

SELF-CARE IS HEALTHCARE

A thesis submitted to the Caspersen School of Graduate Studies

Drew University in partial fulfillment of

The requirements for the degree,

Master of Medical Humanities

Sarit Ashkenazi

Drew University

Madison, New Jersey

May 2014
TABLE OF CONTENTS

ABSTRACT	iii
PROLOGUE.....	iv
Chapter	
1. Understanding How <i>Self-care</i> is Similar to, yet Different from the Contemporary Approach to Health.....	1
2. How Well You Live with the Time that You are Given: <i>Self-care</i> and Its Exercise Model, CrossFit.....	11
3. Nutrition is the Bedrock of Health.....	23
4. Eat to Perform.....	47
5. The Force of the Human Connection: The Influence of Group Support on Our Health.....	55
6. Putting All the Pieces Together.....	65
APPENDIX	
A. Zone Diet’s Daily Block Requirement According to Individual Body Type.....	71
B. Zone Food Block Guide.....	72
SOURCES.....	78
VITA FORM.....	83

ABSTRACT

America is facing a health crisis. Americans have shorter lives than the majority of non-American, and generally spend more time sick as well. Despite the fact that medicine and science advanced exponentially over the past few decades, chronic diseases such as cancer, diabetes, cardiovascular disease, and obesity are still on the rise. This is a great social and economical issue.

In this paper, I prescribe a lifestyle change that challenges the contemporary American lifestyle by promoting Paleolithic diet, regular cross training exercise (with CrossFit being its foundation) as well as promoting social living. I believe that health is a way of life and what you put in is what you get out. Failure to take care of oneself will trigger the development of a hidden health issue that will one day work its way from beneath the surface. This paper is not intended to beat the healthcare system, but rather to improve it by educating individuals to treat themselves as well as others in a meaningful way. Although modern medicine saves thousands of lives on a daily basis, the number of sick individuals continues to grow because we are masking health problems by prescribing drugs that have negative long-term side effects and simultaneously empty peoples' pockets. In order to prosper as a society, I believe it is imperative that we unify the concepts of *self-care*-with medical intervention as the last resort.

Self-care is Healthcare

Sarit Ashkenazi

Chair of Advisory Committee:

Dr. Philip Scibilia

PROLOGUE
Broken Health: Is This For Me?

I hope that the information that you will be given in this paper might just change your life. Here, I will reveal the good, the bad, and the ugly about the healthcare system. I will illustrate that each one of us, as citizens, has the power to transform our lives, even though we cannot change the way that our system operates. I will begin this paper by telling you my story. By sharing my personal connection with the topic, I will further validate my argument.

I grew up in Haifa, a medium sized city, located in the northern region of the State of Israel. I grew up in a very loving, successful home, with a younger brother, with seemingly healthy, but unfortunately, sick parents. My mother, a perpetual hypochondriac, was a chain smoker in her earlier years, and has suffered from depression for years. My father, a workaholic, developed obesity and with that, developed life threatening chronic diseases that I will soon discuss in more detail. Growing up, I was very familiar with terms such as asthma (which I was a victim of), pacemakers (my grandmother had a pacemaker installed), high cholesterol, high blood pressure, cancer, osteoporosis via (my other grandmother), and diabetes via (my grandfather). Aside from obviously having beautifully, fun filled memories of my parents from my early days, I also have many vivid memories of my parents that involve medical worries, and medications. Thankfully, these health related issues did not govern our lives, but looking back now, I recognize that health related issues are deeply rooted in the Ashkenazi household.

Having to experience all these worries that were health related since a young age led me to unhealthily obsess about health, wellness, and longevity as I grew up. My family's poor health drove my interest in health, fitness, and nutrition because I believed that by having good knowledge of the matter, I would be able to provide a shield for my family from progressively becoming sicker. I can now admit that this interest turned to an obsession, which led me to be unhealthy at an earlier point in life.

I grew up overweight, but eventually became competitive in my athletic activities (tennis) as a result of my dedication, and aforementioned interest in health. Topics like "eat your way to fat loss", "eat to perform", and "foods that prevent cancer"- which we are all familiar with-appealed to me more than anything. Even though my performance in school and on the court seemed to improve my body was deteriorating. Listening to all the myths from renowned health gurus', I very quickly digressed away from health and reached a dark place. I hit anorexia at the age of 14. Until a little over two years ago, due to an unfortunate event, my obsession with food was very unhealthy.

I got a terrifying phone call from my mom on June 23, 2011 that proved to be the turning point of my life. Having just graduated with a B.A. in Biology from Drew University, I was living with my partner at the time and was looking for jobs in the healthcare field. She sounded very sad. The following was our conversation:

Sarit: Hi Mom!

Berta: Why aren't you picking up your phone?

Sarit: I was upstairs, cooking. Why do you sound so desolate?

(She started crying)

Berta: Sarit, your father didn't feel very well at work today.

She did not even have to go any further. I knew what she was going to say next. My father, who was working in Nigeria at the time, had a heart attack. Being so scared of the consequence (because he was obese, had high blood pressure, high triglycerides, and high cholesterol, did not take care of himself, nor did he take his medications; as well as he lived in a third world country where cardiologic care was very poor) my only question was “Is he alive?” She said, “Yes, thank God”, but she did not know anything else. She said that the doctors were trying to stabilize him so that they could fly him on a medical plane to Israel for treatment, and that we have to pray to God that he could be stable enough so that he could make it to Israel alive. Feeling scared, sad, and hopeless I took the next flight to Israel that night in hopes of seeing my father once again. This was the worst day of my life.

I thank God for saving my father’s life and for medicine. Without the advanced medical intervention, my father would have not survived. Furthermore, he would not have been able to live his normal life of travelling, working, and being independent.

I remember the sights of all the sick people around me when I went to visit my father everyday at the hospital while he was in treatment. Most notably, seeing my father in that condition scarred me for life. Remembering how scared and helpless I felt every time that I went to visit my father made me vow that I would do whatever I could to create and preserve a quality of life where health would be my first priority. Additionally, I vowed to learn to live life to the fullest. After seeing how all of our lives were altered in matter of a day, I realized that we really have to enjoy everyday to the fullest because we never know what tomorrow will bring. From that point on, I tried to teach myself how to balance my life.

I used to be the girl who went on crash diets-drinking diet sodas, not eating throughout the day, and then having a huge meal at night. I would deprive myself of ice cream when all my cousins had some because it was an extra 200 calories, but I would consume a whole pint in one sitting to eat away my emotions. Being in the hospital and seeing all those sick individuals around me made me realize that even though I was obsessed with diets, I was in fact clueless and that everything that I learned about nutrition from society might not be as accurate as I once believed. I decided that instead of focusing on “diet” and the “numbers on a scale”, I would concentrate on nourishing my body, and satisfying my soul.

From that moment on, I took my diet back to basics. I promised myself that diet soda would only enter my body at limited amounts, and that I would have to reestablish my relationship with water. The same went for other artificial foods. Obviously, being conscious about the way that I look and caring about how I feel in my own skin, I told myself that if I wanted a treat, I would have to earn it. Furthermore, there would be no more eating obscene amounts of junk to cover up my emotions.

Along with changing my diet, I made a pact with my father. The doctors told him that if he had planned to see grandchildren in the future, he would have to lose at least 50 pounds by eating healthier and exercising. Since my father always wanted to run a marathon but never actually did, we agreed that if he would attempt to lose fifty pounds, I would train to run a marathon. In preparation for the real thing, and to prove to my father that I was serious about our pact, I signed up for the New York Half Marathon of 2013.

While training for the race, I found the sport of CrossFit (to be more exact, CrossFit found me). This mutual discovery represented a major paradigm shift, as I

cannot imagine my life without it. I now cannot imagine my life without it. CrossFit is unique in the sense that it requires a very specific capacity of physical and mental resilience. It challenges the individual in almost every way imaginable and makes one realize that he/she is far from perfect, and allows the athlete to find beauty in these imperfections. CrossFit is a great motivator because it pushes the individual to strive to become better in all aspects of life. I will discuss in more detail the remarkable effects of CrossFit, later on in this paper.

Suffice to say, until experiencing the results of an unhealthy lifestyle, I was unaware of the dangerous road that many of us are unknowingly travelling on. It took my father's near death experience for me to alter my path in life. I hope to be able to share the knowledge I've gained with others, so that they too can take the righteous road to health that I like to call '*self-care*.'

Chapter 1

Understanding How *Self-care* is Similar to, Yet Different from the Contemporary Approach to Health

Although this paper will discuss the whole approach to *self-care* and why unlike other lifestyle proposals, this approach to well being actually works, I will briefly introduce the whole notion behind its paradigm. *Self-care* is a sustainable, life long approach that incorporates three core features: diet, exercise, and social living. *Self-care* is a balanced, long-term lifestyle that is designed to fit everyone's needs: old, young, male female, big, small etc. It is designed to fit you and that is why it works!

The *self-care* diet is a well balanced diet that works along with our genetic makeup, rather than against it, and in return, reduces inflammation and disease, rather than creating it. The basis for the *self-care* diet plan is "Paleolithic" and "zone specific"- which I will discuss later in more detail. By focusing on both quality as well as quantity, we can enable ourselves to thrive, rather than feel deprived.

Additionally, the *self-care* exercise program, called CrossFit is unlike any other, because it can be easily modified to various degrees and therefore, is designed to fit everyone's physical needs. Due to its methodology, CrossFit is designed in way that involves the human body moving in the way that is designed; and thus, heals, rather than destroys. Additionally, not only is CrossFit therapeutic to our body, it heals our mind and soul as well.

Aside from the physical and nutritional components that *self-care* involves, since a healthy body suggests a healthy mind, *self-care* accentuates on the community aspect of living. Although an individual must often swim against the stream in order to reach

personal goals in life, being a part of a community that supports each other and that has similar goals, keeps the individual a lot more accountable and hence, empowers the individual to want to achieve more. *Self-care*, like life, is a journey. By belonging to a supportive community that is committed to achieve the same goals overall, each person becomes more dedicated. Overall, by being a part of a community there is a feeling of content. Since happiness suggests good psychological health, maintaining a specific lifestyle in a group setting leads to triumph in this regard.

According to bioethicist, Rosemarie Tong, understanding the notions of health and disease is not easy because there are various ways to define them.¹ I respect Tong's theory with regard to understanding the concept of health. In this paper, I will demonstrate two different views on health, and with that, how the definition of health affects the way that it is approached. It should be noted that both the modern healthcare system, as well as the *self-care* paradigm essentially carry the same goal; to reduce disease and to make everyone happy. Clearly, the approach that the American healthcare system takes in order to achieve health is dissimilar from that of the *self-care* model. In order to prove how the *self-care* model works, I will describe in detail both the American healthcare's view on health, as well as the way that health is seen from the *self-care*'s perspective.

America accepts the World Health Organization's (WHO) definition of health as "a state of complete physical, mental, and social well being and not merely the absence of disease or infirmity".² Although this definition suggests a legitimate approach to health, it concerns me because it does not necessarily suggest that this approach is ethical. A good

¹ Boylan, Michael. *Medical Ethics*. 2nd Edition. Malden: John Wiley and Sons, 2014. Print. P14.

