

Depression

help pack







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1. Depression overview: facts and symptoms

1.1 What is depression?

Depression is an extremely common form of mental illness, with symptoms that include depressed mood, loss of interest in work and home life, feelings of guilt, low self-esteem, loss of appetite, disturbance in sleep patterns, loss of energy, and an inability to retain concentration.

There are many types of depression, each with different symptoms and levels of severity. All of us can feel depressed – or ‘down’ – from time to time, and most episodes of low mood are overcome fairly quickly. If an episode becomes long lasting or periods of depression keep occurring, then it can affect an individual to the point where they become unable to look after themselves on a daily basis.

Depression is widely misunderstood and, as a result, there is still a high degree of stigma attached to being depressed. Whilst depression can be reliably diagnosed and treated in primary care, it is estimated that fewer than 25% of those affected have access to effective treatments (WHO 2001). This is often due to lack of resources and a shortage of trained providers, but also because of the social stigma that is associated with mental disorders, which prevents people from confiding in friends, family and employers, posing an obstacle to treatment and other forms of help. Interestingly, it is thought that women are twice as likely to suffer from depression, but this may simply be due to the fact that women are more likely than men to seek help and advice from their doctor.

Depression statistics – you are not alone!

According to the World Health Organisation (WHO), depression is the leading cause of disability, which affects between 5-10% of the population at any one time. The average person has a one in five chance of experiencing depression in their lifetime, and some organisations estimate that it affects as many as one in four. Overall, depression affects about 121 million people worldwide and it is thought that about 814,000 lives every year are lost to suicide as a direct result of depression (WHO 2001).



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1.2 Types of depression

Depression is a complex condition and affects no two individuals in the same way. Since depression symptoms can overlap with other illnesses, it is always best to seek professional advice so that you can receive the right treatment.

Major depression is one of the most common forms of depression and most people will have some contact with someone who suffers – be they a friend, relative or work colleague.

Atypical depression is similar to Major Depression and defined as such because of the ability to feel better temporarily, in response to a positive experience with feelings of happiness and possible elation.

Psychotic depression is an extreme form of depression in which individuals display irrational thought patterns and behaviour characteristics.

Dysthymia: people with this form of depression generally experience little or no joy in their lives and appear depressed all the time. There are feelings of unimportance, fear and dissatisfaction, and individuals tend to withdraw and avoid social activities.

Manic depression (bi-polar disorder) is defined by changing mood, from depression to mania, sometimes quite rapidly. Manic depression is highly disruptive to a person's life and medication is needed to balance mood swings.

1.3 Knowing the symptoms

Depression symptoms can be divided according to what is called the ‘depression pathway’. If symptoms are able to be recognised when they develop, there is a better chance of preventing them from progressing.

Continuous stress begins to show in the form of physical symptoms, which can vary dramatically:

- Sleep problems: over-sleeping or insomnia
- Decreased levels of energy
- Fatigue /feeling tired all the time
- Appetite problems – either eating too much or too little
- Sexual dysfunction – either losing the desire for sex or the ability to have sex

Symptoms manifest themselves and behavioural symptoms start to develop:

- Social withdrawal, avoiding people or situations that feel uncomfortable
- Fatigue can result in loss of enthusiasm and the individual becomes less active
- Losing confidence results in the individual



When we're feeling low it's not uncommon to resist seeking help because we feel it's a sign of weakness or 'failure', but support is paramount to recovery, so do talk to someone. It's really important to let off steam by confiding feelings to family, friends or a work colleague, as this alone can be enough to keep negative thoughts and feelings from spiralling out of control. If it's difficult to approach someone you know, then several national charities run 24/7 support lines, offering guidance or even just a listening ear. It may be necessary, however, to seek advice from your doctor in case symptoms become more severe.

becoming less productive

- An inability to concentrate or focus on tasks
- Neglect of responsibilities

Finally, symptoms show emotionally:

- Feelings of hopelessness
- Low self-esteem
- Feelings of irritability /anger
- Intolerance of others
- Anxiety
- Negativity
- Loneliness
- Feelings of worthlessness
- Desire to self-harm
- Possible thoughts of suicide

What should you do if you think you may be suffering from depression?

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If it's difficult to approach someone you know, then several national charities run 24/7 support lines, offering guidance or even just a listening ear. It may be necessary, however, to seek advice from your doctor in case symptoms become more severe.

If you're feeling suicidal or severely troubled by your depression, contact your doctor as soon as possible.

