

Depression Support Report

7 May 2019

First a note on cell theory (how to get “traction” from making change): it takes 3 days to break a habit/clear out the average cell; while it can take 3 weeks or more to build-up new cellular machinery and create optimum functioning at a cellular level. Therefore, prioritize the top 3 changes YOU need to make; change one thing in your lifestyle, first by eliminating the bad (habit / toxin / choice). Be positive and patient with self during the critical 72-hour implementation phase and persevere through the next 3 weeks by initiating the new habit / diet / choice. Do not give up / in too soon, your cells need time to adjust. At the end of the first month, assess your status: have you seen an improvement in how you physically feel or in your mental energy? Have you noticed any improvement in mood or sleep? Keep going with the new habit (expect even more positive results over the next 3 months) If the changes you implemented were behaviors to affect a psychological or social change for yourself; then, have you noticed relationship improvements or less stress (etc.)? *Remember, changing thoughts can have a dramatic impact on the chemical-release cells create in the body.* At the beginning of the second month, implement the second item from your priority for change list. Repeat the steps, and so on. Keep going for as many changes as you need to make. If you don’t notice the change made a difference, mark this off your list and move on-some things you believe to be problematic may not be. Once you achieve your wellness goals, your healthy lifestyle will be built upon the best choices for YOU!

Depression, in general, describes a state of low cellular function from a purely cellular level. It is not evidence of any disease, per se, but can be a sign that a problem is imminent. Long before a physical disease is diagnosed (such as an infection which a depressed immune system cannot fight, or a psychiatric diagnosis is made of clinical, chronic, or bipolar depression) there exists an observable status in the body of a lowered cellular function or response. In many cases, the cells are doing what they are “supposed to” but not efficiently. Imagine an automated factory that only has half the machines running, the cells aren’t producing enough of their unique products which the body needs. The most common reason for this initial depression is a lack of fuel: the nutrients and substrates needed in order to make sure that all the cells have enough of their parts to run at metabolic capacity. It is counterintuitive, but this is the reason many people who are overweight also experience nutrition deficiency: something lacking in their cells is vital for metabolism, therefore their cells cannot “work” as expected. There is no difference in the case of any diagnosed clinical depression. The basic neurology at work, or not working in the optimum metabolic state, can be traced to nutrient deficiencies. In the case of mental/emotional depression, the most common culprits for lack are the basic building blocks for a neurotransmitter (sends signals from cell to cell in brain and in nerves of body) called Acetylcholine (or ACH). Since ACH is a major transmitter, when it is in lack, others must kick in to take up the slack (like dopamine and epinephrine/norepinephrine). This begins a cascade where there often isn’t enough of those transmitters to do their proper work in the brain and body, and over time can result in a diagnosis of some sort of physical or clinical depression. Bear in mind that hormones regulate all functions and basic communication throughout the body: if there is a thyroid or androgen hormone problem, this can result in depression for physiological reasons which must be treated by a clinician. Furthermore, if depression or depressed neurological function (dementia, ADD, etc.) is a personal issue affecting you, then you must be informed of whether or not the medications used can disrupt the production of ACH (called anti-cholinergics, or ACH disruptors- YOUR DOCTORS DO NOT KNOW THIS,

a pharmacist will). There are many over the counter and prescription drugs which can inhibit your body's ability to form this molecule by blocking construction or using its pieces to construct other cellular materials.

Acetylcholine (ACH) cannot be supplemented. It is a sophisticated molecule which can only be constructed "in house" by the body. Therefore, it is very important to maintain good nutrition if you struggle with depression. A macrobiotic diet is helpful for so doing, but it is vital to make sure you are maintaining the right levels of vitamin D. Vitamin D is used by all organ systems, similar to the b vitamin of folic acid; they are basic building blocks of many components of cellular machinery, in general. If in low levels for your body; then, NONE of your cells will be producing ENOUGH of what your body needs, simply because of this. Taking supplements can have beneficial result, even if you are medicated, by creating more cellular binding sites for your medicines as the levels rise within your system. Therefore, if you are depressed (or fatigued, stressed, drained) then it can be a remedy to simply implement better eating habits and knowing which supplements you require. Other micronutrients can be important if they are low, which include electrolytes, other vitamins, and small amounts of trace minerals such as selenium, chromium, and copper which are necessary for proper functioning of the cells in your brain. There are supplements for "older adults" which contain a balanced delivery of nutrient components of ACH (MindWise by Young Living is one) which contain choline and many other vitamins and minerals. As with making food choices, when you choose supplements look where it was produced and ensure quality standards are met, then choose the one you can afford. If the quality is good, expensive isn't always better. Making the best food choices and using supplements should be part of the ongoing lifestyle, long term. Most Americans are vitamin D deficient according to their weight/height requirements because of geographical location.