² Ibid.

example of how our modern healthcare practitioners might provide healthcare is as follows:

Many individuals in society are overweight and obesity is still on the rise. According to the CDC, in the years of 2009-2010, 35.9 percent of all adults over the age of 20 in the US were considered to be obese.³ Moreover 69.2 percent of all adults over the age of 20 in the US were considered overweight and obese.⁴ Nowadays, overweight individuals may be referred by healthcare professionals to get a gastric bypass surgery, or be prescribed with weight loss medications in order to lose weight rapidly and to avoid the stress of dealing with other health issues that are related to the matter.⁵ As healthcare practitioners not only want their patients' current physical state of health to improve (in this case, have them lose weight); but also to make their patients happy. The ethical problem in which our modern healthcare system is facing is such that since clinicians are trying to make their patients happy (in our case, lose the most weight possible within the smallest time period), in reality they end up jeopardizing their patients health, because if, for example, they prescribe their patients with effective weight loss pills, their health will be sacrificed in one way or the other in the long run. As the body interacts with artificial exogenous chemicals, over time it will cause a hormonal imbalance and further health complications. Contrarily, by referring patients to a bariatric surgery (for e.g. gastric bypass surgery) healthcare professionals might not acknowledge that such procedures could lead to issues like depression due to the necessary lifestyle changes required from the post-op patient.

³ *Center for Disease Control and Prevention*. FastStats: Obesity and Overweight, 2009. Web. 16 Nov. 2013. Available at: <http://www.cdc.gov/nchs/fastats/overwt.htm>.

⁴ *Ibid.*

⁵ *Mayo Clinic Staff*. Healthy Lifestyle: Weight Loss Basics. n.d. Web. 8 Nov. 2013. Available at: <http://www.mayoclinic.org/healthy-living/weight-loss/basics/weightloss-basics/hlv-20049483>.

This situation, in a nutshell, describes my main concern with society's healthcare system, not just with regards to weight loss, but with regard to issues like depression as well. Many individuals who experience depression by feeling blue a few days of the week are immediately being prescribed with Prozac or some other kind of antidepressant in order to improve their psychological state. With all of Prozac's side effects and other health related complications, even though the clinician achieves to help the patient by prescribing him/her with a drug that will regulate a chemical imbalance, the after effects might negate the positives. Initially, our healthcare system achieves to bring happiness to all the patients by writing out prescriptions, or providing procedures that will lead to short term goals but not promote long-term health. This is why despite the fact that our technology and science exponentially advance, and as numerous drugs are added to the pipeline on a regular basis, in reality, individuals do not live well with the time that we are given. We live long lives, but much of that time is spent living in a sick state.

According to Cecil, "Americans are dying younger and living their later years with more diseases than citizens of poorer countries that spend far less money than the U.S. on healthcare".⁶ *Self-care* is the act of taking care of one self physically, mentally, and spiritually. The *self-care* paradigm follows the biological view of health and disease. Although its objective is similar to that of the WHO's definition as cited above, it is not socially conceptualized, but rather, biologically constructed. The biological view of disease and health is as follows:

All biological organisms, including human beings, are the product of purposeful and organized biological evolution. [...] Health is best understood as the

⁶ Cecil, Andrea. "Poor Diet Sinks U.S. Health Rankings." *The CrossFit Journal*. CrossFit, Inc. July 2013. Web. 29 Nov. 2013. Available at: http://library.crossfit.com/free/pdf/07_2013_HealthStudy_Cecil_FINAL3.pdf. P1.

functioning of a biological organism in conformity with its natural design. On this conception of health, disease is the malfunction of a biological organism.⁷

Therefore, by following the biological view of health, in the *self-care* paradigm a healthy individual (like any other species) is one that does what his/her body is designed to do. Additionally, this means that if an individual deviates statistically from a curve, it does not necessarily mean that he/she is sick.⁸ A perfect example would be an Olympic athlete. Just because the athlete is more likely to be heavier than the non-athletic public, does not suggest that he or she is sick because his BMI suggests that he is overweight, or obese, when in fact, it is all his/her body is composed of pure, lean muscle mass. According to the biological approach to health, it takes more than just statistical data to distinguish sickness from health, which our society's medical association religiously endures to. According to the natural definition of health, the uncommon may be the fortunate individual, the one who is not diseased.

An alternative way to describe the biological view of health is defined by bioethicist Leon Kass and is as follows: "Health is a natural standard norm...a state of being that reveals itself in activity as the standard of bodily excellence or fitness, relative to each species and to some extent to individuals, recognizable if not definable, and to some extent attainable."⁹ Since the biological view of health determines this status of well-being based on the functioning of the organism in nature, rather than the presence of either a physical or mental skew in correlation to the public, then health is a manifestation of one's lifestyle, rather than a condition that needs to be met according to social constructs. Rather than focusing on how long an individual will live, which seems to be

⁷ Boylan, Michael. *Medical Ethics*. 2nd Edition. Malden: John Wiley and Sons, 2014. Print. P15.

⁸ Ibid.

⁹ Ibid.

the main concern of our healthcare system so that they will create longer lasting consumers, the *self-care* model's achieves to promote health by defining a healthy being as one who lives well with the time they have left.

According to Merck's chief executive, Henry Gadsden, his dream is to make drugs for healthy people so that then his company would be able to sell them to everyone.¹⁰ Although the drug companies have done an impressive job over the past few decades by discovering new agents and designing new drugs that saved thousands of lives their main concern as corporations is to make the most money possible. As for pharmaceutical and in fact, any health related company; the best way to make the most amount of money possible is to tell healthy people that they are sick.¹¹ Unlike other businesses, an ethical issue arises when a company's aim is to make the most money possible when its main concern should be to save as many lives as possible. Although this occurs globally, it is even a greater concern in the US because markedly, with less than 5 percent of the world's population, the US makes up almost 50 percent of the global market in prescription drugs.¹² Moreover, spending in the US continues to escalate more rapidly than anywhere else, increasing by almost 100 percent in the early 2000s, not necessarily due to an increase in the price of drugs, but rather because doctors are prescribing more and more of them.¹³

The healthcare system is making us sicker in two distinct ways: by creating new diseases, and by marketing fear of disease to the public. According to the advertising expert, Vince Parry, condition branding is the creation of medical disorders, and the aim

¹⁰ Moynihan, Ray, and Alan Cassels. *Selling Sickness: How the World's Biggest Pharmaceutical Companies are Turning Us All Into Patients*. New York: Nation Books, 2005. Print. Pix.

¹¹ Ibid. Px.

¹² Ibid. Pxi.

¹³ Ibid.

of the art of branding a condition is to make a link between the condition and the medicine.¹⁴ Additionally, another great strategy in which healthcare related companies use to brand conditions is to make natural life processes worthy of medical intervention. A great example of this strategy that is commonly used in society and which is directly related to the core of this paper is “prehypertension”. By drawing the line that separates healthy from sick, and by reshaping the way that society thinks about sickness (by convincing individuals that prehypertension is worthy of a medical intervention for example), the healthcare system creates new disease markets and therefore, maximizes its revenues exponentially.

Another strategy that the healthcare system uses to sell sickness is by marketing fear to individuals and thus, creating a greater patient pool. For example, the fear of heart attacks is used to sell high cholesterol as something that immediately requires a prescription. The main problem with such strategy is that all these cholesterol-lowering drugs (and hypertensive drugs etc.) cause so many other health complications that may lead to the progression of other illnesses and eventually, death. Therefore, by promoting the need for these medications, which cause more harm due to the side effects that come along with them, the healthcare system ends up making us sicker than we were before. In a nutshell, although I am grateful for the medical interventions that the healthcare system offers, I still affirm that the healthcare system is making us sicker and poorer for the most part, by creating expensive drugs and by making a fortune from promising millions of healthy individuals sick and believe that they are nearing death, when in fact these drugs are overall, far more harmful than the medical conditions themselves.

¹⁴ Moynihan, Ray, and Alan Cassels. *Selling Sickness: How the World's Biggest Pharmaceutical Companies are Turning Us All Into Patients*. New York: Nation Books, 2005. Print. Pxi.

Notably, I have no intention to bring the healthcare system down in this paper. I believe that those who truly need medical interventions such as heart patients, cancer patients, geriatric patients etc., receive very ethical care from the system but overall, those individuals make up a small portion of our population. Contrarily, the greater chunk of the population, which comprises of individuals who do not necessarily require medical procedures to improve their health, are yet, the main target of the healthcare system. By deliberating to relatively healthy individuals that they are nearing death, in order to increase the size of the patient pool-and ultimately revenues-I disagree with the actions of many of the healthcare providers in our country. I believe that if the primary aim of the healthcare system is to improve our population's health, rather than investing billions of dollars on designing drugs that will medicate the "worried and well", it will be spent more efficiently on campaigns that will educate our nation on improving our diet, promoting physical activity, and reducing smoking, since (as described above) those are the three leading factors of death in the US.

Since I disagree with the approach that our healthcare system is using, I will discuss in great detail the model that I implemented, called *self-care*, which promotes wellness and therefore, is ideal to implement to the healthcare system since it actually promotes health. Since "health is wealth," I argue that once the healthcare system focuses on improving the approach that healthcare is provided to the sick; while promoting *self-care* to the unwell, and the worried well, this nation will increase its prosperity, because this strategy will lead to a healthier nation.

According to the natural construct of health, bioethicist describes a healthy squirrel as follows:

A bushy-tailed fellow who looks and acts like a squirrel; who leaps through the trees with great daring; who gathers, buries, covers but later uncovers and recovers his acorns; who patches out on a limb cracking nuts, sniffing the air for smells of danger, alert, cautious, with his tail beating rhythmically, who chatters and plays and courts and mates, and rears his young in large improbably-looking homes at the tops of trees; who fights with vigor and forages with cunning; who shows spiritedness, even anger, and more prudence than many human beings.¹⁵

One may wonder, why do I apply Kass' description of a healthy squirrel based on the biological construct of health when human beings and squirrels are different species? Sure, squirrels are not human beings but the functions of both the squirrel and the human being are similar in nature and therefore, the description of a healthy squirrel can be translated along the lines of human beings interchangeably. Under the biological construct, a healthy human, like a healthy squirrel, has to function ideally according to his/her surroundings in order to be considered healthy. Like the squirrel, an ideally functioning human is one who feeds regularly, has shelter, thrives socially, is very active, and thus, has virtuous physical humane features, mates, and can easily adapt to the unexpected. This suggests that wellbeing and health are related because in order to maintain a healthy state, one has to sustain his/her wellness.

This lifestyle model, called *self-care*, is one that is similar to that of our ancestors. This wellness approach is effective because it works harmoniously with our DNA to recreate healthy cells and in return, replenish our organs and the functioning of the body as a unit. Instead of relying on medical products to mask our diseases that will ultimately worsen our health status, we should be more concerned about sustaining our wellness and only relying on the healthcare system and its medical procedures when something that is beyond our control goes wrong. Failure to treat one's body in a meaningful way on a regular basis, will lead to its destruction and will trigger the

¹⁵ Boylan, Michael. *Medical Ethics*. 2nd Edition. Malden: John Wiley and Sons, 2014. Print. P15.

development of a hidden problem that will one day work its way from beneath the surface. This way of life involves three main foundations, which will be discussed in great detail and are as follows: nutrition, physical activity, and social living. Through the application of *self-care* I will demonstrate how to avoid the progression of numerous chronic diseases and how relying on the healthcare system should only be a last resort.

Chapter 2

Self-care and Its Exercise Model, CrossFit. How Well You Live With the Time That You Are Given?