Risk factors for depression

Whilst the onset of depression involves a highly complex combination of chemical events within the body, it is known that certain 'stressors' may be involved in the early onset of physical symptoms:

- Illness
- Pain
- Job loss
- Bereavement
- Childbirth
- Marriage
- Divorce
- Financial worries

What happens at a biochemical level

During a stressful experience, there are complex interactions between the hypothalamus (a part of the brain), the pituitary gland (also part of the brain) and the adrenal glands (at the top of each kidney). Several types of neurotransmitters are involved in this system, which is collectively known as the HPA-axis. With continuous stress, however, this can cause over-activity of the HPA-axis, resulting in an imbalance of neurotransmitters. It is thought that this imbalance plays a pivotal role in the early development of depressive symptoms.

As with many conditions and diseases, changes in any of the genes involved in this pathway, or those genes which are responsible for controlling neurotransmitter production, can also influence the risk of depression. If there is familial history of depressive illness (genetic susceptibility), this increases the chance of an individual experiencing depression themselves.

1.4 Getting diagnosed

Getting a diagnosis for depression is essential in order to get access to the right treatment. If you think you might be depressed, your GP will be able to identify what might be causing your symptoms and help you to get the treatment that is most appropriate for you.

2. Treating depression

GPs offer a variety of services that include general advice, prescription medications, or referrals to more specialised services such as counselling or psychiatric services.

2.1 Pharmaceutical medication

Your GP may advise a course of antidepressants to help with your depression. There are several types and it is not uncommon for people to have to try more than one before they find one that suits them and that works for them. The main types of antidepressant are listed below.

Monoamine Oxidase Inhibitors (MAOIs): these were the first antidepressants developed and are particularly effective in treating atypical depression. MAOIs work by inhibiting the enzymes responsible for breaking down those neurotransmitters responsible for mood, primarily noradrenaline and serotonin. MAOIs are not as commonly used as other antidepressants because they often interact with certain foods and impose substantial dietary restrictions.

Tricyclic antidepressants (TCAs): these were used extensively before the development of selective serotonin re-uptake inhibitors (SSRIs) and were defined as the standard treatment for depression. Like MAOIs, TCAs work by preventing the reabsorption of noradrenaline and serotonin back into nerve cells. The high level of side effects associated with TCAs means that they tend not to be prescribed unless SSRIs are ineffective or inappropriate.

Selective serotonin re-uptake inhibitors (SSRIs): as the name suggests, these drugs work selectively on serotonin and therefore don't have any effect on any other neurotransmitter. When a nerve 'fires' it causes a release of serotonin into the synaptic cleft, or the space between two nerves. Some of this serotonin is immediately reabsorbed by the same nerve, whilst some reaches the next nerve and signals it to fire and so on. In depression, the levels of serotonin don't appear to be strong enough to pass the message on and so there is a breakdown in cell signalling. SSRIs therefore work by preventing the re-uptake of serotonin, allowing levels to become high enough to pass messages effectively between nerve cells. There are a number of SSRIs that are frequently used to treat depression, including fluoxetine (Prozac) and paroxetine (Seroxat).

Antidepressants have a very important role to play in clinical depression, particularly when someone is suicidal and in need of an instant lift. The drawback of taking antidepressants is that nearly all of them have associated side effects, some of which can outweigh the benefits as a treatment for depression. For this reason many people often find it hard stick to a course of medication and will look for alternative, more natural, means of treating their depression.

Common side effects include:

- Diarrhoea
- Constipation
- Abdominal pain
- Sexual dysfunction
- Loss of libido
- Agitation
- Dry mouth
- Anxiety
- Headaches
- Blurred vision
- Nausea
- Sedation
- Sleep disruption
- Urinary retention
- Weight gain

2.2 Types of therapy

There are many forms of therapy and your GP can help you to find one that suits you best.

- **Cognitive behavioural therapy (CBT)** refers to a range of techniques which focus on the construction and re-construction of people's cognitions, emotions and behaviours. Generally in CBT the therapist, through a wide array of modalities, helps clients assess, recognise and deal with problematic and destructive thoughts, feelings and behaviours.
- **Specific therapies** such as bereavement therapy, in which counsellors will be able to offer targeted therapy programmes.
- **Family/couple therapy** can often be useful in situations such as divorce, in which family members are able to address specific issues.
- **Psychoanalytic or psychodynamic therapies** are therapeutic approaches in which the patient is encouraged to expose feelings held in the 'subconscious mind', which can then be dealt with accordingly.



