

Depression Is Not a Drug Deficiency /ith disturbing regularity, it seems, every few months we experience another horrendous school shooting incident. Combine these with the random shootings in work places by disgruntled employees, mall shootings, and all the

Dr. David G. Williams others, and it becomes obvious we have a serious underlying problem. Shootings like this were rare to nonexistent 15 or 20 years ago.

After the initial shock of each of these tragedies, we see the same thing: debates about the increased need for heavier security, stricter gun control, et cetera. Then dozens of newscasters and other "talking heads" offer a look into the troubled individual's background and possible motives. In practically every instance, we learn that the person responsible for the tragedy has a history of depression and has used antidepressant drugs. And, as often as not, we're told they've recently stopped taking their medication and this is probably the reason for their recent behavior. Once that is said, the debate reverts back to the issues of security, gun control, and how we can keep "people like that" from obtaining weapons, breaching security, or voluntarily stopping their medication.

Consistently being overlooked is the fact that antidepressants are a major contributor to this behavior.

Over the last 15 to 20 years, a family of drugs called selective serotonin reuptake inhibitors (SSRIs) have become the most popularly prescribed medications. These include the drugs Prozac (fluoxetine), Paxil/ Seroxat (paroxetine), Zoloft (sertraline), Luvox (fluvoxamine), and Effexor (venlafaxine).

SSRI drugs increase serotonin levels in the brain, and were thought to be safer than the tricyclic antidepressant drugs discovered in the 1950s. More and more research questions both the safety and effectiveness of all SSRIs.

The most recent study analyzed the results from 50 clinical trials and found the difference in improvement between patients taking antidepressants and placebos was not clinically significant. The only possible meaningful benefit was in just a very small group, the most severely depressed patients. (*PLoS Med 08;5(2):e45*)

The researchers summarized their paper, which was presented to the FDA, by saying: "Although patients get better when they take antidepressants, they also get better when they take a placebo, and the difference in improvement is not very great. This means that depressed people can improve without chemical treatments."

They concluded that there is little reason to prescribe antidepressant medication to anyone but the most severely depressed patients. And, personally, I'm not convinced even this is appropriate.

## **Taking Pills, Taking Chances**

Every one of these antidepressant drugs comes with an extremely long list of side effects, many far more severe and common than what was ever predicted from the initial clinic trials used to get the drugs approved.

Just a few of the symptoms include insomnia, teeth grinding at night, sweating, muscle spasms, nightmares, constant fatigue, headaches, nausea, diarrhea, and hair loss. Weight gain is also a huge problem.

On their own, SSRIs double the risk of gastrointestinal bleeding. If that weren't bad enough, researchers at Wake Forest University School of Medicine discovered your risk of gastrointestinal bleeding increases more than

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You will observe with concern how long a useful truth may be known, and exist, before it is generally received and practiced on. — Benjamin Franklin 600 percent when an individual uses both antidepressants and NSAIDs (common pain relievers, including aspirin, ibuprofen, naproxen, and COX-2 inhibitors).

Gastrointestinal bleeding is a huge problem, particularly among the elderly. The last thing we need is to compound that problem. One Spanish study found NSAIDs alone (including low-dose aspirin) were associated with one-third of all hospitalizations and deaths associated with gastrointestinal bleeding. (*Am J Gastroenterol* 05;100(8):1685–1693)

We now know that taking these antidepressants also doubles one's risk of the worst consequence of the problem they're being used to treat: suicide. The more we learn about these antidepressants, the more obvious it becomes that they incite both violent and selfdestructive behavior.

## **The Depressed Body**

Depression is certainly a complex problem. It can stem from numerous forms of stress. Under normal circumstances, however, our body has the innate capability to cope and function without self-destructing.

The physical effects of depression can be very similar whether the stress stems from emotional, physical, or chemical triggers. The disruption of brain chemistry will often find its beginnings in adrenal gland dysfunction, and from there a cascade of events begins to take place. When you take a more detailed look at these events and the changes that have been occurring in our diets and lifestyles, the picture becomes clearer. It's easier to understand why depression has become such a common problem, but, more important, it provides insight into how to fairly easily correct the underlying causes of depression without resorting to dangerous mind-altering drugs.