Self-care's main focus is how well an individual lives with the time that he/she is given. A key feature to how functional an individual can be throughout his lifetime is his/her level of fitness. According to Robb Wolf, exercise is a primary part of who we are meant to be.¹⁶ Additionally, exercise is so imperative to us because inactivity is directly related to chronic and other degenerative diseases such as cancer, neurodegeneration, diabetes, depression, frailty, loss in functioning and many more.¹⁷ Aside from the fact that inactivity exposes the individual to aging and other diseases that lead to death, exercise is shown enhance our existence. Exercise is imperative to who we are because we are genetically designed to be active. Wolf implies the following:

Our hunter-gatherer ancestors lived in an active and vigorous life. They and their prehuman ancestors had to expend remarkable amounts of energy to provide food, clothing and shelter. Over the course of millions of years our genetics were forged with a level of activity not dissimilar from that of an Olympic caliber athlete. This is what our genetics are expecting when we are born into the world. We are literally "born to be fit."¹⁸

Although modern lifestyle is very different from that of our ancestors, since we do not need to hunt in order to have food on our plate, the fact that we have developed from our hunter-gatherer ancestors suggest that we inherited our genes from them. Therefore, in order to increase our chance of survival, we must live a lifestyle that is somewhat similar to theirs in order to turn on those genes that were passed down to us that enhance our survival. Notably, although life expectancy back in the early days of *Homo sapiens* was

¹⁶ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P146.

¹⁷ Ibid.

¹⁸ Ibid.

relatively short, due to illnesses, viruses, and injury, those who lived to a more advanced age looked very differently than most elderly, modern individuals. According to Wolf, our aging ancestors did not lose any muscle mass or gain body fat as they aged.¹⁹ Moreover, he added that for the aged hunter-gatherers, decreases in flexibility were negligible, and that loss of vision and hearing progressed at much lower rates.²⁰ Nowadays, weight gain and frailty and a decrease in organ functioning among aging individuals is such a common phenomenon that the medical community even created terms to those conditions, such as *menopause* and *aging* which seem to be normal life occurrences, when in fact, are highly avoidable.

If we were to live a foraging like lifestyle, instead of being fat, weak and sick we will instead be strong, lean, and healthy. The following is an example of the active lifestyle of a group of our hunter-gatherer ancestors:

From the Kung of sub-Saharan Africa to the Ache of Peru, the foraging lifestyle necessitated the equivalent of fifteen to nineteen miles of walking-per day! This activity was devoted to a number of tasks and activities including hunting, collecting firewood and water, gathering plants and small animals, fishing, and traveling to see relatives. Some days were very intense and demanding, while other days were relaxed and might involve almost no activity beyond hanging out in camp.²¹

This shows that our modern lifestyle is the root for aging, which is why I will redefine our modern, sedentary lifestyle in this paper. For a while now a common belief among the medical community was that cardiovascular fitness pertains to health and that as long as one's heart is healthy, then the individual is healthy. Although the heart is the most

¹⁹ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P149.

²⁰ Ibid.

²¹ Ibid.

important muscle in our body since we cannot function without a beating heart, having a high aerobic capacity does not suggest that one is healthy.

In the following section I will compare two athletes, both of which are revolutionary athletes, the first, Ironman, Mark Allen and the second, CrossFitter, Rich Froning, in order to describe what fitness really means and why it is imperative to our survival. In 1997, *Outside* magazine declared Mark Allen, six-time Ironman champion as the fittest man alive.²² In order to be called the fittest man alive an individual is required to have a high degree of physical preparedness. Sure, Allen is the greatest Triathlon athlete but this does not suggest that because he is a multiple time world champion in Ironman championships, that he has the greater capacity for work over the course of his life. According to CrossFit founder, Greg Glassman, a fit individual should be competent in each of the ten skills that make up physical preparedness: endurance, stamina, strength, flexibility, coordination, balance, agility, accuracy, power, and speed.²³ Under that description, is fair to say that although Allen, who has great specialist fitness in triathlons and has an impeccable endurance and stamina, but is not competent in the other eight attributes that define physical preparedness, is really the fittest man on earth?

Contrarily, CrossFit elite athlete, Rich Froning has flawless virtuous general preparedness and therefore, is the fittest man alive. Although he won the CrossFit Games (the Olympics of the sport of fitness, CrossFit) three times, in comparison to Mark Allen, who won six Ironman championships, the fact that he mastered the ten skills that define fitness better than anyone else in the world, makes Froning the fittest man on earth.

Although Allen may complete a triathlon faster than Rich Froning (even though I am sure

²² Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P28.

²³ Ibid. P29.

that Froning will give Allen a good fight regardless), had Froning and Allen had to go head to head in a competition that involved more than just stamina and endurance, such as a 5,000 meter row, 20 deadlifts at 300lbs., 2,000 meter run and 15 bench presses at 175lbs, Allen would not even be able to come nearly close to Froning (whether he will be able to complete that task at all is questionable). Therefore, the fact that Froning has a proven work capacity over a greater set of modal domains makes him fitter than Mark Allen and thus, shows that the way that fitness is traditionally perceived could be considered inaccurate. The fitness program that is prescribed in the *self-care* program is one that is similar to ancestral fitness and is a lifelong program. This exercise model challenges the ten skills that make up physical preparedness, rather than just cardiovascular stamina.

According to Greg Glassman, the founder of CrossFit and a CrossFit coach, the ten skills that make up physical preparedness are as follows: Endurance, stamina, strength, flexibility, coordination, balance, agility, accuracy, power, and speed.²⁴ This ancestral fitness program is unique in the sense that its core relies on three distinct features: constantly varied, high intensity, functional movements. A constantly varied fitness program suggests that routine is the enemy. Unlike other exercise regimens, this ancestral-like program exposes the individual to a different stimulus in every workout, which also suggests that unlike other exercise routines, it is not boring. Therefore, the exercise that the individual do yesterday is different than the exercise that he/she will do today or tomorrow. The fact that this exercise program does not adhere to a routine keeps the individual motivated and thus, is more sustainable.

²⁴ Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P29.

Another feature of the *self-care* fitness model, aside from being constantly varied those exercises are expected to be performed at a high intensity. Steady state training, otherwise known as aerobic training, or more simply “cardio”, is a training approach that requires the individual to perform the same movement over a long period of time, which suggests that because the body performs a continuous movement for a lengthy time period, this form of exercise creates a low power output and thus, cannot lead to any beneficial physical effects on the individual.²⁵ Coach Glassman indicates that the aerobic, oxidative pathway provides energy that is used for low powered activities and thus, lasts for a time period that exceeds ten minutes²⁶. In aerobic training, the body requires oxygen in order to generate energy²⁷. Examples of aerobic exercises are walking, running, swimming, biking, rowing, or any long, slow rate continuous movement. Notably, this does not mean that performing such activities (running, rowing, biking, etc.) should be avoided because any form of activity is healthy and should be a part to an individual’s lifestyle. The issue with aerobic exercise is that it is inefficient and therefore, ineffective in the long run. Once those activities are performed at a high intensity, their power output will be greater and thus, will be more beneficial to the body. Thus, rather than performing long, slow aerobic based exercises, the prescribed exercise method of the *self-care* model will be performed at higher intensities.

According to Coach Glassman, anaerobic (high intensity) training involves exercises that generate energy without the need of oxygen.²⁸ The anaerobic, phosphagen pathway provides energy that is used for highest-powered exercises that last for less than

²⁵ Glassman, Greg. “Metabolic Conditioning.” *The CrossFit Journal*. CrossFit, Inc. June 2003. Web. 5 Dec. 2013. Available at: http://www.crossfit.com/journal/library/10_03_metab_cond.pdf. P1.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid.

ten seconds.²⁹ Additionally, the glycolytic pathway provides energy for lower power activities (than that of the phosphagen pathway) and last for several seconds.³⁰ By training mainly in an anaerobic manner and by integrating diverse exercises on a constantly varied basis, not only does the individual boost his/her respiratory functioning but also his/her strength, which leads to a dramatic increase in adaptation to the unknown and thus, on the individual's ability to survive.³¹ In order to stress on the great impact of high intensity training on an individual's level of fitness the following analysis that compared aerobic to anaerobic training will be incorporated. Exercise physiologist, Lon Kilgore indicated that interval and circuit style training improves cardiovascular fitness and other fitness elements better than steady state training.³² Moreover, Robb Wolf discussed that in a study that compared tabata style training (interval based, anaerobic training) to steady state training, it was found that the group that trained following the tabata protocol, using intervals at a high intensity, showed greater improvements in body composition, a greater VO₂ max (how much oxygen one can use relative to his/her body mass) and more power production than those who trained at a steady state for 30-60 minutes.³³

There are various ways to implement high intensity (anaerobic) training. The following categories are the distinctive ways in which anaerobic training will be performed in the *self-care* model: performing a task in intervals; performing a workout where the individual is expected to complete a task as fast as possible (task priority

²⁹ Glassman, Greg. "Metabolic Conditioning." *The CrossFit Journal*. CrossFit, Inc. June 2003. Web. 5 Dec. 2013. Available at: http://www.crossfit.com/journal/library/10_03_metab_cond.pdf. P1.

³⁰ Ibid.

³¹ Ibid. P2.

³² Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P53.

³³ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P158.

training); performing a task as many times as possible in a specific time cap (time priority workout). These training methods are ones that are designed by CrossFit coaches to their athletes' training regimen in order to make them faster, stronger and overall more functional beings. Since the *self-care* model achieves to make individuals fitter and thus be adaptable to anything, anaerobic exercises will be the core stimulus to the *self-care* training program, which is one of the three cores that make up the CrossFit approach to fitness.

Interval training is an exercise approach that alternates between short, intense, anaerobic exercise periods to less intense exercise periods, or even rest to allow recovery.³⁴ A great example of a form of an interval training method is the classic “*Tabata*,” which was mentioned above. Tabata, named after its founder, Dr. Izumi Tabata, is a high intensity workout protocol that involves twenty seconds of work, with ten second of rest, repeated eight times.³⁵ Overall, tabata includes a total of four minutes of intense work, rather than the typical, slow state workout, which lasts for 30-60 minutes. Moreover, interval high intensity training does not necessarily need to be Tabata style training. It could be any exercise that involves a hybrid of repeated sets of high intensity work (anaerobic training) with low intensity work (aerobic training) at timed intervals.³⁶ For example, performing a task for 30 seconds, and resting 30 seconds, for ten rounds is a legitimate example of an interval high intensity workout that is not tabata. Notably, when performing high intensity interval workout, even though one does not necessarily have to follow the Tabata pattern, it should be noted that the shorter is the

³⁴ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P159.

³⁵ Ibid.

³⁶ Ibid.

duration of the exercise, the greater the work: rest ratio should be.³⁷ Thus, when training in the form of intervals, the lower the work: rest ratio is, the more intense the workout is because more time is required to replete the energy stores that were lost during the exercise.³⁸

Aside from interval high intensity training, the following paragraphs will describe the other forms of interval training that are designed to shape our fitness. A task priority workout is not set on intervals as its basis but rather, on the fixed task. Therefore in a task priority workout varies is the amount of time that it takes the individual to complete the task.³⁹ An example of a task priority workout would be: 30-20-10 deadlifts and pull-ups. This task suggests that the work that is required to be completed in the workout is 30 deadlifts, 30 pull-ups, 20 deadlifts, 20 pull-ups, 10 deadlifts, 10 pull-ups. In this type of anaerobic workout, a person's level of fitness is measured by how quickly he/she completed the task. From the well renowned equation: $Power = Work/Time$, the fitter individual will be the one who will complete all sequences of the workout in the fastest time possible.

