



IMAGE AWARENESS WELLNESS INSTITUTE

DEPRESSION

1271 HIGH STREET, AUBURN, CA 95603 • PHONE (530) 823-7092 • ORDER LINE (800) 359-6091
HOURS: TUES. – FRI. 10 A.M. – 4 P.M. • E-MAIL: MAIL@IMAGEAWARENESS.COM WEB: WWW.IMAGEAWARENESS.COM

March 2018

Volume 14: Issue 1

INTRODUCTION

Depression is a mental disorder characterized by deep sadness, apathy, inability to concentrate, and a feeling of emptiness. Feelings of worthlessness, fatigue, and thoughts of suicide are common. Sleep disturbances and appetite disturbances are associated with major depression.

Depression is a major concern for several reasons. Firstly, the incidence of depression has consistently increased since 1900. The disease seems to be affecting people at a younger age with frequent occurrence of major depressive episodes among those as young as 25.

A second concern is the treatment for depression. Prescription of highly toxic drugs is commonplace in psychiatric treatment of depression. These prescriptions number in the millions and the number of prescriptions has seen steady growth since the 1990's.

Depression has negative effects upon the immune system and it greatly increases the risk of suicide. Depression also increases risk of strokes, heart attack, cancer, and pneumonia.

SLEEP AND MOOD

Madeline Cartwright was appointed principal of an elementary school in a Philadelphia ghetto. She knew she had a problem when she stood in front of the school one morning greeting the students as they arrived. The stu-

dents asked her if she had seen Arsenio the previous night. She learned that Arsenio's late night talk show began at 11:00 p.m. and ended at midnight.

Madeline requested that the parents attend a special meeting. She explained to them that their children were not getting enough sleep and insisted that they should be in bed by 9:00 p.m. The parents responded and there was no more Arsenio for 6 to 12-year-olds. The result was an "absolutely unquestionable improvement in the children's mood and a striking decrease in quarrels and irritability."

Insufficient sleep and the debt which accumulates as a result has profound effects upon both behavior and mood. Sleep deprivation studies have shown that lack of sleep increases bodily complaints such as headache, stomachache, and sore joints and muscles.

Even more profound than the ef-

fects of lack of sleep on the body are the impact of sleep debt on the mind and mood. June Pilcher and Allen Huffcutt conducted a meta-analysis of 56 sleep studies and found that mood is affected more by sleep deprivation than are either physical performance or cognition. The researchers write, "...we found that mood is more affected by sleep deprivation than either cognitive or motor performance and that partial sleep deprivation has a more profound effect on functioning than either long-term or short-term sleep deprivation."

David Dinges found that partial sleep deprivation resulted in progressive increases in fatigue, confusion, tension and mood disturbance. Subjects were less happy and more stressed when deprived of sleep.

REFERENCES:

Dement, William C., and Vaughan, Christopher, *The Promise of Sleep*, New York: Dell Publishing, 2000, 277-278.

Pilcher, J.J., and Huffcutt, Al., Effects of sleep deprivation on performance: a meta-analysis, *Sleep*, 1996 May; 19(4):318-26.

Dinges, David, Cumulative sleepiness, mood disturbance, and psychomotor vigilance performance decrements during a week of sleep restricted to 4-5 hours per night, *Sleep*, 1997; 20(4), 267-277.

Melancholy woman: By http://wellcomeimages.org/indexplus/obf_images/e4/7b/13622efb4fa8a60a617248709dae.jpg Gallery: <http://wellcomeimages.org/indexplus/image/L0026686.html>, CC BY 4.0, <https://commons.wikimedia.org/w/index.php?curid=36013054>

ALLERGY

Patients with irritable bowel syndrome and food allergy have signifi-





cantly higher levels of depression and anxiety compared to non-healthy controls or healthy controls. Researchers suggested that the symptoms were related to excessive immune activity in the gut in both instances.

