Affective Disorder



For non-seasonal depression in combination with antidepressants



For non-seasonal depression as a treatment on its own



### **WHAT IS IT?**

Light therapy is exposure of the eyes to bright light for a suitable duration, often in the morning. The light is emitted from a box or lamp which the person sits in front of. These devices can be bought over the internet. Different devices may use different parts of the light spectrum, at different intensities of illumination.

### **HOW IS IT MEANT TO WORK?**

Light therapy was originally used to treat Seasonal Affective Disorder (SAD). It was thought to work by fixing disturbances in the body's internal rhythms caused by less sunlight in winter. It is less clear how it is meant to work in depression that does not vary with the seasons.

### **DOES IT WORK?**

Many studies have been carried out on light therapy. These have found good evidence that light therapy is helpful for SAD. The best effect is achieved when exposure is 5,000 lux per hour (lux is a measure of illumination). For example, exposure of 10,000 lux for 30 minutes or 2,500 lux for two hours. It also seems to be helpful in those with non-seasonal depression when used alongside antidepressants. Studies have shown inconsistent results when it has been used as a treatment for non-seasonal depression on its own. Three studies have found it more helpful than a placebo (e.g. dim light), but four studies did not find a benefit.

Less research has been carried out in young people. However, early results suggest it may be helpful for SAD, but not helpful for non-seasonal depression.

### **ARE THERE ANY RISKS?**

Light therapy is safe but may produce mild side-effects such as nausea, headache, jumpiness/jitteriness and eye irritation. Incandescent lights should not be used due to the risk of eye damage from infrared radiation.

### **RECOMMENDATION**

Light therapy is the best available treatment for SAD. It may also be helpful for depression when used with antidepressants. It is not clear whether it is helpful for depression on its own.

## Magnesium

Our rating



### **WHAT IS IT?**

Magnesium is a mineral present in the diet. It can also be taken as a supplement.

### **HOW IS IT MEANT TO WORK?**

It has been suggested that many cases of depression are due to magnesium deficiency in nerve cells.

### **DOES IT WORK?**

There have been no scientific studies of magnesium as a treatment for depression. However, some case studies have been reported where people showed rapid improvement after taking magnesium supplements. Such evidence needs to be viewed with caution. It is not known whether other people taking magnesium failed to improve or whether similar improvement would have taken place with placebo (dummy) supplements.

### **ARE THERE ANY RISKS?**

Excessive magnesium intake can be toxic and even lead to death.

### **RECOMMENDATION**

There is not enough evidence to say whether or not magnesium works.

## Marijuana

Our rating



### **WHAT IS IT?**

Marijuana is a mixture of dried shredded leaves, stems, seeds and flowers of the hemp plant (*Cannabis sativa*). Cannabis refers to marijuana and other preparations made from the same plant, such as hashish. The active ingredient in marijuana is the chemical THC.

### **HOW IS IT MEANT TO WORK?**

People who heavily use marijuana are more likely to be depressed. There are different explanations for why this is the case. Depressed people might use marijuana because it is a type of self-medication that helps their depression. On the other hand, heavy use of marijuana might have effects on the brain that lead to depression. Another possibility is that other factors, such as family or school problems, lead to both depression and marijuana use.

### **DOES IT WORK?**

Heavy users of marijuana sometimes report that they use it to help depression. However, in studies where depressed people are given either pills containing THC or placebos (dummy pills) no benefit has been found.

### **ARE THERE ANY RISKS?**

Heavy marijuana use can increase risk of psychosis (losing contact with reality) and schizophrenia.

### **RECOMMENDATION**

There is no evidence that marijuana helps depression. In fact, it can increase the risk of developing more serious mental illnesses.

## Massage

Our rating



### **WHAT IS IT?**

Massage involves the manipulation of soft body tissues using the hands or a mechanical device. Massage is often done by a trained professional. One of the aims of massage is to relieve tension in the body.

### **HOW IS IT MEANT TO WORK?**

This is not known. However, it is possible that massage reduces stress hormones or reduces the body's physiological arousal.

### **DOES IT WORK?**

Two studies have been carried out on massage, one with depressed children and adolescents and the other with depressed pregnant women. Both studies compared massage to relaxation training and found that massage produced a greater improvement in depression. There was a short-term improvement in mood after one massage, as well as longer-term improvements with regular massages over days or weeks.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not a lot of evidence on massage, but what there is indicates that it works in the short term for depressed mood.

## Meditation

Our rating



### **WHAT IS IT?**

There are many different types of meditation. However, they all train a person to focus their attention and awareness. Some types of meditation involve focusing attention on a silently repeated word or on the breath. An example is Transcendental Meditation. Others involve observing thoughts without judgment. An example is mindfulness meditation or vipassana. Although meditation is often done for spiritual or religious reasons, this is not always the case. Some meditation methods have been used within Western psychological treatments. An example is Mindfulness Based Cognitive Therapy (see page 24).

### **HOW IS IT MEANT TO WORK?**

Meditation may reduce anxiety and promote relaxation. Also, mindfulness meditation might help a person to distance themselves from negative thoughts.