Contrarily, a time priority workout is an exercise in which the set variable is the time of the workout, while the wide-ranging variable is the effort that it takes to complete the workout, which is dictated by the individual.⁴⁰ An example of a time priority workout is 3 rounds of the following: 1 minute maximum reps of box jumps, 1 minute maximum rest of push ups, 1 minute maximum reps of sits ups, 1 minute rest. Using the same power

³⁷ Baechle, Thomas, and Roger Earle. *Essentials of Strength Training and Conditioning*. 3rd ed. Champaign: National Strength and Conditioning Association, 2008. Print. P37.

³⁸ Ibid.

³⁹ Castro, Dave. "CrossFit Programming Part 5." *CrossFit Level 1 Certification Seminar*, CrossFit One World, Union City, CA. 11 May 2008. Video, 22 Nov. 2013. Available at: <http://journal.crossfit.com/2008/11/crossfit-programming-part-5.tpl>.

⁴⁰ Ibid.

equation as described above, in a timed priority workout, the fitter individual will be the one who did the most work in that set time period. In this case, the fittest individuals will be the one who completed the most repetitions in this 12 minute time capped workout.

One may now wonder since this form of high intensity training is much more sophisticated than aerobic training, how is it related to ancestral fitness in any shape or form? It is scientific in the sense that it uses formulas and ratios to account for its validity. Unlike “modern” exercise equipment that enable the individual to perform a single continuous movement, such as walking for thirty minutes everyday, constantly varied anaerobic training is related to ancestral fitness because this is what our ancestors used to do in order to survive for thousands of years. Ancestral exercise comprises of real life movements that our ancestors used to do enhance their survival by hunting, building shelter, etc. such as pushing, pulling, lifting, squatting, bending, walking, and occasional high intensity sprint.⁴¹ Performing physical activity using primitive patterns, rather than exercising on a modern machine that either stimulates one bodily part (for example, the step machine) or one muscle group, is considered to be functional movements. Being one of the core objects of ancestral fitness, the next few paragraphs will discuss those primitive patterns of movements that we inherited and why they should be adopted to our lifestyle.

Tracing back to the way that our ancestors used to live, compound movements were integral to their survival and thus, the ability to perform these movements were inherited by us. Although most us do not live to exercise (unless you are a professional

⁴¹ Noel, Josh. “Train Like a Caveman.” *Chicago Tribune*. Tribune Newspapers, 13 Jan. 2012. Web. 9 Dec. 2013. Available at: http://articles.chicagotribune.com/2012-01-13/health/ct-health-mag-train-like-a-caveman-20120113_1_caveman-paleolithic-ancestors-regimen

athlete, trainer, or a coach of some sort), we were all born to exercise because our bodies are designed to move. The following are two descriptions of functional movements, one, extracted from the healthcare industry, the other, from the fitness industry. Health Professionals at Mayo Clinic described functional movements as follows: “Functional fitness exercises train your muscles to work together and prepare them for daily tasks by stimulating common movements you might do at home, at work or in sports. While using various muscles in the upper and lower body at the same time, functional fitness exercises also emphasize core stability.”⁴² In order to give a better portrayal on the importance of functional movements, the following describes functional movements and their importance in survival, according to the founder of CrossFit, coach Greg Glassman:

Functional movements are universal motor recruitment patterns; they are performed in a wave of contraction from core to extremity; and they are compound movements- i.e. they are multi-joint. They are natural, effective, and efficient locomotors of body and external objects. But no aspect of functional movements is more important than their capacity to move large loads over long distances, and to do so quickly.⁴³

Although discussed in a different manner, the above two interpretations of functional movements imply that such movements are effective and that they help to promote our well-being and thus, should be performed by every individual. While multi joint movements are functional and although not unique to everyday gym, they can be completed in a standard gym. Isolation movements on the other hand, are non-functional movements, and are the main chunk of exercise patterns used at a regular gym.

⁴² Mayo Clinic Staff. “Functional Fitness Training: Is It Right for You?” n.d. Web. 17 Jan. 2014. Available at: <http://www.mayoclinic.org/healthy-living/fitness/in-depth/functional-fitness/art-20047680?footprints=mine>

⁴³ Glassman, Greg. “Understanding CrossFit.” *The CrossFit Journal*, CrossFit, Inc. 56 (April 2007). Web. 13 Jan. 2014. Available at: http://library.crossfit.com/free/pdf/56-07_Understanding_CF.pdf. P1.

Functional movements belong to one of three modalities: weightlifting, aerobic/anaerobic, and gymnastics. The following are some examples of functional movements (natural, multi-joint movement patterns): Biking, running, swimming, and rowing in an endless variety, being part of the aerobic/anaerobic modality. The clean and jerk, snatch, squat, deadlift, push-press, bench-press, and power-clean, being a part of the weightlifting modality. Jumping, medicine ball throws and catches, pull-ups, dips, push-ups, handstands, presses to handstand, pirouettes, kips, cartwheels, muscle-ups, sit-ups, scales, and holds, being a part of the gymnastics modality.⁴⁴ Additionally, rather than the bulky, gym equipment, which can only found in modern gyms, since functional movements involves the use of bikes, the track, rowing shells and ergometers, Olympic weight sets, rings, parallel bars, free exercise mat, horizontal bar, plyometric boxes, medicine balls, and jump rope, this suggests that functional movements can be done anywhere.⁴⁵

Even though some functional movements are highly sophisticated, because they require skill and strength, everyone should perform them not only because in the long run it will enhance the individual's 10 skills of fitness (discussed previously), but also because they fit everyone's physical needs. The only difference in the way that functional movements will be performed will vary by degree.⁴⁶ For example, both an Olympic athlete and an elderly do an exercise that incorporates squats albeit at different load and

⁴⁴ CrossFit Inc. "Foundations." 2002. Web. 30 Nov. 2013. Available at: <http://www.crossfit.com/cfdownload/Foundations.pdf>. P3.

⁴⁵ Ibid.

⁴⁶ Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P17.

intensity levels. The only difference will be that the elderly woman would do air squats (weightless), while the Olympic athlete will perform weighted back squats.

When involving a constantly varying exercise routine that involves functional movements, which are performed at a high intensity, we boost our respiratory functioning, as well as our strength, which leads to a dramatic increase in adaptation to the unknown and thus, in our ability to survive. Since this primal form of exercise (performing functional movements, at a high intensity, in a constantly varying basis) enhanced the way that our ancestors used to live, it only makes sense to perform these movements that we inherited. Therefore, since *self-care* prescribes a lifestyle that is related to that of our ancestors, this constantly varied, high intensity, functional movement fitness approach (otherwise known as CrossFit) is one of the core features of this proposed wellness model. Following such primal fitness approach will improve our ability to live better with the time that we have, rather than existing and being non functional and dependent due to our illness(es). It will enhance our ability to be fit. Whether an athlete, or a non-athlete, genetically, we were all designed to be athletes, and CrossFit is the only sustainable fitness approach that works, because it is programmed in a way that challenges each of our ten skills of fitness, and thus, keeps us motivated and competent.

Chapter 3

Nutrition is the Bedrock of Health

Our bodily processes are affected by the food that we eat. Our body's composition is a result of the foods that we consume. Believe it or not, you are what you eat. Although feeding is an imperative act to daily living, due to the way that the Government controls the production and processing of food, to some extent, it controls what we put in our plate and mouth. As it turns out, when we feed, very often we do not nourish our body. Rather than eating nutrient dense foods, our diet consists of foods that are low in nutrients, and yet, are high in calories. Rather than healing our cells with every meal, we feed our fat cells and starve all other bodily cells. Ultimately, we are becoming sick and fat. According to CrossFit Journal writer, Andrea Cecil, studies show that diet is the number one contributing factor to the burden of disease in America.⁴⁷

Since the types of food that we eat can make help us to survive, thrive, or get sick; in America, three types of feeding scenarios occur: the fed, the underfed and the ugly. According to Michael Pollan, in order to be maximally healthy, or in other words, thrive, an individual should "Eat food. Not too much. Mostly plants."⁴⁸ According to Pollan's recommendation you are better off eating whole, fresh foods, rather than processed food products.⁴⁹ Therefore, in order for an individual to thrive, he/she must stop eating a Western diet. The western diet consists of "food products"-foods that involve any form of processing. Due to our industrialization, our supermarket aisles are filled with

⁴⁷ Cecil, Andrea. "Poor Diet Sinks U.S. Health Rankings." *The CrossFit Journal*. CrossFit, Inc. July 2013. Web. 29 November, 2013. P1.

⁴⁸ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P1.

⁴⁹ Ibid.

of food products rather than whole foods. Since food-like substitutes have become such a common phenomenon in all areas of American feeding, it is very likely that you may not be familiar with what differentiates food from a food like substance. In the following section, I will discuss the categories that distinguish foods from food products.

According to Pollan, a food product would be any item that our Neolithic ancestors (great grandmother) would not recognize.⁵⁰ In this case, Pollan used the example of the modern day Go-Gurt, a tube containing squirt-able yogurt that any kid in our era is familiar with. He indicates that if you and your great grandmother would go to the supermarket and stop at the dairy isle, she would not have any idea of what a Go-Gurt is, i.e. whether it is a food or toothpaste.⁵¹ Other distinction between a food and a food product is its ability to rot. Therefore, any food product is any food product that is incapable of rotting and should therefore, be avoided.⁵² Nutritionist Joan Gussow indicates the role of food processing in such industrialized society and then conforms why we should avoid such food like substances. She implies that food products are industrially processed in order to enhance their preservation. The concept of preservation is not new, as our ancestors have pickled, smoked and fermented foods to preserve their usability for thousands of years. The difference between natural food processing and industrial food processing is that the industrial process introduces cheap, artificial flavorings that lie to our body by are added, resulting in a reliance on sweeter and saltier foods that are more fattening and less nutritious.⁵³ To imply this explanation; imagine a bacteria, a tiny microscopic organism. If bacteria would stay away from a certain food

⁵⁰ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P148.

⁵¹ Ibid.

⁵² Ibid. P149.

⁵³ Ibid.

because it is so highly processed and therefore, would not lead it to rot, then certainly, as larger, more complex organism, we must avoid eating such foods.

Whole foods do not carry any ingredient lists because what you see is what you get. The difference between a food product and a food like substance depends on what it contains in its ingredient list. According to Pollan, food like substances should be avoided when their ingredient list contain ingredients that are: unfamiliar, unpronounceable, more than five in number, or contain high fructose corn syrup.⁵⁴ To further emphasize on this specific distinction between foods and food like substances, Pollard discusses that none of these four characteristics is necessarily harmful on its own, but when all these characteristics are present on a product's label, it suggests that they have been so highly processed to the point where they no longer serve their significant purpose.⁵⁵ When containing all four characteristics, food substances not only do not nourish our body, they rather, poison it. A perfect example to differentiate between a food, a food product, and a food-like substance according to this distinction is Jif's Peanut Butter. In this case, under Pollan's category, a food would simply be raw peanuts. Contrarily, the food product would be an all-natural peanut butter that contains dry, roasted peanuts; while the food like substance would be Jif Reduced Fat Creamy Peanut butter that consists of the following ingredients:

Peanuts, corn syrup solids, sugar, soy protein, contains 2% or less of: salt, fully hydrogenated vegetable oils (rapeseed and soybean), mono and diglycerides, molasses, magnesium oxide, niacinamide, ferric orthophosphate, zinc oxide, copper sulfate, folic acid, pyridoxine hydrochloride.⁵⁶

⁵⁴ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P150.

⁵⁵ Ibid.

⁵⁶ Dr. Marybeth Feutz. "Food: Peanut Butter." *Agricultured: Where People Who Eat Get Their Food Questions Answered*. 13 Nov. 2012. Web. 13 Nov. 2013. Available at: <http://www.agricultured.org/2012/11/13/peanut-butter>.

