

MATT'S GUIDE TO MANAGING AUTISM

This is a lifestyle oriented guide to managing autism that is designed to complement a professional autism treatment protocol. There are professionals who work with autistic children on a daily basis who have developed treatment protocols that reliably improve the lives and behaviors of autistic children. As a parent, you should aggressively work to identify local treatment providers with a demonstrated track record of helping improve autistic symptoms and figure out ways to get your child treated. In another document, I will discuss some of the best treatment facilities around the country and describe how I think their methods work.

This document is designed to be a supplement to professional treatment. It is designed to provide parents and care givers practical advice on how to manage autism in the home and in daily life. I believe that adherence to the recommendations herein in combination with aggressive treatment in a professional setting offers you the best outcomes for the progression of your child's condition. Nothing contained herein is likely to be unsafe or detrimental to your child. All the same, to the extent that you decide to follow any of these recommendations, I strongly encourage you to discuss such recommendations with your child's autism treatment team and/or primary care pediatrician.

A. Five Basic Concepts to Frame Coping

These are concepts that reflect the subjective experience of being on the autism spectrum. It is hard to appreciate these concepts without being on the inside. However, they are very important to understanding the behaviors evidenced by people who are on the spectrum.

1. The Reservoir

The reservoir is my term for the subjective mental (and in some ways physiological) aspect of the body's reaction to stress. Every person has a reservoir for stress. How much stress a person can absorb while keeping their reservoir under control depends on many undetermined factors. However, it is apparent that some people have a low reservoir threshold, quickly reaching their overtopping point. When a person's reservoir overtops, they often cease to function effectively. To avoid further overstimulation which leads to constant overtopping, many will direct their attention inward and appear restrained and inhibited if not catatonic.¹ Others will last out violently or simply melt down into a fit. This phenomenon has been called the 'rule of the last drop'; if a child's inner cup is already full, the slightest trigger (which on the days when the cup is empty would hardly be noticed by the child) might produce an overload.²

Most people go through the average day with their reservoir levels in a normal range, never completely empty or completely full. The reservoir cycles over course of the

¹ Too Loud, Too Bright, Too Fast, Too Tight, p. 8.

² Sensory Perceptual Issues in Autism and Asperger's Syndrome, p. 81.

day, starting relatively empty in the morning and gradually filling up over the course of the day as stressors are presented. The same behaviors that tend to modulate self reported perceptions of stress also modulate the reservoir.

Occurrences during the average person's day impact the level of the reservoir. A stressful encounter as work increases it. A good workout decreases it. A fight with one's spouse increases it. A yoga class with deep breathing exercises empties it. Just working your way through a normal day tends to cause the reservoir to fill as you encounter numerous minor and some major stressors. As the day ends, sleep takes over for most people. While the reasons behind the need for sleep are complex and uncertain, sleep seems to have a very strong impact in reducing the level of the reservoir so someone is primed to start the next day refreshed and restored.

In addition, daily habits and practices impact the size and resiliency of the reservoir. Good eating habits will cause the reservoir to expand in size, fill slower, and empty quickly. Quality interpersonal communication and physical touch have a similar effect over time. So do quality exercise and pretty much all of the adaptive coping strategies described herein, if practiced regularly.

As the level of one's reservoir increases, the ability of a person to be happy and relaxed starts to gradually decrease. Typical indicators of stress start to show up in the person: sweating palms, hunched posture, tight muscles, quickness to anger and many other classic signs. However, for most people in most circumstances, the level of the reservoir never reaches a level that threatens to overtop it. They muddle along with the reservoir not too empty and not too full. However, people on the spectrum are constantly flirting with, or fully experiencing, an overtopped reservoir.

The reason for this is that stress impacts them more than normal because of their hypersensitivity to the world and problems with modulating their stress response. They are always subjected to chronic, background stress which keeps the reservoir from ever sinking to a normal level. Their perception of the world is of one filled with threats that the body needs to react to. The events of the day cause the reservoir to fill up more quickly than for a normal person and to reach higher levels. The simple flickering of fluorescent lights or the dripping of a water faucet, unnoticeable to normal persons, may have the effect of slowly or quickly filling up the reservoir, depending upon the unique characteristics of each person. Due to frequent sleeping difficulties for people with autism, resting at night often does not allow the reservoir to empty to normal levels.

One author summarized this concept of reservoir slightly differently:

The cumulative effect of increasing irritation snowballs over the course of an hour, a day, weeks, months, and years. Each time someone smells that substance he hates or anything similar, it burns new links into the brain specifically in the amygdala, to strengthen the perception of certain harmless aspects of the world as threatening. Neurons that fire together once tend to do so again. As subtle changes accumulate, experience rewires the structure of the brain and the brain becomes

better and better at doing worse and worse. The more conditions overwhelm the systems and elicit defense, the more this defensive pattern gets set as the person's truth and the more recoding needed to free a defensive mind.³

A high functioning autistic author describes the reservoir as follows:

It is if there is a reservoir of sorts that each of us has. This reservoir starts off empty, but the things we experience throughout the day fill it up. Any sensory load or other nervous system load will cause the reservoir to take on more fluid. It does not have to be unpleasant – even pleasant kinds of sensory load (like enjoying a movie at the theater) fill up the reservoir. Things like the smell of someone's perfume, bright lights, constant motion, noise (the more painful or annoying, the worse), all tend to fill up the reservoir.⁴

Being ready to interact, or interactive mode, is also difficult and causes the level to rise. Finally, thinking about what the other person said and deciding on a response real time (as opposed to email) also causes the reservoir to rise quickly. The more difficult the interaction, the more quickly the reservoir rises.⁵

I am stressed most of the time. Fear, anger, and any other powerful emotion make the level in the reservoir rise rapidly. Happy contentedness make the level go down, but positive anticipation, suspense, or excitement, at least for me, cause the level to rise, not to fall. Having things go not according to expectation, or having the routine broken, cause the level to go up. Indulging in my perseverations (like researching a topic about which I am obsessed) reduces the level, even if it involves things that are normally stressful, like interacting with people. When I get time along in a dark, quiet place, I can burn off some of the sensory load and cause the reservoir to become less full. Rocking, flapping, and stimming also help me to lower the level in the reservoir. Our tendencies to isolate ourselves, to routinize our lives, to put things in a specific order, etc... are in part, ways of reducing the level of the reservoir, or keeping it from filling up in the first place. In my case, I do many of these things as the reservoir begins to fill, so it fills much more slowly.⁶

2. Pressure

Persons on the spectrum are extremely sensitive to pressure. Pressure can take many, many forms. Sensory stimuli are a type of pressure. They represent the world trying to get your attention through your nervous system. Rarely do they go away. They are there often when they should not be, such as when you are trying to concentrate or sleep.

³ Too Loud, Too Bright, Too Fast, Too Tight, p. 70

⁴ Sensory Overload Explained, p. 1

⁵ Sensory Overload Explained, p. 1

⁶ Sensory Overload Explained, p. 1

The more important type of pressure is psychosocial. The phone ringing presents auditory pressure from the ring tone but also another type of pressure: the pressure to perform up to a set of expectations. The person on the other end of the phone wants something from you. You may or not be able to do that thing. You may or may not want to. However, they are there, imposing upon you, pressuring you, trying to control you. There is almost nothing many adults on the high functioning side of the spectrum dread more during the day than early morning phone calls. They often don't answer the phone until after noon. By that time, they feel sufficiently in control of their world in order to deal with the pressure. Control is important. The more control you feel, the more pressure you can handle. They are directly proportional. Low levels of perceived control and high levels of pressure are to be avoided by autistics. They often do this by simply withdrawing from the world.

The expectations of the people around you pressure you in many ways. If you feel pressured to behave in a certain way, this often causes you to react against the pressure subconsciously and behave in exactly the opposite fashion. I think this is why autistic people are horrible at small talk. It is not just that they are bad at it; they are bad at it for a reason. The pressure to perform causes their brains to empty out of anything to say. When, in a conversation, they fail to come up with something to say, the other participant will often look expectant or ask what they are thinking. This is the quickest way to make sure they have absolutely nothing to say. In the pressure of expectation, their brain simply seizes up. This is not comfortable. In intimate or simply interpersonal relationships, this can lead to great frustration on the part of the person who thinks they are being dismissed by the person with autism. This can lead to greater pressure to perform and the downward spiral starts.

3. Blindspots

Autism is all about having blind spots. Since you have always been on the spectrum, you don't know what the world is like for people who are not on the spectrum. You don't know that you are missing social cues, because you have never seen them and no one has pointed them out to you in a way that you can do anything about. You don't know that other people are bored talking to you, because your obsession (and poor observation skills due to the way your brain processes sensory info) blinds you to the subtle cues that are telling you to change the subject. You don't know that firm touch is good, because all the touch you have gotten has started with light touch and that has been painful. You can't fix it if you can't see it. You can't use adaptive behaviors, because you are unaware of them; no one has shown you that it works better in the long term than the maladaptive techniques you use. This is challenging because you are not interested in relief in two weeks; you want the world to be okay right now, as you have never learned to think to the long term. Autistic individuals are deprived of the tools to eliminate their own blind spots, which is one of the most difficult problems in autism.

4. Disproportionality of Response

The responses of persons on the spectrum are very similar in type to the behaviors normal people engage in when responding to stress. The main difference is the disproportionality of the response autistics engage in when compared to normal people. All people self stimulate. Autistics do it more singlemindedly and openly. All people adhere to routines and patterns; autistics often obsess on these things. All people withdraw from stressors at times; autistics may withdraw into catatonia.

a. An Example From My Life

I am someone who has struggled with many of the issues of being on the autism phenotype my whole life without knowing it until three years ago. I am not clinically diagnosable as being on the spectrum. I am too high functioning and I am not disordered, i.e. autism does not significantly impact my ability to function in the world. However, many of the specific behaviors attributable to autism are present in me. I know that my experiences are very different than that of a low functioning autistic individual. However, I believe that the same underlying mechanisms are at work in me and in profoundly autistic individuals – the difference is the disproportionality of the response.