2.3 Fish oil in depression

A number of trials have shown a link between depression and low levels of omega-3 fatty acids, particularly EPA (eicosapentaenoic acid). In several studies scientists have demonstrated the efficacy of pure EPA supplementation in depressed patients, ranging from those with mild or moderate depression, to those with severe depression and bipolar disorder.

(Lin and Su, 2007; Peet and Horrobin, 2007, Puri et al, 2000; Puri et al, 2001; Ross, 2007; Ross et al, 2007; Silvers et al, 2005; Stoll et al, 1999; Su et al, 2003; Su et al, 2008).

The American Psychiatric Association has since recommended treatment with at least 1g/day of omega-3 for these conditions, as an addition to standard treatment.

A double blind, randomised trial published in 2008 showed that the omega-3 EPA is as effective as Prozac in the treatment of depression and, when used in combination, is even more effective (Jazayeri et al, 2008). Leading clinicians and researchers, including Professor Basant K. Puri, author of *The Natural Way to Beat Depression*, consultant psychiatrist at Hammersmith Hospital and Head of the Lipid Neuroscience Department at Imperial College, London, use our pure EPA supplement *Vegepa* for patients with depression, with extremely positive results.

According to Professor Puri, "By taking a combination of ultra-pure EPA and virgin evening primrose oil, the body obtains the right fatty



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Read more about omega-3s in our diet section on page 10.



3. Maintaining mental well-being

We all experience some degree of stress at various points in our lives, but our ability to deal with the latent stress which permeates everyday life is crucial to our long-term health. In this section we explore various ways to preserve our mental well-being:

- Learning how to relax
- Exercise
- Avoiding alcohol and drugs
- Maintaining a healthy diet

3.1 Relaxation

Stress is a key influence on our mood. When we are stressed, our bodies release chemicals which prepare us for a 'fight or flight' response to a perceived threat. Unfortunately our bodies can't distinguish between the threats for which this survival mechanism evolved (running from a sabre toothed tiger, for example) and the modern-day threats we perceive, such as work pressures, family and relationship struggles, exam deadlines and lack of sleep. If stress is unavoidable in your lifestyle (we'd actually always suggest that there are ways to reduce stress since it's usually a product of our own creation), it's important to make time for yourself to relax.

Relaxation techniques help bring your system back into balance by reducing stress hormones, slowing down your heart rate and blood pressure, and relaxing your muscles.

Try this simple relaxation technique:

- First find somewhere quiet where you will not be disturbed
- You can lie down or remain seated but make sure you are in a comfortable position and close your eyes
- Start to breath slowly and deeply and after a few minutes begin to gently tense different parts of your body and then relax them, starting with your feet and working up to your head
- By concentrating on this simple exercise you should be able push all other thoughts from your mind
- After about 20 minutes take a few deep breaths and open your eyes
- This simple technique has the benefit that it can be used by anyone at any time, pretty much anywhere!

Other useful relaxation techniques include:

- Meditation
- Yoga
- Thai chi
- Feldenkrais
- The Alexander Technique



3.2 Exercise

Research indicates that physical activity can be extremely effective in relieving symptoms of mild to moderate depression. When we exercise we produce chemicals called endorphins, which have not only been shown to help with pain control but are also known to make us feel good. The benefits of exercising include:

- Reduced tension and stress
- Increased energy
- Improved sleep
- Motivation and a sense of achievement
- Reduced feelings of frustration and anger
- Healthier appetite
- It's a good way to meet people!

3.3 Alcohol and drugs

Both alcohol and drug use (such as cocaine and cannabis) can lower serotonin and noradrenalin levels and can therefore exacerbate symptoms and should be avoided by individuals who are currently depressed or who are susceptible to depressive episodes.

3.4 Diet and depression

Many people are becoming increasingly aware of the role that healthy eating plays in protecting us from diseases such as cardiovascular disease or diabetes. The link between diet and its role in maintaining mental well-being is not so well known, however.

The brain is a complex organ, which requires specific nutrients including carbohydrates, essential amino acids, essential fatty acids, vitamins, minerals and water, in order to function optimally. It's not uncommon for people with depression, however, to lose enthusiasm for cooking, or to rely on energy-dense, low nutrient foods; mealtimes can become irregular and eating a balanced diet can become a challenge in itself.