### **DOES IT WORK?**

One study gave depressed adults one of three types of treatment. They received either combined relaxation and meditation, physical exercise, or group therapy. Meditation sessions were two hours long and held over 12 weeks. All three groups improved, but the study did not have a comparison group who did not receive the treatment.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not enough good evidence to say whether or not meditation works.

## Melatonin

Our rating



### **WHAT IS IT?**

Melatonin is a hormone produced by the pineal gland in the brain. It is involved in the body's sleep-wake cycle. Melatonin levels increase during night-time darkness. In some countries, such as the USA and Canada, melatonin is available as a dietary supplement and can be bought without a prescription. Melatonin supplements are not available in Australia, but can be brought in from overseas for personal use. (Melatonin supplements labelled 6X are sold in Australian health food shops. However, these are homeopathic remedies. They contain only miniscule amounts of melatonin.)

### **HOW IS IT MEANT TO WORK?**

The production of melatonin might be disturbed in depressed people. In particular, a problem with the timing of melatonin production might cause winter depression.

### **DOES IT WORK?**

One study compared various doses of melatonin with placebos (dummy pills) in adults with depression. It found higher levels of depression when using melatonin, but the doses were high. Three studies have looked at whether melatonin works for adults with seasonal depression. Two of these studies found that melatonin did not differ from placebos, but the third study did find a benefit.

### **ARE THERE ANY RISKS?**

One study found that large doses may actually increase depression. Little is known about the long-term effects of melatonin supplements on health.

### **RECOMMENDATION**

On current evidence, melatonin does not seem to help. Given that it might increase depression in high doses, it is not recommended.

## Music

Our rating



### **WHAT IS IT?**

People can use music to change their mood. Music is also used by professional music therapists. Music therapy for depression is reviewed on page 25.

### **HOW IS IT MEANT TO WORK?**

Music appears to affect brain systems that control emotions. This emotional effect could be due to the rhythm and melody of the music or to the personal meaning to the individual.

### **DOES IT WORK?**

Two studies have looked at the immediate effect of listening to music. In one study teenagers who had dysthymia (a long-term low level depression) listened to uplifting pop songs or tried to relax on their own. Even though the teenagers liked the music, it did not change their depressed mood. In the second study, young adult mothers who were depressed listened to either classical or rock music. Both types of music decreased depressed mood, but the study did not have a comparison group who did not listen to music. No studies have looked at the effects of regularly listening to music over a period of days or weeks.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not enough good evidence to say whether listening to music can help depression either immediately or in the long term.

## Negative air ionisation

Our rating



### WHAT IS IT?

A negative air ioniser is a device that uses high voltage to electrically charge air particles. Breathing these negatively charged particles is thought to improve depression.

### HOW IS IT MEANT TO WORK?

This is not clear. However, it may affect the neurotransmitter (chemical messenger) serotonin, which is thought to be involved in depression.

### DOES IT WORK?

One study has been carried out with adults who had been depressed for a long time. They were exposed to high-density negative ionisation for one hour each day for 5 weeks or to a placebo (low density air ionisation). Half of these people recovered compared to none who received the placebo. Two other studies have tested negative air ionisation in people with seasonal depression. Both studies found it more helpful than a placebo. In order to work, the negative air ioniser needed to have a flow rate of at least  $4.5 \times 10^{13}$ /second.

### ARE THERE ANY RISKS?

None are known. However, many air ionisers that are sold will not produce the required high density of ionisation.

### RECOMMENDATION

Negative air ionisation appears to work, including for seasonal depression. However, the air ioniser needs to be of the right type.

## Omega-3 fatty acids (fish oil)

Our rating



### WHAT ARE THEY?

Omega-3 fatty acids are types of polyunsaturated fats. The two main types are eicosapentanoic acid (EPA) and docosahexanoic acid (DHA). EPA and DHA are found in fish oil or can be made in the body from the oil found in foods like flaxseed, walnuts and canola oil. There is some research linking lack of omega-3 in the diet to depression:

- Countries where a lot of fish is eaten tend to have lower rates of depression.
- As omega-3 consumption has reduced in the typical diet in Western countries, rates of depression have also increased.
- Lower concentrations of omega-3 have been found in the blood of depressed people.

Omega-3 supplements containing EPA and DHA are available from health food shops and pharmacies.

### HOW ARE THEY MEANT TO WORK?

One possibility is that omega-3 affects the outer wall of brain cells, making it easier to send messages between and within brain cells. Another possibility is that omega-3 prevents inflammation in the brain, which could be a cause of depression.

### DO THEY WORK?

There have been numerous studies on omega-3 supplements as a treatment for depression. A pooling of data from 10 of these studies found that omega-3 did lead to greater improvement than placebos (dummy pills). However, there was a lot of inconsistency in findings from study to study.

### ARE THERE ANY RISKS?

None are known.

### RECOMMENDATION

Omega-3 appears to work, but the evidence is not entirely consistent. More large studies are needed.



## Painkillers

Our rating

?

### WHAT ARE THEY?

Painkillers are sold over-the-counter without prescription for the temporary relief of pain. They include aspirin, paracetamol and ibuprofen. Some people use these painkillers to help with depression.