With a list that contains 16 ingredients, most of which are unfamiliar, unpronounceable, and which includes corn syrup, it seems as if Jif's Reduced Fat Creamy Peanut butter is a substance that should be completely avoided. Yet, some of the best selling food products in the market are labeled "low fat", "reduced fat", "low sugar" etc. Such food substances are in fact more harmful than healthy. This is a great example because it demonstrates how food science attempts to make traditional foods much more complicated and unhealthy. As a society, instead of looking at the calories that a food product contains, we should focus on the ingredient list and worry about the nutrients we are consuming.

Another feature that distinguishes between a whole food and a food like substance is the fact that food like substances and food products make health claims.⁵⁷ According to Pollan, a food product that claims to have health benefits means that it comes in a package and for a food to be in a package, this means that was processed to a certain degree and thus, is not a whole food.⁵⁸ Making a health claim on a food product is nothing more than a marketing tactic. In a capitalistic country, governmental health associations like the FDA fully support food companies putting health claims on their packages. Their approval suggests greater revenues for the food companies, while the food companies end up increasing their overall revenues by raising their pool of consumers. To further emphasize the health hazards of food products that make health claims as a marketing technique, I will use Pollan's example of the health claims on cereal boxes. "The American Heart Association currently bestows (for a fee) its heart-healthy seal of approval on Lucky Charms, Cocoa Puffs, and Trix cereals, Yoo-hoo lite

⁵⁷ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P154.

⁵⁸ Ibid.

chocolate drink, and Healthy Choice's premium Caramel Swirl Ice Creams Sandwich- this at a time when scientists are coming to recognize that dietary sugar probably plays a more important role in heart disease than dietary fat."⁵⁹

To simplify the distinction between whole foods and processed food, when going shopping only buy the foods that are located in the outside aisles of the store.⁶⁰ Pollan indicates that most supermarkets are laid out the same way; with processed foods being mostly in the center aisles, while perishables such as produce, meat, fish and dairy are located on the peripheries.⁶¹ Although most food products that are located on the outside walls of the store are whole foods, due to the scientific introduction of so many food products that contain artificial additives and high fructose corn syrup are found in juices, yogurts, etc. to simplify this rule of thumb even more, rather than purchasing food at the supermarket, buy your foods at the farmer's market. Pollan implies that in the farmer's market you will not find anything highly processed but rather, fresh, whole foods that are picked at the peak of their taste and nutritional quality, the kind of food your grandmother or ancestors would have easily recognized as foods.⁶²

Now that the difference between whole foods and food products has been distinguished, it is safe to say that unless one follows Pollan's broad description of whole foods diet, he/she is underfed. An underfed person is an unhealthy person. Prominently, it should be noted that although obesity is on the rise in America, most of us are underfed because according to the USDA, our diet is prescribed by calories, which are units of energy, rather than nutrients. Thus, our fat cells thrive, while other bodily cells are

⁵⁹ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P156.

⁶⁰ Ibid. P157.

⁶¹ Ibid.

⁶² Ibid.

starved, and thus, their functioning is reduced. Following the USDA's guideline of feeding will essentially lead us to become fat, malnourished, and sick!

In 2011, the USDA changed its dietary guidelines by converting from the well-known food pyramid to a plate. The campaign, called MyPlate contains dietary guidelines, in order for Americans to make healthier eating choices and as a result, to fight obesity. Rather than a pyramid, this dietary guideline features a plate that is divided into four sections: fruits, vegetables, grains and protein.⁶³ Additionally, a smaller circle, which represents dairy, appears next to the plate.⁶⁴ According to the New York Times, "the first part of the campaign will encourage people to make half their plate fruit and vegetables and later phases of the campaign will instruct consumers to avoid oversized portions, enjoy their food but eat less of it, and to drink water instead of sugary drinks."⁶⁵ Although the USDA has achieved to make progress in regards to attempting to change America's dietary habits by promoting the consumption of fruits and vegetables, discouraging the consumption of sugary drinks that are enhanced in artificial flavorings, and by promoting portion control, it is still not effective enough as it only promotes half of the American diet to be based on whole, unprocessed foods. There are many protein, dairy and grain sources that are processed, which accounts for more than half of the recommended daily consumption of food. Therefore, MyPlate is an improved version of the pyramid because it focuses on calorie restriction, but since it focuses on the quality of

⁶³Melnick, Meredith. "Nutrition: The USDA Ditches the Food Pyramid for a Plate." *Time Magazine: Health*. 2 Jun. 2011. Web. 11 Dec. 2013. Available at: <http://healthland.time.com/2011/06/02/the-usda-ditches-the-food-pyramid-and-offers-a-plate/#ixzz2vrPj0umM>.

⁶⁴Ibid.

⁶⁵Ibid.

food consumed to only some degree, this suggests that this food guidance relies heavily on calorie control rather than nutrient consumption. This leaves us underfed once again. One may ask, “What if I limit my processed food intake, stick to the USDA’s recommended dietary plan and take supplements to enhance my micronutrient intake? How is it possible this diet is not sufficient enough for me?” The next section will clearly explain why we should not rely on supplement intake and what additional misconceptions are untold by the USDA.

Doug Dupont indicates that in the *Annals* editorial, three studies showed that multivitamins are a waste of money and may even be harmful.⁶⁶ Additionally, Dupont mentioned that these studies do not really tell us much about mortality, although multivitamin supplementation seemed to have some beneficial effect on the health of men.⁶⁷ Moreover, one of the studies which was carried out for the United States Preventative Task Force stated that there is a limited evidence that shows any benefit from vitamin and mineral supplementation for the prevention of cancer and cardiovascular disease.⁶⁸ Thus, although supplementation may increase longevity (especially among men), there is not enough evidence to prove that one should rely on supplementing with vitamins and minerals. Additionally, since supplementation itself it did not prevent any chronic diseases, findings suggest other factors have to be added as well. When following a diet that relies highly on processed foods, and is micronutrient deficient, the benefits of supplementation are negated.

⁶⁶ Dupont, Doug. “Enough is Enough: Stop Picking on Multivitamins.” *Breaking Muscle: Health and Fitness News*, n.d. Web. 24 Oct. 2013. Available at: <http://breakingmuscle.com/nutrition/enough-is-enough-stop-picking-on-multivitamins>.

⁶⁷ Ibid.

⁶⁸ Ibid.

Furthermore, when relying on the USDA's recommended diet, one is advised to follow a diet consisting of foods that are not only disable us from thriving but because some of these recommended foods do not react with our bodies well, and in the long run end up causing us more harm than benefit. The following are three of the USDA's dietary recommendations that are in fact misconceptions, and somewhat destructive. The first misconception in the American society is that *grains and dairy are particularly nutritious*. The truth is, grains are bad for us! According to Wolf, we are healthier without grains and gluten.⁶⁹ Grains are any products that are produced from any of the following *gramineae* family: wheat, rye, oats, barley, millet, rice and sorghum.⁷⁰ Additionally, all grains have the following anatomy: bran (the outer covering of the grain), endosperm (starch with a bit of protein of the grain), and germ (grain's reproductive part). The problem with grains is that they contain proteins that are tough to digest, remain intact despite of our digestive system's efforts to break them down and as a result, cause gut irritation, increased systemic inflammation, and the potential for an autoimmune disease.⁷¹ Furthermore, when considering the value of grains with regard to macronutrient (carbohydrates, fats, and proteins) and micronutrient (vitamins and minerals) properties, they are lacking in nutrients.⁷² Thus, when factoring in both the harm that they cause to our digestive system, as well with their potential to cause autoimmune disease, on top of their anti-nutrient properties, grains are in fact not

⁶⁹ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P84.

⁷⁰ Ibid. P85.

⁷¹ Ibid. P86.

⁷² Ibid. P87.

beneficial for our health or longevity.⁷³ As Wolf mentioned, grains to our digestive system are what poison ivy is to our skin.⁷⁴

Quite similarly, dairy and legumes cause the same inflammatory problems in our gut and autoimmune system as grains. Like grains, dairy and legumes contain protease inhibitors, which block the digestion of protein.⁷⁵ Large unbroken protein molecules enter our intestines and are easily mistaken to be foreign invaders, such as bacteria, viruses, or parasites.⁷⁶ Thus, our immune system attacks these protein molecules and makes antibodies against them, causing an autoimmune response and damages our gut.⁷⁷

According to Wolf, “anything that damages the gut lining (including bacterial, viral, and parasitic infections, as well as alcohol, legumes, and dairy) can predispose one to autoimmunity, multiple chemical sensitivities, and allergies to other foods that generally do not cause any allergic reactions.”⁷⁸

The information being relayed at this point can be quite overwhelming because we have always been told that grains, legumes and dairy are considered to be “nutritious”. Moreover, dietitians indicated to us that grains are a good source of energy, and fiber. Additionally, it was widely communicated to us that dairy is rich in calcium, which is an essential mineral for our bones. According to Wolf, after comparing various foods for specific nutrients by listing their vitamin and mineral content of a hundred calorie portions, it was observed that whole grains and milk are not particularly nutritious

⁷³ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P87.

⁷⁴ Ibid.

⁷⁵ Ibid. P89.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Ibid. P92.

on a calorie-per-calorie basis as compared to meats, sea foods, vegetables, and fruits.⁷⁹

We were certain that if we were to avoid dairy and whole grains we would experience some kind of deficiency, when in fact we were only increasing the levels of inflammation in our systems.

After finding out that the contemporary diet has manipulated us to eat whole grains and dairy when such foods in fact cause more harm than good, you may probably be wondering, “How will my digestive system function efficiently without grains and how can my bones remain strong without the calcium from dairy?” This leads me to emphasize the second misconception, which claims that *one will experience some kind of deficiency without grains, legumes, and dairy in their diet*. While we are being brainwashed into thinking that grains and legumes provide us fiber, Wolf indicated that based on an average 2500 calorie, a grain-free, Paleolithic diet, provides us with 42 grams of fiber.⁸⁰ Paleolithic diet, which I will discuss later in more detail, is a grain free, legume free, dairy free diet that is similar to that of our hunter-gatherer ancestors. According to the Institute of Medicine, the average recommendation for the daily consumption of fiber is about 29 grams.⁸¹ It is evident that cutting out grains and legumes will lead to decreased inflammation within our bodies. With that, our micronutrient intake will increase as our diet will be based on foods that are not only higher in vitamins and minerals, but fiber as well.

⁷⁹ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P216.

⁸⁰ Ibid, P219.

⁸¹ Mayo Clinic Staff. “Dietary Fiber: Essential for a Healthy Diet.” *Healthy Lifestyle: Nutrition and Healthy Eating*. 17 November 2012. Web. 13 Jan. 2014. Available at: <http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/fiber/art-20043983>.

Our hunter-gatherer ancestors were very tall and had very athletic physiques. However, since they were not familiar with agriculture and farming back then, they did not consume any dairy. Have you ever wondered what maintained their solid bone density despite the fact that their diet lacked in calcium? Although dairy products are rich in calcium, which is essential for our bones' health, it does not mean that we have to consume dairy rich products in order to maintain strong, healthy bones. As Wolf implied, magnesium is a fundamental mineral that takes a backseat to its cousin, calcium, because we hear about calcium all the time but rarely do we ever hear about magnesium, which played a large role in the evolution of our ancestors.⁸² Additionally, he indicates that calcium and magnesium work synergistically in the body, and if our magnesium intake is high, our calcium needs dramatically decrease.⁸³ Our hunter-gatherer ancestors maintained strong bones by eating a Paleolithic diet that was rich in magnesium, which as a result, did not require them to consume any calcium. Since our hunter-gatherer ancestors stayed away from dairy, they did not have to deal with the side effects of lactose, which spike our insulin levels and with protease inhibitors that cause inflammation and irritation. Foods that are good sources of magnesium are particularly dark green vegetables, as well as other fruits and vegetables.⁸⁴ Next time you try to follow your physician's advice of consuming a balanced diet of whole grains, legumes and dairy (especially low-fat) think again. These foods are lacking the nutrients found in other foods and cause more health issues (due to our body's inflammatory and

⁸² Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P279.