Over the past fifty years there have been dramatic changes to the foods we eat, and indeed to how we eat. Processing and refining, the use of pesticides and the introduction of intensive farming were, at one time, considered progress in food production techniques. The 24/7 culture in which many of us now juggle a busy work life with family, interests and social commitments, often necessitates convenience eating, with little regard to the nutritional content of our food. Coupled with the fact that we tend to over-eat the wrong types of food when we're feeling stressed, depressed or short of time, many of our diets in the West are suffering – a factor behind the deterioration of our mental and physical health.

Foods to avoid

Alcohol, caffeine, sugar, chocolate, cakes, biscuits, cheese and bread are the most common types of foods that cause low moods. Sugar is a major cause of fluctuating mood because when you eat something sugary, your blood sugar level rises sharply, followed about an hour or so later by a 'sugar low', as the amount of sugar in your blood decreases. This has a negative effect on your mood and energy level, leading to poor concentration, anxiety and irritability.

Eat Yourself Happy

- ✓ Avoid processed foods.
- ✓ Eat regularly and try to eat a good variety of different foods.
- ✓ Include protein in your diet but keep red meat to a minimum or eat organic (red meat is high in inflammatory omega-6 unless animals are fed on natural grass).
- ✓ Drink plenty of water, as the brain needs to be hydrated to function at its best.
- ✓ Eat your 'five a day'. Make sure you get plenty of vitamins and minerals by eating a wide variety of fresh fruit and vegetables. If you eat them raw they'll supply even more nutrients.
- ✓ Eat two portions of oily fish weekly to top up on omega-3 fatty acids, containing the natural antidepressant EPA, or take 2 capsules of Vegepa morning and night.
- ✓ Eating regularly is as important as eating well. Skipping meals affects blood glucose levels, which in turn affects mood. Try to eat three meals each day, at relatively regular intervals and avoid snacking on energy-dense, nutritionally 'empty' foods such as crisps, sweets or biscuits, and instead try fruit and dried fruit, seeds and nuts, which are packed full of nutrients. Be careful not to eat too many nuts, though, since these are also high in calories!

Food, mood and money

Many people who suffer from depression are at some point likely to experience restricted income and feel that trying to eat healthily on a budget simply isn't possible. It's not necessarily the case, however, and if you're careful about how you shop and plan your meals you can eat well without it becoming an expensive task.

Eat Well, Spend Less:

- ✓ Cutting down on unhealthy food items such as ready meals, sweets, cakes, crisps and fizzy drinks will free up more money for



healthier items. Many unhealthy food items offer little or no nutritional benefit and can actually exacerbate feelings of depression.

- ✓ Get organised and try meal planning so that when you go shopping, you can write a list and buy only what you need. We can spend a lot of our precious budget on 'impulse' purchases because supermarkets are very clever at making us spend more than we want! This also helps to avoid supermarket promotions, which are seldom related to good foods and often only encourage spending. Shopping with a friend can be a good idea, if you do want to take advantage of the healthier 'buy one get one free' offers!
- ✓ Frozen fruit and vegetables can be much better value than buying fresh. With frozen spinach, for example, you get exceptional value for money, in comparison with fresh spinach, which tends to be very expensive. Frozen vegetables also tend to offer more nutrients, because they are frozen within a very short time of being harvested. 'Fresh' vegetables, on the other hand, are sometimes transported thousands of miles, and aren't always so fresh when you finally eat them.
- ✓ Whilst organic meat is the healthiest option when choosing a protein source, pulses and soy products can be much cheaper and healthier than meat, and offer additional nutrients not found in meat.
- ✓ Try cooking in bulk and freezing portions for when you don't feel like cooking. Remember – it doesn't have to be expensive to eat well in order to look after not only your brain, but your whole body. Eating the right foods can improve memory, mood and energy levels as well as improve sleep patterns.

Carbohydrates and the glycemic Index

The brain needs energy supplied at an even rate in order to function optimally. Sudden peaks, followed by troughs, in blood sugar will adversely affect behaviour, anxiety, depression, and fatigue, so it is particularly important for people with depression to keep their blood glucose levels even. The glycemic index (GI) ranks carbohydrates according to their effect on blood glucose levels and is a good guide to informing us which foods to include as part of a healthy diet, and indeed which foods to limit.