I had an experience last year that is illustrative of this disproportionality. I purchased a rocker / glider chair, because I know that the movement soothes me and helps me deal with stress. When I got it, I found that it squeaks when it moves. I can't deal with squeaks. I tried on several occasions to fix the squeak with products around the house. I was unsuccessful. I went out and bought some oil in order to fix it. The morning of the episode started bad because I was having a super bowl party and found out that the high definition TV antenna was having trouble picking up the signal when I moved around the loft. This caused agitation but I finally figured out a solution. A little later, I oiled up the joints of the chair in an attempt to stop the squeak. After 20 minutes of oiling, I tried rocking. It squeaked just as bad as ever. I tried rocking quickly to see if I could work the oil further into the joints to stop the squeaking. No luck. More squeaking. I found myself becoming irate. My heart rate shot through the roof. I found myself starting to think about throwing the chair off the balcony. I cursed and threatened the chair. My fiancée tried to calm me unsuccessfully. Knowing I was going to have to work my way through this, she went home to get ready for the party.

I spent the next three hours in a flurry of action. I was getting ready for the party. I was cleaning out storage items in preparation of getting married. I was doing anything but sitting down and doing nothing knowing that movement normally calms me. When my fiancée returned, she immediately remarked that I still looked highly agitated. I finally realized that I was still in a state of nervous overarousal associated with the squeaking chair. But, it was more than that. It was a reaction to a lack of control. No matter what I did, I couldn't fix the chair. What was supposed to be a source of relaxation was just another stressor. I could not predict when it would get fixed so I could use the chair as intended. I described it in the moment as a sense of betrayal. I realized that the only way to recover was to go running a few miles in the 20 degree weather. By the time I got back, I was mostly fine. A long hot shower, another of my coping strategies, took care of the rest of the matter.

You may be thinking that what I just described sounds familiar and that this doesn't mean that I am on the phenotype, that I just got angry. But, remember, autism is just a set of behaviors in a person who is hypersensitive to sensory and psychosocial stress in response to a series of stressors. What happened in me was that a relatively minor sensory stressor, the squeaking of a chair that most people would never have noticed, spiraled up in such a way that I seriously considered throwing a chair off a 7th story balcony, that I was highly agitated three hours later despite an intense bout of motion, and that I required a long run in freezing temperatures in order to normalize. I experienced a disproportionately intense reaction to what most people would consider less than a small annoyance. This is the face of autism. The behaviors of children with severe autism look so weird because of the disproportionality of the reaction to stressors that a parent or adult can't even perceive. Autistic behaviors are normal human behaviors. However, they are exercised with a level of severity, frequency, and single mindedness that a normal person simply can't understand.

5. Autistic Inertia

Even with effective intervention, autistic behaviors are going to change slowly and change will significantly lag intervention. This is largely because one thing autistics hate is change. Even positive change is stressful. If an autistic child uses extreme rigidity and adherence to routine as a way of coping with a stressful world, that child is unlikely to quickly give us that coping strategy even when the world becomes less stressful. The child knows that order feels good. The child may not notice consciously the waning of stress. If the child does notice the waning of stress, the child may stick to routine out of fear the stress will come back. The same holds true with self stimulatory behaviors, aversion to foods because of tactile reasons, and many other behaviors. Probably the behavior that will change the fastest is the melt down. If the reservoir is being managed in a way that keeps its levels less empty, then melt down frequency should decrease and you can take this as evidence that the plan is working.

B. Why a Diagnosis is Important

Autism is a disorder that creates a tremendous amount of discomfort for everyone involved. Parents of autistic kids don't want to talk to others about it. The whole autism community is isolated and insular. When I started suspecting as an adult that I had some abnormalities, it was amazing the number of people who argued with me that I should stop looking into the disorders – the advice was “you are not disordered, you are fine, you should stop thinking about it and just be happy”, even though these people didn't know a thing about what I was researching. The prevailing view is basically that getting labeled with a disorder is a self fulfilling prophecy, that you will create the condition in yourself if you understand the condition. It is basically an attitude formed from fear, not reason, and from the overwhelming discomfort the majority of people feel when the subject of mental health arises. People are petrified by the topic. I am not. And, I think knowledge is power, and the concept that ignorance is bliss is causing most of the problems we as individuals and our society face.

Probably the most important part of autism is to realize that you share the condition with many other people and that you can effect positive change in your life. You can create more effective coping mechanisms based on your knowledge of your specific issues. You can communicate your problems to those around you so that you manage their expectations of you, i.e. you can tell them that your inability to make eye contact with them regularly does not mean you distrust them. You can practice behaviors that attenuate the problems. For instance, my skin is extra sensitive to tactile pressure when dry. Using moisturizer regularly, particularly before being touched, can help address the tactile over stimulation. There are many effective strategies that can be used to lessen the negative impacts of being on the spectrum. However, these strategies are hard to put into place if you are unaware of the condition.

Another important part of self knowledge of autism is the relief you feel. People with a high functioning spectrum disorder who are diagnosed as an adult go through life knowing they are not quite right or normal. Your self esteem can be substantially hampered if you believe it is your fault. Gaining awareness that your challenges relate to the way you process information is actually comforting. It takes away the blame you might put on yourself. It also opens up a path to mitigating your problems as well as increasing your sense of esteem.

In addition, self awareness of autism can help you address one of the biggest problems people on the spectrum have: dealing with emotion. I analogize it to fighter planes. People wonder at my encyclopedic knowledge of fighter jets. I haven't really read up on them in 25 years. However, I tend to know everything about them. The reason is that when I was 10, I learned a lot about them. Over the years, when something was in the media about fighter jets, I would read and retain it. Retention was easy because I had already built a mental outline of fighters: American versus soviet, one engine versus two, fighter vs fighter bomber, etc... I kept myself current, because I had a base of knowledge upon which to build and a mental framework in which to insert the details.

With autistic individuals, they are often lacking a base of knowledge and insight related to emotion. They have an enormous blind spot related to emotional intelligence. They don't even know that they are missing that base knowledge, because they were never sensitized to the issue. However, once you become aware you were missing something, you can start trying to find it, start shrinking the size of those blind spots. You can build your base of emotional intelligence. Over time, with sufficient effort and concentration, you can become much more emotionally intelligent, mitigating the impact of autism on your ability to interact with others.

C. Types of Coping

1. Cultural and Individual Coping

In ages past, cultural coping was a large part of how individuals coped with stress in their world. Individuals engaged in their own coping strategies. However, these were

supplemented with cultural vehicles that were established to assist all individuals in dealing with the world around them, whether because of shared grooming, or a culture of walking, or an embracing of physical touch. Culture can push you towards adaptive or maladaptive coping by the role models offered, lifestyles that are adopted, food that is provided, and relationship styles that are encouraged.

Individuals on the broad autism phenotype likely evolved because of the benefits they provided to society. However, they were able to function partially because society helped them along, providing them coping assistance as part of its makeup. Cultural coping assistance for an autistic person may take the form of a great tolerance for abnormal behaviors, or a network of persons who provide regular firm touch to the autistic individual, or the provision of a job that does not push the individual past their physical or emotional limits, or regular positive reinforcement by the tribe of the autistic child.

Society, in particular in urban areas, has changed and the cultural coping has shifted. The support provided by society has attenuated in a new culture of rugged individualism where you are not supposed to need support, even if you have biological problems. This is probably seen by the disparities seen in the progression of autism in people in urban versus rural areas; persons with autism living in rural areas tend to be more functional, probably because the condition is more accepted and adjusted for. Cultural coping is more acceptable in a small town.

Individual coping involves the strategies the individual, and persons close to the individual, use to deal with stress in their environment. It is the primary type of coping that exists in the modern world. However, we are becoming worse and worse at appropriate coping because of various trends in westernized societies. The adaptive coping that we use to engage in is increasingly being replaced by maladaptive, short term coping.

2. Adaptive and Maladaptive Coping

Coping may be thought of as environmental or cognitive tactics designed to attenuate the stress response. It can be seen as an attempt to restore homeostasis. Individual coping can be broken into two components: adaptive and maladaptive. Adaptive coping strategies reduce stress while at the same time promoting long term health (e.g. exercise, relaxation, proper nutrition). Maladaptive coping strategies, on the other hand, do indeed reduce stress in the short term but serve to erode health in the long term (e.g. alcohol abuse, smoking, interpersonal withdrawal). When coping is successful, extraordinary target organ activation (the abnormal and unhealthy activation of organs like the gastrointestinal system) is reduced or eliminated and homeostasis is reestablished. If coping is unsuccessful, target organ activation is maintained and the chances of target organ disease are increased.⁷

D. Individual, Adaptive Coping

⁷ A Clinical Guide to the Treatment of the Human Stress Response, p. 45.

Coping is defined as: efforts both action-oriented and intrapsychic to manage (master, tolerate, reduce, minimize) environmental and internal demands and conflicts among them, which tax or exceed a person's resources. Coping can occur prior to a stressful confrontation, in which case it is called anticipatory coping, as well as in reaction to a present or past confrontation with harm. More recently, coping has been defined as constantly changing cognitive and behavioral efforts to manage specific demands that are appraised as taxing or exceeding the resources of the person.⁸

Coping properly with stress is important for the health and wellbeing of any person in our world. For instance, one study showed that the subset of persons who have the greatest health, contentment and longevity among 50 year olds had a common array of traits apparent in their lives before: no smoking, minimal alcohol use, lots of exercise, normal body weight, absence of depression, a warm, stable marriage, and a mature, resilient coping style (which seems built around extroversion, social connectivity, and low narcissism).⁹ Sound familiar? These are all adaptive coping strategies.

