

**PSYCHIATRY**

*Redefined*

**DR. RAUL RODRIGUEZ, MD, DABPN, DABAM, MRO**

Founder & Medical Director of the Delray Center

## TABLE OF CONTENTS:

How Skinny is Too Skinny?.....	3
Can't Sleep? (Part 1) .....	4
Can't Sleep? (Part 2) .....	5
It's Never Too Late For a Comeback .....	6
Get Your Yoga Practice Off The Ground! .....	7
How To Stop Having Panic Attacks .....	8
Fix My Depression Dammit! .....	9
Smoking Addiction in the "Vap" Era .....	10
Crank Up Your Energy Naturally .....	11
How To Get The Most Out Of Your Summer Vacation .....	12
Why "Crazy" Is The New "Normal" (Part 1) .....	13
Why "Crazy" Is The New "Normal" (Part 2) .....	14
Why "Crazy" Is The New "Normal" (Part 3) .....	15
Exercise As Medicine .....	16





# HOW SKINNY IS “TOO” SKINNY?

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

I get this question a lot. I have been getting it even more in recent years. We can't just blame MTV anymore. It is all over the media. Idealized, perfect, extraordinary images of female beauty and thinness. Images so alluring that they drive product sales for both men and women. Pictures so compelling that they influence the self-esteem and body images of countless females. The effect is so powerful that it gives new meaning to the term “if looks could kill”.

Death, really? Is this guy serious or is it just his characteristic Cuban over-expressiveness? No, really, eating disorders have the highest death rate in all of psychiatry and are becoming more common. The pressure to be thin has increasingly spilled over into disorders such as Anorexia Nervosa and Bulimia Nervosa. Both disorders are characterized by an obsession with thinness and a preoccupation with losing weight. Anorexia manifests in extreme weight loss, often achieved through severe restricting. Bulimia usually involves food binges followed by a variety of purging behaviors, stereotypically self-induced vomiting. Both disorders are frequently associated with prior trauma, major depression and addiction.

It was the very frequent co-occurrence of eating disorders with addiction and depression that caught my attention. When evaluated, many of my depressed female patients described active or prior anorexic or bulimic tendencies.

An even higher percentage of women with addiction exhibited emergence of eating disorder symptoms shortly after achieving sobriety from substances of abuse. The eating disorder had gone into hiding when the substance use was at it's worst. It quickly became apparent that in order to effectively treat this population, these conditions had to be addressed simultaneously. This was the origin of the Delray Center Orchid Program for the treatment of eating disorders.

Treating eating disorders can be difficult. Once you have exhausted “just eat normal” or “but you're not fat” (these techniques have never worked for me), structured treatment must be implemented. At the Delray Center for Healing, we developed the Iris Program to fulfill this need. A clinical team was assembled consisting of professionals experienced and specifically trained in the field of eating disorder treatment. We then built the Iris program from the ground up, based on the needs of the patients as well as what actually worked. The basic fundamentals are individual psychotherapy, group therapy, nutritional therapy, family therapy, client and family education, psychopharmacology, and meal support. Different groups focus on body image, nutrition, relationships, women's issues, and depression. More advanced forms of therapy include movement therapy, art and expressive therapies, and Dialectical Behavioral Therapy (DBT).

Supportive therapies include philosophical book studies, meditation, acupuncture, and massage.

Exercise therapy for the treatment of compulsive exercises in eating disorders is an avant-garde modality that is being researched and developed at the Delray Center. Eating disorder patients with compulsive exercise histories are carefully screened prior to participation in yoga, spin classes, and individual fitness training. Early results show promise for this type of treatment to reduce compulsive exercise in this population. Resistance training using weights, under close monitoring, has also shown early promise in restoring lean body mass at a rate faster than re-feeding alone. These newer techniques are helping shift what used to be strictly inpatient treatment to the outpatient setting.

The outpatient format lowers treatment cost and adds a degree of comfort and convenience that cannot be achieved in inpatient care. The “kinder-gentler” approach to meals is also greatly appreciated, especially in comparison to some of the more aggressive feeding programs seen in inpatient facilities. Consistent treatment at the appropriate level of care has yielded the best results in the treatment of eating disorders. When properly treated, these disorders can actually have a favorable prognosis. Without adequate care, anorexia and bulimia can be disabling and even life threatening.

# CAN'T SLEEP?

## (Part 1)

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

## What a horrible feeling that is...

Being unable to fall asleep or stay asleep is one of the most disruptive of the common problems that adults have to deal with regarding their health. It is so disruptive because sleep is like water, in that humans cannot get very far without it. A poor night's sleep can ruin your day. A few bad nights in a row can really break a person down, often leaving them nearly incapacitated. Extreme sleep deprivation can actually lead to death. With all that being said, getting a good night's rest is essential to good health and optimal functioning in life.

Getting good sleep has a number of tangible health benefits. Many of these potential benefits are realized when they go missing as a consequence of poor sleep. Poor sleep quality and sleep deprivation leaves us more tired, rather cranky, moving and thinking slower, more likely to get sick, and with a lower libido. These deficits may be less obvious when the sleep deprivation builds up slowly and the problems develop in a more insidious manner. A well-rested human on the other hand will enjoy stronger immunity, better energy, increased learning capacity, better memory, a brighter mood, a stronger libido, and better cardiovascular health. Few people will ever argue any of these benefits yet few people really go out of their way to improve their sleep.

Optimizing sleep can be one of the easiest and fastest ways to make anyone feel so much better than they usually do. The first thing to do always is to follow the guidelines for better sleep hygiene. Sleep hygiene refers to behavioral practices that create and preserve the optimal conditions for human sleep. To the right are the common elements for the best sleep hygiene.

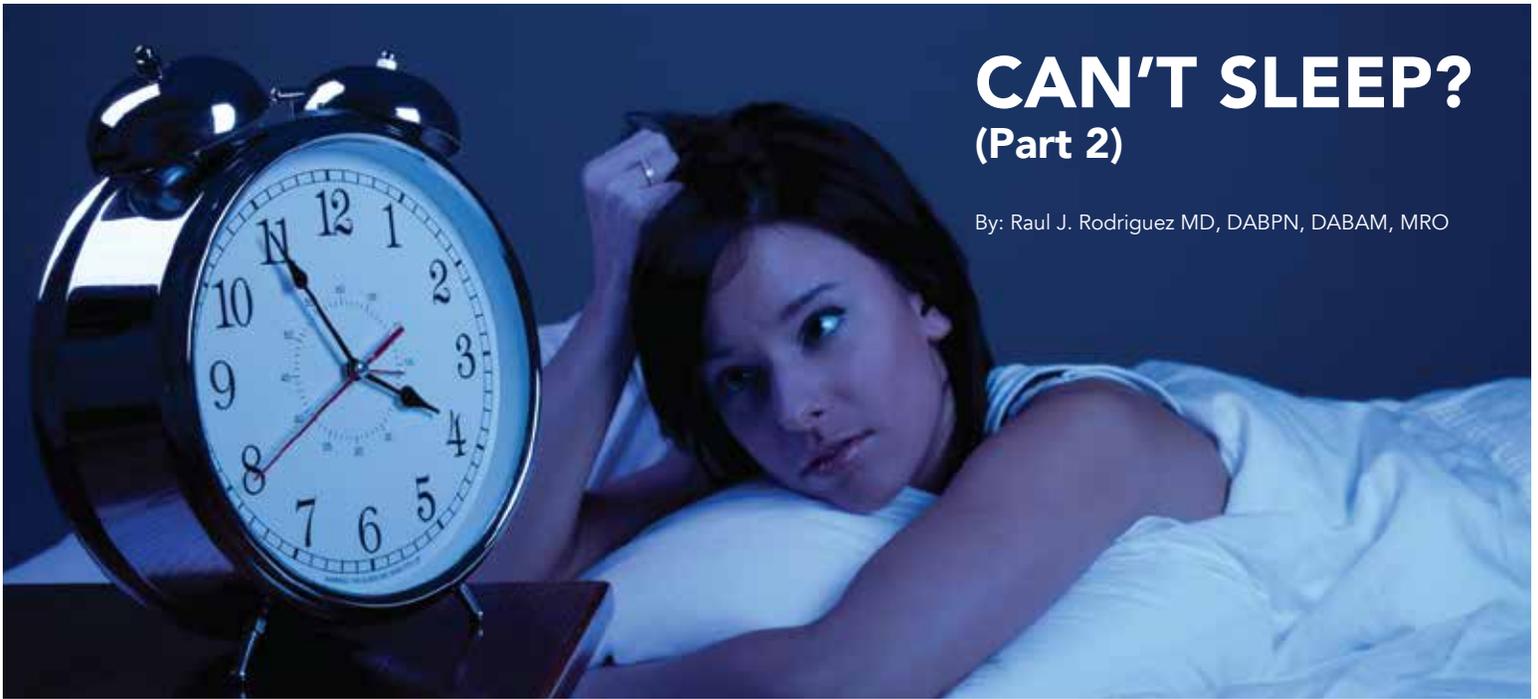
Sleep hygiene sounds so simple, yet so many people won't bother doing it. Try this for at least 2 weeks and I guarantee you will notice a major improvement in your sleep quality.