White sugar and other refined (simple) carbohydrates, such as those found in processed white bread and white pasta, white rice and most convenience foods, supply few nutrients to the body but use up important B vitamins, which are essential for our nervous and immune systems, as well as for healthy digestion. These rank highly on the GI, giving a quick spike to the blood sugar level, but dropping quickly, leaving a feeling of hunger and the need for further snacks (constant peaks and troughs).

Avoiding refined foods and sugar, as well as consuming foods with a low GI value, will help to keep blood sugar levels even, which has a positive effect on our mood. Good low GI carbohydrates include high fibre cereals, whole grain products, beans, pulses, brown rice, whole wheat pasta, some fruit and vegetables. Because these products are not refined or processed they tend to be high in vitamins and minerals such as thiamine, folate and zinc – all known to have a positive effect on mood. These low GI foods consist of complex carbohydrates, which are broken down into sugars more slowly, avoiding rapid increases in blood sugar. Low GI foods also increase satiety, preventing us from feeling hungry again too quickly.



Omega-3 fatty acids

Experts believe that the average Western diet is a major factor in the development of certain mental health problems. When comparing the average Western diet to that which is typical in the Far East, it appears that our diets fall somewhat short. Scientists suggest that one of the reasons for the low rate of depression in the Far East is their high intake of omega-3 rich oily fish. With an incidence of 6%, depression is 60 times more common in New Zealand where fish consumption is very low, when compared with Japan, where it affects just 0.12% of the population (Hibbeln, 1998).

Fish is a vital source of the long-chain omega-3 polyunsaturated fatty acid EPA, which is crucial for moderating the mood-enhancing neurotransmitter serotonin. Fundamentally, the purpose of this fat is to ensure that cell membranes in the brain and body are functioning fluidly and allowing electrical messaging to function optimally. Depressive symptoms can occur when low levels of EPA create a chemical imbalance in the brain, which affects the production of mood-stabilising neurotransmitters.

In addition, individuals with depression have been shown to have increased levels of substances called inflammatory cytokines, which bring about increased inflammation. High cytokine levels are associated with symptoms such as fatigue and lack of sleep, exacerbating depression symptoms. Since EPA is a direct precursor to anti-inflammatory eicosanoids it can help combat these symptoms of depression.

Oily fish provides good levels of omega-3 fatty acids; try opting for wild salmon, mackerel, sardines or anchovies. Two portions weekly (about

100g per portion) provide an average daily intake of approximately 0.5g long-chain omega-3 (in line with guidance issued by the Food Standards Agency).

Be cautious, however, of larger fish such as marlin, swordfish or tuna, which tend to contain higher levels of contaminants than smaller species. Smaller short-lived fish are not only 'cleaner' in terms of PCBs, mercury and dioxins, but due to their short lifecycles, tend to be more sustainable. If consuming tinned fish, avoid those that are stored in sunflower oil as these are rich in omega-6. Tinned tuna also tends to be a poor source of omega-3, because the fatty acids are removed during the canning process.

Vegetarian sources of omega-3

Vegetarians, and particularly vegans, have low levels of EPA and DHA in comparison to fish-eating populations. Good sources of vegetarian omega fats include walnuts and tofu, while supplements can provide more concentrated amounts of these important nutrients, to promote the conversion to the mood-regulating long-chain omega-3 fatty acid EPA. Stearidonic acid (SDA) found in echium seed oil, is a closer relative to EPA than the omega-3 alpha linolenic acid (ALA) typically found in flaxseed oil. Indeed studies suggest that SDA produces up to 5 times more EPA than ALA. Our Echiomega capsules contain the recently approved food ingredient echium seed oil.

Whilst increasing omega-3 is important for mood, it's advisable to ensure that your omega-6 levels aren't excessive:

- Replace corn or vegetable oil with olive or rapeseed oil.
- Use olive spread or real butter instead of spreads rich in omega-6, and avoid processed foods with high saturated or trans fat contents, as these interfere with the metabolism of omega-3 fatty acids.
- When choosing meat, opt for lean (low saturated fat content) and organic, where possible (organic meat from grass-fed livestock is low in omega-6 whereas non-organic livestock are fed grains, producing meat which contains high levels of omega-6).
- Evening primrose oil, when cold-pressed and unrefined, is an exception to the rule, since it contains the omega-6 GLA, which has a synergistic effect with EPA to produce anti-inflammatory eicosanoids.