These strategies are more important today than at any point in the history of humankind. Man has created a toxic environment for himself, without having any idea of what he was doing. Man is faced with a daily increasing number and intensity of stressors, which is leading to enormous societal impacts. This is placed in a context when both the individual and cultural coping mechanisms that we evolved to use are being discarded under the pressure of modern consumer society and modern media.

The dramatic increase autism in westernized societies is an outgrowth of this toxicity of our modern world. And, the best solution that is available to manage autism is to distance ourselves from the aspects of our culture that are loading stress upon us, and to cope much more adaptively. The techniques discussed below should help attenuate the severity of an autistic individual's symptoms, and should be useful for any individual who is struggling with being a citizen of a westernized society.

1. General Adaptive Coping Behaviors

I must offer one important note of caution. In this fast food nation, people seem to need to see results overnight in order to be convinced to continue an action such as eating well or exercise. Without immediate gratification, the agreed upon strategy is thrown to the side in favor of responding to the manipulations of modern mass media. The consequences of this lack of long term thinking are apparent in our society.

The advice I am offering will simply not work overnight. It may be months before you see significant changes in your child, or in yourself. It takes time and consistency to adjust biology and the homeostatic mechanisms that underlie biology that took years to get so far out of whack. Just like it may take several months for a workout routine to

⁸ A Clinical Guide to the Treatment of the Human Stress Response, p. 45.

⁹ Why Zebras Don't Get Ulcers, p. 389.

manifest reductions in weight, a change of lifestyle will take time to show up in autistic behaviors.

a Exercise

Exercise (or simple movement built into a day) was a crucial part of the human environment during human evolution. When we evolved, we walked on our feet, we hunted game or gathered berries, we brought water from the stream, built our homes by hand, and herded our flocks. All of this involved moving. The homeostatic balances that control human health were all set during a period when humans moved all of the time. Cars and elevators and electric can openers and all the other modern conveniences which reduce the use of our bodies had not yet been invented. It is foolish to think that we humans can simply eliminate movement from our lives without consequence, when it was a crucial assumption present when we were evolving to be who we are. For humans to be healthy, for our homeostatic balance to remain set properly, we need to move, a lot.

1) *Exercise and the Stress Response*

Exercise is particularly important related to the human stress response. The stress response is about preparing your body for an explosive burst of energy consumption right now. In historic times, the stress response was most often triggered by the threat of a predator. Today, we lack predators for the most part, but we have found many situations, mostly psychological like a screaming boss or a violent movie, that induce the stress response. However, these typically don't result in intense physical exertion, the so-called fight or flight response, which was the normal response to a predator in pre-modern times. This means that the normal response to a stressor which helps the body recover from exposure to the stressor, intense movement, is lacking in westernized societies. And, the stressors that are perceived by the brain to be threats have only increased in frequency and intensity. This state of affairs is setting humans up for biological disaster, unless an active coping strategy can be invented to substitute. In many western countries, programmed exercise has become the modern human substitute from running like hell from a cheetah. Sports, jogging, aerobics, swimming and all the other forms of exercise we have developed are the primary coping strategy that keeps the wheels from coming off for individuals in our modern world. However, fewer and fewer people are taking advantage of this path to neural salvation, allowing themselves to be distracted from their responsibility to protect themselves from the toxicity of our modern world.

Exercise makes the body more resilient in the face of stress. It bleeds off dangerous stress chemicals and hormones. It keeps the body from becoming fat, and fat in excess is very detrimental to the human body, particularly because the adipose tissue highly present in abdominal fat causes a constant, low grade inflammatory response to exist. Exercise improves cardiovascular tone and function. It improves mental clarity and cognition. It reduces the sympathetic activation that occurs during the human stress response. It imposes a balance on cortisol levels. And, it performs many other vital functions that the body needs. Without exercise and movement, humans start a long path

towards decline and disease.¹⁰ It is a variant of a pattern present in many animals. For instance, with horses, if they cannot move during a time of stress, they quickly keel over and die. They have to move in order to stay alive. This relationship is not quite a direct and quick in humans, but we, like horses, tend to die early if we do not exercise, and we don't function very well when we are alive.

2) *Exercise and Health*

A recent study involved numerous people at risk for Type II diabetes. Participants were put on an intensive lifestyle intervention that involved following a low fat diet and walking half an hour five times per week. The results were nothing short of astonishing. Participants in the study reduced their risk of diabetes by 58 percent, whereas participants in another group who took the medication metformin reduced their risk by 31 percent.

People who exercise regularly are less likely to get sick after stressful situations than people who don't exercise. Doctors know exposure to mental or physical stress can increase susceptibility to and severity of disease. In one study, rats that began running on a wheel for four weeks prior to exposure to stress were protected against the suppressive effect of stress exposure on immune response. But rats that either began running on the day of stress or that remained sedentary suffered the negative effects of stress exposure.¹¹

New research is showing that exercise beneficially affects your genes, helps reverse the aging process at a cellular level, gives you more energy, makes you smarter, and may even help you grow so many new brain cells (a process called neurogenesis) that your brain actually gets bigger. A study published last year by researchers at the University of Illinois reported that just walking for three hours per week for only three months caused so many new neurons to grow that it actually increased the size of people's brains.

Regular, moderate exercise also reduces inflammation throughout your body, including in your brain, and reduces the incidence of tiny strokes that can impair your ability to think clearly. Exercise also helps boost your sense of well-being. Levels of beneficial neurotransmitters such as dopamine, serotonin and norepinephrine are higher in those who exercise - the same ones elevated by many antidepressants. These, in turn, may help reduce depression, elevate mood and help you focus better.

In fact, exercise makes you more intelligent. Older adults who exercise regularly have better memory, are better at going from one mental task to another, and can focus and concentrate better than those who are sedentary. In other words, exercise makes older people more intelligent. Exercise makes younger people smarter too. Kids who exercise have fewer problems with attention-deficit disorder and learn faster. Studies have shown that physical education in schools improves academic performance as well as physical fitness. For example, a study by the California Department of Education of 322,000

¹⁰ Why Zebras Don't Get Ulcers, p. 255.

¹¹ <http://www.sciencedaily.com/releases/1998/11/981112075727.htm>

seventh-grade students found that the most fit scored in the 66th percentile on their SATs, whereas the least fit scored in the 28th percentile.¹²

3) *Exercise and Autism*

Probably the most important coping strategy that any autistic child can use to deal with stress is exercise, activity and movement. Research has shown that vigorous aerobic exercise reduced maladaptive and stereotypic behavior in autistic children.¹³ Many autistic parents report that their autistic child is much more communicative and calm when they are taking a walk together. This makes all of the sense in the world. The movement is reducing the negative effects of stress response activation, allowing for their brains to operate more effectively and normal motivation programs of desiring to interact to take over from their normal overwhelming desire to withdraw. Personally, I know intimately the benefits of exercise on my mood and thinking. The most effective thinking I ever do is on my bike, riding a familiar route, when I can just let my brain go on sorting through a problem. With my legs churning away, bleeding off my daily stress, the effectiveness of my brain is dramatically enhanced, almost certainly because neural excitation is normalized into an optimal range.

Children with ADHD know the benefits of exercise and movement instinctually; they are not sufficiently troubled to have lost this hard wired coping strategy. They are often described as ‘driven by a motor’, which is how they look as they use constant movement as a way of bleeding off stress. Autistic children need to be encouraged to move in ways other than rocking and flapping. They need to walk, run, crawl, roll, jump, spin circles and do all the other movements that normal children do. Talking and singing are also type of exercise that probably can also help. Chewing is also potentially helpful. Heavy work to the jaw from chomping and biting is energizing.¹⁴

b. Adequate Sleep

Sleeping is an incredibly important component in the average person’s efforts to manage stress. During times of heavy stress, the need for sleeps rises. When you are sick, you need to sleep more than you do when well. Children whose bodies are growing and changing are under stress associated with growing up. They need more sleep than the average adult. When you don’t get enough sleep, your performance lags, you become more irritable, and your ability to concentrate diminishes. These are all signs of someone who is under stress, because they are not sleeping enough to restore proper balance.

The average amount of sleep an American gets has dropped from 9 hours to 7 hours in the last 100 years. What is happening in our society is that sleeping is being replaced by other activities. Many are simply more profitable for companies, such as playing video games or watching TV. Others are outgrowths of the increasing competitiveness of society which creates high levels of psychosocial stress and pressure,

¹² <http://www.msnbc.msn.com/id/20746682/site/newsweek/page/3/>

¹³ My Experiences with Visual Thinking, p. 3.

¹⁴ Too Loud, Too Bright, Too Fast, Too Tight, p. 251.

such as staying up late studying. We are not accounting for the quality of the time we are awake. Instead, we have focused on the amount of time we are awake. This is having disastrous consequences. As one author has put it

Over the last hundred years, we have intruded upon a delicate and finely regulated process perfected by several hundred million years of evolution.¹⁵

One study showed that in subjects who get only four hours of sleep per night for several nights, the activity of the sympathetic nervous system (system active during stress response activation) is increased and the vagal nerve tone (nerve that controls much of the activity that occurs during relaxation) goes down. In addition, evening cortisol (a main stress response hormone) levels and evening blood glucose (the fuel for movement liberated from cells during stress) levels are elevated in the sleep deprived – all of which lead to homeostatic load. When the subjects are allowed to get 10 to 12 hours of sleep a night, the signs of homeostatic load disappear.

