A Holistic Medicine Prevention Guide

INTRODUCTION

If you have taken the prevention self assessment quiz and scored high, you seem to be doing well but there is always room for improvement by continuing to work in the low scoring areas. However if you scored lower than you expected, congratulations on the honesty and courage that you have displayed and the desire to move forward. This self assessment is designed such that individual improvement can easily be made by taking small steps toward your desired goal. A change in one category can have a dramatic effect on the entire person. For example by learning how to laugh or cry, your body releases certain hormones and neurotransmitters that have a direct effect on your blood vessels and muscles. This in turn will likely better you mood, lower your blood pressure, and your overall disposition. There are two kinds of people on this earth, optimistic and pessimistic individuals. Those that see the glass half full and the ones that see the glass as half empty. New studies have suggested that optimistic people tend to live longer and have a better quality of life.

Most people mistakingly believe that holistic or wholistic medicine means a spiritual or herbal focus on treatment of disease, when in fact it means the inclusion of allopathic, osteopathic and alternative medicine. It is the inclusion of traditional medicine along with all other disciplines to combat disease or prevent illness.

The prevention and treatment of disease requires a multidisciplinary approach. A diabetic patient may require a cardiologist, a nephrologist, dietitian and a podiatrist and even a neurologist. However, the prevention of diabetes in the first place requires a holistic approach that would encompass diet, exercise and sometimes meditation.

In preventing illness, the goal is ultimately to prevent morbidity and prolong mortality and thereby mitigate premature death.

Death will eventually comes to us all, but the idea is to extend longevity while preventing disease. We strive for quality of life and enhance our chances of survival, simultaneously. The number one killers in the world are trauma and infection. Traumatic injury is caused by war, murder and severe deadly weather related conditions. Accidental death is caused by machine or man. Infection is usually caused by bacteria or viruses that can kill on a global scale when it grows into an epidemic or pandemic. Since the turn of the twentieth century we have been able to reduce the consequence of infection through antiseptic technology. We are able to kill bacteria as well as eliminate viral infection through antibiotics and vaccines, respectively.

The second most common cause of death is cardiovascular and cerebrovascular disease. These have multiple risk factors such as diabetes, high blood pressure, high cholesterol, obesity, smoking, sedentary lifestyle and others.

Finally, the third most common cause of death and morbidity is cancer and diseases of the immune system. The causes of cancer are multi factorial and are usually caused by toxins or viruses. Since viruses need a cell to survive, it enters the cell membrane and alters the DNA of that cell. Once the virus encodes its genetic material into the cell DNA, it becomes part of the cell and accelerates its own reproduction and then its "game over" for the host. We are beginning to recognize the importance of inflammation and how it affects co-morbidity in many diseases. Genetics, heredity and viruses play a significant role in a large number of disease that often lead to morbidity and early death from cancer, inflammatory disease, and autoimmune diseases.

The most important aspect in preventing illness is to avoid or reduce risk factors that cause disease. To do that you must understand and define the risk factors associated with disease. In the four important areas of health, physical health and mental health are well established and have been defined by the medical community for many decades. What is less understood and becoming more recognized is spiritual and social health of individuals in combating illness. Furthermore, the importance of creating a balance between these four areas is key to wellness and quality of life. There are diseases that strictly affect physical health but can have a deleterious affect on ones mental and social health. Some that are strictly mental, like depression, will have significant physical consequences like fatigue and suicidal behavior. Some forms of depression have a spiritual component, and in fact many mental health issues like addiction and insomnia have a spiritual basis. Creating a balance in these areas may help improve outcomes by reconnecting people with their higher power, and understanding the importance of prevention in wellness.

I created this guide based on the principle that balance in key areas leads to wellness and hopefully longevity. It is based on a spoke wheel. The road represents life and the wheel represents the individual. The tire is the current condition and situation you are in. The hub of the wheel represents your higher power and attaches the eight spokes to the rim which provide the foundation for the tire. Each spoke attaches the hub to the rim by four prongs, two on each side, that can be tightened or loosened to create the desired balance. For example, the physical health spoke has four prongs that are <u>cardiovascular health</u>, endocrine or metabolic health, immune system and inflammation and finally genetic considerations. Another spoke represents mental health and the four prongs are <u>cognition</u>, memory, sleep, and genetic considerations. Thirdly, social health spoke includes <u>relationships</u>, community service, career (work, school, hobbies, employment), legal considerations. Finally, spiritual health spoke that includes, <u>inner self or the</u> faith that drives you, outer self or ego, acceptance, and forgiveness.

Adjustments in the prongs represents your willingness, drive, opportunity, response, and basically your attitude towards life.

The following four major spokes that help support the foundation are <u>diet</u>, <u>exercise</u>, <u>prayer and meditation</u>. <u>Meditation is about the self and prayer is about the non self. Meditation helps heal</u> the mind and prayer helps heal everything.

We all desire is to live a long, healthy and happy life. Wellness and wellbeing is accomplished by following a few simple rules that have been established by us humans over multiple millennia. The main one is to treat others as you would want to be treated. This is true on every

level whether you are a beggar, thief, or a sheikh. In all of your endeavors pursue honesty, humility and gratitude with a sense of respect and responsibility for others. Forgive yourself and others fallibility. Tolerance is the key that allows for acceptance. Gratitude allows for forgiveness and this creates an avenue for happiness.



OBESITY

We are beginning to understand that how we think leads to who we become much in the same way as the idea of we are what we eat.