As I mentioned earlier, there are many factors that can trigger depression, and, as such, there is no one major cure. Obviously, if the depression was triggered by unresolved stress, resentment or conflict, unsettling past experiences, et cetera, these also need to be addressed, which is outside the realm of this discussion. However, when given the chance and raw materials, your body can correct the majority of physical imbalances that cause and perpetuate the problem. Don't fall into the trap of thinking depression is a drug deficiency.

Regardless of the incident, situation, or imbalance that draws a person into depression, it's more like the straw that breaks the camel's back. It's a gradual slippage. And not only does the triggering factor or factors have to be addressed, but the weak links and deficiencies of the body must be corrected as well.

### **The Glandular Connection**

For most people, depression is particularly linked to three different gland systems: the adrenals, the thyroid, and the pituitary. If you want to totally correct the problem, instead of just mask the symptoms, the health of one gland must be improved—and oftentimes all three.

The adrenal glands help in many areas: regulating blood sugar and blood pressure, producing hormones, balancing mineral levels, and assisting the body in dealing with all types of stress. When the adrenal glands are unable to handle these duties for some reason, then, as a matter of survival, the thyroid gland is called on to do what it can to take up the slack. And then when both the adrenals and the thyroid become fatigued and overworked to the point of exhaustion, the pituitary or "master gland" starts pumping out various "stimulating" hormones trying to rev up the whole glandular system—but at that point it's like beating a dead horse.

In the early stages of depression, the adrenals are always involved. More advanced depression involves the thyroid gland as well, and, in the most severe cases, all three gland systems become exhausted. In the short term, each gland may be able to compensate for the additional stress, but, for most of us, today's lifestyle and diet have forced our glands to the edge of failure already.

### **Adrenals**

The adrenals are our "stress glands." Today, we are bombarded with minute-by-minute worldwide news. The looming threat of war, a collapsing economy, crime,



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Dr. Williams works closely with Mountain Home Nutritionals, a division of Doctors' Preferred, LLC and subsidiary of Healthy Directions, LLC, developing his unique formulations that supply many of the hard-to-find nutrients he recommends. Dr. Williams is compensated by Doctors' Preferred, LLC on the sales of these nutritional supplements and health products, which allows him to continue devoting his life to worldwide research and the development of innovative, effective health solutions.

Alternatives

terrorism, rising prices, aging, failing health, et cetera, are factors that result in unresolved emotional stress causing additional physical stress to the adrenals.

The adrenals also work with the pancreas to balance blood sugar levels. The pancreas creates insulin, which helps remove glucose, or sugar, from the blood, and the adrenals create cortisol, which has many functions—one of which is to help increase blood sugar levels when they've fallen too low.

Constantly fluctuating blood sugar levels are common today with our high-carbohydrate diets, skipping meals, diet pills, and enormous amounts of sugar being consumed. For most people, a chart of their blood sugar levels would look like a roller coaster. At the peaks they would feel great—possibly even border on hyperactive. In the dips, however, you'd see the headaches, fatigue, irritability, and depression, and the craving for sugar (or even addiction to it) to reach another "feel good" peak. The constant rise and fall takes a heavy toll on the adrenal glands.

When you add artificial sweeteners to the mix, it only confuses the entire endocrine system further. Artificial sweeteners trigger a false signal to the pancreas that blood sugar levels are going to rise, which results in unnecessary insulin being released. This drops the existing normal blood sugar level—which requires even more support from the adrenals, and creates an increased craving for more sweets.

Put these factors together, and it's no surprise that most people's adrenal glands are on the verge of collapse.

#### Thyroid

Estimates are that as much as 40 percent of our population has an underactive thyroid problem—and I have no doubt those estimates are accurate. Much of the problem stems from inadequate amounts of iodine in the diet, which is relatively easy to correct through supplementation. Other factors aren't so easy to deal with.

Fluoride, from water supplies and many tooth care products, has been shown to inhibit thyroid function. Toxic metals, particularly mercury, displace the selenium that is necessary in thyroid hormone conversion.

What may be the most widespread deterrent to thyroid function is the widespread use of soybeans, soybean oil, and corn oil. One of the reasons soy infant formulas fell out of favor was because soy was found to be goitrogenic (resulting in the formation of goiters due to iodine deficiency). The problem could be somewhat mitigated through additional supplementation of iodine, but that's obviously not a viable solution for infants. (I know there will be questions about whether I've changed my mind about the benefits of soy. I haven't. Fermented forms of soy, such as tofu and tempeh, are fine. The fermenting process gets rid of the substances that interfere with iodine.)