- 1 Do your best to resist and prevent yourself from napping during the day. Naps, especially in the afternoon, can greatly disrupt the normal pattern of sleep and wakefulness leading to great difficulty falling asleep at your usual sleep time.
- 2 Try hard to limit or better yet just avoid stimulants such as coffee, dark chocolate, tea, soda, nicotine, diet pills, workout supplements, and alcohol too close to bedtime. It is even better if these items can be avoided at any time after lunch and best if avoided completely. Caffeine and related stimulants will activate the Reticular Activating System to a much greater degree and for much longer than most people realize. Many of us think the effect is gone when the peak stimulation and energy boost subsides. The truth is that the degree of effect that can disrupt sleep will linger for many hours after the peak effect is gone. In many cases caffeine consumed at lunchtime can actually disrupt sleep to some degree even 10 hours later. While alcohol is well known to speed the onset of sleep, it disrupts sleep in the second half as the body begins to metabolize the alcohol, causing arousal.
- 3 Regular exercise of sufficient duration and intensity can foster good sleep. Working our body and our muscles reduces anxiety and creates an additional need for rest. A body recovering from exercise often falls into a deeper and more restful sleep, promoting a more refreshed feeling in the morning. High intensity exercise is best taken in the morning or late afternoon. If high intensity activity is done too late it actually can disrupt sleep as well due to lingering overstimulation. More relaxing activities, such as yoga, can safely be done closer to bedtime without disrupting sleep.
- 4 Avoid large meals close to bedtime. Eating can be disruptive right before sleep, as well as causing weight gain. Any major diet changes can also lead to sleep problems. If you are already having an issue with insomnia, it is better to wait until this is resolved before implementing any diet change.
- 5 Regular and consistent light exposure helps maintain a healthy sleep-wake cycle. Natural light works best, which is plentiful in Delray Beach. Natural light exposure also has mood benefits (just ask your nearest New Yorker).
- 6 Do your best to stay out of emotionally disruptive conversations and activities close to your sleep time. Try to not dwell on, or bring the problems from the day to bed, as this will keep you up. If you can establish a regular bedtime routine that is relaxing, it will make it easier to fall asleep.
- 7 Avoid using your bed to watch TV, listen to the radio, or read. These activities can stimulate your brain and make it difficult to fall asleep. Do all of these activities in a different room, preferably in a sitting position. It is most effective to associate your bed and the recumbent position with sleep. The only other non-disruptive activity for your bed is sex.
- 8 Try to create a sleep environment that is soothing, pleasant and relaxing. Your bed must be comfortable. This item is worth spending a little more for if you can find a mattress you really like. I recommend being really picky here and trying many mattresses. The temperature of the room should be moderate, specifically not be too hot or cold. It should be as dark as possible, with possibly only a soft night-light for safety when going to the restroom.
- 9 A "white noise" machine can also be very effective in helping drown out any ambient noise pollution that could otherwise keep you up. An otherwise quiet room with intermittent ambient noises can be difficult to sleep in for many people. Our ears will acclimate to white noise, which is exceptionally good at drowning out random noises that would otherwise wake us up. There are also many travel convenient smart phone apps that offer white noise, with many sound options.

# CAN'T SLEEP?

## (Part 2)

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO



So what happens when you try to do all the right things regarding your sleep, such as following the guidelines for proper sleep hygiene, and you still cannot sleep? At that point you may be suffering from one of many common sleep disorders and you may require treatment. Some of the more frequently seen problems include primary insomnia, sleep apnea, substance induced sleep disorders, and sleep difficulties as symptoms of a mental health disorder. Some basic knowledge of these conditions can help individuals identify certain suspicious symptoms, which can then facilitate seeking help for proper diagnosis and treatment.

Primary insomnia is a common disorder where individuals experience difficulty falling asleep, staying asleep, or have sleep that is not restful. This may happen over a broad range of ages and often for no obvious reason. Proper sleep hygiene is always the first thing to try, but medications may be necessary when this does not work. If there is an identifiable reason for the sleep problems, then it is not primary insomnia and the reason for the problem must be addressed.

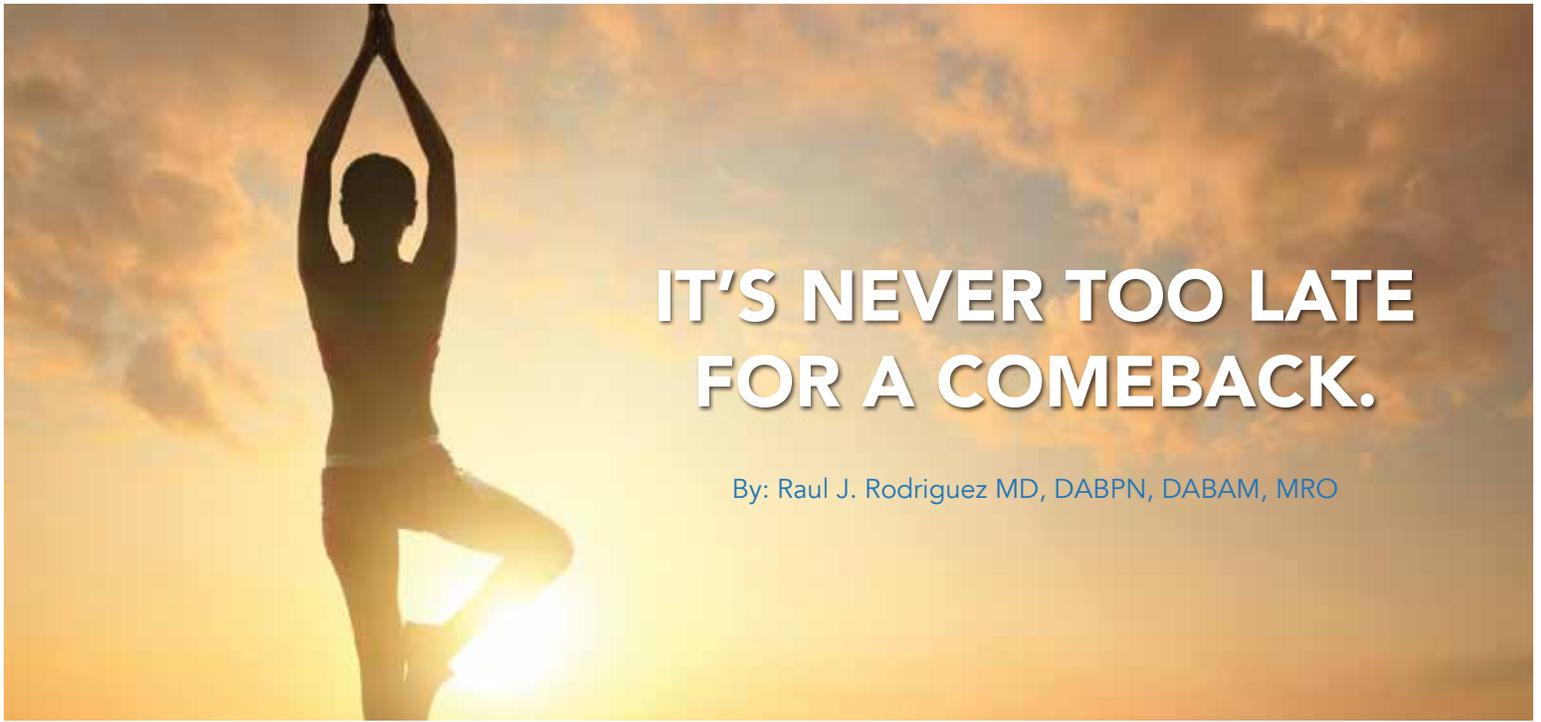
Stress is one of the most common external reasons for insomnia. When the brain releases adrenaline in response to challenging events, areas such as the Reticular Activating System can remain overactive and keep a person up. Beyond just stress, actual anxiety and depressive disorders create problems sleeping as one of their main symptoms. In these cases the anxiety or depressive disorder must be treated effectively to give the sleep a fair chance at improving. If you just treat the insomnia then the underlying cause would persist and improvement will be limited.