In these modern times, the most common cause of ill health that leads to many of our problems from joint pain to heart disease, depression and anxiety is our weight. With out doubt, obesity is one of our greatest challenges. It can lead to diabetes, kidney disease, poor self esteem, depression, self hatred, social media addiction and abuse, not to mention suicidal thoughts or behavior.

One of the most impactful and easiest ways to improve our health and wellbeing is to shed a few pounds. Doing so will give the confidence and self esteem to keep going and lose the desired twenty or thirty pounds. This will likely get you closer to your desired BMI which is what all doctors look at to asses your cardiovascular risk.

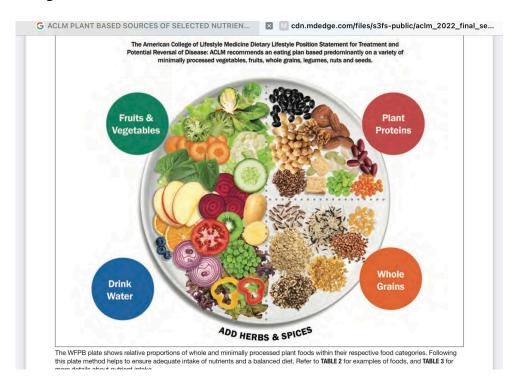
BMI stands for body mass index which is loosely based on the percentage of fat(more or less) that you carry on your body. It can be calculated based on a formula that uses your weight converted into mass by kilograms divided by height expressed in meters squared. Most doctors use a chart that is kept in their office. It can also be found online. Normal percentage is 18 to 24. 25 to 30 is mild obesity. 30 to 35 is moderate obesity. 35 to 40 is morbid. Extremely obese individuals above 40 usually require surgical intervention or medication, especially if it is unrelenting. When discussing BMI I don't use the term overweight. Prior to BMI and is sometimes used by doctors is the "rule of 5" method to determine appropriate weight and closely matches BMI. It is as follows, the first five feet in height is 100 pounds. Then add five pounds for every inch thereafter. Add 5 to 10 percent for larger frame individuals. For example if you are 5 foot and 9 inches tall, this will correlate with 145 pound to 160. This calculation should put you in the range of 20 percent BMI. BMI between 18 and 24 correlates with your Ideal body weight (IBW). 20 to 30 pounds above IBW is considered mild obesity. 30 to 50 pounds above IBW is moderate. 50 to 70 above is morbid. And 70 pounds over IBW correlates with extreme

WEIGHT	lbs	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
	kgs	41	45	50	54	59	64	68	73	77	82	86	91	95	100	104	109	113	118	122	127	132
HEI	GHT		Hand					Usal	ales.			0		-la		Obe				Extr	emel	y
ft/in	cm		Underweight				Healthy			Overweight				Opese			Obese					
4'8"	142.2	20	22	25	27	29	31	34	36	38		43	45	47		52	54	56		6.1	63	85
4'9"	144.7	19	22	24	26	28	30	32	35	37	39											63
4'10"	147.3	19	21	23	25	27	29	31	33	36	38											61
4'11"	149.8	18	20	22	24	26	28	30	32	34	36	38										59
4'12"	152.4	18	20	21	23	25	27	29	31	33	35	37	39									37
5'1"	154.9	17	19	21	23	25	26	28	30	32	34	36	38									55
5'2"	157.4	16	18	20	22	24	26	27	29	31	33	35	37	38								58
5'3"	160.0	16	18	19	21	23	25	27	28	30	32	34	35	37	39							51
5'4"	162.5	15	17	19	21	22	24	26	27	29	31	33	34	36	38	39						50
5'5"	165.1	15	17	18	20	22	23	25	27	28	30	32	33	35	37	38						48
5'6"	167.6	15	16	18	19	21	23	24	26	27	29	31	32	34	36	37	39					4.7
5'7"	170.1	14	16	17	19	20	22	24	25	27	28	30	31	33	34	36	38	39				48
5'8"	172.7	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	37	38				44
5'9"	175.2	13	15	16	18	19	21	22	24	25	27	28	30	31	33	34	35	37	38			43
5'10"	177.8	13	14	16	17	19	20	22	23	24	26	27	29	30	32	33	34	36	37	39		42
5'11"	180.3	13	14	15	17	18	20	21	22	24	25	27	28	29	31	32	33	35	36	38	39	40
6'0"	182.8	12	14	15	16	18	19	20	22	23	24	26	27	28	30	31	33	34	35	37	38	39
6'1"	185.4	12	13	15	16	17	18	20	21	22	24	25	26	28	29	30	32	33	34	36	37	38
6'2"	187.9	12	13	14	15	17	18	19	21	22	23	24	26	27	28	30	31	32	33	35	36	37
6'3"	190.5	11	13	14	15	16	18	19	20	21	23	24	25	26	28	29	30	31	33	34	35	36
6'4"	193.0	11	12	13	15	16	17	18	19	21	22	23	24	26	27	28	29	30	32	33	34	35
6'5"	195.5	11	12	13	14	15	17	18	19	20	21	23	24	25	26	27	28	30	31	32	33	34
6'6"	198.1	10	12	13	14	15	16	17	18	20	21	22	23	24	25	27	28	29	30	31	32	34
6'7"	200.6	10	11	12	14	15	16	17	18	19	20	21	23	24	25	26	27	28	29	30	32	33
6'8"	203.2	10	11	12	13	14	15	16	18	19	20	21	22	23	24	25	26	27	29	30	31	32
6'9"	205.7	10	11	12	13	14	15	16	17	18	19	20	21	23	24	25	26	27	28	29	30	31

obesity.