In a study of celiac disease, which is associated with gluten intolerance, supplementation with vitamin B6 for six months was found to improve mental symptoms of depression on the Minnesota Multiphasic Personality Inventory. This improvement was not observed on a gluten-free diet alone suggesting that the symptoms were associated with nutrient deficiency. Vitamin B6 is necessary for the production of important neurochemicals including serotonin and dopamine. The vitamin is also important in the production of noradrenalin, an adrenal hormone, which can impact mood.

Gluten is a complex protein found in wheat, rye, oats, and barley. Gluten intolerance was once considered a rare disorder, but as more effective testing has become available it has become clear that over one percent of the population is sensitive to gluten.

Gluten induces hyperactivity, inflammation, and atrophy of the villi lining the small intestine among those who are sensitive to the protein. Gluten intolerance is generally thought of as a gut disorder, but it can present with a wide variety of other health problems including mood disorders such as depression.

Gluten intolerance can also induce a wide range of nutrient deficiency due to the damage and inflammation

it creates in the intestinal lining can contribute to depression. Braley and Hoggan list 187 different health conditions that can be associated with gluten intolerance. They write, however, that “Depression is the most common symptom of gluten intolerance.” According to Hadjivassiliou neuropathy, damage to the nerves, is the second most common symptom of gluten sensitivity. Gluten intolerance has also been associated with ataxia, anxiety, migraine, and epilepsy. The genetic markers DQ2 or DQ8 are found in 97% of individuals with celiac disease but in only 40% of the general population.

REFERENCES:

Addolorato G, et al, Anxiety and depression: A common feature of health care seeking patients with irritable bowel syndrome and food allergy, *Hepato-gastroenterology*, 1998;45:1559-1564.

Hallert C, Depression in coeliac disease, *Epilepsy and Other Neurological Disorders in Coeliac Disease*, 1997;28:211-217.

Braley, James and Hoggan, Ron, *Dangerous Grains*, New York: Avery, 2002, p. 192.

Hadjivassiliou M., Grunewald R.A., Davies-Jones GAB, “Gluten Sensitivity as a Neurological Illness,” *J Neurol Neurosurg Psychiatry*, May 2002; 72(5):560-563.

Celiac disease: Could you be missing this common problem? *Consultant*, December 2004:1757-1759.

Bread: https://commons.wikimedia.org/wiki/File:French_bread_DSC00865.JPG

SUGAR AND CAFFEINE

Depressed patients have a preferential craving for simple carbohydrates such as table sugar. This could be related to serotonin production, but more likely is due to the ability of sugar to activate the opiate receptors in the brain demonstrated by Dr. Elliott Blass in the mid-1980's. Blass showed that sugar could act as a painkiller when the paw of a mouse was placed on a hot plate. The time required to withdraw the paw from the hot plate increased from 10 seconds to 20 seconds. The opiate antagonist naloxone blocked the narcotic effect of sugar and mice withdrew their paws from the hot plate in 8 seconds.

The question arises as to whether the craving for sugar among those who are depressed is a cause of depression or a consequence as a damaged person attempts to cope with the depression. Larry Christensen, Ph.D., observed in his research that eliminating sugar and caffeine from the diet was often highly beneficial for depressed individuals. He writes, “The author’s own work shows that elimination of simple sugars decreases depression. EEG data in depressed individuals pre and post dietary change has shown remarkable differences in the frontal and lateral regions of the brain...”

Christensen developed the Christensen Dietary Distress Inventory as a means of evaluation of the dietary effectiveness of eliminating sugar and caffeine from the diet for treatment of depression. Ten years of research suggested that the dietary change had to be in effect for at least two weeks to determine if it would be beneficial.

A study of 300 cases of hypoglycemia found that 60% of those with the condition were depressed and 50% were suffering with anxiety. Fatigue and exhaustion characterized 67% of those with low blood sugar.

Salzer who conducted this work suggested that every neuropsychiatric patient, especially those suffering with depression and anxiety, should be tested with a 6-hour glucose tolerance test. He suggested that the blood sugar measurements could be within the normal range, but if the drop in blood sugar was great enough symptoms would often manifest themselves. He suggested that a diet high





in protein, low in carbohydrate and free of caffeine would result in recovery in about 85% of those suffering with relative hypoglycemia.