As I've written on several occasions, we can learn a lot from studies performed on animals. In the 1940s, fat from hogs (lard) was as valuable a commodity as their meat. Researchers discovered that feeding hogs with oil from corn and soybeans had a thyroid-depressing effect and the animals produced higher quantities of lard. Now, however, with the trend toward leaner meats, that practice has changed. Pig feeds contain more saturated fat instead of the polyunsaturated soy and corn oil. As a consequence, the meat from pigs has become leaner.

On the other side of the coin, however, our baked goods and processed foods now contain polyunsaturated oils instead of saturated fats like lard, coconut oil, and butter. And everyone now buys polyunsaturated oils to cook with instead of the saturated fats. In the process we've impaired the thyroids of our whole society. As a result, the pigs have gotten leaner and we've gotten fatter.

As should be evident, you can improve your thyroid function by avoiding polyunsaturated oils and including more monounsaturated oils like olive oil and switching to butter instead of margarine. Simply taking a tablespoon or two of coconut oil a day has helped many people improve their thyroid function—resulting in an increase in their metabolic level and a loss of excess weight. (I personally take a tablespoon of coconut oil daily. The besttasting, high-quality one I've found is Nutiva Organic Extra Virgin, available at *www.nutiva.com* or 800-993-4367 ext. 702. Another good oil is Traditional Phillipine coconut oil, from Wilderness Family Naturals, at 800-945-3801 or *www.wildernessfamilynaturals.com*.)

In dealing with thyroid problems, most doctors aren't aware that an adequate amount of cortisol from the adrenals is necessary for the movement of thyroid hormones from the bloodstream into the cells. Cortisol helps make the cells more receptive to thyroid hormones. Weakened adrenals and low cortisol production will often result in higher levels of thyroid hormones in the blood, and the patient can even experience symptoms of hyperthyroidism: nervousness, anxiety, racing heart, nausea, hot flashes, dizziness, shakiness, et cetera. This often leads the doctor to wrongly conclude that giving thyroid medication was a mistake and the patient actually has an overactive thyroid instead of an underactive one. Correcting adrenal function along with supporting the thyroid will give the true picture. You can easily check your thyroid using the temperature test pioneered by Dr. Broda Barnes. There's another very easy test you can perform, called the iodine patch test, that checks for an iodine deficiency. I've written about both of these before, but for your convenience I've repeated them here (in the box on the next page).

### **Pituitary**

Not much is said about the pituitary gland. The small pea-sized gland produces the human growth hormone and is considered the "master gland" since it releases numerous regulating hormones for the thyroid, adrenals, kidneys, and the male and female sex organs.

As far as I know, not much focus has ever been placed on tools or techniques to strengthen or improve pituitary function, with the exception of glandular supplements which I'll cover in a minute. In the production of all hormones, however, two specific items are necessary: quality essential fatty acids and cholesterol. Although cholesterol has been demonized for the last few decades, in truth it's not some life-threatening molecule. It is essential for life, and practically all body tissues are capable of making it.

I won't go into all of cholesterol's amazing and lifesaving attributes, but suffice it to say it is essential in the production of hormones and vitamin D. Simple reasoning should tell us that lowering cholesterol levels artificially with statins and other drugs has the potential to alter hormone production in ways we don't yet understand. We do know that individuals with lower cholesterol levels have significantly more problems with suicide and depression. The widespread use of statins will turn out to be one of the medical establishment's biggest longterm blunders. There are complete books written on the ill effects now linked to statins. And hormone imbalances are just another problem area yet to be discovered.

### **Good Fats for Brain Health**

The lack of high-quality essential fatty acids in the diet also places an extra burden on the pituitary, particularly when combined with under-functioning adrenal and thyroid glands. This helps explain why adding fish oil to the diet of many people will dramatically improve their mood and brain function. Studies have shown time and time again that deficiencies in omega-3 essential fatty acids (like those found in fish oil and chia seed) are directly linked to increased levels of depression, suicidal tendencies, aggression, hostility, and violence. (*Prog Neuropsychopharmacol Biol Psychiatr 08;32(2):568–575*) (*Psychosom Med 07;69:932–934*)

In one UK prison study, researchers found that when the inmates were given a multinutrient supplement and fish oil, violent offences committed in the prison fell by 37 percent. (*J Hum Nutr Diet 03;16:167–179*)

A low level of omega-3 fatty acids accurately predicts the risk of suicidal behavior among depressed patients. (*Am J Psychiatr 06;163:1100–1102*)

Joseph Hibbeln is a psychiatrist and physician with the National Institutes of Health, who has been studying the effects of omega-3 fatty acids for several years. The relationships he discovered between omega-3 deficiencies and violence and depression are astounding. ("Frightening" might be a better word.)