There is good fat and bad fat in the body. There is also good cholesterol and bad cholesterol which will be discussed later. Good fat in the body is sometimes referred to as brown fat and encapsulates vital organs, blood vessels and lymphatics to protect them and provides nutritional support when necessary. Good fat also helps make up all cell membranes which is important for cellular communication. This is one of the ways omega 3 fatty acids help, because it provides the necessary lipoprotein for cell membrane synthesis and hence cell communication.

There are many diets and ways to lose unwanted weight. The hard part is to keep it off which is where large profitable companies come in and try to help. Weight watchers, Golo, slim fast, nutrisystem, noom, kachava, and Jenny Craig just to name a few. They all have a unique process to help those that are willing to pay and stick with the program. Some will even bring prepared meals to your doorstep. Many of the diets are based on healthy portions of good fats (unsaturated fats), healthy proteins and carbohydrates. Eating the right food also means eating the right amount. Overeating is by far the most common cause of obesity. Portion control is paramount in weight management.



The most popular portion plan and what doctors often recommend is the "zone diet" which is roughly one third fat, one third protein, and one third carbohydrates. A very important recommendation that people fail to do, especially children, is avoid sugary beverages, cakes and cookies. However, consumers have been getting smarter and companies are creating healthier alternatives. Many people can start with a Atkins diet which is low fat, low carbohydrate and high protein meal preparation. This maybe a good start for some people but usually not sustainable because it is hard on the kidneys and produces ketones as a byproduct of protein metabolism and this may cause acidosis. It unfortunately causes constipation because it lacks fiber. Carbs are the only way to get fiber.

My daughter who is a nutritionist and studying to be a dentist feels this is an unhealthy way to lose weight and says that most people are overeating because they don't listen to their body. She feels that we eat intuitively, and that we should think about what we eat and why we are consuming it. To be conscientious of the food we put in our mouths. This is a smart way to manage your weight while eating healthy foods that actually control disease like diabetes, inflammation, and some cancers.

FABLE 3. Plant-based sources of selected nutrients 67

Nutrient	Food sources
Protein	Beans, lentils, peas, nuts, seeds, tofu, tempeh
Carbohydrate	Fruits, starchy vegetables, whole grains, legumes
Fat	Nuts, seeds, avocado, olives
Fiber	Fruits, vegetables, whole grains, legumes, nuts and seeds
Omega-3 fatty acids	Chia seed, ground flaxseed, walnuts, soybeans, tofu, tempeh, algae-based
Calcium	Fortified plant milks, low-oxalate leafy greens (such as broccoli, bok choy, greens, kale, watercress), calcium-fortified tofu, almonds, sesame seeds, to
Iron	Beans, lentils, peas, nuts, leafy greens, soybeans, quinoa, dried fruit
Vitamin B ₁₂	Fortified plant milks, nutritional yeast, cyanocobalamin supplement ^{68-70*}

Vitamin B₁₂ supplement is recommended for individuals who consume no animal-based foods.

The following charts are Courtesy of ACLM and GW docs.

It is important to recognize that calorie control is necessary to maintain a healthy weight. Carbohydrates and proteins both create 4 calories per gram and fat produces nine calories per gram. Healthy fat is unsaturated and is liquid at room temperature like olive oil and some vegetable oil. Butter and lard are saturated fats and are solid at room temperature and are considered unhealthy. Carbohydrates are either simple or complex. Simple carbohydrates (also known as sugars) are fruit and some vegetables. Complex carbohydrates are known as starches and are mostly grains, beans, and some vegetables. Beans have protein also. Soybean has 43 percent. Lentils have 28 percent. Peas have 20 percent. Proteins are necessary for cellular production and repair. The best protein source is fish or soybean. Nuts, seeds, and legumes are about 45 percent fat and 45 percent complex carbohydrates with about 10 percent protein.

Most of us that are over weight usually average more than 3000 to 3500 calories per day. Our body needs about 750 calories per day for basic metabolic function. Consumption of about 1800 to 2000 calories per day is needed in order for adults to maintain optimal body weight, unless you are a sumo wrestler. Growing teenagers require about 2200 to 2500 calories per day to meet the body's needs.

Fasting can be a healthy way to manage weight, cleanse the body and mind. Some say it has a spiritual benefit. Some people in the medical community would disagree, but when fasting is done right it can be physically beneficial. There are those who fast to clear their mind as well as cleanse the body. There is a diet known as the "hack diet" where an individual can fast for 18 hours then have a healthy meal. This can help you use up your daily carbohydrate stores and begin to break down fats. This is usually done every day to once a week until you reach an optimal weight or you desired goal. There is research that suggests that the hack diet can reduce the risk of certain cancers by eliminating free radicals from the body. Complete fasting for more than 3 days is not recommended because the body begins to breakdown protein to replenish energy.

Obesity and type 2 diabetes often go hand in hand and for some it is a genetic problem that is linked to metabolic syndrome. This affects both men and women. In women it results in

polycystic ovaries. This is an endocrine problem that should be managed by a specialist. Fasting under these circumstances and other endocrine conditions can be harmful.

The typical American western diet is relatively unhealthy and is based on meat and potatoes. We consume too much salt and eat 3 large meals per day along with a tasty but usually an unhealthy dessert in the evening, the worst time of day to be eaten. The 2 healthiest diets and are associated with optimal weight and longevity are the Okinawa and Mediterranean diets. Okinawa is in Japan, whose people consume plenty of fish and raw or lightly cooked vegetables with a small portion of rice over five small meals per day. Unrefined sugars and alcohol is limited. These people live well into their 90's and 100's. The Mediterranean diet boasts a lot of green leafy vegetables and olive oil as a source of fat with the use of varying oriental spices that have additional health benefits like reducing inflammation and blood pressure.