The lack of rest in these situations usually results in fatigue, which many people try to fix with caffeine in some form. This then violates one of the rules of good sleep hygiene and starts to feed into a vicious cycle of caffeine disrupting sleep, which worsens the fatigue, which then begs for more caffeine. Any stimulant, especially street drugs, would also feed into this problematic cycle.

A major medical condition that involves a different vicious of poor sleep and fatigue is sleep apnea. This is a relatively common condition where difficulty breathing when laying flat leads to sleep that is of very poor quality and not restful. Obstructive sleep apnea, the more common variant, is caused by a significant physical obstruction of the air passage by excess throat tissue that makes breathing very difficult and creates a partial arousal when the person has to gasp for air. The person may actually stop breathing for several seconds with a buildup of carbon dioxide in the blood stream triggering a gasp reflex. This typically happens many times during the night with a consequence of non-restful sleep. Many of those affected snore loudly and some are even seen visibly gasping for air as if they had been holding their breath on purpose. Those affected are usually very tired throughout the day and can have difficulty staying awake. If left untreated, obstructive sleep apnea can lead to a number of serious health problems including weight gain, hypertension, strokes, heart disease, diabetes, and sleep deprived driving accidents. Diagnosis of sleep apnea or other sleep disorders can be made with a sleep study that can be ordered by your physician. Effective treatments are available that can greatly improve quality of life, energy levels, and overall health.

Treatment of insomnia, when the cause is unrelated to sleep apnea, may require over the counter supplements or prescribed medication. Some common and potentially effective supplements include Melatonin and Valerian root. Kava-kava has sometimes been used for sleep but can be very problematic. Diphenhydramine, better known as Benadryl, is an over the counter medication that is often sold as a sleep aid. It has some effectiveness but the sleep quality is not ideal. Trazodone is an old antidepressant that is one of the most common prescription medications used for sleep. It is relatively easy to use, very safe, very effective, inexpensive, and easy to stop when you no longer need it. Other medications such as Ambien, Sonata, and Lunesta can also be very effective and better preserve a natural sleep architecture, but may create some degree of dependence if used for too long. Ambien can have other problems such as sleepwalking and sleep eating. These also do not mix well with alcohol. Medications from the benzodiazepine class, such as temazepam, flurazepam, and triazolam, are even stronger sleep agents but can also create greater degrees of dependence and have a higher capacity for abuse. These should only be used after everything else that was tried did not work and only after a thorough evaluation by a physician.

A physician evaluation is your best option when sleep hygiene and over the counter products were not sufficient to get a good result. Quality sleep, that is restful and of sufficient duration, will make a major positive impact on how you feel, as well as on your health. A good night's rest is as important as exercise, good nutrition and proper hydration in maintaining a healthy mind and body.



# IT'S NEVER TOO LATE FOR A COMEBACK.

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

Hardcore workout trends have been all the rage lately, with high intensity gyms opening up everywhere. They are popular due to many of the novel training techniques used as well as the strong social elements that help motivate the members to keep training. Many would say that the results achieved also add to the popularity, but there is a caveat to this. Many people do achieve amazing results in these training systems, however many others also suffer myriad injuries. These injuries range from minor and routine, to severe and debilitating. The rising frequency and severity of these injuries has led many to start seeking something different, something more sensible.

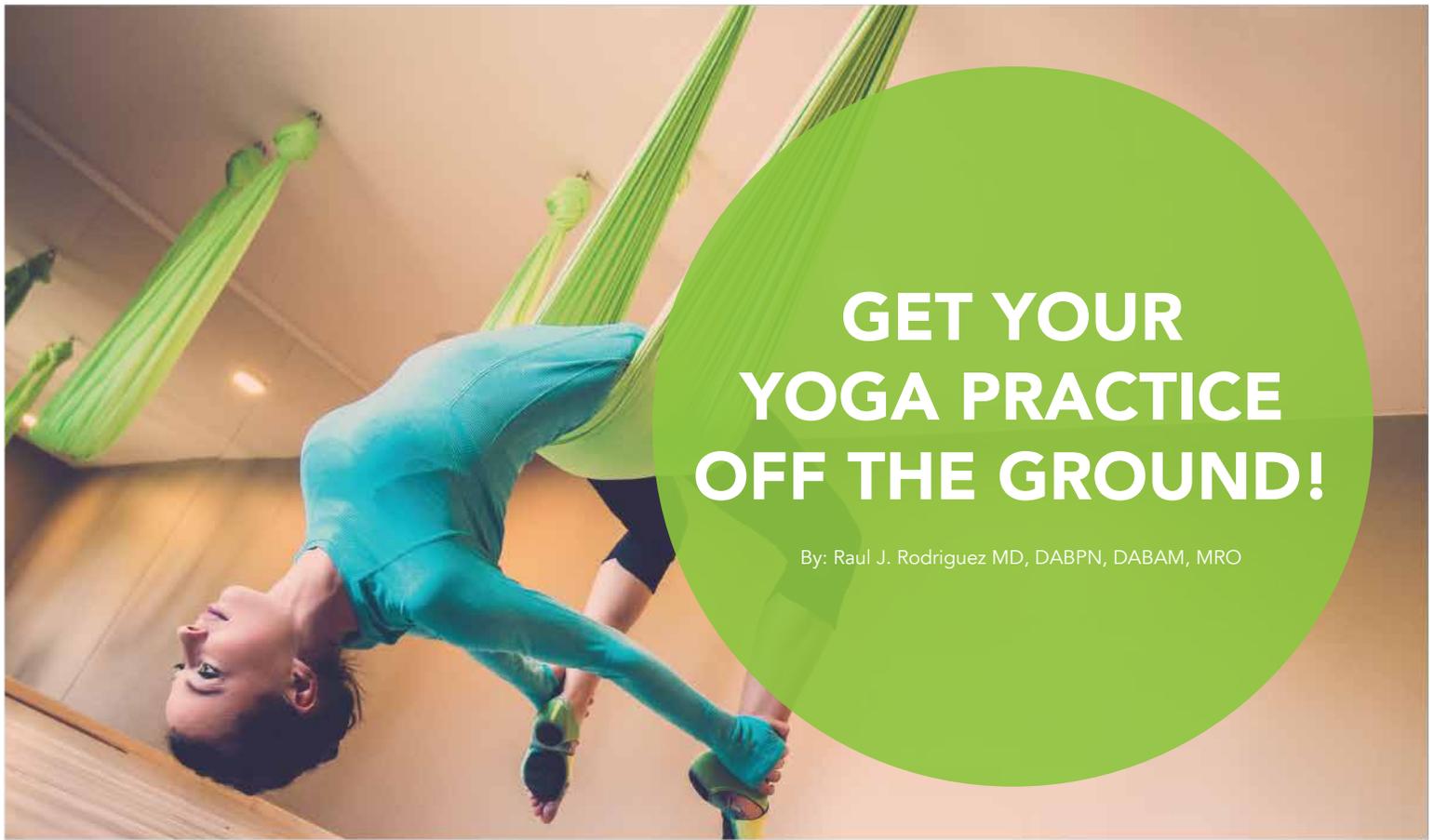
Sensible fitness refers to scientifically developed training systems that are designed to account for the wear and tear that can result from intensive exercise, balancing that with a given individual's capabilities and training goals to yield optimal long-term results. Everyone is capable of improving their physical capacity, but not everyone can do it at the same rate. Setting a more measured pace in training can help individuals with a less developed physical starting point reach more advanced levels of fitness by avoiding the common injuries that come from doing too much too soon. Injuries delay training, which in turn delays results. Too many injuries in sequence will delay training repeatedly and for too long, leading to physical decline. Avoiding or minimizing these injuries allows progress to continue.

Fitness progress is as much mental and emotional as it is physical. When we hurt ourselves in a training system that is not appropriate for our age or fitness base, the psychological pain of believing "I can't do this" is often worse than the physical pain of the torn muscle or tendon. We experience a "negative" brain chemistry in these scenarios, which reduces satisfaction and erodes confidence. Recurrent negative training experiences may result in abandonment of working out altogether, resulting in a more sedentary lifestyle with decreased energy levels and poorer long-term health. The converse is true with exercise regimens that are well thought out and appropriate for the given individual. When we work out in a sustainable manner, we release brain chemicals like endorphins and Dopamine that make us feel good. The changes in our physiology improve our energy levels and long-term health. When we experience results from our hard work we feel personal satisfaction and improved confidence.