⁸³ Ibid. P220.

⁸⁴ Ibid. P280.

autoimmune response, as well as insulin spikes from grain and dairy products) rather than promote well-being.

The third misconception that indicates that *the only place to get dietary fiber and legumes* brainwashes us to think that they are essential when in fact not only we could survive without them but thrive if we eliminate them. Since I already discussed the role of fruit and vegetables in supplying our fiber requirement, it would be redundant to mention it again. Conclusively, although the USDA is making steps towards improving the contemporary American diet by promoting portion control, and calorie restriction to some extent, it does a poor job in promoting quality foods since it stresses the importance of calorie consumption rather than nutrient intake.

So far the focus has been on the foods that we should avoid, i.e. processed food items, grains, legumes and dairy. It was also highly advised to not follow the contemporary diet that the USDA prescribed because as it was shown, its guideline is not legitimate in the sense that if we were to follow such a diet, it will follow with that of Hippocrates' theory, which suggests "let food be thy medicine" which is an element that the *self-care* model follows.⁸⁵ Next, I will discuss the diet that should be followed in order for us to thrive. Earlier in this paper I used Pollan's recommended diet "Eat food. Not Too much. Mostly Plants". In the following pages I will explain in more detail, because although it provides a great template to follow, this diet is too broad in scope.

The solution to America's feeding crisis is the Paleolithic (or "Paleo") diet. Paleo diet is the only diet that our genes are meant to thrive on because this is the diet that our ancestors followed for decades before the rise of agriculture. If our ancestors followed a

⁸⁵ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P85.

specific diet that allowed them to flourish because it increased their survival rates, rather than leading to their extinction, and because we exist as a result of their flourishing, then genetically we are designed to follow such a diet as well. Before I describe the Paleo diet, the main thing to consider here is that Paleo is not a diet that is designed by some conformist dietitian for weight loss; is it a sustainable lifestyle that prescribes us to eat the way that our ancestors did, before food processing started, and before the days of agriculture. It is no magic potion, but the magic of Paleo is that it nourishes our body, rather than destroys it. According to Lindeberg, during the Paleolithic era food was consumed as follows:

Wild meat, fish, insects, eggs, fruit, berries, vegetables and nuts were consumed in varying proportions depending on the ecological niche. Seeds and beans were rarely eaten and never in large amounts on a daily basis. Dairy products and refined fat and sugar were not available. A large variety of plant species was consumed [...]. Accordingly, the intake of any single plant-derived bioactive substance (e.g. terpenoids, alkaloids, glucosinolates, tannins, phytoestrogens and lectins) was low. Many, if not most, of these bioactive substances are considered to be a part of the defense system against herbivory; plants do not “want” to be eaten. The highest concentration of bioactive substances is typically found in seeds and beans.⁸⁶

As the above excerpt suggests, our digestive systems were designed to break down food that our ancestors used to consume. No matter how much the USDA will redefine its calorie restriction plan, as long as it promotes foods that have any newly added artificial properties, they should be evaded from our diet because our digestive system cannot tolerate them, and they will disrupt the body’s sound chemical state.

Thus far, I only deliberated on what foods to avoid (processed foods, dairy, grains, and legumes). Before discussing Paleo, the main, things to note from this diet are:

⁸⁶ Lindeberg, Staffan. “Palaeolithic Diet (“Stone Age” Diet).” *Scandinavian Journal of Nutrition* 49.2 (2005): 75. Web. 25 Feb. 2014. Available at: <http://www.foodandnutritionresearch.net/index.php/fnr/article/view/1526>.

protein is the building block of our body, fats are essential, and sugars are the enemy. Additionally, forget any food related pyramid that the USDA designed. Forget the low calorie, low fat, high carbohydrate contemporary American diet because the Paleo diet will prove why all these theories are flawed and thus, demonstrate why America is still obese, despite all the efforts of the Government to improve the system. In a nutshell, the following is the guideline to the Paleo diet: Eat garden vegetables especially greens, lean meats, nuts and seeds, little starch, and no sugar⁸⁷.

As described above, our ancestors ate a diet that mainly consisted of mainly animal protein and fats, as well as non-starchy plant carbohydrates that they picked from the ground or from a plant. Our ancestors were not familiar with any of the of the foods that we categorize as carbohydrates today such as “starches and sugars found in grains, rice, potatoes; sugar, natural and industrial sweeteners, such as high fructose corn syrup; and fruits and sugar in dairy products.”⁸⁸ According to Reilly, the Paleo diet kept our ancestors’ bodies functioning optimally for more than forty thousand years because the food that they ate did not trigger the release of the hormone, insulin.⁸⁹ According to Wolf, the modern lifestyle which conforms to the contemporary American diet, which causes hyper-insulinism, which elevates the insulin levels in our blood and exposes us to disease.⁹⁰ Insulin is a vital hormone because it enhanced the survival of our primal ancestors throughout history by ensuring that energy was stored away, in such ways that glucose was stored in the muscles and liver, amino acids, the building blocks of protein,

⁸⁷ CrossFit Inc. “Nutrition,” n.d. Web. 8 Dec. 2013. Available at: <http://www.crossfit.com/cf-info/start-diet.html>.

⁸⁸ Reilly, Mikki. *Your Primal Body: The Paleo Way to Living Lean, Fit, and Healthy at Any Age*. Boston: First Da Capo Press, 2013. Print. P19.

⁸⁹ Ibid.

⁹⁰ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P78.

are moved to muscle cells, and fat, is stored away in fat cells.⁹¹ Although insulin is essential for survival, especially at times when food is scarce, Reilly indicated that it is important to maintain blood glucose levels at its optimal range of 70-90 mg/dl, because excess sugar circulating in the blood can be damaging to blood vessels, organs and tissues in the body.⁹² Since the regulating activity of insulin is triggered by carbohydrates, eating starches and sugars should be kept to a minimum because such foods will raise the production of insulin, causing us to store energy.⁹³ Contrarily, eating protein sourced foods such as meat, fish, poultry, and eggs sends a metabolic signal to raise the levels of both, insulin (the fat storage hormone) and glucagon (a fat mobilizing hormone that opposes insulin).⁹⁴ Thus, when eating protein, the rise in insulin pushes amino acids into the cells so that the body can use them to build muscle, while the rise in glucagon indicates the body should release stored fat to be burnt as fuel.⁹⁵ Furthermore, fats and oils stimulate the release of insulin in such trace amounts, even less than that of protein, therefore, not causing insulin to rise and have an energy storing effect.⁹⁶

Because our body is so specific with regard to maintaining blood sugar levels at a normal range, as Reilly suggested, the quality of foods that we eat affects the levels of our hormones and in the blood and with that, the functioning of our systems.

Substantially, Reilly notes that unlike other hormones that exist to raise glucose in order to provide quick energy for emergency situations (such as epinephrine, norepinephrine, cortisone, and growth hormone), only insulin was evolved to lower glucose. This is so

⁹¹ Reilly, Mikki. *Your Primal Body: The Paleo Way to Living Lean, Fit, and Healthy at Any Age*. Boston: First Da Capo Press, 2013. Print. P19.

⁹² Ibid.

⁹³ Ibid. P20.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Ibid.

because the bodies of our ancestors had little need to keep blood sugar lowered because their diet consisted of little carbohydrate intake.⁹⁷ Since early humans barely had to release insulin in order to keep optimal blood sugar levels, our bodies were not designed to release much insulin. Due to modern, contemporary diets that rely mainly on carbohydrates (especially in the form of grains), and the progression of hyper-insulinism, many chronic diseases that were uncommon to man in the past, are now part of daily living. This suggests why the diet that was constructed by the USDA, along with other diets that were devised by well renowned diet gurus, will not only make us more sick rather than thrive, but will never actually work. No matter how trendy a specific diet, may be, our bodies were not designed to function efficiently without the proper combination of foods.

We now know that eating a diet high in carbohydrates affects our health by releasing the hormone, insulin, which leads to weight gain, and obesity. I will now proceed to discuss on a molecular level how insulin makes us fat and unhealthy. According to Reilly, on an average, a person can only store 300-400 grams of glucose in the muscles and 60-90 grams of glucose in the liver.⁹⁸ Once the liver and muscles are filled with glucose, excess glucose is converted in the liver into fat and stored in adipose tissues (fat tissues).⁹⁹ As a result, overeating carbohydrates leads your body to automatically store fat. Aside from the fact that insulin is directly related to weight gain, Reilly indicated that excess stored fat as a result of eating too much carbohydrates not only gets stored as fat in your fat cells but once stored as fat, that fat resides in your fat

⁹⁷ Reilly, Mikki. *Your Primal Body: The Paleo Way to Living Lean, Fit, and Healthy at Any Age*. Boston: First Da Capo Press, 2013. Print. P20.

⁹⁸ Ibid. P21.

⁹⁹ Ibid

cells, making you stay fat.¹⁰⁰ Aside from the fact that continuous weight gain may lead to obesity, high insulin levels may lead to numerous other health issues. Once insulin circulates around the blood stream at high levels, our cells' ability to respond well to the hormonal message is reduced because our pancreatic cells (which release the hormone) build up a tolerance for insulin. This leads to a reduced response, which leads to to a insulin resistance, which is directly related to the evolution of diabetes.¹⁰¹ Furthermore, due to insulin resistance, other cells in the body lose sensitivity to insulin. Liver cells and fat cells build up a tolerance for insulin, which causes glucose to continuously circulate in the blood at high levels, which constricts nervous cells and blood vessels, leading to inflammation, heart disease, cancer, and loss of function.¹⁰² It is imperative to maintain low levels of insulin in our body in order to achieve health. This is proof that the Paleolithic diet not only promotes health, but also reduces the risk of developing essentially all of society's modern diseases.

We know that grains and dairy are of no benefit to us, and that carbohydrates should be kept to a minimum in order to maintain low levels of insulin. We know that if we do eat carbohydrates, they should be complex carbs, such as vegetables, because their high fiber content leads to a slow and steady release of insulin. In the past, and even today, we are told by healthcare professionals to stay away from refined carbohydrates, but to increase our intake of complex carbs, while cutting fat simultaneously. In the last paragraph, it was already discussed that cardiovascular and diabetes medications are prescribed in many cases based on the false ideology that sugar is in fact the killer, rather

¹⁰⁰ Reilly, Mikki. *Your Primal Body: The Paleo Way to Living Lean, Fit, and Healthy at Any Age*. Boston: First Da Capo Press, 2013. Print. P21.

¹⁰¹ Ibid.

¹⁰² Ibid.

than fat. As this suggests, there seems to be a big confusion between the effects of fat and sugar in our body. Next, I will justify the importance of fat consumption in order to further prove why sugar is the sole factor to weight gain and disease, and thus, an enemy to the *self-care* lifestyle.