There are many foods and drinks that add weight and increase inflammation in our bodies. Alcohol, sugary drinks, milk shakes, fried and processed food and candy. Citrus fruits and berries reduce inflammation especially when consuming them fresh. Foods that are loaded with omega 3 fatty acids such as fish, shrimp and nuts also reduce inflammation and are good for heart, brain, and joint health. Fiber is important for digestive health and the best source is complex carbohydrates and fruits. Fruits contain pectin which is a soluble fiber and stimulates bowel production. Grains and some vegetables like corn contain insoluble fiber, add bulk to stool, and may help trap and eliminate bad cholesterol and unhealthy fats.

Obesity is rooted in genetic, psychological, and environmental factors that mingle with a complex pathways involving gut hormones and becomes a cyclical and persistent process that requires vigilance and persistence in management. Obesity is a chronic medical condition that sometimes requires medication and surgical intervention. Medication is used short term for those that are unable to achieve weight management with lifestyle changes alone.

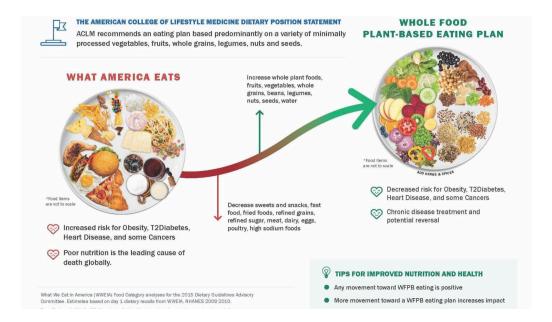
Traditional weight loss pills are the amphetamines which are no longer recommended because of addiction and side effects. They rarely work in the long term management of obesity. Currently there are five medications that are FDA approved for the weight management and including several categories from antidepressants to fat blockers. If you take medication for weight management you should be under the care of a knowledgeable health provider.

The prevalence of obesity since WW2 has increased from 10 percent to 45 percent and has reached epidemic proportions. Weight loss is difficult and requires lifestyle changes. It should be gradual and sustainable. Losing about one to two pound a week is appropriate, though many people want to lose about 5 pounds a week which can be achieved by fasting or rigid calorie control. This may not be healthy for many of us. If you are unsuccessful in weight loss seek a consultation by an expert who is knowledgeable and willing to spend the necessary time to adequately evaluate your needs and be sure it is someone who you can trust.

Obesity and addiction are interlinked in that substance abuse often leads to unhealthy eating behaviors. An individual becomes addicted to food when they continue eating after the hunger subsides. They continue eating to fill a perceived void, usually spiritual in origin, much in the same way that people become addicted to shopping or gambling.

Helpful dietary hints:

- 1. Start your day and every meal with eight ounces of water
- 2. Eat your last meal before 7 pm, or Four hours before bedtime
- 3. Avoid or limit refined sugars including sodas, cream, cakes and cookies
- 4. Replace fruits for sweets
- 5. Eat whole food plant based food (WFPB)whenever possible



The American college of lifestyle medicine recommends whole food plant-based diet to prevent chronic disease and reduce all cause morbidity and mortality.

DIABETES MELLITUS (DM)

The prevalence of diabetes has increased significantly and in proportion to obesity in this country since WW2. Type 1 DM is insulin dependent and usually begins in childhood. Type 2 is adult onset and usually it is non insulin dependent. It has a slow and insidious onset. My father had adult onset diabetes. He became insulin dependent after his doctor gave him repeated course of systemic steroids to treat a chronic allergic rash that he developed in his late 30's. That was in the 1980's. Glucocorticoid steroids were developed in the 1930's for medical use in patients that have autoimmune disease and severe inflammation like asthma, rheumatoid disease, severe viral infection and much more. Although steroids are potent anti inflammatory substances, they often increase blood pressure, blood glucose, accelerate cataracts, and are linked to brain and testicular tumors. The treatment of diabetes has come along way from the use of pork insulin beginning in the 1920's and 30's to the currently recommended human insulin that was initially genetically produced by using the bacterium E. coli. Pork and beef insulin are no longer approved by the FDA in this country. We now have many other oral and injectable medication that target

intracellular function and work directly on the pancreas or the liver and kidneys to regulate glucose metabolism.

The diagnosis of DM has become more strict as the years have progressed. Our understanding of the harmful effects of elevated blood glucose can have on small blood vessels has improved . Diabetes ultimately leads to nerve damage, limb disease, blindness, and end organ damage, like kidney failure. In the 1950's and 1960's a blood sugar of 160 or less would be considered normal. By 1980 it the normal glucose was less then 120 mg/dl. And the the current ADA guidelines is any blood glucose above 100 is abnormal and should be evaluated. We now have a sophisticated glycohemoglobin or HgbA1c test which detects elevated blood glucose over a 3 month period. This is important for Insulin dependent DM because these patients tend to have wide fluctuations in blood glucose. Many adults with type 2 diabetes can gain adequate control of their blood glucose by lifestyle changes and weight management. A normal glycohemoglobin should be less than 6 and for optimal control less than 5.5. Most overweight adults in America have insulin resistance which over work their pancreatic beta cells. Obesity contributes significantly to insulin resistance. Usually this can be controlled by strict dietary measures like avoiding refined sugars, including severe restrictions of alcohol use. Alcohol provides 7 calories per gram of empty calories because it has no nutritional value. From my many years of practicing medicine I can tell you one of the greatest risk of heart disease is the combination of diabetes, hypertension, smoking and alcoholism. And one of the biggest cause of uncontrollable diabetes is alcoholism.