Many people who have not trained in a while have trouble achieving results from their workouts. In the very beginning and without proper guidance, this is common. This is where a Fitness Coach comes in. A Fitness Coach, different than a personal trainer, will have advanced graduate education and is qualified to create comprehensive sequential training plans. They assess your current state of physical conditioning, whatever that may be, and set appropriate goals for your first month, 6 months, and year of training. This approach is of greatest benefit to someone who has perhaps neglected their fitness for a prolonged period of time. No matter where you start, anyone can build their strength and stamina if done in a scientifically based, methodical and sensible manner. Someone who has been "out of shape" for years can turn it around at almost any age south of 80 (and even there I have seen many octogenarians competing in Ironman competitions). The idea of being too old or being too out of shape is a far greater barrier than any age or diminished fitness level ever could be. It is never too late for a comeback! The hardest part of all of this is taking that first step and starting.

**"With a sensible approach to fitness, it is never too late for a comeback."**





# GET YOUR YOGA PRACTICE OFF THE GROUND!

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

## Elevate Your Yoga to New Heights!

A new and fun style of yoga is sweeping the nation, called Aerial Silks. So what is aerial silk yoga you say? Aerial Silks refers to a new type of yoga that is practiced with the assistance of a silk swing as a tool to help students achieve the traditional Yoga positions. Much of this exciting practice involves actual aerial suspension, which creates a very different experience than what people are used to with more traditional practices. Yoga in general offers a number of health and wellness benefits. Aerial silk yoga takes it to the next level with a whole host of additional benefits.

The first and most basic benefit of aerial silk yoga is that it is so new and so different. Never underestimate the power of new. A novel experience, in and of itself, stimulates positive chemical reactions in the brain. This type of stimulation raises levels of certain brain chemicals such as Dopamine and promotes creation of a number of new brain connections. The benefits include improvements in mood and some protection from dementia. Any new experience will create a similar reaction in the brain, but the degree of stimulation created by aerial silks is on the very high end of the scale.

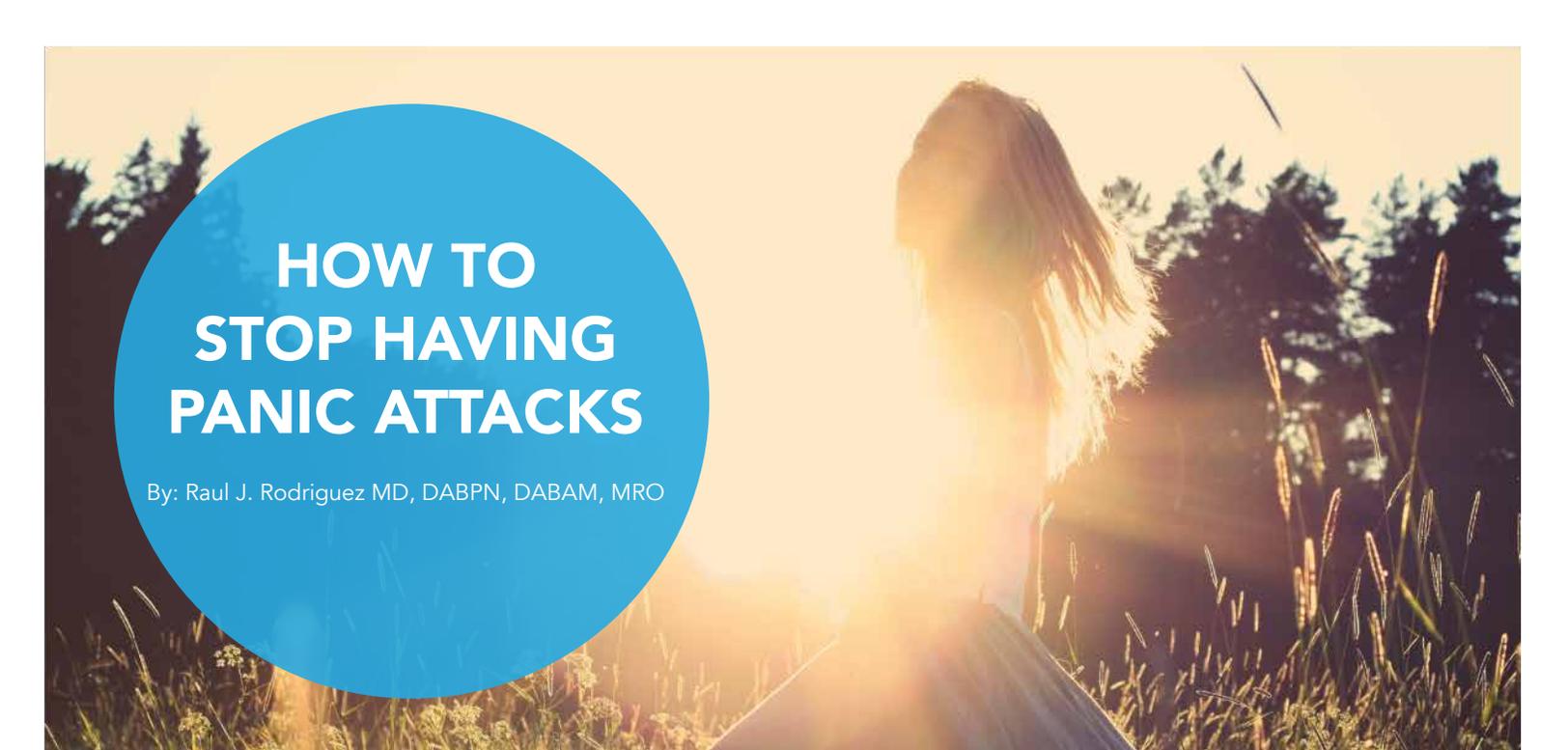
When you walk into a silk yoga studio the first thing you will notice are the vibrant colors of the swings. The space is as inviting as it is captivating, setting the stage for a graceful practice. Beauty has a powerful effect on the brain and aerial silks at the most basic level is just that beautiful. It is easy to get caught up in what feels more like a romantic dance than a form of exercise, but that is exactly what you want to do. It is easier to escape into this peaceful world while cradled in the comfort of your silk sling. The sling provides comfort when you are trying to restore and an embrace of support when you are extending into a challenging pose. The new physical orientations, such as the many inverted positions, force the brain to quickly adapt in a number of different ways beyond just visually. It is difficult to match the magnitude of this new experience.

Beyond the neurochemical benefits derived from the new experience, aerial silks provides a number of psychological benefits. Hanging upside-down seems easy enough until you actually try to do it past the age of 22. It is natural for most people to experience some apprehension before their first silk inversion. Facing this natural fear and then actually overcoming it is a major psychological victory with far-reaching benefits. Most people live a life working around their fears and perceived limitations.

Going past your first assisted inversion and becoming adept at initiating and controlling your own inversions blows the top off of living in fear. This actually builds confidence that spills over into other aspects of the person's life, including career and relationships. People are amazed at how powerful this confidence builder can be. Feeling stronger mentally only facilitates getting stronger physically.

In addition to the neurochemical benefits of aerial silk yoga, the body derives a number of physical benefits as well. The partial neutralization of gravity in certain positions creates an effect of decompression on the spine and other joints. Improving flexibility in a decompressed position offers additional benefits over just basic flexibility work alone. This can help with common problems such as back and joint pain. The relief of pain without the use of medications is the optimal solution for an injury and improves quality of life. Inverted positions also help with lymphatic drainage and improve circulation. A body that heals efficiently only makes you feel good.

Feeling good and being healthy is a common goal for all of us. There are not many opportunities where we get to try something so radically new that we actually remember our "first time" doing it. Aerial silk yoga is exactly one of these rare opportunities. Face your fears and elevate your yoga to new heights!



# HOW TO STOP HAVING PANIC ATTACKS

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

If you have ever had an actual panic attack then you probably started reading this because you NEVER want to have another one. Panic attacks are bad. They feel like death; like what we imagine a heart attack to feel like if not worse. They scare us and terrify us as much as a near death experience would. I would argue that many actual heart attacks do not feel as bad as most panic attacks do. Panic attacks are truly horrible yet so common. Why do they happen? How do you make them go away? In order to accomplish that, you must first understand how they work.

A panic attack is an abrupt, intense escalation of anxiety that overwhelms the affected individual with disabling physical and psychological symptoms. The symptoms include any combination of a racing heart, difficulty breathing, a sense of loss of control, shaking, light-headedness, sweating, intense fear, nausea, tunnel vision, and a sense of impending death. They can occur for any number of reasons, including just coming on spontaneously for no apparent reason. The experience can be so bad that anticipatory anxiety can develop, with a persisting fear of when the next attack may occur. Anticipatory anxiety can lead to avoidant behavior, with an affected individual starting to avoid situations that they associate with an attack. This is a big part of why many people cannot use elevators, go on planes, go into supermarkets, or drive on the highway. Left untreated, the world of an affected person can shrink quickly. This is why proper identification and treatment of a panic attack related disorder is so important.