Sleep is needed not just directly to reduce the effects of stress, but also indirectly to manage stress. Sleep is crucial for proper brain function, and good brain function is necessary for the homeostatic balances of the body to function properly. If they function improperly, resiliency is lost. Exactly what sleep does for us is in debate; but all researchers believe it is crucial to brain functions.

c. Proper Nutrition

One of most important ways of maintaining homeostatic balance in the body is through proper nutrition. The homeostatic balances that ensure good health cannot be maintained appropriately without appropriate nutrition, including a proper ratio of energy in the form of carbohydrates, fats and proteins, adequate levels of vitamins and minerals that are crucial for the function of many systems, adequate levels of fiber and other substances that slow down the digestion of more simple foods, and a proper balance between the types of fatty acids that your body needs. Without a good balance, the body starts to break down, and its resilience in the face of stressors is seriously degraded.

The challenge of good nutrition has gotten exponentially more difficult in the modern world. A significant portion of the food we eat today is essentially toxic to us, causing many problems for humans including the skyrocketing rates of childhood onset type II diabetes that was unheard of 50 years ago. However, these foods are so prolific that even the most determined adult has trouble staying clear of these foods. The pervasive preservatives, trans fats, chemical flavor enhancers, and other chemical added to food for various purposes are bad enough. But, their effects are dramatically worsened by a digestive villain: the highly processed carbohydrates that make up a greater and greater proportion of daily caloric intake for the average person. Soda, french fries, candy, white bread, white pasta, white rice, candy, sugary fruit drinks, potato chips and all the other convenience foods of modern life that are lacking in anything of than empty

¹⁵ Good Sleep, Good Learning, Good Life, p. 2

calories are loading our bodies down with stress as our bodies process foods that they are ill prepared for.

This topic is too complicated to delve into in great detail here. However, it is often a great challenge in the lives of autistic children, not just because of their presence in a society in which the average diet has deteriorated to such extents, but because their diets are often even more limited because of mouth feel and texture issues they have. Recommendations of dietary changes and supplements are included in Matt's Daily Health Guide, which is downloadable from the Coping with Autism section of Matt's website. I strongly recommend you read it and consider its recommendations. I am also going to be putting together a paper describing professional interventions that have proved effective in treatment of autistic children. It will include a discussion of drugs and supplements that have shown some benefit to autistic children. It will also be on the Coping with Autism page.

d. Calmness – Triggering the Relaxation Response

Calmness is a very important aspect of human life. In pre-modern times, calmness was a skill that was practiced by humans to counterbalance the excitement and stresses of their day. Calmness could be induced by many activities, from watching the stars, to doing pottery, to shared grooming, to dancing around the campfire. Calmness was also not much of an option – it was built into the fabric of the day. After dark, the tribe needed to be banded together for mutual defense. Also, there wasn't much in the way of stimulating activities that can be done in the dark.

Calmness is not just a state of mind, but also a biological response to certain environment. It has its own very specific characteristics, which are very different than those characteristics of a body under stress. The name for this is the Relaxation Response.

1) *A Brief Technical Discussion of the Relaxation Response*

This section ties well into my theory on autism. It argues that the relaxation response is a physiological mechanism to reduce neural excitation. Training in the relaxation response can cause a dampening of neural excitation in the limbic system, the area I argue in my theory is particularly abnormal. And, since relaxation has become scarce in America and other westernized societies, the continual failure of humans to trigger the relaxation response is a potential mechanism for the development of excessive neural excitation in the nervous system, which is what I argue is at the core of autism.

The physiology of the relaxation response is fundamentally a physiology of lowered arousal and much of its therapeutic effect derives from this quality. According to Gellhorn, relaxation is a result of a loss in excitatory tone of the hypothalamus and a diminution of hypothalamic-cortical discharges. In agreement with Gellhorn, Taylor has suggested that relaxation involves a decrease in the arousability of the central nervous

system. A more current reinterpretation might be that the relaxation response represents a neurological desensitization of the limbic system and / or is sympathetic efferents.¹⁶

Behavioral studies support the notion that the relaxation response is capable of dampening a form of adrenal gland responsivity. In one study, Allen used a specific sound to trigger what was assumed to be posterior hypothalamically mediated arousal in 653 subjects. He found that after training in the relaxation response for a period of approximately 10 weeks, subjects demonstrated a dampened physiological responsivity to the auditory stressor. This study is similar to numerous ones which have shown improved capacity to relax dampens responsivity to external stressors.¹⁷

Many researchers agree that cognitive distortion, rumination, and overall cognitive excitation can give rise to states of neural excitation and generalized neural and physical arousal. Similarly, evidence shows that a reduction in cognitive arousal via the relaxation response contributes to a reduction in excitatory tone and a neurological desensitization effect as well as a reduction in abnormal and troubling psychological states. In reviewing the literature, one is struck by the recurrent theme of an increase in self-efficacy derived from consistent practice of the relaxation response, as well as the sense of control engendered by the physiological self regulatory skills developed.¹⁸

What all this means is that the ability to trigger the body's ability to relax reduces level of neurological arousal in the human nervous system. This reduces the transmission of sensory signals from the peripheral nervous system to the brain, which reduces the impacts of external stressors on neural function. This is a particularly important skill for people on the spectrum, because their nervous systems are wired to be overaroused and to transmit too much information.

2) *Ways to Trigger the Relaxation Response*

There are various ways to trigger the relaxation response.

a) Space

One of the problems of modern life is that everyone just has less space. And by space, I don't mean physical space. I mean mental space. Everyone needs some time to relax. Everyone needs to be bored on occasion. Everyone needs to have extra capacity to draw on, which you don't have if every moment is filled with some activity or another than was planned previously. If you don't have space, after a while, you start to feel out of control, because even though you may have chosen previously to order your life in a way where you are constantly busy, you may not have understood the consequences of your choices and the demands that would be placed on you.

¹⁶ A Clinical Guide to the Treatment of the Human Stress Response, p. 191.

¹⁷ A Clinical Guide to the Treatment of the Human Stress Response, p. 192.

¹⁸ A Clinical Guide to the Treatment of the Human Stress Response, p. 192.

Modern life has resulted in everyone seeming to program their lives to have less space. Some of this relates to the amount of time we spend in cars getting from one place to the other. Some of this relates to the activities that are available to us that may not have been there in the past that we are constantly encouraged to partake in. Some of it relates to the mass media convincing us that we need to do certain things and possess certain stuff in order to be good people. Some of it also relates to a cultural shift in America towards competitiveness.

Whatever the cause, this evaporation of space is being transmitted to our children. Their lives are often programmed as tightly as ours. They rush around from place to place with us. They feel the pressure to perform and to conform. They feel our pressure and frustration that we don't have any space. Their stress levels elevate with ours. They need more space. They need time to just play and relax and read. They need to be bored on occasion. To help our children regain some space, we need to start with ourselves. As a country, we need to slow down and chill out. This does not mean watch more TV or play more video games or chatting on the internet.

b) Meditation, Relaxation, Massage, and Breathing

Meditation and progressive relaxation techniques have been shown to be excellent at restoring homeostatic balance. Meditation, relaxation and martial arts have all been shown to lower blood pressure, an indicator of stress. Massage works in many people to greatly relieve stress. In a study of nurses, researchers found that 60 per cent of the staff - 54 per cent in summer and 65 per cent in winter - suffered from moderate to extreme anxiety. But this fell to just eight per cent, regardless of the season, once staff had received 15-minute aromatherapy massages while listening to relaxing new-age music.¹⁹

These techniques can be very valuable with autistic children. While it may be difficult to get an autistic 5 year old to meditate, it may be possible working with a professional to help a child learn to relax, using progressive relaxation techniques. Also, an autistic child may benefit from a short massage by a massage therapist who understands the tactile abnormalities of defensive children.

Deep breathing exercises can be learned by anyone, including small children, and very quickly result in the activation of the relaxation response. Belly breathing in particular is effective at inducing relaxation. Belly breathing involves actively pushing out the belly when a breath is being taken, forcing the air coming in from mouth down to

¹⁹ In an experiment with monks, as soon as they began meditating, one kind of brain wave grew exceptionally strong: gamma waves. These waves are a signature of neuronal activity that knits together far flung circuits (integration) – consciousness in a sense. Gamma waves appear when the brain brings together different features of an object, such as look, feel, sound and other attributes that lead the brain to its aha moment of yup, that's an armadillo. Some of the novices showed a slight but significant increase in the gamma signal. But, at the moment the monks switched on compassion meditation, the gamma signal began rising and kept rising. Also, when the monks stopped meditating, the gamma signal did not die down. Their brains were different than the novices, marked by waves associated with perception, problem solving, and consciousness. Moreover, the more hours of meditation training a monk had, the stronger and more enduring the gamma signal. How thinking can change the brain, p. 4.

the bottom of the lungs. This is extremely deep breathing, and this type of breathing is particularly relaxing.

c) Acupuncture

Science does not understand how acupuncture works. For a therapy to be scientific, three standards must be satisfied. It must be effective. The effectiveness must be repeatable. And the mechanism by which the therapy works need be understood. Acupuncture fails this last test, and is therefore not scientifically sanctioned. However, it is proven over and over at being effective to relieve stress.

I believe it works through downregulation of neural excitation, which then reduces stress responsiveness. I think the reason science doesn't understand acupuncture is because science doesn't understand neural excitation – this is the same reason science doesn't understand autism.