Insulin injection multiple times a day immediately before portioned meals is the closest way to control diabetes for insulin dependent DM who are out of control. It is the least tolerable and difficult to comply with because it requires continuous glucose monitoring and multiple daily injections. There are many Type 2 diabetics who gain good control with oral hypoglycemic medication alone or with once daily long acting insulin. A more tolerated and relatively new medication is metformin, a pill that works directly on cells and is sometimes jokingly referred to in the medical community as "exercise in a pill." It may cause GI symptoms and contraindicated in kidney disease.

My glucose level several years ago was approaching 200 with a glycohemoglobin of 7.5, a weight of 235 and a BMI of 33 to 35. I began metformin at 500 mg day and currently taking 1000 in am and 500 in the evening. My last glucose glucose check was 100 and glycohemoglobin was 5.9. Treatment of diabetes must be individualized and a patient should have a close working relationship with their healthcare provider. There are new anti diabetic drugs being developed that have a favorable effect on the heart and kidneys of diabetic patients. In addition to the micro vascular damage that occurs in uncontrolled DM, diabetics have an increased risk of myocardial infarction. The addition of low dose aspirin (81mg) is recommended to prevent clots from forming, unless contraindicated. High dose aspirin (325 to 650mg) reduces inflammation and acts as an analgesic. Low dose comes with risk of GI bleeding and high dose has the risk of kidney failure especially when taken with non steroidal anti inflammatory drugs, like ibuprofen or naproxen.

If you have uncontrolled DM it is recommended to be under a doctors care and medication supplied until you achieve control because the risk of organ damage and heart failure increases

substantially. If you have controlled DM while on medication, do not stop because you think that by losing weight, exercising and avoiding sugary food will control it alone, 9 out 10 times it will not be sufficient, unless you are experiencing frequent hypoglycemic episodes. If you have diet controlled DM, be sure to get your blood sugar and glycohemoglobin checked at least twice a year. If you have DM and uncontrolled hypertension, you are at great risk for heart disease and kidney failure. The co-existence of poorly controlled hypertension and uncontrollable diabetes quadruples the risk of heart attack, stroke, blindness, and kidney failure.

The prevention of diabetes type 2 begins in childhood, with proper diet and exercise. Childhood is when you learn life's good habits. Also society has a role to educate itself and develop healthier ways to market and package products for consumption. Good lifestyle choices are crucial and begin to crystallize in childhood from a proper diet and the control of sugary beverages and refined sugars.

For insulin dependent DM, a CGM (continuous glucose monitor) is now available to better manage DM. Also recently developed and FDA approved, is the first oral GLP (glucagon lowering peptide for treatment of DM for those who are obese and at greater risk for heart disease. Injectable GLP have been on the market for several years and have been associated with weight loss, lowering incidence of heart attack and stroke, and improving lipid profile. Multiple lowering risk of cardiovascular events including favorable effects on platelet function and endothelial cells.

CARDIOVASCULAR DISEASE

Cardiovascular disease is one of the biggest killers is the United States. There are many risk factors for developing heart disease like hypertension, cigarette smoking, DM, high cholesterol, obesity, and sedentary lifestyle. Prevention of primary heart disease is obtained by knowing what to do. Most doctors don't have the time nor the incentive to discuss this with their patients. However many do practice secondary prevention because their patients have already developed heart disease. There are procedures that must be done to detect further problems including secondary complications and more blockages.

Hypertension is known as the silent killer because it can be asymptomatic, meaning that you are walking around feeling good while blood vessel damage is slowly building and disease is lurking. Risk factors for hypertension are family history, smoking, drug use, alcoholism, obesity, poor dietary habits, and sedentary lifestyle. Occasionally underlying kidney disease or cancer can cause poorly controlled high blood pressure. Normal blood pressure is defined as a systolic bp of less than 120 mmhg and a diastolic bp of less than 80 mmhg. If you have uncontrolled hypertension, see your health care provider immediately. Borderline hypertension is usually asymptomatic with the first symptom being your last.

Since the 1960's we have been concerned about fats and too much cholesterol in the blood stream as a factor for blocking arteries and causing fatal heart attack. We now recognize and can measure the good and bad cholesterol that play a significant role in developing a heart attack. It is important to note that our body produces 60 percent of the cholesterol that it needs for

production of important hormones and transport molecules necessary for reproduction and cellular function.

Good cholesterol known as HDL should be above 35 mg/dl and bad cholesterol known as LDL should be less than 100 mg/dl. Cholesterol lowering drugs have been around for 25 years and have a favorable efficacy and safety profile. It seems that some of them provide cardiac protection even with normal cholesterol especially in secondary prevention. (Those that have already had a primary event). Total cholesterol should be less than 200 and triglycerides under 150.

Most of us have abnormal cholesterol values due to hereditary factors and/or bad dietary habits. In either case the use of cholesterol lowering drugs far out weigh the risk of a primary and secondary heart attack. These drugs, known as statins, in my experience are well tolerated and side effects tend to be dose related. Cutting the dose in half may still provide protection to the heart while reducing side effects. There are several classes of statins that are now available. One company offers a statin in a once per week injection. This also is FDA approved.

Smoking cigarettes causes severe lung damage, cancer, asthma, and heart disease specifically myocardial infarction in 2 ways. It increases the number of platelets which promote clotting. Nicotine has a direct effect on artery vasoconstriction and cardiac rhythm. It can also aggravate other peoples health through second hand smoke, especially children. The use of vape seems to cut down on that but it doesn't do much for the prevention of heart disease nor lung disease. Vaping does not reduce usage and in fact the use of tobacco in teenagers has increased. The use of nicotine has increased since the nation's ban on cigarette use inside government and school buildings.