Proper diagnosis of a panic attack related disorder includes consideration of contributing factors and situations. Excessive anxiety to an irrational degree due to a specific object, animal or situation can indicate a Specific Phobia. Examples of this include Arachnophobia (fear of spiders), Acrophobia (fear of heights), and Coulrophobia (fear of clowns). When the provocative situation specifically involves social interactions with other people, Social Phobia is suspected. Abuse of drugs and overuse of caffeine could easily cause panic attacks in many otherwise calm people. Random panic attacks out of the blue, with no apparent trigger, can be seen in Panic Disorder. Treatment is critical, to avoid psychological progression and worsening of any of these conditions. Contrary to popular belief, medications are not the best way of controlling a panic attack that has already started. Medications take time to be absorbed into the bloodstream, typically longer than the duration of an actual attack. Breathing in and out of a small paper bag, as often depicted in the movies, actually works to subdue an active eruption of anxiety.

This technique, known as “carbon dioxide rebreathing”, works by normalizing the pH of the blood that would otherwise have risen too high from breathing off too much carbon dioxide during hyperventilation. Meditation, visual imagery, and calming mantras can also stop attacks. Leaving or “escaping” from an anxiety-provoking situation may alleviate symptoms in the moment, but can worsen fear of similar situations in the future. Prevention of future attacks is the ultimate goal of treatment.

Medications and psychotherapy can be very effective in the prevention of anxiety and panic. Medications that act by increasing Serotonin, such as the entire class of Serotonin Selective Reuptake Inhibitors (often called SSRI's), are preferred over tranquilizers such as Xanax, Valium and Ativan. These types of tranquilizers, from the Benzodiazepine class of medications, are effective for controlling anxiety in the short term but much less adept at long term prevention. They tend to create physical dependence if taken regularly for a prolonged period of time and have the potential for causing addiction. SSRI's have the potential to completely prevent the occurrence of future panic attacks and can be weaned off over time, especially following a successful course of psychotherapy.

Psychotherapy, especially Cognitive Behavioral Therapy (CBT) and Dialectical Behavioral Therapy (DBT), can be highly effective in teaching tools and coping skills to manage and prevent anxiety. These benefits are much longer lasting and are the best ways to allow someone to come off of medications at some point. Therapy is often done in combination with the medications at first, to give the most relief in the shortest amount of time. Other non-medical fundamentals such as eliminating caffeine, increasing exercise, and getting enough sleep will help yield the best results. Certain medical tests, such as screening for thyroid disease, help assess for treatable medical causes of anxiety.

Unchecked anxiety and panic attacks can ruin a person's quality of life. This is completely avoidable now with so many medical and non-medical treatments available. If you already suffer from panic attacks or another anxiety disorder, realize that your condition is very treatable and potentially curable. The next step is to seek out help and engage an effective treatment regimen.



# FIX MY DEPRESSION DAMMIT!

By: Raul J. Rodriguez  
MD, DABPN, DABAM, MRO

This sucks. Everything sucks. What difference does it make anyways? These are just some of the thought patterns that are characteristic of an individual suffering from major depression. Depression does suck. Depression does make everything seem like it sucks and it makes people not care anymore. This common disorder can be a silent personal hell for some and a slow, agonizing death for others. So many people suffer from this yet many of them go untreated. Many others desperately try to treat themselves by self-medicating with drugs or alcohol. The outcomes for these poor souls typically are bad, but they do not have to be. Major depression is a very treatable condition and can carry a favorable prognosis if managed properly. The first step in treating depression is identification of symptoms and making an accurate diagnosis. Depression feels bad. Feeling bad may encompass any combination of a sad or depressed mood, low energy, low self-esteem, poor concentration, increased feelings of guilt, feelings of hopelessness and helplessness, and a general slowing down of physical movement. A diminished capacity for enjoyment, especially with activities that would normally be pleasurable, is an especially telling sign. Emotional shifts including tearfulness and irritability are also frequently seen. This may all be further complicated by the use of alcohol or drugs in a desperate attempt to feel better. Any combination of these symptoms to any degree that affects happiness or the ability to function would indicate that some form of a mood disorder is present. A psychiatrist would be the physician specialist most skilled and qualified to make a specific diagnosis and give recommendations for treatment.

Treatment for depression has come a long way. The holistic approach that treats the patient as a whole has grown in both popularity and effectiveness. Newer psychotherapies, vitamins, exercise therapy, nutrition, meditation, art, yoga, and acupuncture have all taken on a greater role. Patients no longer have to rely on just medication and basic psychotherapy. These elements are not definitive treatments in their own right, but when used in combination can be very powerful. Much of this benefit is derived from affecting the human mind-body connection.

What is done to the body will directly affect the human brain. Movement in the form of resistance training, yoga, and other forms of exercise have a significant positive effect on brain chemicals. Dopamine, Serotonin,

Norepinephrine, and Endorphins, among other brain chemicals, are all released in response to exercise. This gets a depressed brain moving in a way that is not easily replicated by other means. This can be one of the fastest first steps to a recovery from depression. When physical activity becomes a permanent part of a person's life, it helps resist a depressive recurrence. Nutritional and vitamin therapies provide the fuel for exercise as well as the nutrients for optimal brain functioning. When the benefits that can be derived from the body are optimized, the conditions are much more favorable for the human brain to derive benefit from antidepressants and advanced psychotherapy.

Dialectical Behavioral Therapy, often referred to as "DBT", is an advanced form of cognitive behavioral therapy that has changed the face of modern depression treatment. DBT teaches highly effective coping skills that help individuals deal with some of the most stressful elements of human existence. DBT skills are organized into 4 categories: Mindfulness, Interpersonal Effectiveness, Emotional Regulation, and Distress Tolerance. Mindfulness skills allow members learn to observe, describe and participate in thoughts, sensations, emotions and external phenomenon without judging these experiences as "good" or "bad." Interpersonal effectiveness skills help participants successfully assert their needs and manage conflict in their relationships. Emotional regulation skills help participants identify and manage emotional reactions in healthy and adaptive ways, reducing the negative emotional surge that may result from an adverse event. Distress tolerance skills allow members to accept and tolerate distress without resorting to negative or destructive behaviors. DBT has proven clinical effectiveness and has helped thousands. These tools are efficiently taught and practiced in DBT skills groups. DBT skills group participation requires ongoing individual therapy, which another fundamental part of treatment. Individual therapy reinforces the learned skills and addresses the underlying issues.

The combination of individual psychotherapy, DBT skills training, medications, and the holistic modalities of depression treatment help individuals achieve stronger clinical responses than just medications or basic therapy alone. These forms of treatment are best delivered in a cohesive manner in a structured program. A depressed life is at best a sad existence and at worst intolerable. Effective treatment for depression is available and the veil of sadness can be lifted. The depressed person needs only to ask for help.

# SMOKING ADDICTION IN THE "VAP" ERA

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO



Smoking is wicked bad and insanely addictive. It is one of the most addictive substances known to man (and woman for that matter). The mechanism of psychological dependence is complex and resistant to treatment. This is a big reason why tens of thousands of people try to quit smoking every year and fail. This culminates in over 400,000 smoking deaths annually in the United States alone. With such catastrophic consequences to the general population, myriad methods for nicotine cessation have been developed and people have become increasingly receptive to some of the newer non-conventional methods.

The biggest new development in the cigarette cessation world is the nicotine vaporizer. These contraptions essentially vaporize a liquid solution containing specific quantities of nicotine for inhalation. The charm here is that it is done without having to actually burn anything. Water vapor, plus nicotine and some flavoring are delivered through the use of a heating element. Users of the nicotine vaporizers also referred to as "the Vap", describe the experience as relatively satisfying with regards to the nicotine replacement. Many others actually enjoy the flavor additives. The absence of the notorious malodorous smoky smell and breath is a nice bonus. There are different nicotine concentrations that can be used, allowing the option to wean down to lower and lower doses over time. Weaning nicotine on a Vap appears more feasible than with actual cigarettes. Many report weaning down to a nicotine concentration of zero, basically just inhaling water vapor plus their favorite flavoring. There are reasons why actual cigarette weaning never seems to work as well.