Regardless of whether I am right, acupuncture has been shown to be very effective in helping some autistic children. Starting acupuncture treatment may be challenging depending on the child. Tactile defensiveness may prove too much to overcome. Getting the child to stay still long enough to make the treatment work may also be difficult. You know your child and whether such a thing could be tolerated. But, the benefits are likely to be great if you can overcome the logistics. Also, even if you can't get your child to do acupuncture, try it yourself. You likely could use some mitigation of stress yourself.

d) Use of Fantasy / Daydreaming

Reading for pleasure is an activity that many people engage in as a technique to manage stress. It provides an escape from the stresses of one's daily life, an ability to mentally engage in another world without the full load of stressors. Fantasy books in particular provide an escape that helps those with overly active stress responses normalize their nervous system. I strongly believe that those who enjoy games like dungeons and dragons, and those who like shows like Star Trek, tend to be people whose stress responses are overly active, such that the fantasy associated with the subject matter helps reduce stress response activation.

Daydreaming is another important element of stress response mediation. Recent research has indicated that daydreaming seems to be the default setting of the human mind and certain brain regions are devoted to it. I have a suspicion that daydreaming is an important component of human mental function. Sometimes, we just need to let our minds wander. Constantly staying on task is stressful to our minds. And, I suspect our modern world of going to place to place, and task to task, constantly thinking ahead and planning prevents adequate levels of just letting the mind wander.

e) Reduction of Muscle Tension

It has long been known that muscle tension can lead to stress and anxiety – thus, if you can learn to reduce excessive muscle tension, you will reduce excessive stress and anxiety.²⁰

e. Strong Interpersonal Relationships

People evolved to need people. It was a protective adaptation that caused groups to want to adhere, since we are safer when in groups. When we don't get contact with other people, we fall apart. Children in Romanian and Chinese orphanages who are deprived of human contact, exercise and other essentials of life develop autistic behaviors and ultimately die in their first decade. Autistic individuals who cope through withdrawal likely suffer some of the same effects of lost human interaction, including stress response elevation and depressed levels of crucial neurotransmitters like serotonin. Authentic relationships and good social support are key buffers to stress.²¹

1) *Animal Models*

This need for contact is apparent in animals as well. Do nothing more dramatic than pick a rat up and handle it fifteen minutes a day for the first few weeks of its life, put it back in its case with the unhandled controls, come back two years later... and the handled rat is spared the entire feed forward cascade of hippocampal damage, memory loss, and elevated cortisol levels that unhandled rats experience.²²

2) *Maternal Nurture of Infants*

Rat mothers who spend more time licking and grooming their pups in those critical first few weeks induce the same handling phenomenon.²³ Rats develop starkly different personalities depending upon how they are reared. Specifically, if Mom is attentive and regularly licks and grooms them, they become well adjusted little rodents, mellow and curious and non neurotic. If mom is neglectful, her pups grow up to be timid, jumpy and stressed out.²⁴

3) *What This Means for Autism*

The break down of community that results from international business, suburbanization, the dominance of the car in our lives, easy divorce, and many other factors of modern society is generally playing a role in elevating stress levels in our lives. This stress is transmitted through the mother to the child, increasing the likelihood of development of many varied conditions, likely including autism. We just don't get enough quality time with people these days.

²⁰ A Clinical Guide to the Treatment of the Human Stress Response, p. 376.

²¹ Stress and Coping in Autism, p. 60.

²² Why Zebras Don't Get Ulcers, p. 388.

²³ Why Zebras Don't Get Ulcers, p. 388.

²⁴ Newsweek, July 2, 2007

And, intensive parental nurture is a crucial component of decreasing the severity of autism over time. As the autistic child ages, the family needs to be very attentive to making sure the child gets as much quality interaction with others as is possible. For the autistic individual, withdrawal into his own world feels good in the moment, but ultimately is a maladaptive strategy that foods forward into even greater levels of dysfunction.

f. Education Alternatives

Students with autism spectrum disorders tend to remain calmer and more focused in simpler, low-demand environments, given their propensity to react negatively to high stimulation and their vulnerability to distractions – both of which abound in the inclusive classroom setting. These students also tend to have difficulty with the information processing demands and pace of mainstream environments, many of which contain too much auditory input and precious few visual supports.²⁵ I suspect that a Montessori type of learning environment would be a preferred situation for children with autism.

It has been demonstrated that children with learning and behavioral disorders do better in learning environments in which the primary lighting source is not fluorescent. Natural light is particularly beneficial to academic achievement and reduction of symptoms.

g. Dirt

When humans evolved, they did so in close proximity to nature. Homeostatic set points in their bodies reached normal levels based upon the interaction between anatomy and environment. When you change the environment in which humans live drastically, those set points start to vary from normal, and chronic disease may result. One of the components of nature that we were immersed in through our evolutionary history was dirt, and in particular soil. We sat in it. It coated many of our foods. We slept next to it. It got on our hands and feet, and into our mouths. It was our companion.

Today, we have very little interaction with soil, or even dirt. Many of us have been convinced that dirt is a terrible thing. We now wash our hands regularly, even compulsively. We have been convinced by corporate marketers to buy product after product to protect us from these threats in dirt. We think of bacteria as horrible invaders. We avoid touching each other for fear of spreading bacteria. Hand shakes have been replaced with elbow bumps. This thinking permeates our culture. And, it does nothing to take into account the beneficial role of soil and bacteria in human health. Some scientists, however, are starting to investigate this.

In one study, human cancer patients being treated with the bacteria *Mycobacterium vaccae* which is omnipresent in soil unexpectedly reported increases in their quality of life. Following up on these results, a team looked closely at the brains of mice treated with this bacteria. They found that treatment with *M. vaccae* activated a

²⁵ Stress and Coping in Autism, p. 318.

group of neurons that produce the brain chemical serotonin. The lack of serotonin in the brain is thought to contribute to depression in people; thus *M. vaccae*'s effects on the behavior of mice may be due to increasing the release of serotonin in parts of the brain that regulate mood.²⁶ In another study, treatment of mice with a 'friendly' bacteria normally found in the soil altered their behavior in a way similar to that produced by antidepressant drugs.

What does this mean for an autistic child? Don't be afraid of taking them outside; in fact, do so all the time. If they get dirty, great. They may be getting a dose of bacteria that they need. I am telling you to make them eat dirt, but this reinforces the concept that they should spend a lot of time outside playing on the ground.

h. Positive Cognitive Appraisal

Predictability and personal control over stressors are acknowledged as key buffers to stress. Similarly, having positive affect (i.e. feeling happiness, relief, hope, pride) may facilitate one's coping with severe and prolonged stress and, in turn, one's resilience and the quality of one's general pattern of adaptation.²⁷

Increasing a person's skills and abilities is another long term adaptive method of reducing stress. For example, in a school setting, providing instruction in a way that matches the learning style of students with autism can help reduce their stress level. This would incorporate the use of visual supports and cues, scheduling activities according to sensory and attentional needs, breaking down learning tasks into manageable lessons, keeping directions simple, providing frequent experiences of success and positive reinforcement, implementing techniques to prepare for transitions, ensuring that opportunities for meaningful personal choices are available, and planning generalization strategies. Such instructional approaches make it more likely that the student will experience success. Repeated successes will build confidence, self-efficacy, and also increase the general level of reinforcement.²⁸

One way of improving cognitive appraisal is through cognitive behavior therapy, working with a skilled therapist to build up a sense of control, predictability, and optimism. In one study, cognitive behavior therapy muted overactivity of the frontal cortex, the seat of reasoning, logic, analysis and higher thought. This is a type of therapy that will likely benefit older children with autism and adults with autism.

i. Live in a Walkable / Real Community

One way of building a life that reinforces many of these pieces of advice involves living in a walkable community, such as a small town, or the urban core of a big city, or a close in suburban community that was built out after the fashion of a small town around a rail hub or streetcar line. These communities were successful homes for Americans for

²⁶ <http://www.sciencedaily.com/releases/2007/04/070402102001.htm>

²⁷ Stress and Coping in Autism, p. 60.

²⁸ Stress and Coping in Autism, p. 29.

most of our country's history. Only since world war two has an automobile dominated suburban existence been possible. The growth in suburbia ties correlatively to the increasing incidence of autism.

Real towns help force people into adaptive coping behaviors. You tend to walk around instead of driving, getting the benefit of exercise and being outside and avoiding the toxicity of the car. You tend to know and interact with your neighbors, helping to reinforce interpersonal relationships and reduce fear reactions. You tend to eat better, because you are not driving around so much that you don't have time for a meal and therefore eat fast food instead. You tend to have more space, again since you spend less time going from one place to another. You tend to spend more time outdoors, because you can get to real and interesting places quickly and without supervision. You have the opportunity to avoid TV and video games as there are more interesting things to do and see in a real town versus in the middle of a suburban sprawl neighborhood. You are insulated from some of tentacles of mass media culture, in the form of billboards, radio commercials, and TV advertising.

Living in the middle of suburban sprawl is probably the worst thing you can do for your child. Suburban sprawl is at the core of the modern society that we have built that is proving so toxic to its creators. It forces its inhabitants into maladaptation.

j. Beauty

Beauty is necessary for human calmness and happiness. In my theory, beauty to a large degree is a sensory exposure that causes normalization of human nervous and endocrine system function. It helps restore homeostatic balance. This shows up in feeling good. If your nervous system is wired to excess excitation, the things you will likely find beautiful are sunsets, and a babbling brook, and impressionistic paintings. If you are a person who excitatory balance is set lower, you may find beauty in experiences that are more stimulating, like a busy, modernist painting, or a deep tissue massage, or a loud rock concert. We are all different in what we find beautiful, but we need access to beauty on a regular basis.