### HOW ARE THEY MEANT TO WORK?

This is unclear. One theory is that proteins produced during inflammation may play a role in depression. Some painkillers act to reduce inflammation.

### DO THEY WORK?

There have been no studies to assess whether painkillers on their own help depression. However, one study looked at the addition of aspirin to antidepressant treatment in people who were not responding to antidepressants alone. This study found that over 50 per cent improved. However, there was no comparison group of people who did not receive additional aspirin.

### ARE THERE ANY RISKS?

Over-the-counter painkillers are not meant to be treatments for depression. There is always a risk in using medications for purposes they were not designed for.

### RECOMMENDATION

There is no good evidence on whether painkillers help depression.

## Pets

Our rating

?

### WHAT ARE THEY?

Many people report positive effects of interacting with their pets. Pets can also be used by professional therapists as part of their treatment (see animal assisted therapy, page 19).

### HOW ARE THEY MEANT TO WORK?

Pets provide companionship and protect people from loneliness. Caring for pets can also give a sense of responsibility and self-respect.

### DO THEY WORK?

One study of depressed young adults gave one group regular sessions where they interacted with a puppy. Another comparison group had no pet interaction. The group that interacted with the puppy had greater improvement in their depression. However, the study was poorly done. The depressed people were not placed in the two groups on a random basis and they did not have the same level of depression at the start.

### ARE THERE ANY RISKS?

None are known.

### RECOMMENDATION

There is not enough good evidence to say whether interacting with pets works.

## Phenylalanine

Our rating

?

### **WHAT IS IT?**

Phenylalanine is an amino acid. Amino acids are the building blocks of protein. It cannot be made in the body and must be included in the diet. Supplements are available through health food shops.

### **HOW IS IT MEANT TO WORK?**

Phenylalanine is used by the body to make the chemical messengers norepinephrine and dopamine. These messengers are thought to be affected in depression.

### **DOES IT WORK?**

Several studies have tested phenylalanine as a treatment for depression and found improvements. However, they did not compare it to placebos (dummy pills). Another study compared phenylalanine to an antidepressant. People who received phenylalanine improved as much as those receiving the antidepressant. However, the study was small and there was no comparison with placebos.

### **ARE THERE ANY RISKS?**

People with the rare genetic disorder phenylketonuria (PKU) should not use phenylalanine, as their bodies cannot break it down.

### **RECOMMENDATION**

It is unclear whether phenylalanine works for depression. Better scientific evidence is needed.

## Pleasant activities

Our rating

With a professional



Without a professional

?

### **WHAT IS IT?**

Depressed people engage in pleasant activities less often than other people. They also find fewer activities pleasant. Depressed people can increase their frequency of pleasant activities as a form of self-help. They can also be treated by a professional using a type of therapy called *activity scheduling*. This type of therapy helps the person to schedule more daily activities that are pleasant or involve a sense of achievement.

### **HOW IS IT MEANT TO WORK?**

Increasing pleasant activities may give the depressed person more chances to find normal (i.e. non depressed) behaviour rewarding. It can also counter the withdrawal and inactivity that are often found in depressed people.

### **DOES IT WORK?**

Many studies have been carried out on activity scheduling. Most of these have been small. However, pooling the results from 10 studies found that activity scheduling was better than no treatment. Pooling of results from 14 studies found that it produced improvements similar to other psychological treatments such as cognitive therapy. All of these studies involved activity scheduling as a treatment from a professional. There is no evidence on whether increasing pleasant activities works as a self-help method.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Increasing pleasant activities works when it is carried out as part of activity scheduling with a professional.

## Prayer

Our rating

?

### **WHAT IS IT?**

Prayer is a means by which believers attempt to communicate with the absolute. Prayer has traditionally been used in times of illness and is often used by the public to help cope with mental health problems. People can pray for themselves or to ask for healing for another person.

### **HOW IS IT MEANT TO WORK?**

The religious explanation of prayer is that a supreme being responds to the prayer with a miracle of healing. However, there have been non-religious explanations as well. One is that prayer is a placebo treatment in which the expectation of healing produces the benefit. Another explanation, which applies to praying for another person, is the 'non-local mind theory'. This proposes the non-separateness of human beings. Human consciousness operates beyond the physical location of the person who is praying, to have healing effects everywhere at once.

### **DOES IT WORK?**

One study has been carried out looking at the effects of praying for a person who is depressed. Twenty depressed patients who were receiving psychological therapy were divided into two groups. One group was prayed for and the other not. To overcome expectations of healing, neither group knew whether or not they were prayed for. Some symptoms of depression improved more in the group that was prayed for, but other symptoms did not. However, the small number of patients studied limits any conclusions.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is not enough evidence to say whether or not prayer works for depression.

## Qigong

Our rating

?

### **WHAT IS IT?**

Qigong is a 3,000-year-old Chinese self-training method involving meditation, breathing exercises and body movements.

### **HOW IS IT MEANT TO WORK?**

The traditional Chinese explanation is that qigong regulates the flow of qi (energy) throughout the body. It removes imbalances or blockages which cause emotional problems or physical symptoms. A scientific explanation is that qigong reduces the body's release of the stress hormone cortisol.