Addiction to the cigarette goes well beyond just addiction to nicotine. Addiction to the "smoking experience" is both a behavioral and chemical addiction. The chemical part does start with nicotine, with the well known positive reinforcement effects it has on the human brain. There are many other psychoactive substances at play here though. Studies have shown that cigarette smoke has Mono-Amine Oxidase (also known as "MAO", an enzyme responsible for the breakdown of certain brain chemicals) reducing actions, which raise the levels of Dopamine in the brain. This effect would be experienced as rewarding and would reinforce the associated behavior (in this case smoking a cigarette). Nicotine itself does not reduce MAO to any major degree, which suggests that the effect comes from other chemicals. Acetaldehyde, which has been identified in cigarette smoke, greatly enhances the reinforcing effects of nicotine. Acetaldehyde has an especially powerful effect on teenagers, a big part of why that population is so vulnerable to getting hooked on smoking. In

addition to this, over 100 of the 599 documented additives to tobacco have been implicated in the addictive power of the cigarette. This is a big part of why older forms of nicotine replacement, such as the gum and the patch, had limited effectiveness.

The greater effectiveness of the Vap in replacing cigarettes has to do with the non-chemical aspects of the cigarette addiction. The action of "smoking" in and of itself is a learned addictive behavior. The reinforcement of nicotine, together with all the other chemicals, "teaches" the brain to enjoy all of the steps preceding inhalation. The result here is that all of the hand and mouth activity related to the action of inhalation become a strong habit as well. Now with regards to Vaping and the potential use in smoking cessation, this behavioral aspect is a mixed bag. The manner of inhalation using a vaporizer is so similar to cigarette inhalation that these behavioral aspects continue to be reinforced. The down side here is that this facet of the dependence is not extinguished. The "oral fixation" remains active. This is the most clinically significant reason why a conversion to a vaporizer does not qualify as complete smoking cessation. There is an upside here though. This same problem is also what allows for such a high rate of successful conversion from cigarettes to vaporizers. This is the most critical and clinically significant difference between this form of nicotine replacement and more traditional forms such as the patch and the gum. The gum and the patch are much closer to fully quitting than the vaporizer is. The vaporizer is an easier jump though, and a relatively high percentage of people have been able to succeed in making the jump.

Switching from cigarette smoking to a vaporizer is a worthwhile step in the right direction towards eventual complete cessation. Smoking is a complex addictive process that is exceptionally difficult to overcome. The overwhelming majority of people fail repeatedly. With a switch to a vaporizer, there is the removal of the burning process and the associated soot. There is also the removal of most or all of the extra additives, so many of which are very addictive as well. In actuality a person who has made the change has succeeded in quitting almost all of the addictive chemicals. The reduction in the "non-nicotine" hazards buys people time to gain the tools and motivation to eventually finish quitting all aspects of smoking without continued exposure to all the serious health risks. This again is a step in the right direction. Nicotine vaporizers are not the ultimate solution for smoking cessation, but are a useful harm reduction tool that creates an intermediate step that more people can succeed in taking.

# CRANK UP YOUR ENERGY NATURALLY!

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

I cannot even count how many times a day I see energy enhancement products being advertised, sold and consumed. Over the last 10 years the energy trend has become an obsession. More and more people have become dependent on large amounts of caffeine, green tea, and other related stimulants to get through their day. The products do work for the most part, but at a cost. Aside from being expensive, chronic heavy stimulant supplement use can cause many side effects. As a doctor I regularly see patients complaining of anxiety, insomnia, irritability, difficulty concentrating, depression, and chronic fatigue, all related to or directly caused by stimulant overuse. Most people resist cutting back or stopping out of fear that they will have no energy at all. The reality is that natural methods of enhancing energy work better, are safer, and are far more sustainable than heavy stimulant use. Adhering to certain fitness and nutrition fundamentals will let you get the most out of your body. True fitness and nutrition fundamentals are considered fundamentals for a reason. They are based on the physiology of the human body and apply to most of us. They reliably predict the outcomes of how we eat and exercise. Our day-to-day energy level is one of the most important of these outcomes. Working with these fundamentals, as opposed to working against them, will lead to drastic improvements in energy.

The first and most important fitness fundamental is sleep. Simply put, the best sleep yields the best energy. Getting 7 to 8 hours of quality sleep allows your brain and body to recover from the daily grind. There is no substitute for sleep. You cannot cheat your body out of the sleep it needs. Less than 7 to 8 hours and you go into sleep debt. Poor energy and concentration are part of the high interest rate that you would pay for your sleep debt. You will keep paying interest until the sleep debt is paid back in full, with sufficient quality sleep. Getting enough time to sleep can be a challenge due to the demands of life, family and career. If you can get enough sleep time, you can improve the quality by following the steps for basic sleep hygiene. Once your quality sleep is sufficient, you can focus on exercise next.

It seems almost counter-intuitive at first; that doing something that can initially make you tired can actually improve your overall energy level. Regular exercise of sufficient quality, frequency and duration will yield consistently higher energy levels. The keys here are quality, frequency and duration. Just moving around will help, but moving in a purposeful manner with proper form will help much more. Even an experienced gym rat would greatly benefit from a personal trainer. An experienced personal trainer can really optimize your workout to get you the best results while minimizing injury. Once you are

training properly, you next need to figure out how to do it often and long enough. Trainer based workouts should be at least 30 minutes long while cardio machine based training should be 30-60+ minutes long. If you REALLY want to feel good then training 6 days a week should be your goal. Your body actually gets accustomed to training that frequently to the point that you don't feel good if you take more than one day off. This actually makes it easier to adhere to 6 day per week training and your body rewards you by making you feel good. Just like sleep, there is no substitute for exercise. Once sleep and exercise are covered, you would next focus on nutrition.

Nutrition directly and almost immediately affects how you feel. Eating fatty, sugary, processed foods will lead to inconsistent but mostly poor energy levels. Seeing that our nutrition is our source of fuel, clean burning fuel will give us the best energy. Most people have already experienced this hard fact at least once. Here is where the whole food and lean protein movement really shines. Whole grains, fruits and vegetables are digested a little slower and provide a steadier and more usable source of energy. Lean protein will support the higher energy level while fatty meat usually leads to sluggishness. Fatty food in general, with the exception of those rich in "healthy fats" such as essential fatty acids, is not useful for creating high levels of readily usable energy. Artificial sweeteners, aside from not being terribly useful for weight loss, are also terrible energy killers. The other subcategory of nutrition that is important is vitamin supplementation.

Vitamins and minerals are necessary for many of the body's functions, including energy production. Most of your vitamins should come from a diet rich in fruits and vegetables, with the remainder coming from supplements. Even in the absence of a major vitamin deficiency, vitamin supplementation can help boost your energy levels. Beyond taking a quality oral multivitamin, B-vitamin supplementation in the form of weekly intramuscular (IM) shots or intravenous (IV) infusions really helps give that extra kick. B-complex and B-12 shots in particular are very popular for this purpose. IM and IV vitamins have become very popular in recent years and are now widely available.

If low energy is still a problem after all of the sleep, exercise and nutritional factors have been accounted for, then a medical evaluation may be indicated. Problems with the thyroid, anemia, and low testosterone, among many others, can have fatigue as a symptom. Covering the sleep, exercise and nutritional fundamentals will do the trick for most people though, and get them to feel much younger and full of energy without having to resort to caffeine and other stimulants.



# HOW TO GET THE MOST OUT OF YOUR SUMMER VACATION!

By: Raul J. Rodriguez

MD, DABPN, DABAM, MRO

Want to have twice as much fun next time you go somewhere on vacation? Getting the maximum enjoyment out of your vacation is as much about how you feel as it is where you go. Many a person has both knowingly and unknowingly enjoyed a trip less because they did not feel good. Everything else could have been perfect but if their body was not cooperating, the total enjoyment could be significantly diminished.

A number of different factors can take a bite out of your vacation pleasure. Going on a trip and feeling exhausted, developed headaches, struggling to sleep, and developing stomach or other gastrointestinal problems can impede your ability to have the best time you were hoping to have. All of these situations can be accounted for to a great degree with proper planning and preparation.

A little planning and preparation can really go a long way in helping you have the most enjoyable vacation you have ever had. This starts with a focus on nutritional and fitness fundamentals that help you feel good. 8-12 weeks before the trip is a good time to start a regular exercise program or intensify your existing regimen to a minimum of 3-4 times a week. This will increase both your physical and emotional stamina and improve your ability to adapt to new situations and environments. 8-12 weeks before the trip is also a good time to start drinking at least 50% more water as well as make a conscious effort to eat leaner proteins and reduce sugar and processed foods. This will also increase stamina and improve energy levels. Managing your caffeine by not increasing or reducing what you normally consume will help avoid caffeine withdrawal headaches and fatigue. You can pack caffeine pills to help you match what you normally consume. Pills usually have 200mg in comparison to 100mg for a regular cup of coffee. If you consume energy drinks or soda regularly, then I recommend looking up the caffeine content online so you can match it. On your trip you also want to pack some over the counter Prilosec and antacids in the event of an upset stomach and some Immodium in the event of some loose bowels. Diarrhea, aside from the inconvenience and discomfort, can dehydrate you very quickly.