Vitamins and minerals

It is extremely common for depression sufferers to have low levels of B vitamins and essential minerals such as zinc, selenium and magnesium. Because these essential

micronutrients are involved in all metabolic pathways, it is vital to ensure needs are met. These water-soluble vitamins and minerals must be consumed daily to avoid depletion.

Vitamin and mineral deficiencies can hinder the body's ability to utilise specific omega-3 fatty acids, which are known to lift our mood by elevating serotonin and regulating levels of this important neurotransmitter. Eating a good supply of fruit, vegetables, seed and nuts will provide all the water-soluble vitamins and minerals the body needs. (Note to vegans: marmite is a good source of B12, which is an essential vitamin usually sourced from animal products.)



Protein and serotonin

Protein is comprised of amino acids, which are essential in our diets for DNA, cell growth, and tissue repair. Eating a variety of meat and meat products, fish and eggs will provide all the essential amino acids needed, providing complete proteins.

Complete proteins are harder to come by for vegetarians, but good vegetable protein sources tend also to offer lots of other valuable nutrients. Variety is the key to obtaining all the necessary amino acids required for human dietary needs – combining various grains and legumes can provide all 8 essential amino acids. Tryptophan, for example, is found in grains such as corn but is not present in beans and legumes. As the precursor to serotonin, which is known to enhance mood, tryptophan-rich foods are beneficial for depression.

Foods rich in B vitamins also promote the conversion of tryptophan into serotonin. Eating a good variety of vegetables can provide sufficient levels of B vitamins, although try not to overcook vegetables since B vitamins are water-soluble and steaming or boiling vegetables can deplete the B vitamin content. It is ideal to eat or juice raw vegetables to get the biggest nutrient hit, but lightly stir frying in a little olive oil or rapeseed oil will retain more nutrients than boiling.

3.5 Health supplements

If you find that there are times when you may not feel like cooking or you don't have an appetite, it might be advisable to look at supplementing your diet. Supplements are a convenient way to make sure you get all the vital nutrients your body needs if you are not sourcing them from a healthy, balanced diet. Supplementation is also a means of adding to the diet at times when our bodies need just a little bit extra.

Sometimes the way we feel can be directly caused by a lack of specific nutrients. Anxiety, for example, can be exacerbated by a lack of folic acid and magnesium. Both water-soluble, these important co-factors need to be consumed daily to avoid depletion, as the body doesn't store them for later use, unlike fat-soluble nutrients.

Supplement guide

State	Important nutrients
Anxiety	Folic acid
	Magnesium
Concentration/memory	Vitamin B1
	Vitamin B5
	Vitamin B6
	Vitamin B12
	Zinc
	Omega-3 EPA
Depression	Vitamin B3
	Vitamin B6
	Vitamin C
	Folic acid
	Magnesium
	Selenium
	Zinc
	Omega-3 EPA
	5-HTP
	St John's Wort
S-adenosylmethionine (SAME)	
Phosphatidylserine 5-HTP	
Tryptophan	
Stress/irritability	Vitamin B6
	Vitamin B3
	Magnesium
	Selenium
	Omega-3 EPA
Sleep problems	Magnesium
	Omega-6 GLA
	Omega-3 EPA



Omega-3

Highly purified fish oils are a safe and convenient way of topping up levels of long-chain omega-3 fatty acids, since these undergo processes which remove the contaminants. Sourcing fish oil from short-lived fish such as anchovies and sardines, which are cleaner in terms of mercury, PCBs and dioxins, also helps to maintain biodiversity.

Vegepa is a patented fish oil health supplement containing high strength omega-3 EPA and omega-6 GLA. This unique formulation provides cells with the nutrients required for efficient chemical signalling, integral to healthy brain function. Research suggests that the most effective dosage for alleviating the symptoms of depression is approximately 1g daily, or 4 Vegepa capsules.

Tryptophan

Tryptophan is an essential amino acid, as well as the precursor to serotonin. It cannot be produced by the body and so must be consumed in the diet; low intake can result in low levels of serotonin and adversely affect mood. Normally found in meat and grains, it may be worth topping up with extra tryptophan if you don't consume these foods regularly.

5-HTP

Serotonin is made in the body and brain from the amino acid 5-Hydroxytryptophan (5-HTP), derived from tryptophan. Both can be found in the diet; tryptophan is found in many protein-rich foods such as meat, fish, beans and eggs and, interestingly, the highest immediate form of 5-HTP is the African Griffonia bean. Griffonia Bean Extract has not only been used to treat depression but also the chronic symptoms of fibromyalgia, including morning stiffness, shoulder, neck and spine pain, and chronic headaches.