### **DOES IT WORK?**

One study has been carried out on depressed people aged 65 or over. One group received 16 weeks of qigong practice, while the other took part in a newspaper reading group. The qigong group showed more improvement in depression and these benefits lasted two months after the qigong practice ended.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

There is some preliminary evidence that qigong might help depression in older people. However, more evidence is needed to confirm this. There is no evidence on whether or not it works with other age groups.

## Quitting smoking

Our rating

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### **WHAT IS IT?**

People who are depressed are more likely to be smokers. Therefore, quitting smoking might be beneficial.

### **HOW IS IT MEANT TO WORK?**

Smokers are often addicted to nicotine. Nicotine deprivation motivates them to smoke the next cigarette. However, frequent nicotine deprivation is unpleasant and could contribute to depressed mood.

### **DOES IT WORK?**

There is no clear evidence on this. However, smokers who are depressed are at higher risk of more severe withdrawal when quitting. In the long term, quitting smoking helps to prevent heart disease and stroke. These diseases increase risk of depression, so that quitting gives an indirect benefit to mental health.

### **ARE THERE ANY RISKS?**

Quitting smoking could produce unpleasant nicotine withdrawal effects which make depression worse.

### **RECOMMENDATION**

Quitting smoking is good for physical health and might reduce risk of depression in the long term. However, it will be more difficult for a person to quit when they are depressed. For a person who is depressed, it would be best to try quitting under medical supervision.

## Recreational dancing

Our rating

?

### **WHAT IS IT?**

Dancing of any type can be used to improve mood.

### **HOW IS IT MEANT TO WORK?**

Dancing involves many elements that are thought to be beneficial for depression. These include exercise, listening to music, social interaction, enjoyable activity, artistic expression and achievement from learning new skills.

### **DOES IT WORK?**

One small study has compared ballroom dancing with no treatment in 22 depressed older adults. The dancing involved lessons for 45 minutes per week over eight weeks. Both the group that did ballroom dancing and the comparison group improved, with no difference between the two. However, the study may have been too small to detect any difference.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

More evidence is needed to know whether dancing helps depression.

## Reiki

Our rating



### **WHAT IS IT?**

Reiki (pronounced 'ray-key') is a form of energy healing that originated in Japan. A session of reiki involves a practitioner lightly laying their hands or placing them a few centimetres away from parts of the person's body for three to five minutes per position. Distance reiki, where the practitioner can work without being physically present with the recipient, is available with further training.

### **HOW IS IT MEANT TO WORK?**

There is no scientific explanation for how reiki works. Practitioners believe reiki uses life force energy present in all living things to promote self-healing. This energy is believed to flow through the practitioner's hands to the patient.

### **DOES IT WORK?**

One study in 45 adults with depression symptoms compared hands-on reiki, distance reiki and distance reiki placebo where no healing took place. Sessions were 1 to 1.5 hours long once a week for six weeks. The study found that the hands-on reiki and distance reiki groups improved more than the distance reiki placebo group. These improvements were still present one year later. These findings need to be confirmed in further research.

### **ARE THERE ANY RISKS?**

Reiki appears to be generally safe.

### **RECOMMENDATION**

There is not enough good evidence to say whether reiki works.

## Relaxation training

Our rating



### **WHAT IS IT?**

There are several different types of relaxation training. The most common one is progressive muscle relaxation. This teaches a person to relax voluntarily by tensing and relaxing specific groups of muscles. Another type of relaxation training involves thinking of relaxing scenes or places. Relaxation training can be learned from a professional or done as self-help. Recorded instructions are available for free on the internet or they can be bought on a CD.

### **HOW IS IT MEANT TO WORK?**

Relaxation training is used as a treatment for anxiety. Because anxiety can lead to depression, it may reduce depression as well.

### **DOES IT WORK?**

Several small studies have been carried out on relaxation training. A pooling of data from five studies showed that relaxation training reduced depression more than no treatment. Data from nine studies showed that relaxation training is not as effective as psychological therapies, such as Cognitive Behaviour Therapy.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Relaxation training appears to work. However, it is not as effective as psychological therapies.

## Rhodiola rosea (Golden Root)

Our rating

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### **WHAT IS IT?**

Rhodiola rosea is a plant that grows in cold regions of the world, such as the Arctic and high mountains. In some parts of the world, it has been used as a traditional remedy to cope with stress. Extracts of the plant have been marketed under the brand 'Arctic Root'.

### **HOW IS IT MEANT TO WORK?**

This is a traditional remedy that is supposed to increase the body's resistance to stress. However, the mechanism by which it might work is not understood.

### **DOES IT WORK?**

One study has been reported comparing extracts of rhodiola rosea with placebo (dummy pills). Adult patients with depression were either given a higher dose (680 mg/day), a lower dose (340 mg/day) or a placebo over six weeks. Both groups receiving rhodiola rosea showed greater improvements than the placebo group. The lower dose was as effective as the higher one.

### **ARE THERE ANY RISKS?**

None are known. The study above reported no side-effects.

### **RECOMMENDATION**

While the initial evidence looks promising, more studies are needed to confirm that it works.