Hydration is of the utmost importance and the increased water HAS TO CONTINUE while on vacation. This is the single most important thing to do of all of the recommendations listed here. Increasing your water consumption when in a new environment also helps you acclimate to higher altitudes and high temperatures. If you find yourself feeling tired or otherwise not feeling well, the very first thing to do is chug water. Even if it is not the complete

solution, hydrating well usually helps a lot and helps quickly. Even jet lag symptoms are also alleviated by increased hydration.

Jet lag and other sleep related disturbances can leave you feeling exhausted from one day to the next. Jet lag, which is medically referred to as desynchronization, is a temporary disorder that causes fatigue, insomnia, and other symptoms as a result of rapid air travel across many time zones. It happens worse when traveling east and when crossing 6 to 9 time zones. It is recommended to avoid light in first 3 to 4 hours of the morning at the destination for the first few days. Melatonin at a dose of 1mg or less before sleep may also quicken the acclimatization to the new time zone. Melatonin may also be useful for difficulty sleeping in a new place or on a strange bed. Poor sleep for any reason can leave you tired the next day. Most people know from past experience how fragile their sleep can be when in a new place. Traveling with over the counter sleep remedies such as melatonin and Valerian root, or prescription medications such as Ambien, Sonata, or Lunesta is a worthwhile precaution to make doubly sure that you get adequate rest when traveling. Rest and physical recovery in the week leading up to the trip is of vital importance. Many people think that vacation is for resting. I will take the liberty in declaring that vacation is for having fun and enjoying your family first, and getting some rest second. During your getaway you do want to physically recover from the daily grind, but you also want to mentally and emotionally recover. This is where having fun comes in to play. Having fun takes energy though; so you want to make sure you have enough of it heading into your trip. Having to sleep for a significant portion of your vacation to catch up with what you did in the week prior at work is somewhat of a waste of precious vacation time. Showing up to the airport with a full tank of gas sets you up to kick off your fun the minute you arrive at your destination. If you REALLY want to top off the energy tank then I strongly recommend getting B12 and B complex injections or an IV vitamin infusion the day before your trip. Combining this with adequate rest and hydration leading into your travel days will set you for peak energy.

Feeling good on vacation will undoubtedly help you enjoy your vacation to the fullest. All of this planning and preparation will also enhance your enjoyment as it significantly adds to the element of positive anticipation for the trip. Anticipation of a positive event can provide a person with as much, if not more total pleasure than the event itself. In essence you actually start to enjoy the vacation 12 or more weeks before the actual trip, as well as during the trip itself. So in more ways than one, you can actually more than double the fun and enjoyment of your vacation.

# WHY "CRAZY" IS THE NEW "NORMAL" (PART 1)

By: Raul J. Rodriguez  
MD, DABPN, DABAM, MRO



The word "CRAZY" is a horrible word. It is the F-bomb of Psychiatry. Yet it is still frequently used in most facets of society and in general conversation. Most people do not realize how damaging it can be. It is as insulting as it is dismissive to any form of behavior that does not fit neatly within the box of "normal" behavior. This word will forever remain as the flag-bearer for mental health stigma across most generations and cultures. Why is this? Why do so many people from so many places hold such a strong negative opinion about something they know so little about? One word; FEAR!

Fear is pervasive negative human emotion that has existed since the dawn of time. Fear is defined as "an unpleasant emotion caused by the belief that someone or something is dangerous, likely to cause pain, or a threat." This emotion has a purpose; to keep us out of harm's way. Throughout the course of evolutionary history, having a healthy fear and avoidance of something unknown was usually the safest course of action. Curiosity killed the cat, as well as many humans and countless lower animals throughout the Earth's natural history. Their genes often did not get passed on to the next generation. The humans and lower animals that kept a safe distance were much more likely to survive and pass on this trait to their offspring. So how does "crazy" fit into this?

To most people, the origin of "crazy" behavior is the epitome of one of life's great mysteries. The clear majority of humans on Earth have no understanding of mental illness, which is a big

part of why it makes them feel so uncomfortable. It is very common for people to attack that which they don't understand, rather than develop an understanding of it. To this day, Psychiatric disorders are still stigmatized and shamed in large part for these reasons. Individuals who have suffered from many of these conditions have been treated poorly by most societies, in many regards punished for having their disease. This behavior is also what has been modeled by older generations, so there is also a major aspect of learned behavior here. Over time people just assume that dismissing "abnormal" behavior is what we are supposed to do and don't think much of it. It is not until a friend, a family member, or they themselves start to suffer from a mental illness that anyone cares to learn more and develop an understanding of what is going on.

Acceptance of having any type of "mental condition" is typically very difficult. Nobody wants to believe that they-themselves or a loved one is "crazy". This often leads to denial for long periods of time and avoidance of treatment with consequential worsening of the disorder. You don't see this nearly as much with other conditions in medicine such as diabetes and heart disease. Nobody wants to have those conditions either, but because they are so common and non-threatening the fear and stigma are not there. There has also been a greater societal understanding of how diabetes and heart disease work for decades now, further reducing the fear. The well-known causes and mechanisms of these diseases make them more tangible and easier to accept. Type II Diabetes is

one example of a disorder that has more recently been understood as deriving from a normal genetic variant.

The idea of the normal genetic variant is a more recent and groundbreaking concept that explains a number of disorders as complications of actual normal human trait variations that do not function as well under modern lifestyle standards. Type II Diabetes exemplifies this. For most of human history, scarcity of food has been the norm. Stable and consistent food production is a relatively recent phenomenon. It was common for groups of humans to be subjected to periods of famine for myriad reasons ranging from weather to war. During a period of famine, individuals that were able to maintain higher blood glucose levels were better able to function, survive and procreate than those who could not. This trait conferred a survival advantage. This same trait, when food is processed and plentiful, can lead to organ damage and health problems. Realize that for the overwhelming majority of natural history, lower organisms and humans have been constantly adapting and evolving to survive having inconsistent and scarce food supplies. The very limited adaptation to a processed and plentiful food supply has not been nearly enough to prevent Type II Diabetes from being a major public health problem. So how does this principle apply to mental illness?



## WHY "CRAZY" IS THE NEW "NORMAL" (PART 2)

By: Raul J. Rodriguez MD, DABPN, DABAM, MRO

There is growing evidence that certain mental illnesses may actually be normal genetic variants that conferred some survival advantage at some point in human history. Behavioral traits, not unlike physical traits, will affect an organism's ability to survive and procreate. This may occur on an individual basis, with a certain trait helping just the one individual organism survive. This may also occur within the context of a trait or collection of traits helping a group of similar creatures survive as a group. Some of the more fundamental elements of survival include the ability to not be killed and eaten by something bigger, the ability to stay fed (which often had to do with the ability to kill and eat something smaller, and sometimes bigger too), and the ability to procreate. So how could this all possibly tie in to mental illness you ask?

The first condition that potentially illustrates this is agoraphobia. Agoraphobia, a term whose origin come from "fear of the marketplace", refers mostly to a fear of wide-open spaces and crowds. This condition is often associated with Panic Disorder but can exist independently. This is an example of a trait that was probably inherited from lower mammals. In terms of survival, a small mammal that maintained a healthy fear and aversion to wide open spaces and crowds of similar mammals would be less vulnerable to aerial and terrestrial predators. If you ever watch any of the nature channels, you may notice that animals (especially smaller ones) that prance around the open prairie are subject to attacks by birds of prey from above as well as carnivores on land such as lions, tigers and bears (oh my!). Since animals do not watch the nature channel or go to school, they would need to be either born with this trait or learn it from exposure to nature's school of hard knocks. The organisms born with the trait would tend to have a higher survival rate and thus would have an advantage in passing on their genes.

Another survival advantage would come from the ability to find food. In a hunter-gatherer society, which comprised a giant chunk of our human natural history, Attention Deficit Disorder (ADD) can come in handy. ADD is a common problem that affects an individual's ability to pay attention and not get distracted by random stimuli. As disruptive as this can be in an academic setting, ADD can make someone a better hunter. A person who gets distracted easily by the slightest noise or peripheral movement can have the ability to detect potential prey, such as a rabbit rustling in the bushes, from a

greater distance than someone without ADD. Catching food keeps you alive and having food invites hungry company and helps attract potential mates, hence more procreation. This trait was useful throughout the large "pre-academia" portion of human history. ADD in the education focused modern era causes problems of course, with greater difficulty focusing on academic and other types of work due to the higher degree of distractibility. Some ADD traits can still be harnessed though for some benefits.