REFERENCES

Christensen, Larry, Ph.D., The Role of Caffeine and Sugar in Depression, *The Nutrition Report*, March 1991;9(3):17,24.

Blass, Elliott, et al., Interactions between sucrose, pain and isolation distress, *Pharmacology Biochemistry and Behavior*, 1987; 26:483-489.

Salzer HM, Relative Hypoglycemia as a cause of neuropsychiatric illness, *J Natl Med Assoc*, January 1966;58(1):12-17.

Coffee with sugar: By Evan Swigart from Chicago, USA - Coffee with Sugar, CC BY 2.0, <https://commons.wikimedia.org/w/index.php?curid=11770123>

OMEGA-3

Omega-3 fatty acids are highly concentrated in brain and nerve tissue and are obtained only from the diet after birth. Much evidence suggests that deficiency can lead to improper brain functioning. Purity is important when considering omega-3 fats. Omega-3 fats contaminated with persistent organic pollutants have been shown to contribute to fatty infiltration of the liver and insulin resistance. These toxins contribute to damage to brain cells as well.

In 1992, it was reported that cholesterol-lowering therapies may increase mortality due to suicide and homicide, offsetting the number of lives saved by reducing coronary artery disease. Diets rich in fish oil protect against depression and hostility.

Countries with a high intake of fish have lower prevalence of depression. The connection is further supported by blood measurements of fatty acids and by supplement studies which show that higher levels of omega-3 fats are associated with decreased risk of depression and hostility.

The intake of omega-3 fatty acids has been shown to be directly associated with spinal fluid levels of a chem-

ical (5-HIAA) which reduces risk of depression, aggression, and other behavioral disorders. Total levels of fish oils was also found to predict levels of a metabolite of dopamine (HVA). Dopamine is a feel good hormone associated with reward and pleasure.

Cholesterol lowering medications also lower levels of essential fatty acids including the quality oils found in fish. This may be one of the reasons why cholesterol lowering medications are associated with increased risk of suicide, murder, and hostility.

In one study 54 subjects with and without major depression were age and sex matched. The depressed subjects had significantly lower levels of DHA, total omega-3 fats, and a lower ratio of omega-3 to omega-6 fats.

Omega-3 fats in the cell membrane reduce inflammation by decreasing the inflammatory activity of the omega-6 fat arachidonic acid. Omega-3 fats are also necessary for the production of resolvins and protectins, substances which tell the body to shut down the inflammatory process.

Lesperance reports that a randomized, double-blind, controlled, 8-week, parallel-group study showed that patients with depression, 40% of whom were taking medication for depression, experienced reduced symptoms with fish oil supplementation. Results were even more dramatic if patients were also experiencing anxiety. These depressive episodes had lasted for at least four weeks.

Supplementation with omega-3 fatty acids has been shown to be of more benefit than placebo in unipolar, bipolar, and childhood forms of depression. In the bipolar study six months of supplementation with EPA reduced Hamilton depression scores by at least 50% in 8 of the 10 subjects who completed at least one month of follow-up.

.REFERENCES:

Hibbeln, Joseph R., et al, "Do Plasma Polyun-

saturation Predict Hostility and Depression," in *Nutrition and Fitness: Metabolic and Behavioral Aspects in Health and Disease*, *World Rev. Nutr. Diet.*, 1997;82:175-186.

Depression linked to lower omega-3 fatty acid levels, *Family Practice News*, April 15, 2004:54.

Lesperance F, Frasura-Smith N, et al, The efficacy of omega-3 supplementation for major depression: a randomized controlled trial, *J Clin Psychiatry*, 2010 June 15; [Epub ahead of print].

Osher Y, Belmaker RH, Omega-3 fatty acids in depression: a review of three studies, *CNS Neurosci Ther*, 2009 Summer; 15(2): 128-33.

Stoll, Andrew L., *The Omega-3 Connection*, New York: Simon and Schuster, 2001, 104-128.