Autistic individuals in particular are drawn to scenes of natural beauty, such as creeks with running water and parks. Water in particular seems to be compelling to autistic individuals. I believe running water feels good to them. The sounds help mask the modern background noises as well as having their own beautiful qualities. The way water looks can be captivating. Running water is often found in scenes of natural beauty, that I believe helps calm their overactive stress responses.

2. Coping Strategies Aimed at the Stress Response Levels Detailed in Theory in Detail

At each level of the stress response model discussed in detail on my Theory in Detail, coping strategies can be put into place to help an autistic child or adult supplement the general ones I discussed in Section 1 above. These strategies are really no different

than I would recommend for any person in modern America. Human nervous systems in modern America are under assault. This is showing up in many ways, from increasing levels of restless legs syndrome, to the increasing prevalence of road rage, to higher levels of asthma, allergies and other autoimmune diseases, to higher levels of divorce in married couples.

a. Anticipatory Coping

There are many things in modern American society that need to be avoided. If you avoid stressors, then you no longer have to react to them. This takes great load off the nervous system. Don't watch much TV. Stay out of the car as best you can. Avoid video games. Stay out of unnecessary fights and emotional confrontations. Don't allow yourself or your child to be sucked into constantly high levels of activity and psychosocial stress. Manage your stress environment properly.

Much of this management can be taken care of if you simply spend a lot of time outside. If the weather is decent (and even when it is not), you should go hang out outside and take your autistic child with you. Find a park. Get some exercise while you are there. Talk with some people. Exchange a hug or two. Admire the beauty around you. Enjoy yourself.

While outside, you are unknowingly engaged in avoiding many stressors. You are not sitting in a car. Cars are horrible sensory environments. Passengers are bombarded by road noise, wind noise, and engine noise. Vibration is everywhere. Visual stimulation is intense, with cars approaching at combined speeds of 150 miles per hour on some roads. Your sense of control is often low, particularly when the roads are crowded or when it is dark. The recent proliferation of overly bright headlights on tall SUV's shining in my rear window isn't helping things either. Worst of all, there is little you can do about it. As a driver, you are required to keep your legs and arms still and under control. People try to cope by fiddling with the radio, twirling hair, singing loudly, and recently talking on cell phones everywhere they go.

When you are outside, you are not subjected to fluorescent lights. Fluorescent lights are a sensory nightmare for many people with autism, and probably for the rest of us as well, we just don't notice them as much. Not only do they cast a light that is lacking in most normal colors and temperatures, such that the brain's experience of being in a room with fluorescents is like being in complete darkness, but they hum and buzz and flicker at 60 cycles per second, which is visible and even painful to many people with autism.

Outside, vibration is usually limited. There are no dishwashers, washing machines, air handlers, vacuum cleaners, telephones and many other modern devices that hum and vibrate all day long. Also, there are no walls to cause the vibration to reverberate. Noise and vibration can dissipate, and are masked by natural sounds of the wind and water. There are also many fewer of the electrical devices that we have all become addicted to: computers, TV's, video games, stereos etc... that cause a constant

stream of exciting sensory information that we do not need into our brains. Also, there is much less ability for the mass media to bombard your brain with stimulation and demand your attention as they market their product to you.

Outside is the place we spent most of our time when we evolved. We need outside. I noticed this in my nephew one day when I was babysitting. He was about 3 months old and was a pretty fussy baby. After a crying bout or two, I discovered that the moment I crossed the threshold of the house, from the living room to the front porch, my nephew stopped crying. It was a windy and beautiful night. He was captivated by the wind rustling through the swaying trees. He loved the sound. It calmed him. Inside, his cries would reverberate off the walls; inside, his uncle became hot, and this upset him. Outside, we cooled down with the wind. The wonderful background noises of crickets, and birds, and wind were friendly to his nervous system. He is not alone.

b. System Sensitivity

It does not seem possible to permanently reduce the basal hypersensitivity of the nervous system of a person with autism. This is an aspect of who they are. However, you can, through the techniques discussed herein, reduce the environmental upregulation of the nervous system experienced in most autistic brains.

c. Sensory Integration

Sensory integration is the largely unconscious skill of correctly integrating the enormous quantities of sensory information that your sense organs are detecting in a way that only important and relevant information is presented to your conscious mind. Children with autism have severe problems with this skill due to the fact that their overly excitatory nervous systems let too much sensory information penetrate into their brains, overwhelming the structures that discriminate between different types of information.

There are ways to help children with autism, as well as adults, learn to cope more effectively with their problems with sensory integration. This is often described as putting your child on a sensory diet. Nearly all senses can be addressed in a way that improves quality of life for people with autism. And, research and the personal experiences of many parents of autistic children have demonstrated the enormous benefits of managing the sensory exposures of autistic children.

Children with ADHD can also benefit through a sensory diet. Preliminary findings from a study of children with ADHD show that sensory intervention -- for example, deep pressure and strenuous exercise -- can significantly improve problem behaviors such as restlessness, impulsivity and [hyperactivity](#). In one study, of the children receiving occupational therapy, ninety five percent improved.

A note of caution: All children with autism will respond differently to attempt to help them with their sensory problems. Some children will love showers and will stay in them for hours if allowed. Some will scream bloody murder if you try to make them take

one. Some will love the sound of the ocean. Others will recoil. You will have to learn how to judge how your child is impacted by a particular sensory stimuli. Attempts to use progressive desensitization may need to be cut short if the child is becoming excessively stressed out. It will be a slow and challenging process. But, it is necessary.

1) *Avoid Problematic Sensory Exposures*

You need to understand what sensory channels are hyperstimulated or hypostimulated in your child and manage the inputs. Noise and touch are usually the two biggest challenges for an autistic child. Parents need to get outside of their own heads in figuring out the stimuli that trouble their child. You need to become a detective, understanding that stimuli that you can't even perceive may be driving your child crazy. Keep a log of what is happening in the sensory environment each time your child melts down or withdraws. Patterns will emerge. When you have identified a sound that your child can't take, figure out if you can eliminate it. If your child can't handle a vacuum cleaner, then replace your carpet with hard wood floors. Or, only vacuum when your child is outside and well out of earshot. If your child has itchy skin, use moisturizer. Shop for groceries at a smaller market instead of Walmart, which presents a highly toxic sensory environment that causes many children to melt down quickly. Also, control the pitch and tone of your voice. Autistic kids are highly sensitive to emotional content in voices. Try not to let your frustration seep into your communication. Learn relaxation techniques to deal with your stress. Don't add any more stress load onto your child than you need to.

a) Noise and Vibration

Noise and vibration, for the most part, is a recent manmade scourge. It distorts the external world, hinders the proper perception of sound, and knocks the body's rhythms out of tune, furthering dysfunction for the sensory defensive. Human hearing evolved in an environment of relative quiet, ill preparing us to endure the frequently unpredictable, uncontrollable, unwanted, and even harmful screaming, humming, buzzing, clanking, beeping sounds of modern life. Noise can make people angry, even explosive.²⁹

One of the most frequent triggers of autistic melt downs are noise and vibration, whether from car engines, dishwashers, air handlers, telephones, beeping delivery trucks, squeaky brakes, bathroom vent fans and hair dryers. Many bad behaviors are ultimately triggered due to anticipation of being subjected to a painful noise.³⁰ Temple Grandin (probably the world's most famous autistic persons) says that her hearing is like having a sound amplifier set on maximum loudness. She discovered that she could more easily handle painful sounds by engaging in rhythmic stereotypical autistic behavior.³¹

When managing your child's auditory environment, pay special attention to background noise and sudden noises. Notice how competing noise, white noise, and loud

²⁹ Too Loud, Too Bright, Too Fast, Too Tight, pp. 196-197.

³⁰ My Experiences with Visual Thinking, p. 1.

³¹ My Experiences with Visual Thinking, p. 1.

noises affect a person's ability to pay attention. Remember that sometimes the senses mix. For example, for some people a loud noise may affect their ability to see things clearly or to remain standing. A way to reduce auditory reverberation is to use carpet, cork flooring, ceiling tiles, and/or large padded furniture. It is vitally important to have quiet spaces to get away from the stimulation of daily activity.³²

b) Bad Light

Lighting is a problem for autistics. Fluorescent lights send out pulsing vibrations that, though often not easily noticeable to normal people, are detectable and highly uncomfortable for many autistics.³³ One researcher, Coleman, found that fluorescent lights increased repetitive behavior in some autistic children. Many parents of autistic children are very aware of the problems of fluorescent lights – a trip to a modern big box shopping outlet can be a very short lived excursion, as autistic children often quickly melt down under the glare of the fluorescent lights and the din of the reverberating warehouse.

The lighting provided by our modern living environment is troubling for us all. The typical sixteen hours of indoor light many of us get on a daily basis provides dramatically less light than that received from a single hour outdoors. Light deprived, we literally live in the twilight zone. With our modern indoor lifestyle and our habit of covering up when outdoors, we synthesize only a tiny proportion of the vitamin D that a naked hunter on the African savannah would absorb, and this may be vastly inadequate for our metabolic needs.³⁴

Lighting in schools is particularly problematic. One of the major problems with standard fluorescent lighting is that it is incomplete, only offering illumination in a few of the possible visible spectra. To the human nervous system, spending time in a regular fluorescently illuminated room is equivalent to sitting in pitch dark, because the nervous system structure in charge of modulating the human circadian cycle does not pick up the light emitted by fluorescent light. Natural light is always preferable as a source of illumination.