Obesity is a relative risk factor heart disease. A sedentary lifestyle is actually more harmful. Exercise has the benefit of improving heart health by helping reduce weight, blood glucose, and blood pressure. It also increases energy level, helps regulate cardiac rhythm, helps mood, and improves sleep patterns. The best form of exercise for all individuals is brisk walking, swimming, yoga and cycling for half an hour to one hour daily.

BENEFITS OF EXERCISE IN OLDER ADULTS REDUCED RISK OF: All cause mortality Cardiovascular disease Cerebrovascular disease Hypertension Diabetes Cancer of the-Bladder, breast, colon, endometrium, esophagus, stomach, lung and kidney Anxiety Depression IMPROVED CHANCES OF: Cognition Sleep Weight management Bone density Balance and performance Longevity

Cancer of any form can severely increase morbidity and mortality, but there are many cancer survivors who get a second chance at life. There are ways to improve quality of life which always involve adequate exercise, healthy eating habits, and a few other tidbits including yoga and meditation as well as prayer. The following is reproduced from the American College of Lifestyles Medicine recommendations.

TABLE 2. General recommendations for all cancer survivors: Stress reduction (anti-inflammation)^{1,16,a}

Promote/recruit social support (family, friends, and community)						
Exercise: 30 minutes/day, 5-7 days per week of aerobic (low or high intensity)/anaerobic activity						
Practice stress-reducing activities: Mindfulness, aromatherapy, journaling, gardening, etc						

^a Dietary and stress-reducing recommendations are well documented.

TABLE 3. General recommendations for all cancer survivors: Supplements 15,28,39-44,a

Supplement	Recommended dosage					
Multivitamin with trace elements and minerals	1 tablet/day					
Aspirin ⁴²⁻⁴⁴	81 mg/day (caution if concurrent anticoagulant therapy)					
Vitamin D ₃	2000 IU/day					
Calcium citrate (if calcium carbonate, take with food)	1200 mg/day					
Flaxseed oil	1000 mg/day (ground flaxseed: 2-3 tbsp/day)					

^a Emphasis should be placed on meeting nutritional needs from Table 1. Supplement suggestions are based on preliminary findings and should be discussed with each patient.

TIA's and strokes are particularly devastating because the Morbidity can linger for years prior to succumbing to death. The risk factors are identical to heart disease and the treatment or prevention is similar. Transient ischemic attack (TIA) can mimic stroke symptoms and I sometimes refer to it as pre-stroke. The symptoms are unilateral weakness and numbness. This syndrome usually affects people that are 60 or older and lasts for 1/2 hour on average. It occurs in persons that have diabetes, hypertension, obesity, and cigarette smokers. TIA's and stroke should always be evaluated in an emergency room setting. People who are at risk are advised to take anticoagulants and/or other blood thinner including low dose aspirin. Cardiac arrhythmia can produce stroke or pre stroke symptoms.

Cardiac arrhythmia is common and the risks are similar, but also include thyroid disease, drug use, dehydration, electrolyte imbalance, alcoholism, infection and valvular heart disease. Valvular heart disease and heart enlargement can be caused by infection and long standing hypertension. It is critical to treat even mild hypertension and not leave it to diet and weight loss alone. Actually mild hypertension is a greater risk because these individuals are often left untreated until it is too late. It is important to prevent cardiovascular disease with lifestyle style modifications, aspirin and a beta blocker to control hypertension and cardiac rhythm. Be sure to follow up with trusted health care provider for evaluation, prevention and treatment of cardiovascular illness, especially mild hypertension.

As a note, people that undergo dental and other surgical procedures including colonoscopy who have known heart disease, specifically valvular heart disease, should be covered with antibiotics to prevent endocarditis (an infection of the heart valve can lead to sepsis and death).

INFLAMMATION, INFECTION and VACCINATION

Inflammation can spread faster than infection and fuel underlying disease that lead to long standing complications. It can flame the development of autoimmune disease and certain cancers. Researchers are beginning to understand the importance and impact that inflammation has on the body, specifically the immune system. For example, it has been understood for many years that strep throat caused by the streptococcus bacteria can lead to rheumatoid arthritis. We now associate the human papilloma virus (known as HPV) as a primary cause of cervical cancer and probably cancers of the penis. A development of an HPV vaccine is now available and offered to people as young as 9 or 10 years of age even though they may not be sexually active yet.

Vaccines have been around for more than a century and on a public health scale have been proven safe and effective. The problem is that organisms, especially viruses are able to adapt quickly. They cannot survive alone. The virus must have a cell to reside in and therefore tend to be more virulent. They are able to spread in communities faster than bacteria. It becomes imperative to develop a vaccine because viruses usually don't respond to typical antibiotics the way bacteria do. This is usually what happens in an epidemic or pandemic such as we have recently seen with Covid-19. This virus is a coronavirus that is not new to humans, in fact Covid changed a number of times in the human body during the pandemic and will likely change again in the coming years.

The poliomyelitis virus wrought havoc on the world in the 1940's and 1950's and it caused paralysis and death. It paralyzed one of our greatest presidents FDR and left him in a wheelchair. In the USA, were able to eradicate poliomyelitis in the 1970's thanks to the aggressive and wide use of vaccine against the poliovirus. Unfortunately politics and bad press created a problem with the use of the Covid vaccine, despite the medical community's impressive efforts to produce a vaccine in a short period of time.