Fish: By Brevoort, James Carson, 1818-1887 - Notes on some figures of Japanese fish : taken from recent specimens by the artists of the U. S. Japan expedition, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=21633670>

EXERCISE

Exercise should be an adjunct to any therapy for depression. Both aerobic and nonaerobic exercise seem to produce benefits. There are a number of theories as to why exercise is so beneficial for depressed individuals. One of these is the stimulation of natural opiate receptors responsible for the "runner's high."

Exercise also lowers levels of stress hormones in the body. Exercise improves tissue response to insulin and reduces the risk of developing diabetes.

REFERENCES:

Martinsen, Egil W., Benefits of exercise for the treatment of depression, *Sports Medicine*, 1990;9(6):380-389.

Jogger: By Peter van der Sluijs - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=22633033>

THE MICROBIOME





IMAGE AWARENESS WELLNESS INSTITUTE

1271 HIGH STREET, AUBURN, CA 95603
PHONE (530) 823-7092 ORDER LINE (800) 359-6091
E-MAIL: MAIL@IMAGEAWARENESS.COM
VISIT OUR WEBSITE! WWW.IMAGEAWARENESS.COM

Recent studies on both animals and humans have shown that probiotic supplementation can reduce symptoms of depression and anxiety. Inflammation of the gut can trigger these symptoms. Overgrowth of harmful bacteria in the gut can trigger inflammation. This overgrowth can be triggered by diets high in fat and sugar.

One of the most pro-inflammatory substances in the gut is called LPS (lipopolysaccharide). This substance is a building block of the cell walls of certain types of harmful bacteria. The LPS is released into the system when these bacteria die. LPS has been used to induce an inflammatory response in laboratory animals.

Studies have shown that LPS levels can be reduced either by reducing the fats and sugars in the diet or by supplementation with beneficial bacteria (probiotic supplementation.)

In one study endotoxin levels were increased by 71% on a diet that was 40% fat and reduced by 31% on a diet that was 20% fat.

Implantation of bacteria from the gut of depressed humans into mice resulted in mice with depressive behavior patterns. One recent study

showed that supplementation with a powerful probiotic (beneficial bacteria) prevented increases in LPS even when a fast food diet was being consumed for 8 weeks.

REFERENCES:

Pendyala, Swaroop, et al., A high-fat diet is associated with endotoxemia that originates from the gut, *Gastroenterology*. 2012 May ; 142(5): 1100–1101

Foster, Jane A., et al., Gut–brain axis: how the microbiome influences anxiety and depression, *Trends in Neurosciences* May 2013, Vol. 36, No. 5:305-312.

Zheng, P., et al., Gut microbiome remodeling induces depressive-like behaviors through a pathway mediated by the host's metabolism, *Molecular Psychiatry*, 2016: 1-11.

RESOURCE

One of the best books on depression was written by Sherry Rogers who suffered terribly with the condition. She writes, “As a physician, I read and studied everything I could get my hands on, tried every drug, enrolled in all sorts of psychiatric courses for physicians and lay alike, all to no avail....I did have one major thing going for me that enabled me to get to the cause of depression for myself and thousands of others. I was so bloody sick, I had no choice. I was so colossally stuck that I had to find a way out. And I was fortunate enough to be given the resources to study night and

day after office hours, travel around the world learning, and work at the problem until the answers appeared.”

REFERENCE:

Rogers, Sherry A., *Depression Cured at Last*, Sarasota, FL: SK Publishing, 1997, 13.

WEB RESOURCES

www.imageawareness.com

www.yourbodyssignlanguage.com

www.jimmcafee.com

DISCLAIMER

This publication contains the opinions and ideas of its author. It is intended to provide helpful and informative material on the subjects addressed in the publication. It is provided with the understanding that the author and publisher are not engaged in rendering medical, health, or any other kind of personal professional services in this newsletter. The reader should consult his or her medical, health or other competent professional before adopting any of the suggestions in this newsletter or drawing inferences from it.

The author and publisher specifically disclaim all responsibility for any liability, loss, or risk, personal or otherwise, which is incurred as a consequence, directly or indirectly, of use and application of any of the contents of this newsletter.