Over the last century, the diet in most western countries has changed dramatically. In the process, dietary omega-3 oils have been almost completely eliminated through the substitution of omega-6-rich oils like soy, corn, and sunflower.

For example, in the US soy oil made up only 0.02 percent of all calories in 1909. By 2002 it was up to 20 percent. During this time period, we went from consuming a fraction of an ounce per person each year to presently consuming over 25 pounds a year of soy oil.

Hibbeln compared the increased consumption of omega-6 fatty acids in 38 countries since the 1960s to the rise in murder and depression rates over the same period. In every single case there was a corresponding linear match. When omega-6 consumption increases, so do murders and depression. In countries where omega-3 consumption has remained high and omega-6 consumption low—like in Japan, where fish is a staple food—the murder and depression rates remain low. Understandably, there are other factors involved such as urban crowding and the availability of firearms, drugs, and alcohol, but, surprisingly, changes in these other factors didn't reliably predict changes in murders or depression.

Hibbeln looks at the increasing imbalance in omega-3 and omega-6 fatty acids as a new, serious, unrecognized threat to society—and when you look at his findings it's pretty hard to disagree.

### Out With the Bad Fats, In With the Good

You've undoubtedly heard the phrase, "garbage in, garbage out." It originally referred to computer programming. If your input into a computer was incorrect, or garbage, then the solutions or output from the computer would also be garbage. Your body works this way as well. If you feed it garbage, that's the only material it has to use for building and repair. For example, the brain is composed of 60 percent fat, much of which is essential fatty acids (mostly the omega-3 fat DHA) that make up nerve cell membranes. When

# SIMPLE TESTS FOR THYROID FUNCTION AND IODINE STATUS

Hypothyroidism is often overlooked. One of the simplest and most accurate methods to check for the problem was discovered some years ago by Dr. Broda Barnes. Using his method, you can take your temperature and get a good idea of your basal metabolic rate and thyroid condition.

#### **To Perform the Thyroid Function Test:**

1. Put an oral thermometer by your bedside. If you use a mercury one, shake it down to 96 degrees before retiring.

2. Upon awakening, place the thermometer in your armpit and leave it there for 10 minutes before getting out of bed.

3. Record the temperature.

Note: Men can take their temperature any time. Women in their menstrual years get the most accurate reading on the second or third day after menstrual flow starts. Before the first menstrual period or after menopause, the temperature may be taken on any day.

your body isn't getting enough omega-3 fatty acids, it has to substitute omega-6 fatty acids in the nerve cell membranes. Neurotransmitters can't dock properly to these faulty membranes. Serotonin levels are already low, and what's there can't even connect properly.

This is not just some theory. Testing at the NIH has revealed that the body tissue composition of people in the US is markedly different from that of the Japanese. This is particularly true of nerve membranes. Our cell membranes have higher amounts of omega-6 fatty acids and less of the desirable omega-3 fatty acids than the Japanese. The ill effects of the drastic changes we made in our diet are starting to be seen. As a society, we're already paying dearly for decades of consuming highly processed foods laced with omega-6 oils and trans fatty acids.

Studies have shown that when animals are deprived of omega-3 fatty acids over a period of two generations, their offspring lose the ability to release both dopamine and serotonin effectively.

Hibbeln ties this change in brain structure and function to the increased violence and behavioral problems we're now beginning to see. "The extension of all this is that children are left with low dopamine as a result of early deficits in their own or their mother's diets, they cannot experience reward in the same way, and they cannot learn from reward and punishment. If their serotonin levels are low, they cannot inhibit their impulses or regulate their emotional responses." If that's not scary, I don't know what is. Anywhere between 97.2 and 98.2 is considered normal. If your temperature falls below this range, it indicates a sluggish thyroid or hypothyroid condition. (If it's above this range, your thyroid is overactive.)

#### To Perform the Iodine Patch Test:

This test is a crude, but rather useful, measure of your iodine status.