However, not all fluorescent lights are created equal. In 1973, Ott, a pioneer in light research, conducted a study comparing the performance of first grade children in four windowless classrooms, under full spectrum fluorescent light fixtures (which are adjusted to emit light in all visible wavelengths) or the standard cool white fluorescent. Under the cool white fluorescent lighting, some students demonstrated hyperactivity, fatigue, irritability, and attention deficits. Under exposure to full spectrum lighting for one month, their behavior, classroom performance, and overall academic achievement improved markedly. Several learning disabled children with extreme hyperactivity calmed down and seemed to overcome some of their learning and reading problems.³⁵ Ott

³² Stress and Coping in Autism, p. 233.

³³ Too Loud, Too Bright, Too Fast, Too Tight, p. 210.

³⁴ Too Loud, Too Bright, Too Fast, Too Tight, p. 211.

³⁵ Too Loud, Too Bright, Too Fast, Too Tight, p. 212.

subsequently designed his own lighting system, called Ott lights, which offer light in substantial and beneficial amounts and spectra.³⁶

c) Problematic Visual Exposures

There are many problematic visual exposures for autistic children, most of which involve modern technology. Corporate researchers learned a long time ago that if you want to grab the attention of a child, such that they pay attention to your show or your message, stimulate their brain. Children respond involuntarily to stimulating visual images. The modern childrens' television shows follow these rules. The reason for the constantly changing picture, no segment lasting more than a few seconds, with tremendous movement and motion, is that this type of viewing experience causes electrical excitation in the brain, and children respond to this not knowing the neural load they are subjecting themselves to. The famous Pokemon episode, in which children worldwide but in particular in Japan developed seizures during watching an episode, illustrates this point. Seizures result from excessive neural excitation, which in this case, was induced by exactly the same mechanisms underlying modern children's programming, just taken to a level that was too far. So, programmers have backed down the excitatory content to a level just below that which induces seizures. This is not good for anyone, but it is particularly bad for autistic children.

This problematic exposure is not limited to TV shows. It applies to video games, and internet sites, and movies, and many other situations. The knowledge of how to grab someone's attention using stimulation have spread through our society. And, grabbing attention in our technology driven, modern involves increasing neural excitation, irrespective of the venue. Protect your child as best you can from this. Many autistic children become fascinated by images on television sets and will melt down if you try to remove them from this influence. My advice is get rid of the television. Don't let this pattern develop in the first place. If it does, bite the bullet and end it even if you trigger a melt down. Exposure to electronic images is a long term problem that likely perpetuates the underlying imbalances of autism.

Also, beyond issues with technology, visual perception can be challenging for many individuals. Suggestions that have helped include:

- Reduce visual clutter while keeping materials visible and accessible.
- Reduce glare and visual refraction by turning off unnecessary lighting, especially fluorescent lighting. Use matte finishes on surfaces and walls.
- Use lamps instead of overhead lights; choose low wattage light bulbs; and use soft colored lights that cut down on contrast and color contrast in a room.
- Choices of colors for walls, floors and furniture are important. Solid colors for the walls sometimes help people with depth perception differences to judge distances. One plain wall in a room can provide a visually quiet space. Floors and walls should not be the same color. Some people report being able to move better when the floor pattern is compelling, such as floor tiles with a black and white pattern.

³⁶ Too Loud, Too Bright, Too Fast, Too Tight, p. 213.

d) Light Touch

To many autistic children, light touch is truly disturbing. Human skin has various sensors at the base of the hairs that are designed to scan for threats, such as a snake slithering across your arm while you sleep. These sensors are activated by light touch, triggering an alarm signal to the brain at the lightest of touches. In autistic children, with their overly excitatory nervous systems, light touch can send an amplified signal of great alarm to the brain resulting from a light caress from their mother, irrespective of what the child's eyes are telling them about who or what they are interacting with.

The way to address this is firm touch. If you touch your child firmly, the pressure on the skin cancels out the signals that would be sent by the sensors at the base of the hairs. Firm touch means no alarm is triggered, and no additional load is applied to the nervous system of your child. So, when touching your child, pay attention. You may want to caress them softly, but don't be selfish if they don't like it. If they flinch, or startle, or seem uncomfortable, they are probably reacting negatively to the light touch. Try touching them firmly instead. This means hug them tight. If you want to touch their arm, wrap your hand around their wrist firmly. If you want to stroke their back, do it with your whole hand, instead of just a finger, and apply real pressure. Experiment. It might cause some discomfort in the moment, but it will bear fruits over life.

Also, and I know this is confusing and frustrating, but a child's ability to bear light touch varies over time. It changes over the course of the day, depending upon many factors, including time of day, their mood, the level of their reservoir, and hormonal fluctuations. This is not a result of the child being willful, or stubborn, or anything. It has to do with the level of electrical excitation in their nervous system and the functioning of their stress response system. The little hairs on your arms and legs are more excitatory when the stress response is in activation mode. If you are uncertain where they are, use firm touch. For most autistic children, firm touch is almost always fine.

2) *Seek Exposure to Positive Sensations*

The most effective therapy techniques for autism appeal to three basic sensory systems, one of which is external and the other two are internal. The tactile system controls the sense of touch and is an external sense. The vestibular system controls sensations of gravity and movement, and the proprioceptive system regulates the awareness of the body in space; both are internal. Therapy is tailored to each child's needs and can involve such techniques as lightly or deeply brushing the skin, moving on swings or working with [an exercise ball](#).³⁷ The auditory system is also potentially useful in managing autism.

a) Tactile

As discussed above, firm touch is often very helpful for an autistic child or adult. Bear hugs are usually very well tolerated and extremely helpful for autistic children. Hug

³⁷ <http://www.sciencedaily.com/releases/2005/05/050513103548.htm>

them hard and hug them all the time. Tuck them in at bed time. Think swaddling. You know swaddling was a way of keeping your infant happy. Your autistic child needs swaddling as well, just in different ways. Their nervous system can be as sensitive as an infant's. They often need similar treatment.

Both human and animal studies indicate that deep pressure is calming and reduces arousal in the nervous system. Researchers have shown that pressure applied to both sides of a person's body decreased metabolic rate, pulse rate and muscle tone. Gently pinching a rabbit's skin with padded clips creates a deactivated EEG reading, relaxed muscle tone, and drowsiness. Rubbing and gently pinching a cat's paw will increase tonic inhibitory neural activity in several brain areas.³⁸

Working with an autistic child is similar to working with a nervous horse, according to Temple Grandin, who works on a daily basis with farm animals. Horse trainers have found that nervous horses become easier to handle if they are rubbed and brushed frequently. At first a horse might flinch, but gradually it will start relaxing when stroked. Like the autistic child, touching that was initially aversive becomes pleasurable. A stimulus that was once actively avoided is now actively sought out.³⁹

The technique that helped Temple deal with the world as a young adult was a squeeze machine she built for herself. She built a machine that squeezed two pieces of padded plywood together in a firm fashion that she could control. 30 minutes a day in this machine, receiving the firm and controllable touch she needed to normalize her nervous system, dramatically improved her ability to deal with the world.

b) Vestibular and Proprioceptive

Stimulating the internal senses is often hugely beneficial for a child with oversensitive external senses. Many autistic children figure this out on their own from simple trial and error. They often love to simply spin around in circles endlessly, providing both vestibular and proprioceptive benefits, or rock while holding themselves tightly, also providing vestibular input along with firm pressure.

As youngsters, we get lots of vestibular input: we swing, jump on trampolines, rollerblade, dive into water, or enjoy other activities that require a quick shift from being totally vertical. This keeps our vestibular apparatus oiled. The more vestibular input, the better any nervous system functions. If deprived of normal rocking and bouncing, infants may suffer effects as damaging as seen in touch deprivation. In Harry Harlow's famous experiment with rhesus monkeys, baby monkeys were removed from their mothers and given a terrycloth mother for contact comfort and a wire mother with a bottle for feeding. As adults, the monkeys displayed abnormal behaviors reminiscent of autism such as self-clasping and self-rocking.⁴⁰

³⁸ My Experiences with Visual Thinking, p. 3.

³⁹ My Experiences with Visual Thinking, p. 4.

⁴⁰ Too Loud, Too Bright, Too Fast, Too Tight, p. 44.

The need for vestibular input is particularly true for the externally sensory defensive. The nervous system of the sensory defensive demands activities that offer up and down, side to side, and back and forth movement.⁴¹ To maintain optimal arousal, a young child needs considerable sensory input and may need to be rocked strongly for a half-hour several times a day.⁴²

You can use controlled proprioceptive and vestibular stimulation as part of managing your child's autism. Encourage your child to spend time jumping on a trampoline or swinging on swings outside. Roughhouse with them. Roll around on the ground. Spin with them. Also, get them a rocking chair. Almost all people benefit from the calming influence of rocking quietly. You get movement as well as vestibular and proprioceptive stimulation in a way that you control completely. One researcher found that a mute child will often start making speech sounds while he or she is swinging in a swing, indicating that the abnormal influences restricting a desire to communicate are mitigated during this gentle and constant movement. Swinging stimulates the vestibular system and the defective cerebellum. Spinning in a chair also helps to reduce hyperactivity.⁴³

Other types of proprioceptive stimulation include cracking knuckles, grinding or clenching our teeth, or chewing away at gum; these are ways of getting pressure into our joints.⁴⁴ Heavy resistance against your arms – heavy work – invokes quick calm.⁴⁵ By strongly engaging the muscles and joints, you are stimulating the cerebellum at the back part of your brain stem, which communicates with the reticular activating system to inhibit arousal to a normal level so you can concentrate on the task at hand. Once arousal is contained, you can think more clearly. A back rub or rocking back and forth in your chair has a similar effect.⁴⁶

c) Auditory

Your child also needs the auditory equivalent of firm touch. Random high pitched noises probably freak them out. A constant clutter of unsynchronized background noise can be hard to take. Music can help with this. It can mask modern background noise. The symmetries and rhythms in the music can also calm the nervous system. Autistic children are very sensitive to symmetries, both auditory and visual. Things that are beautiful can calm them just like any person. You know the feeling of calmness you feel when you see something truly beautiful like a sunset or the ocean. Cultivate that feeling in your child. Teaching your child a musical instrument may do wonders. Not only does the music soothe them, but the sense of control they have in producing the music likely has great benefits.