## Saffron

Our rating



### **WHAT IS IT?**

Saffron is the world's most expensive spice, made from the stigma of the flower of the plant *Crocus sativus*. Saffron is used to treat depression in Persian traditional medicine. Both the stigma and the petal (which is much cheaper) have been used for the treatment of depression.

### **HOW IS IT MEANT TO WORK?**

This is not clear. However, it has been proposed that two of the components of saffron, crocin and safranal, affect the levels in the brain of the chemical messengers dopamine, norepinephrine and serotonin. These chemical messengers are thought to be affected in depression.

### **DOES IT WORK?**

Two studies have found that saffron stigma or petals reduce depression more than placebos (dummy pills). There are also three studies comparing saffron with antidepressants. These studies found no difference in effectiveness between the two.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Saffron appears to work, but more needs to be known about the doses required.

## SAMe (s-adenosylmethione)

Our rating



### **WHAT IS IT?**

SAMe (pronounced 'sammy') is a compound that is made in the body and is involved in many biochemical reactions. SAMe supplements are available from some health food shops and pharmacies. However, these supplements are expensive.

### **HOW IS IT MEANT TO WORK?**

SAMe is thought to affect the outer walls of brain cells, making cells better able to communicate with each other. It may also be involved in the production of chemical messengers in the brain that are thought to be affected in depression.

### **DOES IT WORK?**

A pooling of the results from 28 studies with adults found that SAMe improved depression more than placebos (dummy pills). There was also no difference in the effectiveness of SAMe compared to antidepressants.

### **ARE THERE ANY RISKS?**

The Australian Therapeutic Goods Administration has warned that people who are using prescription antidepressants or experience bipolar depression should not use SAMe unless under the supervision of a health practitioner.

### **RECOMMENDATION**

SAMe appears to work in adults. However, large studies are needed to find out the best dose and to assess its safety. Studies are also needed to see if it works for children and adolescents.

## Selenium

Our rating



### **WHAT IS IT?**

Selenium is a mineral naturally present in the diet. Whole grains and meats are a particularly good source. Selenium is also available as a supplement.

### **HOW IS IT MEANT TO WORK?**

It has been proposed that a lack of selenium in the diet can lead to anxiety and depression. There is some evidence that people who are depressed have a lower concentration of selenium in their blood.

### **DOES IT WORK?**

One small study has been carried out with depressed older people. They were given either selenium supplements or a placebo (dummy pill). Unfortunately, the number of participants in the study was too small to give any clear results.

### **ARE THERE ANY RISKS?**

Selenium can be toxic in high doses.

### **RECOMMENDATION**

There is no good evidence on whether selenium supplements work.

## Sleep deprivation

### Our rating

For short-term mood improvement



As a long-term treatment for depression



### WHAT IS IT?

Sleep deprivation can be either total or partial:

- **Total sleep deprivation** involves staying awake for one whole night and the following day, without napping.
- **Partial sleep deprivation** involves sleeping during either the early or later part of the night, and staying awake for the other part.

### HOW IS IT MEANT TO WORK?

This is not understood. One theory is that sleep deprivation normalises the functioning of the limbic system. This is a part of the brain important to emotion. Another theory is that sleep deprivation affects the neurotransmitter (chemical messenger) serotonin, which is thought to play a role in depression.

### DOES IT WORK?

Many studies have been done on total sleep deprivation. These show that around 60 per cent of depressed people improve. The effects are variable, with some people showing major improvement and a minority worsening. The effect is delayed in some individuals, who only improve following sleep the next day. The evidence on partial sleep deprivation is less clear. However, it may be as effective as total sleep deprivation.

### ARE THERE ANY RISKS?

Although the effect of sleep deprivation is rapid, the benefit typically does not last. Between 50-80 per cent of people who improve become depressed again after their next sleep.

### RECOMMENDATION

Sleep deprivation produces rapid improvement in many people. However, the effect generally does not last.

## Smoking cigarettes

### Our rating



### WHAT IS IT?

People who are depressed are more likely to smoke cigarettes. One explanation for this is that they smoke to relieve symptoms of depression.

### HOW IS IT MEANT TO WORK?

The nicotine in cigarettes might have an antidepressant effect. Nicotine increases the level of the neurotransmitter (chemical messenger) serotonin, like many antidepressants.

### DOES IT WORK?

It is likely that nicotine does have an antidepressant effect. There are a number of small studies looking at the effects of nicotine patches on depressed non-smokers. These studies find a short-term improvement in depressive symptoms. While there is a short-term benefit, the longer-term effects are not clear.

### ARE THERE ANY RISKS?

Smoking is a major risk factor for a range of chronic physical diseases, including stroke, heart disease and cancer. These physical diseases increase risk for depression.

### RECOMMENDATION

Smoking may improve depressive symptoms in the short term. However, in the long term it increases risk of a range of physical diseases that can in turn lead to depression.



## St John's Wort (*Hypericum perforatum*)

### Our rating

For mild depression



For moderate-severe depression



### WHAT IS IT?

St John's Wort is a small flowering plant which has been used as a traditional herbal remedy for depression. The plant gets its name because it flowers around the feast day of St John the Baptist. In Australia, St John's Wort extracts are widely available in health food shops and supermarkets. However, in some other countries St John's Wort extracts are only available with a prescription.