1. Before bed, use tincture of iodine (the orange variety) to paint a 3-inch square patch on the inside of your forearm, the inside of a thigh, or your abdomen.

2. Inspect the painted area the next morning. If all the color remains, than your iodine level is adequate. If all the color is gone, then you're thoroughly deficient in iodine. Varying degrees of color loss correspond to your degree of iodine deficiency.

You can repeat the test in a month or so after supplementing with losol to see how you're doing. I can't stress firmly enough that *you must not take the tincture internally*. It's poisonous.

Anyone who doubts just how profound the effects of omega-3 fatty acids can be in dealing with behavioral problems should try the following. Find a hyperactive, aggressive teenager in the family, the local church, or neighborhood. Give them a couple of bottles of high-quality fish oil capsules. Tell them the capsules are "smart pills," which is true, and have them take 3 grams a day. In three months, you'll see a totally different child. I've seen it happen time and time again. The end result is even more dramatic when a multivitamin/mineral is added to the mix and sugar consumption is reduced, but the results of the fish oil alone will be amazing.

Increasing your omega-3 levels through the increased consumption of fish, fish oil, and chia seeds is essential if you want to avoid problems with depression.

It should be obvious that drugs aren't the answer. Drugs can't change your omega-3/omega-6 fatty acid ratio. Drugs don't address the trace mineral and vitamin deficiencies. Drugs don't address unresolved stress. Drugs don't supply the raw materials each of these glands needs to rebuild itself. They're a stop-gap measure to temporarily treat the symptoms while the internal time-bomb keeps ticking and the health of the unsuspecting victim continues to deteriorate. Antidepressant drugs are a molecular form of a temporary lobotomy. They prolong the inevitable and final crash for many, particularly those for whom nothing has been done to correct their underlying condition. Even the most depressed individuals know instinctively that they aren't getting better on these drugs and want to stop taking them. And once they stop these mind-altering compounds, it's like having the rug jerked out from under their feet. All the weight of hopelessness, deep depression, and suicidal tendencies comes crashing down at once.

### This Answer Is False

If SSRI drugs seem to work for an individual, then it's worth taking a closer look at what they attempt to do.

Serotonin is a neurotransmitter and relays messages within the brain and nervous system. It's released at nerve synapses or junctions. The goal of SSRI use is to increase levels of the molecule serotonin in the brain. It tries to do this by preventing the "reuptake" by parts of the brain (hence "selective reuptake inhibitor"). Studies have found that there are lower concentrations of serotonin metabolites (compounds left over after the breakdown of serotonin) in depressed individuals.

After serotonin does its job, it's taken back (reuptake) into the nerve where it is either recycled and reused or broken down into its metabolic byproducts. Part of the problem with SSRIs stems from trying to be "selective" in the uptake. In an attempt to block the reuptake of serotonin, SSRIs also prevent its release—resulting in lower levels of serotonin. This was noted in the early studies with SSRIs, but study participants who began to experience the side effects associated with this problem were allowed to drop out of the studies, which slanted the outcome in the pharmaceutical companies' favor.

Most of the research reports on serotonin focus on its direct effects on brain neurons. However, serotonin is also found in the intestinal wall and large constricted blood vessels. Very little research has been focused on determining what effects are caused by reducing serotonin levels in those areas. God only knows what additional damage is occurring in those areas.

It's not well publicized, but you should know that SSRIs also reduce concentrations of the natural "feel good" molecule, dopamine. Dopamine, you may recall, is the molecule that protects you from developing Parkinson's disease. It just so happens that researchers at Harvard School of Public Health found that people taking these antidepressants are almost twice as likely to develop Parkinson's as individuals not on the drugs.

The drug companies know all about these effects, and they know the increased risks of suicide and violent behavior. The FDA knows as well. However, instead of shutting the companies down, throwing the culprits in jail, and pulling the drugs off the market, the FDA allows the use of "black box" warnings on drug labels. This gives companies a get-out-of-jail-free card against future lawsuits, while hordes of patients suffer the effects.

### This Answer Is True

There are several methods you can use to naturally increase serotonin and dopamine levels without increasing your risk of developing Parkinson's or risking your sanity, your life, or the lives of those around you.

The quickest and easiest way is through daily exercise. Numerous studies have documented the boost in serotonin levels from increased activity. The production of the compound continues for several days after the activity. Exercise is truly the "poor man's antidepressant."