Inflammation is mediated through the immune system. There is acute inflammation which occurs with infection and there is chronic inflammation which can depress the immune system. There are natural ways to reduce inflammation and boost the immune system. Eating healthy and avoiding processed foods is one way. Another is consuming citrus fruits and berries and other fruits and vegetables that are loaded with antioxidants.

Dr Linus Pauling (1901 to 1994) died at age 93. He was a chemist and a Nobel prize winner who believed that high dose vitamin C was the key to good health and longevity. He may have been a bit over optimistic in the dose he recommended and the wide benefits, but he was correct in stating it's ability to boost the immune system. He subsequently took 18,000 mg per day. He ultimately died of prostate cancer at age 93.

The FDA recommends 90 mg of vitamin C daily. A medium orange has about 60 mg. The medical community recently recommended vitamin C supplementation of 500 mg to its treatment protocols to to fight Covid infection.

I have been advocating 1000 to 1500 mg of vitamin C for my patients and family for over 25 years. I take 1500 mg daily in two divided doses. Although research has been encouraging, none of it has been conclusive. Most vitamin C studies have targeted infection rather than inflammation.

There are now dozens of vaccines available for a wide range of disease. In children and adults, the effectiveness has been good and adverse effects have been rare given the billions of doses prescribed. I highly recommend vaccines when and where available. I also recommend antioxidant supplements in the form of açaí berry, in fact I take a product called omega berry which is a combination of omega 3 and açaí berry. Lately, I've been using purity products online to purchase OmegaBerry

DEPRESSION, ADDICTION and STRESS

Stress is more common than the common cold. It can be harmful in two ways. First, stress can trigger the body to produce hormones such as cortisol that can have direct damage to the heart, gut, brain and immune system. It can aggravate coronary artery disease, heart failure, asthma, rheumatoid arthritis and skin conditions like eczema and psoriasis. It can trigger anxiety and obesity. It can lead to addiction and make depression worse. The frequent causes of stress are financial, relationship issues, poor health, work satisfaction, concerns about the future and climate change. Second, prolonged stress can lead to a vicious cycle of decline in mental and physical health. If not managed quickly and adequately it will lead to addiction, alcoholism, and premature death. It can lead to violent behavior and have detrimental effects on society as a whole. Combating stress is a daily process. It requires a tailored plan that shouldn't be stressful to execute; starting with proper nutrition, continuing with a light and enjoyable exercise program and ending with adequate sleep.

It is well recognized that psychosocial stress can alter feeding behavior influencing the production of hormones that make a person crave high fat food for the body's perceived energy needs. Ironically stress can make you feel anxious and fatigued at the same time, and you desire sweet sugary drinks, caffeine, nicotine and other unhealthy substances. This can cause weight gain and increased stress and thus the cycle begins. It seems that a regular diet that contains less red meat and more whole plant foods with nuts improves the body's stress response.

Exercise has a tremendous benefit for immediate stress management by releasing betaendorphins and other neurotransmitters. This increases oxygen uptake which further enhances mood and energy while reducing anxiety. In other words a daily routine as low as 10 minutes daily can be good for the mind, body and soul. Mind-body practices like yoga, prayer, meditation, tai-chi can reduce stress immediately by the simple notion that nonjudgmental focused attention and awareness will replace self judgment that trigger worry and anxiety. As with any behavior, adherence to a program should be aligned with your personal needs and circumstances so that even simple house chores can be relaxing like washing dishes, vacuuming or caring for your pet. These are ways to perform non judgmental routines, and avoid stress eating.

A common response to stress is poor sleep habits, which can trigger an agonizing cycle of substance abuse, weight gain, fatigue that will deteriorate health faster than you can make an appointment to see a specialist for another sleeping pill. Although there are sleeping pills that are available by prescription and over the counter, they are not recommended even for the short term. If you suffer from insomnia, work closely with a health provider to rule out medical or physical causes like sleep apnea, diabetes, light or noise pollution, thyroid or other diseases that affect the body's natural circadian rhythm.

The medical community recommends 7 hours of sleep for adults and 10 hours for children. 5 to 10 percent of the population are "long sleepers" that require more, and about 5 percent are "short

TABLE 1. Recommended sleep duration by age group³⁹

Age group	Sleep hours per day					
Newborns (0-3 months)	14-17					
Infants (4-11 months)	12-15					
Toddlers (1-2 years)	11-14					
Preschoolers (3-5 years)	10-13					
School-age children (6-13 years)	9-11					
Teenagers (14-17)	8-10					
Younger adults (18-25)	7-9					
Adults (26-64)	7-9					
Older adults (≥65)	7-8					

sleepers" that function on less. Reprinted from ACLM.

In most cases, anxiety is a symptom of depression. Depression can be a cause or result of obesity, poor sleep habits, chronic disease, substance abuse, and general malaise. Although not well understood depression may have a genetic link and an epigenetic trigger. There are times when I feel depression and addiction go together like rice and beans. In other words depression can trigger addiction. People frequently use substance to treat their depression. Patients often tell me that they use because it fills a hole in their soul or heart. In those instances, I feel depression is a spiritual illness wherein the individual feels lost and at times they can be healed by seeking to find a higher power. Finding a balance in key areas of your health needs will help with many disease that can easily get out of control and lead to disaster, such as financial ruin, legal troubles as well as relationship problems, chronic disease and loneliness.