### HOW IS IT MEANT TO WORK?

The most important active compounds in St John's Wort are believed to be hypericin and hyperforin, but other compounds may also play a role. How it works is not entirely clear. However, it might increase the supply of certain neurotransmitters (chemical messengers) in the brain that are thought to be affected in depression. These are serotonin, norepinephrine and dopamine.

### DOES IT WORK?

Quite a lot of research has been carried out on St John's Wort as a treatment for depression. Researchers have pooled together the results of all these studies to get a clearer idea of its effects. St John's Wort has been found to produce more benefit than placebos (dummy pills) and as much benefit as antidepressant medications. However, the findings across studies are not always consistent. Some very large studies have found no benefit at all. The benefits seem to be greater for mild depression. The effects might also vary with the type of St John's Wort preparation and dose used. Daily doses in the studies have ranged from 240 mg to 1800 mg.

### ARE THERE ANY RISKS?

When taken alone, St John's Wort has fewer side-effects than antidepressant medications. However, St John's Wort interacts with many prescription medications, either affecting how these medications work or producing serious side-effects. According to the Therapeutic Goods Administration, people taking any of the following medications should not start using St John's wort:

- HIV protease inhibitors (indinavir, nelfinavir, ritonavir, saquinavir)
- HIV non-nucleoside reverse transcriptase inhibitors (efavirenz, nevirapine, delavirdine)
- Cyclosporin, tacrolimus
- Warfarin

- Digoxin
- Theophylline
- Anticonvulsants (carbamazepine, phenobarbitone, phenytoin)
- Oral contraceptives
- SSRI antidepressants and related drugs (citalopram, fluoxetine, fluvoxamine, paroxetine, sertraline, nefazodone)
- Triptans (sumatriptan, naratriptan, rizatriptan, zolmitriptan).

Anyone who is taking any other medications and wishes to use St John's Wort is advised to check with their doctor first.

### RECOMMENDATION

St John's Wort appears to be helpful for mild depression. However, it should be used with caution in anyone taking prescribed medications, because of the risk of drug interactions.

## Sugar avoidance

Our rating

?

### **WHAT IS IT?**

Eating refined sugar can provide a temporary increase in energy level and an improvement in mood. However, the longer term effect is a decline in energy.

### **HOW IS IT MEANT TO WORK?**

Some people are thought to be overly sensitive to sugar. Taking it out of the diet of these individuals may reduce symptoms of fatigue, moodiness, depression, excessive sleep, irritability, tenseness and headaches.

### **DOES IT WORK?**

A small study has been carried out with adults who were selected because their depression showed signs that it might be related to their diet. These people were treated by either removing sugar and caffeine from their diet or removing red meat and artificial sweeteners. Removing red meat and artificial sweeteners was used as a comparison and was not expected to work. After three weeks, the sugar and caffeine group improved more than the other group. This improvement was maintained three months later in those who had responded to the treatment. Later testing indicated that some of these people were sensitive to sugar.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

While there is some promising evidence that sugar avoidance might help a minority of depressed people, further research is needed to confirm that this treatment works.

## Tai chi

Our rating

?

### **WHAT IS IT?**

Tai chi is a type of moving meditation that originated in China as a martial art. It involves slow purposeful movements and focused breathing and attention.

### **HOW IS IT MEANT TO WORK?**

In traditional Chinese medicine, Tai chi is thought to benefit health through the effects of the particular hand and foot movements on important acupuncture points and body channels. Tai chi could also help depression because it is a type of moderate exercise or because it is a relaxing distraction from anxiety and stress.

### **DOES IT WORK?**

One small study of older people with depression compared Tai chi with no treatment. This study found greater reduction in depression symptoms in those who did Tai chi.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Although there is some promising evidence, more research is needed to say whether or not tai chi works.

## Tyrosine

Our rating



### **WHAT IS IT?**

Tyrosine is an amino acid, one of the building blocks of protein. It is found in food, but can also be taken as a supplement.

### **HOW IS IT MEANT TO WORK?**

Tyrosine is used by the body to make some neurotransmitters (chemical messengers) in the brain. One of these neurotransmitters is norepinephrine, which is thought to be decreased in people who are depressed.

### **DOES IT WORK?**

Two studies have compared tyrosine supplements with placebos (dummy pills) in people who are depressed. Neither study found any benefit.

### **ARE THERE ANY RISKS?**

None are known.

### **RECOMMENDATION**

Tyrosine is not effective as a treatment for depression.

## Vitamin B6

Our rating



### **WHAT IS IT?**

Vitamin B6 plays an important role in many processes in the body, including the brain. This vitamin is widely available in food, but can also be taken as supplements.

### **HOW IS IT MEANT TO WORK?**

Vitamin B6 is involved in the production of several neurotransmitters (chemical messengers) in the brain. Some of these, such as serotonin and norepinephrine, are thought to be involved in depression. It is also known that vitamin B6 deficiency can result in depression. This led to interest in its use as a treatment, even in people who do not have a deficiency.