Serotonin is synthesized from L-tryptophan. In 1989, that amino acid was quickly taken off the market when a contaminated batch reached the US from Japan. Its removal from the shelves of health food stores just happened to coincide with the introduction of Prozac, the pharmaceutical industry's magic pill to conquer depression. Literally, within just days of L-tryptophan's recall, Prozac was introduced. Fortunately, after almost two decades, L-tryptophan is back on the market and provides an excellent way to increase serotonin levels without the risk of turning you into a suicidal maniac.

The L-tryptophan dosage for insomnia is generally 1 to 2 grams taken before bedtime. Treating depression takes more, and the starting dosage is generally 3 to 5 grams daily. It varies, but some individuals can taper that dosage back after getting the problem under control. To enhance the effects of L-tryptophan, a good B-complex vitamin is recommended as well, one that supplies 50 to 100 mg of B6 and 100 to 200 mg of niacinamide. One very reliable supplier of L-tryptophan is Freeda Vitamins. They will give *Alternatives* readers a 20 percent discount if you mention you are a subscriber, along with an additional \$2 discount. They can be reached on the Web at *www.freedavitamins.com* or by phone at 800-777-3737.

### This Answer Is Also True

St. John's wort is another tool that can be used to increase serotonin levels. I first described its many benefits more than 15 years ago.

Studies have found that although St. John's wort increases serotonin levels, it does so in a manner different from SSRIs and other pharmaceutical antidepressants. The way it works is not fully understood, but apparently it not only increases the conversion of L-tryptophan to serotonin but it also influences several other neurotransmitters and hormones, along with the immune system. Researchers in the Department of Pharmacology at the University of Frankfurt in Germany concluded, "No other antidepressant compound exhibits a similar broad uptake-inhibiting profile."

There was a well-publicized study a few years back claiming that St. John's wort was worthless in the treatment of major depression. What wasn't well publicized, however, was the fact that the study was set up and funded by Pfizer—the pharmaceutical company that makes the SSRI antidepressant Zoloft.

Numerous other studies, and hundreds of thousands of patients—both here and in Europe—attest to the fact that St. John's wort is an effective, safe remedy for mild to moderate depression.

(It's worth pointing out that Zoloft also failed in the study. According to the authors, "On the two primary outcome measures, neither sertraline [Zoloft] nor *H. perforatum* [St. John's wort] was significantly different from placebo." St. John's wort isn't generally used to treat *major* depression. In other words, the trial was a setup so that St. John's wort would fail. The fact that their drug failed as well came as an unwelcome surprise, I'm sure.)

Dosages of St. John's wort vary depending on the particular product. Enzymatic Therapy makes an excellent product that's standardized to 0.3 percent hypericin. The generally recommended dosage is one 300 mg capsule taken twice daily with meals.

It's important to keep in mind that using L-tryptophan and St. John's wort may definitely increase serotonin levels, but these products do not address the underlying problems I discussed earlier. This explains why many individuals who abruptly stop taking them will once again experience episodes of depression and other mood fluctuations. I think the supplements can be a godsend, and certainly have their place in safely getting the situation back under control, but, again, the underlying issues must be resolved.

### Get Your Glands In Gear

In providing an organized way to help rebuild the adrenals, thyroid, and pituitary glands, I run the risk of either over-simplifying or over-complicating the issue. Ideally, the support should be done under the supervision of someone who's highly familiar with the use of various glandular and nutritional supplements and who knows how to monitor and adjust their dosages. Unfortunately, not many health practitioners have that skill anymore. So what I'm going to suggest is a general program that will probably work superbly for most people—but may need to be adjusted and tweaked for the best results. The best results are achieved by observing and fine-tuning the dosages based on the changes you notice and feel in your own body. It takes a little time and detective work, but the rewards are endless.

I have had unbelievable results with almost every case of depression using slight variations of this regimen.

Although I'm starting with the adrenals, keep in mind that it's best to address all three glands at the same time.

If you suffer from depression, it's pretty much a given that your adrenal glands are shot. In the past I've discussed various common symptoms and exactly how to check for adrenal fatigue using several at-home methods. [Editor's note: More information about adrenal failure symptoms and treatment can be found in the Alternatives Subscriber Center, on the Web at www.drdavidwilliams.com.]