S-adenosylmethionine (SAmE)

SAmE is an important co-factor involved in the biosynthesis of several hormones and neurotransmitters which affect mood, such as dopamine and serotonin. Supplementing the diet with SAmE in depressed patients not only increases levels of serotonin and dopamine, but it also increases their efficiency.

Phosphatidylserine

Phosphatidylserine is a phospholipid that is vital to brain cells. Phospholipids are molecules containing both amino and fatty acids, found in every cell membrane within our bodies.

Phospholipids increase

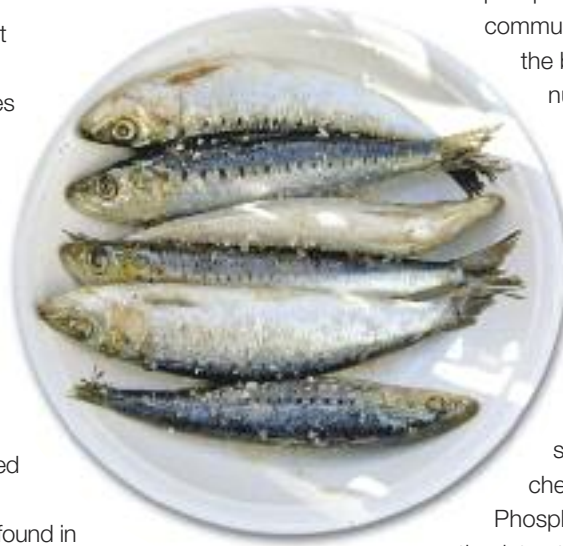
communication between cells in the brain by increasing the number of membrane receptor sites for receiving messages.

Phosphatidylserine is an important part of the cell membrane, helping to keep it fluid and flexible, which is essential for brain cells' ability to send and receive chemical communications.

Phosphatidylserine also stimulates the brain to produce the mood-regulating neurotransmitter dopamine; indeed studies have shown marked improvement in patients diagnosed with clinical depression as a result of taking phosphatidylserine daily (Maggioni et al, 1009; Brambilla et al, 1996).

St John's Wort

St John's Wort is a herbal antidepressant containing the active ingredients hyperforin and hypericin. Scientific studies of the herb suggest that it acts to increase the activity and prolong the action of serotonin and noradrenalin, in a similar manner to standard antidepressants, but with far fewer reported side effects (dry mouth, dizziness, gastrointestinal problems, increased sensitivity to sunlight, and tiredness).



4. Support networks

If you are suffering from depression, it is important to know that you are not alone! One in five people in the UK are experiencing the same feelings as you are. Talking to other people with similar experiences can provide reassurance and hope, which can be a great comfort when feeling isolated. Support groups all over the UK arrange regular meetings for sufferers, most of which can be easily found online.

4.1 Online resources

If you are not inclined to join a support group, online depression forums can be an excellent way of communicating with others. It's a good way to both offer and receive support, anonymously if you prefer. There are some excellent websites which offer advice and can put you in contact with other people in similar situations; many people find this very helpful.

The following websites offer useful resources for people who are, or have been, depressed:

<http://www.aware.ie/index.htm>

<http://www.depression.com/>

<http://www.depressionalliance.org/>

<http://www.depressioncanbefun.com/>

<http://www.mentalhealth.org.uk>

4.2 Further reading

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Miller, L. *Mood Mapping: Plot your way to emotional health and happiness*, Rodale, London. ISBN: 978-1-905-74445-9.

Puri, B.K. & Boyd, H. *The Natural Way to Beat Depression*, 2004, Hodder, London. ISBN: 978-0-340-82497-9.

Schmidt, M.A. *Brain Building Nutrition: The Healing Power of Fats & Oils*, 2001, Frog Ltd, Berkeley, California. ISBN: 978-1-583-94048-8.

Stoll, A.L., *The Omega-3 Connection*, 2001, Simon & Schuster UK Ltd, London. ISBN: 0-7432-0709-2.

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Healthcare Nutrition
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Igennus Ltd

St John's Innovation Centre, Cowley Road, Cambridge, CB4 0WS

Email: sales@igennus.com web: www.igennus-hn.com

Phone: +44 (0) 845 13 00 424 (09:00 to 17:30 GMT Monday to Friday) Fax: +44 (0)1223 305128