### **DOES IT WORK?**

There have been four studies comparing vitamin B6 with placebo (dummy pills) or no treatment. Overall, there was no consistent benefit of the treatment. However, some positive effects were found in two of the studies which involved women whose depression was related to hormones. One of these studies was with women who had premenstrual syndrome and the other with depressed women taking oral contraceptives.

### **ARE THERE ANY RISKS?**

Very high doses of vitamin B6 can produce painful nerve damage. Doses above 100mg per day increase this risk.

### **RECOMMENDATION**

Vitamin B6 does not appear to work for depression in general. However, there is some promising evidence that it might help women whose depression is hormone related.

<b>Vitamin B12</b>	Our rating
	?

### **WHAT IS IT?**

Vitamin B12 is important to the functioning of many processes in the body, including the brain. Meat, milk and eggs are important sources of vitamin B12. Supplements are also available.

### **HOW IS IT MEANT TO WORK?**

Vitamin B12 deficiency can lead to depression. This has led to its use to treat depressed people who have a deficiency. However, even in people without a deficiency, vitamin B12 lowers the level of homocysteine in the blood. Homocysteine is a naturally occurring protein that may increase risk of depression and heart disease.

### **DOES IT WORK?**

One study has compared vitamin B12 supplements with placebos (dummy pills) in the treatment of winter depression. No benefit was found.

### **ARE THERE ANY RISKS?**

High doses of vitamin B12 can cause side-effects, such as skin problems and diarrhoea.

### **RECOMMENDATION**

The limited evidence available does not show an effect of vitamin B12 supplements on winter depression. There is no evidence on whether they work for other types of depression.

<b>Vitamin D</b>	Our rating
	?

### **WHAT IS IT?**

Vitamin D is essential to certain bodily functions, particularly the growth and maintenance of bones. Few foods contain vitamin D. It is mainly made in the body by the action of sunlight on skin. It is also possible to buy vitamin D supplements. Vitamin D has been used as a treatment for winter depression.

### **HOW IS IT MEANT TO WORK?**

Levels of vitamin D decrease in winter due to reduced sunlight exposure. It is therefore possible that lack of vitamin D can cause winter depression and that supplements may help treat it. Studies have also suggested that low levels of vitamin D are linked with depression.

### **DOES IT WORK?**

One study compared a single large dose of vitamin D (100,000 IU) with one month of daily light therapy in patients with winter depression. Depression was reduced in the group that received vitamin D, but not in the light therapy group.

### **ARE THERE ANY RISKS?**

Large doses of vitamin D can lead to toxicity. This produces too much calcium in the blood and impaired kidney functioning.

### **RECOMMENDATION**

The evidence is promising that vitamin D may help winter depression, but more research is needed. There is no evidence that vitamin D helps other types of depression.

## Yoga

Our rating



### **WHAT IS IT?**

Yoga is an ancient part of Indian culture. Most yoga practiced in Western countries is Hatha yoga. This type of yoga exercises the body and mind using physical postures, breathing techniques and meditation.

### **HOW IS IT MEANT TO WORK?**

Yoga is thought to reduce stress and improve relaxation. It may also increase feelings of mastery from learning difficult postures or improve body image from greater bodily awareness and control.

### **DOES IT WORK?**

Five trials have been carried out on yoga as a treatment for depression. These used a variety of types of yoga. Overall, the results were positive. Yoga produced more improvement than no treatment and it was as effective as medical treatments. However, the studies were not well designed, making it difficult to come to firm conclusions.

### **ARE THERE ANY RISKS?**

To reduce the risk of injury, yoga should be practiced in a class with a qualified instructor.

### **RECOMMENDATION**

Yoga is a promising treatment for depression, but more good quality research is needed.

## Zinc

Our rating



### **WHAT IS IT?**

Zinc is a mineral essential for life which is found in many foods. It can also be taken as a supplement.

### **HOW IS IT MEANT TO WORK?**

Some research has found that the level of zinc in the blood is lower in people who are depressed. Lower zinc can affect the neurotransmitter (chemical messenger) serotonin in the brain. Serotonin plays an important role in depression.

### **DOES IT WORK?**

One small study looked at the effects of zinc in addition to treatment with antidepressants. Six adult patients were given zinc supplements (25 mg of Zn<sup>2+</sup> once daily) and compared to eight who were not. After three months of treatment, the group given the additional zinc had shown most improvement. No studies have been done looking at zinc alone as a treatment.

### **ARE THERE ANY RISKS?**

Taking zinc at higher than recommended doses can be toxic.

### **RECOMMENDATION**

There is not enough evidence to say whether zinc works. While there is some initial evidence that zinc supplements produce greater improvement in people who are taking antidepressants, more research is needed to confirm this.