FORGIVENESS and GRATITUDE

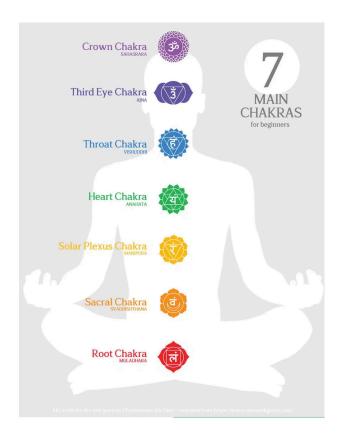
One of the major things that bind all humans together whether black, white, muslin, or jew, is the suffering and struggle of the human condition. Whether you're man, woman, child, married, single, rich, poor or in the prime of your life or at the end, we all must at some point die and deal with the unknown. You are put here with an identity and spend the rest of your days searching for who you are. There have been many trillions of people like you and me who have walked on the face of this earth and each one has had to suffer the human condition. In that last moment of life we are left only with our thoughts, memories, and the mystery of the afterlife.

It is important to have a healthy attitude toward both life and death. The aim of this guide is to improve quality of life and extend longevity, through balance and prevention of chronic illness. It becomes imperative to have a relationship with a higher power. This higher power will act as your centerpiece that will keep you connected in your spiritual journey. This can be the onset of your recovery and wellness.

In eastern medicine we feel that the body is interconnected to itself, spirit and higher power and Mother Earth. Much in the same way, trillions of cells that make up your body are interconnected and are able to communicate with each other. This interconnection and balance occurs through the chakras. There are 7 major ones that work their way though the body beginning with the lower or root chakras that connect you to the earth through lower lumbar and sacral nerves. Your central chakra that concern your breathing, solar plexus and internal organs metabolism and overall health. Your higher chakra connect you to you higher power and cosmos, through emotions and communication.

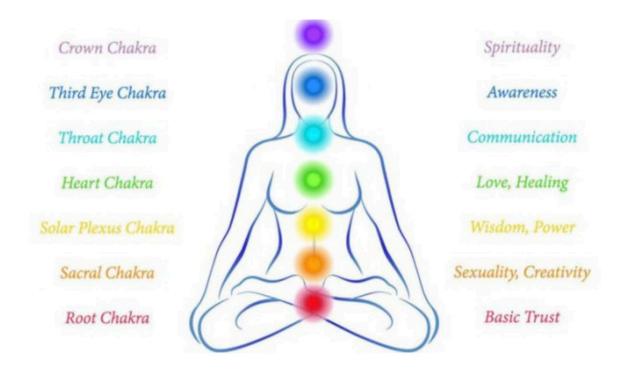
Einstein proved that everything is relative and that all matter exists in the form of energy. He proved that we would never age if we can travel at the speed of light because light is the only constant. All life forms need light to exist and so we are connected to one another by this form of energy. You can glean much information about this topic on the internet.

Yummy tummy kitchen provides this and the following illustrations. There is about 88,000 individual chakras, that have been recognized or defined by the gurus and those that commonly follow this philosophy and adhere to it.



The purpose of meditation is to bring peace to the mind and relaxation to the body using this form of energy to create a balance in one's self. So meditation is about the self. Prayer uses that same energy flow to bring healing to your environment and healing to others. Conversely prayer is about the non self. Prayer was the very first medicine. It can bring about miracles, or coincidence, in our lives or in our environment. It is often the medicine of last resort when all hope seems lost.

The basis for empathy, good will, and happiness are forgiveness and gratitude. To follow the golden rule really is the only law you need because it is the basis for all laws. It shows you how to live. It is a law that has been around as long as man has been on the planet. Jesus of Nazareth said it best, "treat others as you would want to be treated". It is that simple. Think of others before you act. Think through the consequences of any decision you make. The Ten Commandments and the hundreds of laws that are in the Torah and El Quran are based on this. Meditation and prayer are used in the same context and of course you in spiritual awareness and awakening. There is a meditation I use located in my book. There are hundreds of examples of meditation available on the internet for free. For my usual prayer, I use the Lord's Prayer in the Holy Bible. (Matthew 6:9-1 and Luke 11: 2-4)



CONCLUSION

Fortunately war and gang violence did not kill me but it did cause me to struggle childhood PTSD, which led to anxiety, low self esteem, depression and chronic marijuana use. I arrived in Detroit during the race riots in 1967 as a new immigrant 8 year old war refugee. I was demoted from 3rd grade to 1st grade until I was able to learn the English language and assimilate. My family and I lived in southwest Detroit and crime was high as well as drug use. In fact across the street from my elementary school and the high school I graduated from, was Clark park, known at the time as heroin haven. I was beaten, burglarized and felt unsafe and threatened. I saw many people wasted and overdose on heroin. I was lucky not to become a statistic.

Many people struggle with PTSD and it is usually caused by the trauma of war, terrorism and demostic violence. The first step towards healing is learning to love yourself and not blame.

domestic violence. The first step towards healing is learning to love yourself and not blame yourself or others for the difficulty of dealing with it. Recognize early what your symptoms are and how to create balance in your life. A good place to start is by asking yourself some of the same questions in the self assessment quiz.

The self assessment quiz is intended to be taken frequently and shared with your health care provider to get a better understanding of scientific details and to fill in the gaps. You may need to get your glycohemoglobin level checked or get advice on a continuous glucose monitor and a home blood pressure device. Also share it with your significant other or family to get and honest opinion of the self assessment. We are our own toughest critic and devoted supporter.

Thankfully a lot of things are available to improve yourself without having to see your doctor, but I still recommend an annual physical exam for most people. Your health care provider, if chosen right, can be a great source of inspiration and information on how to live your best life

Dr Malik Dababneh Director, Holistic Prevention Group LLC