Bipolar Disorder is an often-misunderstood condition that served certain significant purposes in primitive times and still can offer great benefits and advantages in modern society. Bipolar Disorder, still referred to by some as "manic-depression", is a mood disorder characterized severe mood swings alternating between abnormal "depressive" lows and abnormal "manic" highs. The highs include symptoms of greatly increased energy, severe positive bias, increased industrious behavior, increased risk taking behaviors, increased spending, increased sexuality, racing thoughts, decreased need for sleep, grandiosity, and rapid speech. Without treatment, Bipolar Disorder can be disruptive in the organized modern world. Individuals with this condition can function at very high levels with proper treatment though, and can have a very good prognosis. Several of the common traits of mania can actually confer significant functional and performance advantages in the academic and professional worlds. The ability to "hyper-function" can enable someone to study or work much harder, longer, faster, and with greater overall intensity than a mere mortal. Many highly successful and famous people have been diagnosed with Bipolar Disorder. The long list includes owners of large corporations, artists, actors and actresses, musicians, inventors, the founder of an iconic adult magazine, and the owner of a major television network. Joan of Arc, the patron saint of France, is also believed by many to have been bipolar. The accomplishments have been great and the feats nothing short of amazing. So how did this work out during the earlier periods in human history?

# WHY "CRAZY" IS THE NEW "NORMAL" (PART 3)

By: Raul J. Rodriguez  
MD, DABPN, DABAM, MRO

Primitive man faced many challenges merely surviving in the beautiful yet hostile natural environment of pre-historic planet Earth. Not unlike the depiction of the planet Pandora in the famous movie Avatar, our magnificent mother planet has been trying to kill us and eat us from the moment we got here. "Survival of the fittest" applied to humans as much as it did to any other animal. Now imagine how difficult and scary it must have been to try to initiate a migration in that world. Imagine how terrifying it must have been to be the one to throw the first spear at a Woolly Mammoth that was being hunted for food. Imagine how hard it must have been to attempt to cross an uncharted body of water, not knowing what was on the other side or how far it was. Under normal standards of courage and proper judgment, these challenges would be very difficult for anyone.

Individuals with certain "hyper-functional" traits and an extreme positive bias would have a greater likelihood of both attempting and actually succeeding in such real-life challenges. Having a greatly diminished appreciation for the possibility of failure as a result of extreme optimism makes it easier to take big chances. Within a group of people that needs to make something happen in order to survive, someone in that group needs to rise up and "have the balls" to initiate taking that major risk. This person needs to be energetic, enthusiastic, outspoken, engaging, motivating, and almost irrationally confident. Having more energy than a dynamo gives the stamina to follow through and get it done. Having the rapid thought and

increased creativity helps generate creative solutions on the fly in response to new problems as they present themselves. The ability to efficiently solve problems coupled with heightened assertiveness makes for an effective leader. A group with a strong leader is more likely to succeed and survive than a group that is aimless, fragmented and disjointed.

Now these risky ventures did not always work out. Sometimes the risk was too great and the attempt was too bold. Sometimes the group was led into an untimely demise from an impulsive poor decision. Sometimes the situation was just impossible, regardless of who was leading the group. But many times it did work out. Many groups avoided their demise by a successful migration to a more fertile land. Other groups made it by courageously fending off a hostile opponent group. Others made it by killing that Woolly Mammoth at the most critical time, when the group was at the brink of dying of starvation. This certainly happened often enough that these genes kept getting passed on to future generations. The passing on of genes is the most fundamental net result of successful survival.

Traits conducive to successful survival in primitive times can also facilitate success in modern times. Successful outcomes from individuals with Bipolar Disorder are still seen to this day. Studies have shown that immigrant groups have a higher incidence of Bipolar Disorder than non-immigrant groups. Many famous celebrities and owners of large corporations are bipolar. The

traits of Bipolar Disorder, as well as certain other psychiatric disorders, can in fact be harnessed to yield certain functional advantages. They are not necessarily "weaknesses" or "deficiencies" like how social stigma would have us believe. It is when these certain conditions are not properly managed that dysfunction and problems arise. Those who have learned to understand their condition as a set of traits rather than some sort of flaw have been able to embrace it and tap into it's potential. These enlightened individuals believe their traits are a blessing and have overcome stigma. Fostering stigma is the real weakness, not mental illness.



# EXERCISE AS MEDICINE?

By: Raul J. Rodriguez

MD, DABPN, DABAM, MRO

Yes, really. Exercise can effectively be used in the treatment of depression, anxiety, addiction, and even eating disorders. This may sound trite, largely because we routinely hear something about exercise almost every day of the week. Whether it is a promotion to buy a new gym membership, some new exercise machine invention, or the latest exercise fad, we are constantly bombarded with images and messages that we are out of shape and need to look better. This longstanding trend has caused many individuals to develop mixed emotions about exercise. In all of this, many have lost sight of the fact that proper exercise, done in the correct way for the right reasons, can actually be enjoyable and immensely beneficial.

The benefits of a proper exercise program are indisputable. Healthy activity will usually increase energy, improve physical and emotional stamina, reduce stress, improve sleep, improve libido, improve self-esteem, and can drastically improve mood. That sounds like a fantasy benefit profile for even the best of our existing antidepressants! Deriving all of those benefits from a pill really is a fantasy, but from exercise it is not.

Physical exercise exerts such strong therapeutic benefits due to the physiologic effects on the human body as well as the powerful neurophysiologic effects on the human brain. Most people do not realize how profound these effects on the brain are. Done in the proper way, physical activity will increase release of many desirable neurochemicals including Dopamine, Norepinephrine, Serotonin, and endorphins. Many people are familiar with these names and may realize that these are many of the same brain chemicals targeted by most antidepressants. The greatest clinical benefits may actually be derived from the less widely known Brain-Derived Neurotrophic Factor (BDNF).

Brain-Derived Neurotrophic Factor (BDNF) is a chemical released in response to exercise that promotes development of new brain cells, new brain connections and the preservation of existing brain cells. The benefits of this include improved mental functioning, improvements in depression, and protection from degenerative diseases such as Alzheimer's disease. The benefits for mood disorders like depression have gained more attention in recent years, especially with the growing awareness of how active depression causes considerable brain damage. Certain parts of the human brain, particularly the

memory center or hippocampus, have been shown to actually lose size from all of the brain cell death in individuals with chronic depression. BDNF will stop and can reverse this damage. BDNF has also been known to increase with effective antidepressant treatment. This forms much of the basis for the direct use of exercise as an actual treatment modality.

My professional experience with the use of exercise, as a form of clinical treatment, dates back to 2003. I had been dealing with a number of chronic depression, anxiety and addiction cases that were having great difficulty getting fully better. Their therapy and medications would help and their condition improved, but not fully. This was a concern because when full remission was not achieved, they were much more vulnerable to a clinical relapse. One thing I noticed that they all had in common was physical inactivity. I would recommend exercise to them, but they would never go. So then I thought about bringing the fitness to them.

I had recently opened a freestanding fitness facility and decided to tie this in to the care I would provide to clients. Exercise started to be prescribed and delivered as part of their treatment plan. When it was made utterly convenient and inviting, the clients actually participated. Once the mental barrier of resistance to exercise was broken, they kept coming and started improving. People who previously could only get half better started to get fully better. Others who at one point could barely crawl out of bed started to come alive again. The positive effects were obvious and quick. Soon the fitness therapy became one of our signature treatment modalities. Individuals became more open to receiving treatment after making it so much more enjoyable and appealing. The decreased reliance on medication was another very popular benefit. Many clients developed solid fitness habits and continued to train regularly long after they had fully recovered from the condition they initially sought treatment for. This major lifestyle change facilitated other healthy lifestyle changes that further improved their global state of health. Almost all of the therapists, doctors, and staff of the Delray Center regularly train together with the clients, which models healthy behavior as well as further strengthening the therapeutic relationships. This evolved into a fitness culture that continues to permeate the entire Delray Center to this day.

## ABOUT THE AUTHOR:



### **Dr. Raul J. Rodriguez MD, DABPN, DABAM, MRO**

Founder & Medical Director of the Delray Center

Dr. Raul Rodriguez is the founder and Medical Director of the Delray Center. He is board certified in both Adult Psychiatry and Addiction Medicine, with a clinical focus in the treatment of anxiety, depression, bipolar disorder, eating disorders, and addiction. The Delray Center is a comprehensive outpatient treatment center that incorporates the most advanced psychotherapeutic modalities in the treatment of complex multiple diagnosis cases.

To learn more about Dr. Rodriguez and the Delray Center visit:

**[www.DelrayCenter.com](http://www.DelrayCenter.com)**



**DELRAY  
CENTER**