There is also a significant neurological gut-brain connection which exists in the body that should not be ignored when depression is an issue of concern. It is direct, has immediate effects on multiple organ systems which cascade from this connectedness, and left unbalanced long-term, can result in chronic illnesses emerging in the body. The gut is lined, to the outside wall of the abdomen, with the omentum, an organ which contains up to 70% of the body's immune functions. This organ keeps the "waters" (interstitial fluid-clear fluid inside and outside of the cells) "clean:" free of debris and germs, vital to the lymph system. The brain "swims" in a fluid filled sac (the cerebrospinal fluid), filled with nutrients which have been released from digested food in the gut. Therefore, when something is amiss in the gut, things get disrupted in this nutrient and protective "bath" that is home to your brain. There can be immediate consequences to mental function (comprehension, fog, problem-solving, etc.) and emotional status (mood change, irritability/excitation, unexplained feelings) based upon what is ingested and depending upon the biome (natural bacteria and fungi that live in the gut, help digest food, and aid your cells in a good way to absorb nutrients) and the cellular functions of the digestive system. If depression is diagnosed or symptoms change after a period of illness or injury for which modern antibiotics have been prescribed, then the normal critters can be killed off and harmful critters can move into the gut tissues. These harmful bacteria and fungi actually produce cellular materials that are toxic to the body instead of good for it. They can be culprits in both acute and chronic conditions of constipation, diarrhea, or irritable bowel/colitis. Food allergies can create issues in gut balance and cellular function, especially unknown allergies. If you struggle with intermittent or chronic depression of some type AND have any gut issues; then, this warrants further investigation as being a part of the problem which can be solved or greatly improved. With the best information and a few ideas for making the best choices given specific issues which contribute to wellness, progress can be made on this

front. Restoring gut balance and function has been shown to dramatically improve the function of most other organ systems, increase immunity and longevity, and has the potential to impact both emotional regulation and mental faculties; sustained by positive lifestyle choices. There is much to understand in this subject matter, so consulting with coaches, nutritionists, or clinical providers can be worth the expense. To wellness practitioners, dealing with these issues is not embarrassing or revolting in any manner. Do not be disgusted about questions regarding bathroom habits; rather be honest and approach the subject with an open, positive frame of mind. (Trust me, as a biologist I have been trained from my earliest classes to assess scat; it is essential to examining what is going in, coming out, and happening in between for everyone!)

Self-care, assessment and maintenance is needed for the best lifestyle since diagnosed depression comes after a period of initial acute symptoms exerting: the “blues” period (feeling down, tired, inability to concentrate); which can then persist for a period of two weeks or more and result in a diagnosis of “clinical depression;” which can persist for years or decades and become labelled as “chronic depression” or result in the diagnosis of some other mental illness or disability (the brain’s inability to produce chemicals or that lacks physical receptors/genes has a disability) such as bipolar disorder (types I & II) which a diagnosis of “bipolar depression” can result. At any stage, even with chronic depression or an ongoing condition, there can be times when symptoms worsen or intensify. Pay attention if/when these things happen. It can be an early signal that the body has encountered something which causes an initial “cellular depression” resulting in the symptom experienced. Perhaps a lack of sleep, ingestion of alcohol, or an exposure to a virus has led to a “down” feeling. It is a mistake to always think of these things as being “normal” when there usually is a reason. Plan for having a good self-care routine daily; but, implement strategies when new or worse symptoms emerge so that things do not decline in your mental or emotional status. Physical illness and injury can result in a depressed state emotionally (frustration and disruption of routine); however, mental or emotional depression can also result in physical illness or injuries when these issues persist. First, pay attention to yourself and make sure you are meeting your basic physical needs for rest and nutrition, then attend to your individual needs: are you under stress? Next, reach out for social support for fun, or to ask for help from someone when you need it. If there seems to be a clinical issue, then seeking the help of a doctor who can perform basic lab work can be a simple way to find solutions. Do not let the first noticed signs of depression, cellular, or emotional/mental progress without looking after yourself and seeking solutions. Human beings have a great capacity to endure pain of all types; this is only a shame when there can be an end put to pain sooner rather than later in the enduring!