⁴¹ Too Loud, Too Bright, Too Fast, Too Tight, p. 173.

⁴² Too Loud, Too Bright, Too Fast, Too Tight, p. 185.

⁴³ My Experiences with Visual Thinking, p. 3.

⁴⁴ Too Loud, Too Bright, Too Fast, Too Tight, p. 45.

⁴⁵ Too Loud, Too Bright, Too Fast, Too Tight, p. 45.

⁴⁶ Too Loud, Too Bright, Too Fast, Too Tight, p. 170.

Flowing water is also a very useful tool. It can help in many different forms. The noise of flowing water can calm the nervous system, whether a fountain, or a stream, or the waves of an ocean. A noise machine with flowing water may help with the reverberations and background noise in your home that you don't notice but your child does. A shower can be a wonderful comfort for an autistic child, if that child is not overstimulated out by the tactile stimulation of multiple streams of water. The combination of the firm pressure of the water, the noise that is created when it strikes your head, and the encompassing warmth of the stream, can insulate you from the pressures of the world. I usually take two long showers a day as part of managing the stress that I am overly susceptible to.

3) *Temperature*

One other internal sensory processing channel autistic children often have problems with is temperature regulation. Unable to set their internal thermometer at a comfort zone, some feel hot all the time even in cold weather or cold all the time even when it is warm. As their nervous system is on high alert and blood leaves the extremities to deliver oxygen to internal organs and muscles, many suffer poor circulation and their hands and feet are always cold.⁴⁷ Adjustments need to be made to avoid worsening these conditions. It autistic children desire to go outside in cold weather with minimal clothes, allow them this as long as they don't damage their health, even if it makes you uncomfortable in your normal skin thinking about how cold you would be – you are not them and do not experience the world the way they do.

4) *Materials That Can Help*

There are many materials that have assisted parents in care givers in aiding sensory integration and bodily comfort, thereby reducing stress levels for some individuals. The following materials have been used very successfully as accommodations for autistic children: tumble form chairs, bean bag chairs, chewy and crunchy things, weighted vests, foot or hand vibrators, light boxes, tinted glasses, earplugs, earphones and heavy, padded clothing.⁴⁸

d. Arousal Modulation

Chronic arousal problems are usually seen in autism. As a parent, you need to help minimize their impact on your child as best you can. In order to help your child wake up and prepare for the day, build family exercise into your morning ritual. Meditate or use relaxation techniques with your child before going to bed. This may simply involve reading them a book, giving them a hug, and tucking them in. Or, it may require more. To the extent that you cannot reshape your child's arousal states, reshape the world around them. Don't force them to get up at 6:30 to get to a school that starts early, if that causes them undue problems – autistic individuals often have stress induced imbalances in the circadian cycles that determine whether they are drowsy. Forcing them to comply

⁴⁷ Too Loud, Too Bright, Too Fast, Too Tight, p. 26.

⁴⁸ Stress and Coping in Autism, p. 233.

with a morning start time because of how someone set a schedule may cause unnecessary daily stress. Consider finding a different school. Don't make them go to bed when they have shown consistently they are not ready just because that was how you were brought up. They may just not be ready, and having to lie in bed every night awake to please a parent is only going to add stress to their life. Be flexible and try to understand what is really going on with them.

Also, exercise again plays into this step. As the diabetic depends on insulin shots to regulate arousal level, autistic individuals need regular exercise to regulate arousal level. Exercise is the fuel your body needs to operate correctly. Though not as intense as other exercise, walking holds many benefits for the mind as well as the body. The cross-patterned movement of our limbs – right arm and left leg, then left arm and right leg – generates electrical activity in the brain, boosting serotonin and harmonizing the nervous system.⁴⁹

e. Cognitive Appraisal

Autistic children often feel chronically out of control. The overly stimulating world which is constantly throwing more at them than they can handle feels like the real master. This exacerbates their condition. They need help to maintain or regain some sense of control.

One of the most effective ways to buffer the disruptive effects of a stressor is to achieve some degree of control over the stressor. By using self-control, individuals can also be proactive in reducing stress by learning to act early, when first warning signs are evidenced. By recognizing antecedents to stress and using self-control procedures, persons with autism can learn to deal effectively with a stressor. Unfortunately, one instructional objective often missing from programs for persons with autism is the skill of managing one's environment and one's own behavior – self control.⁵⁰

Allow your autistic child to develop a reasonable level of pattern and routine, as this is a crucial vehicle for having a sense of control. Sameness comforts pretty much everyone. However, too much ritual can become negative. Obsession should be controlled to the extent possible as it can become circular. Rather than being comforting, the ritual can itself induce additional stress if taken to an extreme, such as you see in obsessive compulsive disorder, which is often co-morbid with autism.

Also, build space into your and your children's life. A sense of control evaporates when you are constantly reacting to demands of the outside world, even if you allowed those demands to build. Reserve time for just hanging out at home. Play and laugh. Take fun trips. Go to the park often. Do things you enjoy as a family. Don't get too caught up in the modern rat race. Don't enroll in every after school activity. Don't push too hard for academic performance to the exclusion of quality of life.

⁴⁹ Too Loud, Too Bright, Too Fast, Too Tight, p. 188

⁵⁰ Stress and Coping in Autism, p. 29.

Also, be positive and try to instill that in your child. Anyone can talk themselves into or out of depression. How you view the world impacts how you react to stressors. Your view of the world will be passed on to your child to some degree. Learn not to ruminate. Take the time to remind yourself that things are good, despite the challenges.

f. Affective Integration

Autistic children usually have severe problems with emotion, both theirs and others. Even mild emotions in others, conveyed through speech or eye contact or otherwise, may overstimulate them. Their own emotions may frighten them. This is a particularly challenging topic.

Most neurotypical children, particularly boys, have poor emotional intelligence. Our society does not generally view emotional education and focus as worth much. It is hard to test for. As a result, many of us go through their lives with very little awareness of, appreciation for, and control over our own emotions. Such a state of affairs is particularly problematic for children on the spectrum.

Daniel Goleman wrote a fabulous book called “Emotional Intelligence”. Buy it and study it. Use its recommendations with your child. The more understanding an autistic child has of his own emotions, the better. His own emotions will frighten him less. He will be able to see these emotions in others. This will help with communications and empathy. It will help reduce the blind spots that are pervasive in autism.

g. The Stress Response

This has been addressed above.

h. Target Organ Activation

Autistic children often have problems with many different organ systems that react negatively with excessive stress. They have difficulties with the gastrointestinal system, their immune system, their cardiovascular system, and other systems. The most effective way to treat these systems is to follow as many recommendations above as you can, to downward modulate your child’s stress response. Preventive medicine is by far the best related to these conditions.

However, there are some treatments for these conditions that can be provided by your doctor. Drugs like Prilosec can help with chronic heartburn. There are effective allergy medicines that can keep the symptoms of allergies from adding additional burdens upon the autistic individual’s body. Trust your doctor in this.

2. Avoid Maladaptive Coping Behaviors

In the modern world, maladaptive coping strategies have become constant companions for many people. While they can make you feel good in the short term, they

are substituting for behaviors that can help you feel good and be less stressed over the long haul of life. Also, many maladaptive strategies have a rebound that only exacerbates a preexisting problem with stress. Maladaptive coping is present in both adults and children, but adults have had more time to accumulate bad habits. The following are maladaptive behaviors seen in autistic children.

a. Social Withdrawal

Social withdrawal is probably the most common form of maladaptation in autistic children. When the world is too uncomfortable, they will often simply withdraw from it. This is troubling, because humans are creatures of the world. We need other people to be okay. We need touch, and love, and comfort, and company for our bodies to function as intended, for the neurotransmitters that control our nervous system to be at appropriate levels. Frequent withdrawal from people will produce bad long term results for an autistic child, just as it will for a normal child, or an adult. A child or adult who withdraws too far needs to be reengaged in the world by those around him.

b. Suppression of Feelings

Another coping strategy in children and adults is a tendency to suppress, or repress, or ignore feelings. Bottling up emotions, particularly negative emotions like rage, or frustration, or anger, will tend to have bad results. Autistic children need to be encouraged to communicate what they are feeling in an appropriate and safe way.

c. Aggression to Others and Self

Other behaviors that are maladaptive include tantrums, aggression, and self-injurious behaviors. It has been hypothesized that these behaviors are used by the population with autism and developmental disabilities as alternatives to more effective buffers. It is suggested that these behaviors may function as maladaptive coping strategies. When this occurs, the maladaptive behavior is reinforced, and the opportunity to learn and use adaptive strategies lessens.⁵¹

d. Poor Eating Habits

Poor eating habits are frequent in all kinds of people. Comfort food is called that for a reason. It may taste good, and it may comfort the stomach, but frequent consumption of comfort food will lead to poor nutrition. Fast food is also aptly named. It is also bad for you. A body was not meant to survive on mashed potatoes or simple sugars. It needs fiber, and vitamins, and good fats. It needs food in appropriate quantities are appropriate times. Eating is an art form that has largely been lost. This causes problems for most of us in the modern world. Food has become a stressor on our system – see the increasing incidence of Type II diabetes. This needs to stop. Parents of autistic children need to be particularly vigilant.

⁵¹ Stress and Coping in Autism, p. 18.