# Interventions reviewed but where no evidence was found

Alexander technique  
American ginseng  
(*Panax quinquefolius*)  
Ashwagandha  
(*Withania somnifera*)  
Astragalus  
(*Astragalus membranaceus*)  
Ayurvedic medicine  
Balneotherapy or bath therapy  
Barley avoidance  
Basil  
(*Ocimum spp.*)  
Black cohosh  
(*Actaea racemosa* or  
*Cimicifuga racemosa*)  
Brahmi  
(*Bacopa monniera*)  
California poppy  
(*Eschscholtzia californica*)  
Catnip (*Nepeta cataria*)  
Cat's claw  
(*Uncaria tomentosa*)  
Chamomile  
(*Anthemis nobilis*)  
Chaste tree berry  
(*Vitex agnus castus*)  
Choline  
Clove  
(*Eugenia caryophyllata*)  
Coenzyme Q10  
Colour therapy, chromotherapy  
or colorology  
Cowslip  
(*Primula veris*)  
Craniosacral therapy or cranial  
osteopathy  
Crystal healing or charm stone  
Dairy food avoidance  
Damiana  
(*Turnera diffusa*)  
Dandelion  
(*Taraxacum officinale*)  
EMpowerplus  
Euphytose  
Feldenkrais  
Flax seeds (linseed)  
(*Linum usitatissimum*)  
Fragrance or perfume  
 $\gamma$ -aminobutyric acid (GABA)  
Gerson therapy  
Ginger  
(*Zingiber officinale*)  
Ginseng  
(*Panax ginseng*)  
Gotu kola  
(*Centella asiatica*)  
Hawthorn  
(*Crataegus laevigata*)  
Hellerwork  
Holiday or vacation  
Hops  
(*Humulus lupulus*)  
Horticultural therapy  
Hyssop  
(*Hyssopus officinalis*)  
Kampo (Japanese herbal  
therapy)  
Kava  
(*Piper methysticum*)  
Ketogenic diet  
Kinesiology  
Lecithin  
Lemon balm  
(*Melissa officinalis*)  
Lemongrass leaves  
(*Cymbopogon citrates*)

Licorice  
(*Glycyrrhiza glabra*)

Milk thistle  
(*Silybum marianum*)

Mindsoothe or Mindsoothe Jnr

Mistletoe  
(*Viscum album*)

Motherwort  
(*Leonurus cardiaca*)

Multivitamins

Natural progesterone

Nettles  
(*Urtica dioica*)

Oats  
(*Avena sativa*)

Osteopathy

Para-aminobenzoic acid (PABA)

Passionflower  
(*Passiflora incarnata*)

Peppermint  
(*Mentha piperita*)

Pilates

Potassium

Purslane  
(*Portulaca oleracea*)

Reflexology

Rehmannia  
(*Rehmannia glutinosa*)

Rosemary  
(*Rosmarinus officinalis*)

Rye avoidance

Sage  
(*Salvia officinalis*)

Schizandra  
(*Schizandra chinensis*)

Sedariston

Sex to relax

Shopping

Siberian ginseng  
(*Eleutherococcus senticosus*)

Singing

Skullcap  
(*Scutellaria lateriflora*)

Spirulina  
(*Arthrospira platensis*)

St Ignatius bean  
(*Ignatia amara*)

Suanzaorentang

Taurine

Tension Tamer tea

Thyme  
(*Thymus vulgaris*)

Tissue salts

Tragerwork

Traditional Chinese Medicine

Valerian  
(*Valeriana officinalis*)

Vervain  
(*Verbena officinalis*)

Vitamin B1

Vitamin C

Wheat avoidance

Wild yam  
(*Dioscorea villosa*)

Wood betony  
(*Stachys officinalis* or *Betonica officinalis*)

Worry free

Yeast

Zizyphus  
(*Zizyphus spinosa*)

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## Complementary and Lifestyle Interventions

Our rating

Acupuncture



Alcohol avoidance: In people with a drinking problem



Bibliotherapy: With a professional



Carnitine / Acetyl-L-Carnitine: For dysthymia



Computer or internet interventions: With a professional



Computer or internet interventions: Without a professional



Exercise: For adults



Folate: In combination with an antidepressant



Light therapy: Seasonal Affective Disorder



Light therapy: Non-seasonal depression in combination with an antidepressant



Massage



Negative air ionisation



Omega-3 fatty acids



Pleasant activities: With a professional



Relaxation training



Saffron



SAME



Sleep deprivation: For short-term mood improvement



St John's Wort: For mild depression



Yoga



beyondblue  
the national depression initiative



# A summary of what works for depression

## Medical Interventions

Our rating

**Antidepressants:** Adults with mild depression 

**Antidepressants:** Adults with moderate to severe depression 

**Antipsychotics:**  
For severe depression in combination with an antidepressant 

**Electroconvulsive Therapy (ECT):**  
For severe depression that hasn't responded to other treatment 

**Ketamine:**  
For severe depression that hasn't responded to other treatment 

**Transcranial Magnetic Stimulation (TMS)** 

## Psychological Interventions

**Acceptance and Commitment Therapy (ACT)** 

**Animal assisted therapy** 

**Behaviour Therapy / Behavioural Activation** 

**Cognitive Behaviour Therapy (CBT)** 

**Dance and Movement Therapy (DMT)** 

**Interpersonal Therapy (IPT)** 

**Marital therapy** 

**Mindfulness Based Cognitive Therapy:**  
For prevention of relapse 

**Problem Solving Therapy (PST)** 

**Psychodynamic psychotherapy** 



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