In addition to those items mentioned above, the quickest way to rebuild the adrenals and the other glands is through the use of glandular supplements.

The best glandular products, bar none, are made by Standard Process Laboratories. They are primarily sold through doctors, but you can also purchase them from a couple of companies directly: Total Health Discount Vitamins at 800-283-2833 or *www.totaldiscountvitamins. com*; Spinelife at 877-698-4826 or *www.spinelife.com*; or Naturamart at *www.naturamart.com*.

### **Adrenal Support**

As I said earlier, the adrenal glands are generally the first to go. As such, they will most likely take the most work and greatest time to rebuild. The best tool for the job is a glandular supplement called Drenamin. [Editor's note: For a complete explanation of glandular supplements and how they differ from conventional supplements, please refer to Vol. 4, No. 17. This issue is also available in the Alternatives Subscriber Center on the Web.]

I suggest starting with 3 tablets of Drenamin a day. For the greatest effect, break the tablets in half and chew ½ tablet six different times during the day between meals. (In severe cases start with 6 full tablets a day.)

Just a few of the things you might notice while taking Drenamin include:

- more energy,
- less fluctuation in blood sugar levels,
- relief from headaches, dizziness, lightheadedness,
- decreased mood swings and depression,
- less anger and more even temperament,
- more toleration of bright lights,
- better sleep, and

increased ability to cope with stress.

Most people will need to stay on 3 tablets a day for six months or sometimes even longer. Many people continue to take a tablet or two indefinitely as a preventive measure. This is a case where the detective work comes into play. After you begin to feel the benefits, you can adjust the dosage to what suits your particular needs.

### **Thyroid Support**

For the thyroid I recommend the glandular from Standard Process called Thytrophin PMG. A good starting dosage is 2 to 3 tablets a day. Again, chewing them or letting them melt in your mouth between meals gives the greatest benefit. After about two months most people can gradually reduce the dose to one tablet a day, but, again, this will vary from individual to individual. One tablet a day is a good maintenance dose.

The thyroid also requires iodine to make hormones. Over the last several decades iodine levels in our food supply have fallen dramatically. In 1940, the typical diet in this country provided roughly 800 mcg of iodine daily. By 1995, it had decreased to only 135 mcg.

To further complicate matters, practically every public water system in this country uses chlorine, and many add fluoride too. Both of these agents interfere with the utilization of iodine and make deficiencies more prevalent.

Whether iodine is needed or not can be roughly determined using the iodine patch test. This is far from being a perfect test, but for home use it provides you with a good screening tool.

For years I have used a liquid iodine product called Iosol, available from TPCS, 660 Baker Street, Suite 229, Costa Mesa, California 92626 at 800-838-8727 or online at www.tpcsdirect.com. Don't consume the topical form of iodine sold in pharmacies, like the one used to do the iodine patch test. It is poisonous when taken internally. I suggest starting with two drops of Iosol a day for a week or two and then reducing the amount to one drop daily. Even today I still put one drop in my protein shake each morning. One drop a day is a great maintenance dose.

A few of the things you might notice while taking Thytrophin PMG and iodine include:

- lifting of the "brain fog" and clearer thinking,
- much newfound energy, •
- improvement in the skin,
- regrowth of the hair on the outside end of the eyebrows,
- less confusion, memory loss, and depression,
- better circulation (warmth) to the hands and feet,
- loss of excess weight, and
- improved bowel regularity.

#### **Pituitary Support**

For the pituitary I suggest the Standard Process glandular product called Pituitrophin PMG. Normally 3 tablets a day (again chewed between meals) for a period of at least two months and possibly three months is all that's needed if you've also started supplementing with omega-3 fatty acid products (either 2 grams of high-quality fish oil from capsules or 2 tablespoons of chia seeds daily or a combination of the two).

With Pituitrophin and the omega-3 oils you might experience:

- a feeling of calmness,
- less feelings of desperation and depression, •
- decreased aches and pains,
- better sleep,
- an overall sense of well-being, •
- less aggression, hostility, and anger, •
- decreased desire for alcohol, depressants, or stimulants, and
- less food cravings, particularly sugar.

Keep in mind that the drug industry is more interested in their financial health than in your physical health. There's no need to give in to the temptation for a pharmaceutical fix, when the true solution will provide so many more benefits as well.

Take care,

Dr. David Will

If you have questions or comments for Dr. Here's how you can reach us:

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