According to Wolf, studies revealed that “there is no relationship between fat intake and cardiovascular disease. Some other factor must be at play.”¹⁰³ Although society assumes that fat makes people fat and causes heart disease, which seems to make sense, biologically this is not true. In order to prove why this paradox is a fallacy, I will discuss the chemistry of fats and their biological impact. Although fat has such a bad reputation, it is essential for our existence because it is a fuel, as well as a building block for nervous cells and hormones.¹⁰⁴ Notably, fats have different physiological roles based on their structure.

Fats are divided into two main categories: saturated fats (which have gained a negative reputation), and unsaturated fats (which have gained a better reputation in recent years). Although saturated fats gained the reputation of causing cardiovascular disease, as Wolf indicates, the reality is that saturated fats are generally benign and are somewhat helpful.¹⁰⁵ It is shown that saturated fats increase the potential of developing cardiovascular disease only when combining its intake with a high intake of carbohydrates.¹⁰⁶ As discussed earlier, high levels of circulating insulin leads to systemic inflammation. When combining a high intake of saturated fats with that of carbohydrates, other than the constriction of vessels due to inflammation, LDL cholesterol particles shift

¹⁰³ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P103.

¹⁰⁴ Ibid. P106.

¹⁰⁵ Ibid. P108.

¹⁰⁶ Ibid. P109.

to become small, dense, and easily oxidized, which causes blockage to blood vessels as well, increasing the probability of having a heart attack or stroke.¹⁰⁷ The bottom line is, saturated fats are only bad for you when their consumption is combined with a high intake of sugar. Lastly, there are three types of strands of saturated fats: lauric acid, palmitic acid, and stearic acid.¹⁰⁸ Saturated fats can be found in foods such as coconut oil, palm oil, and animal products such as beef, eggs, milk, poultry, and seafood, as well as chocolate.¹⁰⁹

Just to keep you on track, I will re-emphasize that saturated fats are not a factor for cardiovascular disease, and should therefore, not be avoided. They should not, however, be consumed in excessive amounts. Although they are not damaging to our health, they were not the main source of fat in our ancestors diet. Unsaturated fats on the other hand-namely of the monounsaturated variety-were the primary fats in our ancestral diet.¹¹⁰ There are two types of unsaturated fats: monounsaturated and polyunsaturated. As Wolf indicates, if we want to optimize our health, longevity and performance, we must eat like our ancestors did and thus, ensure that monounsaturated fats are the primary source of fat in our diet. Grass fed meat is rich in monounsaturated fats. Like monounsaturated fats, not only are polyunsaturated fats a basic nutrient in our diet but are essential in the sense that if we do not consume enough polyunsaturated fats, our health status will be jeopardized.¹¹¹ Members of the polyunsaturated fats family include omega 3 fatty acids, as well as omega 6 fatty acids. According to Wolf, omega 3 and omega 6

¹⁰⁷ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P109.

¹⁰⁸ Ibid. P108.

¹⁰⁹ Ibid.

¹¹⁰ Ibid. P11.

¹¹¹ Ibid.

fatty acids are essential in reducing inflammation.¹¹² Since inflammation plays a role in the progression of any disease essentially, the consumption of omega 3 and omega 6 fatty acids helps controlling elements that lead to the progression of cardiovascular disease, cancer, Alzheimer's etc.¹¹³ Aside from reducing inflammation, omega 3 and omega 6 acids help to control insulin and cortisol levels, and hence, affect energy balance, sleep, and fertility.¹¹⁴ Since omega 3 fatty acids and omega 6 fatty acids are essential for hormonal regulation, its consumption is imperative to proper functioning because our hormones affects wellness and disease, and essentially, health and longevity.

It should be noted that although omega 3 fatty acids are anti-inflammatories, while omega 6 fatty acids are pro inflammatory, because our ancestral diet contained equal amounts of pro-inflammatory to anti-inflammatory, our genetics were designed to consume polyunsaturated fats in a ratio of 1:1.¹¹⁵ According to Wolf, in our non-ideal modern diet, the ratio of the consumption of omega 3 fatty acids to omega 6 fatty acids is 1:10.¹¹⁶ Due to omega 6 pro inflammatory effects, this explains why chronic disease is on the rise. Sources of omega 6 fatty acids are seed and grain oil (such as safflower, sunflower, soy, borage, primrose and hemp oil).¹¹⁷ Additionally, omega 3 fatty acids are founds in grass fed meat, omega 3 enriched eggs and wild caught fish, especially salmon, sardines, anchovies, mackerel, herring, and trout.¹¹⁸

So there you have it. The truth about fats is that they are essential for our existence and health. They are not the key factor in the progression of high cholesterol. In

¹¹² Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P115.

¹¹³ Ibid.

¹¹⁴ Ibid. P116.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Ibid. P116.

¹¹⁸ Ibid. P117.

fact, excess carbohydrate consumption and hyperinsulinism are the key players in the progression of cardiovascular disease. When following the ancestral, Paleo diet, rather than worrying so much about consuming as little fat as possible, one should pay closer attention to his/her carbohydrate intake. For optimal health, when considering carbohydrate consumption, one should mainly consume vegetables as a source of carbohydrates, as well as supplement this basic carbohydrate consumption with tubers and fruit. Additionally, since the main source of fat in our ancestors diet came from unsaturated fats, it is imperative to consume more of the foods higher in unsaturated fats. More specifically, for an optimal outcome, by tracing our ancestors diet, attempt to eat fats in a ratio of omega 3 fatty acids to omega 6 fatty acids that is as close to that of our ancestors (1:1) and hence, consume mainly wild caught fish, enriched eggs, and wild caught fish in order to increase wellness and health.

With regard to macronutrient consumption, I have emphasized carbohydrate limitation and the importance of the consumption of fats (mainly, unsaturated), for optimal wellness. Now I will discuss the third and final macronutrient: protein. Protein is the building blocks of our body. According to the McKinley Health Center at the University of Illinois, protein is essential for the following bodily functions: growth, tissue repair, immune function, making essential hormones, and enzymes. It provides energy when carbohydrate is not available and preserves a lean muscle mass¹¹⁹. Proteins are quite simply the building blocks of life.

Proteins are comprised of amino acids. According to Wolf, there are twenty one amino acids, eight of which are *essential*, which means that we must get them from our

¹¹⁹ McKinley Health Center. "Macronutrient: The Importance of Carbohydrate, Protein, and Fat." *University of Illinois at Urbana-Champaign*. n.d. Web. 4 Feb. 2014. Available at: <http://www.mckinley.illinois.edu/handouts/macronutrients.htm>.

diet, while the other thirteen are *nonessential*, which means that our body can make them¹²⁰. Sources of protein that our ancestors fed on are grass-fed meats, wild caught fish and seafood, eggs; as well as nuts, starchy tubers and vegetables (protein is found here in smaller quantities).

One of three things happen after our protein-sourced foods are broken down. By describing the fate of protein in our body, I will emphasize on its importance. Wolf indicates that after protein has been broken down into amino acids, the liver either absorbs the amino acids for its own maintenance and functioning, converts the amino acid from one form to the next, or converts them into sugar.¹²¹ This raises another point that strengthens my theory, following a diet that is similar to that of our ancestors promotes our wellness. Since our bodies are designed to make carbohydrates from fats and proteins, it is safe to say that in order to enhance an individual's health, its best to not follow doctors' and other health authorities' prescriptions and eat like our ancestors did instead. The following excerpt describes how applying the CrossFit methodology (along with applying the Paleo diet) to one's lifestyle helped to essentially save Russ Laraway's life.

Russ Laraway, a former Marine Corps. Commander was much fitter than most of the population when he left the Marines in 1998 and became a civilian. Getting back to the "normal", sedentary civilian lifestyle led Russ to experience a steep decline in his physical health. After experiencing an oak poisoning in 2005, he went to the doctor's office, where he discovered that his blood pressure was high (at 140/104). The doctor

¹²⁰ Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt Publishing, 2010. Print. P49.

¹²¹ Ibid. P63.

advised Laraway to change his lifestyle, in order to avoid suffering a stroke before the age of 40.¹²²

Laraway started taking blood pressure medication to balance his blood pressure, but realized that it was time to take responsibility for his health and not solely depend on the medications. He started exercising again. Although he was exercising, he was not content with his workouts because he was bored and hated having to stick to a routine.¹²³ Between the years of 2005-2010, his workout programs involved running, mountain biking, and P90X. A friend of his suggested that he try out CrossFit because unlike those other programs, it was sustainable.¹²⁴ Russ proceeded to open CrossFit.com's website of August 16, 2010 and saw the daily workout, which was 15 sprints (run for 20 seconds, and rest for 40 seconds).¹²⁵ The following is Russ's exact description of his experience with CrossFit ever since that day:

I sprinted my butt off and started the process of learning CrossFit. I scaled the crap out of everything [...] I soon added some CrossFit equipment: a 30-lb kettlebell, a rock hard 10-lb medicine ball. CrossFit Brand X's website became my best friend with ready-made versions of the workout of the day (WOD) [...] I was consistent and enjoyed it [...] I quickly started to outgrow my home box. Because my wife and I were both all-in on CrossFit, and with three growing boys, we decided to go all-in on a home gym [...] I was on a roll. In fact, I had convinced my doctor to cut my blood pressure medication in half and had achieved sub 13 percent body fat.¹²⁶

After attending a CrossFit level 1 seminar (which teaches the person thoroughly about the foundations of CrossFit), Russ learned how to perform the sport's primary movements, as well as the basic principles of the Zone diet. Russ realized that he had to finally break

¹²² Laraway, Russ. "Systolic: 140. Diastolic: 104. Impending Stroke: Russ Laraway Explains Why He Believes CrossFit Litterally Saved His Life." *The CrossFit Journal*, CrossFit, Inc. Feb. 2013. Web. 29 Nov. 2013. Available at: http://library.crossfit.com/free/pdf/CFJ_Laraway_Saved.pdf. P2.

¹²³ Ibid. P3.

¹²⁴ Ibid.

¹²⁵ Ibid.

¹²⁶ Ibid.

from his sugar addiction when the CrossFit seminar staff challenged students to adhere to the Zone diet for four weeks. Russ indicated that after going strict Zone for a few weeks, he was no longer irritable, moody, did not have frequent headaches. By the winter of 2011, he had regained his health by wearing himself off of his blood pressure medication. As his blood pressure levels returned back to normal he was standing at 9.5 percent body fat.¹²⁷

Conclusively, Laraway implied that CrossFit saved his life in two distinct ways. First he indicated that CrossFit is a consistently changing exercise program that does not follow a routine, and is thus, sustainable.¹²⁸ Secondly, he specified that since CrossFit prescribes a diet that orders the individual to stay away from sugar, it helps to extend an individual's life.¹²⁹ Laraway thus concluded that because of the way that CrossFit had changed his life, it is a pathway to health.¹³⁰

¹²⁷ Laraway, Russ. "Systolic: 140. Diastolic: 104. Impending Stroke: Russ Laraway Explains Why He Believes CrossFit Lifterally Saved His Life." *The CrossFit Journal*, CrossFit, Inc. Feb. 2013. Web. 29 Nov. 2013. Available at: http://library.crossfit.com/free/pdf/CFJ_Laraway_Saved.pdf. P4.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Ibid.

Chapter 4

Eat to Perform

Thus far I have adopted the Paleolithic lifestyle, as the foundation for the *self-care* diet. Following a diet that is similar to that of our ancestors is essential in order to promote health by consuming whole foods that our bodies were designed to feed on, rather than eating food products that are now the main energy source of our modern diet, that cause illness and kill us slowly. As mentioned in the previous chapter, when following a Paleo diet, one should base his/her diet on “garden vegetables, especially greens, lean meats, nuts and seeds, little starch, and no sugar”. Since the *self-care* lifestyle traces not only the diet of our human ancestors, but also promotes ancestral fitness, it is imperative to stick to a diet that not only follows a feeding guideline for quality foods at its basis, but also a set standard for the required proportions of such foods. The last chapter discussed the importance feeding on quality foods in order to improve our health. This chapter will focus on portioning out the consumption of these quality foods in order to increase our performance, and in return, will describe how quantity affects wellness and longevity.

By eating mostly meat, poultry, fish, vegetables, nuts and fruit and avoiding food products like pasta, milk and cheese, one will increase his/her health in one dimension.¹³¹ Murphy indicates Dr. Sears’ ideology in his book and implies that what you eat and how much you eat both have a critical effect on body chemistry.¹³² Thus, eating the wrong amounts of things over a long period of time will wear out an individual’s insulin system

¹³¹ Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P76.

¹³² Ibid.

and open the door for potential fatal, chronic diseases like cancer, cardiovascular disease and diabetes.¹³³ This section will discuss the two-dimensional *self-care* diet; that's base is Paleo, for quality, and the ideology of the Zone diet (founded by Dr. Sears) for quantity. This two-dimensional diet will lead to improved adaptation and as a result, will lead to a significant improvement in performance and wellness alike. According to Dr. Sears, the Zone diet is efficient not only in regards to weight control, but also improves health and increases performance because following its prescription leads to the mastering of the production of insulin¹³⁴, which as described in the previous chapter, is related to every chemical reaction in the human body.

In order to follow an optimal nutritional regimen, Sears recommends sticking to a guideline where 40% of the caloric intake comes from carbohydrates and the remaining 60% are split halfway between protein and fat.¹³⁵ By maintaining this macronutrient balance, Sears theorizes that a person will neutralize his/her hormonal response to food and provide anti-inflammatory stabilization.¹³⁶ As Murphy suggests, the human body is like a machine, and any machine is dependent on quality fuel to run optimally.¹³⁷ Conclusively, Paleo diet gives the individual quality macronutrients, but Zone optimizes one's diet by providing one with macronutrients in the right quantities. Therefore, if one fuels his/her body with top fuel, he/she will improve his/her performance and in ancestral terms, thrive. Studies show that CrossFit's top performers are zone eaters and that when second tier athletes commit to "strict" adherence to the Zone guidelines, they generally

¹³³ Murphy, T.J. *Inside the Box: How CrossFit@ Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P76.

¹³⁴ Ibid. P77.

¹³⁵ Ibid.

¹³⁶ Ibid.

¹³⁷ Ibid. P80.

become top-level performers.¹³⁸ The following excerpt describes the experience of CrossFit athlete and coach, Nicole Carroll with zone:

I never thought what I ate mattered. I was thin and muscular. My athletic performance was decent. I generally felt pretty healthy and happy. So I was skeptical about diet having any kind of real impact on anything [...] But I did have a sense that this wasn't true for everyone and that as a trainer, people would be asking me questions about nutrition and diet [...] The deal I made with myself was that for two weeks I would weigh and measure precisely. If after two weeks I wanted to go back to eating the way I was before I could. No guilt, just an experiment [...] Four weeks into the Zone diet, I was stronger and faster than I had ever been. I had lost fat and gained muscle. My benchmark workout times decreased, and my pull-up numbers increased. I hit PRs in deadlift, back squat, and push jerk. I had more energy, recovered more quickly, and could push harder more often. Furthermore, I was happier and more emotionally balanced. I woke up feeling good. Best of all, I felt sharper. The tiny bit of hunger that remained kept me on an edge that I have come to appreciate tremendously. I can only describe it as a state of readiness, of feeling honed physically and mentally [...] And indeed it did. I had never experienced so directly and consistently the practice of not giving up when it gets hard. Every time I entered my kitchen I had the opportunity to fail. It would have been so easy. But I didn't, and I cannot describe emphatically enough the rewards—both physical and mental—that getting through that has brought to my life. I went from not believing I could survive on the Zone to not believing how much I thrive on it. In just 4 weeks. Try it.¹³⁹

Simply implying that following Zone diet consists of dividing up one's macronutrient percentages is not a sufficient description of this methodology. Next, I will emphasize how Zone diet is broken down more accurately and easily for the dieter. When following the zone diet, meal plans are measured by the term "blocks" in order to simplify portions for balancing out meals. A block of fat is equivalent to one and a half grams of fat; a block of carbohydrate is equivalent to nine grams of carbohydrate, while a

¹³⁸ "Meal Plans." *The CrossFit Journal*. CrossFit, Inc. May 2004: 21. Web. 4 Feb. 2014. Available at: http://library.crossfit.com/free/pdf/cfjissue21_May04.pdf. P1.

¹³⁹ Nicole Carroll. "Getting Off the Crack." *The CrossFit Journal*. CrossFit, Inc. 2006. Web. 29 Nov. 2013. Available at: http://library.crossfit.com/free/pdf/38_05_off_the_crack.pdf. P1.

block of protein is equivalent to seven grams of protein¹⁴⁰. Following the block scheme, based on the individual's sex, body type and level of activity, he/she will be required to consume a prescribed block plan. The table shown in Appendix A was retrieved from the CrossFit Journal and determines the advised daily block requirement based on the individual's sex and frame:

From the above table, it can be observed that a small female, for example, is advised to eat a total of ten blocks a day.¹⁴¹ As this suggests, she is required to consume ten blocks of fat, ten blocks of carbohydrates and ten blocks of protein on a daily basis. Zone simplifies quantity consumption of macronutrients, because rather than consuming a total of 15g of fat, 90 grams of carbohydrates and 70 grams of protein (which is equivalent to the values of a ten block a day requirement), that woman is expected to consume a total of ten blocks of each macronutrient. It should be noted that although the Zone guideline generally requires the individual to consume an equal number of blocks for every macronutrient, for every meal, this does not necessarily have to be the case if such proportions are not optimal for the individual. Finally, as the table depicts, Zone prescribes a total daily block consumption that is broken down into five meals a day (breakfast, lunch, dinner, and two snacks). Like the macronutrient block proportion that could be tweaked around (i.e. not necessarily following zone in the 40/30/30 sense), as I described above, if breaking down one's total macronutrient intake into five meals is not optimal for the individual's lifestyle, such a prescription can be adjusted. Although Zone has a baseline scheme that follows the 40/30/30 macronutrient proportion, it is very dynamic in the sense that the individual can change the prescribed proportions of

¹⁴⁰ "Meal Plans." *The CrossFit Journal*. CrossFit, Inc. May 2004: 21. Web. 4 Feb. 2014. Available at: http://library.crossfit.com/free/pdf/cfjissue21_May04.pdf. P2.

¹⁴¹ Ibid.

macronutrients to be consumed and the number of meals a day to be eaten in such a way that works best for his/ her benefit.

Conclusively, this nutrition guideline is so effective for two reasons: it fits everyone's lifestyle and allows the tracking of food in an effortless manner (in comparison to other "diets", more specifically, fads). First, by breaking down macronutrients to blocks, the Zone is much easier to follow because it is easier to count blocks rather than grams for every macronutrient. In addition, by following the Zone food guide chart, one is more likely to remember how many grams of every micronutrient each food contains, because the conversion of blocks to grams is very simple.

Appendix B depicts a simple Zone block list, which indicates the exact food portions that are equivalent to a block of each macronutrient (protein, fat, carbohydrate). By referring to such chart, it will be easy to assemble together meals that have a Paleo entity at its basis and are in the exact portions as prescribed by Zone's guideline.

Based on the "fat" macronutrient list, for example, it is much easier to remember that six almonds make up two blocks of fat, (or three grams of fat). Imagine if you had to measure 330 almonds! According to the zone chart, it is already simplified that if 3 almonds make up one block of fat, then 330 almonds would be equivalent to 110 blocks of fat. Based on the easy conversion from blocks of fat, to grams of fat, we now also know that 330 almonds contain 165g of fat. Because this system is fair and simple, this means that it is easy to stay on track, which allows for sustainability.

Moreover, zone allows to track food in an effortless manner because once an individual follows the zone plan for about two weeks or so, he/she starts to get a basic idea of how many blocks each portion of food provides. The block system is especially

effective because it provides a tool that makes it easy to remember the required portions of food to be consumed in the long run. When “Zoning”, I advise you to write down and measure everything that is consumed in the first few weeks until you get in the hang of the block system. It is not necessary to do so in the long run because once an individual gets a good sense of the block system, it is very easy to remember the number of blocks of macronutrients that every food contains and also because when considering sustainability, it is imperative for a plan to be simple and to not limit the individual, but rather, to offer a better option. Ultimately, the Zone guideline certainly makes nutrition much simpler.

Along with allowing for relatively simple tracking of food consumption, Zone embraces the fact that everyone is different. Although zone is designed for everyone with a set guideline of a daily intake with a ratio of 40% carbohydrates, 30% protein and 30% fat, it is very acceptable for an individual to not follow such pattern if it is not ideal for his/her body. If the individual does not feel as if he/she is thriving under the basic guideline, then it is acceptable to tweak around these proportions until the individual reached a happy medium. Take Carroll’s case for example: After two weeks of following the standard Zone prescription, which follows ten blocks in total, she tweaked her fat consumption to be five times higher, i.e., from the original 15 grams to 75 grams per day.¹⁴² As Carroll responded, “Once I made that change, it got much easier because the benefits came quickly. With the “crack” cravings quelled and little thought of wanting more food, I was now chasing results.”¹⁴³ It should be noted that when discussing the flexibility that the Zone offers, one can also teak around the number of meals eaten daily

¹⁴²Nicole Carroll. “Getting Off the Crack.” *The CrossFit Journal*. CrossFit, Inc. 2006. Web. 29 Nov. 2013. Available at: http://library.crossfit.com/free/pdf/38_05_off_the_crack.pdf. P2.

¹⁴³ Ibid.

in order to optimally fit everyone's lifestyle. As discussed in the last chapter, insulin has an indirect effect on all bodily reactions. Zone specifically prescribes consuming five meals a day in order to properly regulate insulin levels.

Since the individual who follows the *self-care* paradigm will consume foods that are Paleolithic and hence do not cause a spikes in insulin levels in the blood to begin with, the individual that follows the Zone as a second dimension to his or her diet, does not necessarily have to adhere to the five meal prescription, provided he/she consumes the appropriate amount of blocks by the end of the day. For example, if a woman that follows the 10 blocks a day plan works a 10 hour shift and is not allowed to eat while on the job, she can break down her block requirements to three meals a day (4 block breakfast, 3 block lunch, 3 block dinners for example), rather than five, as long as she eats the appropriate number of blocks on a given day. Contrarily, if that same woman is dissatisfied with the two block meals five times a day and instead prefers, three meals a day, consisting of three blocks each, in addition to a snack equivalent to one block, although that is not the ideal plan to follow, it is acceptable.

There you have it; the two-dimensional *self-care* diet plan. The foundation is the Paleo diet that dictates quality. The top of the *self-care*'s dietary plan is the Zone guideline, which provides standardized proportions for the intake of macronutrients to be consumed based on the individual's weight class and sex, in a simple manner. Although the Zone provides a specific guideline to be followed in its proportions, it could be tweaked in order to fit everyone uniquely. Even though all individuals have a quite similar genetic makeup for the most part, in reality, we are all distinctive individuals, whose bodies are designed to work differently. Therefore, person A will not necessarily

achieve the best results from eating a diet which consists of similar proportions of macronutrients to person B and the *self-care* lifestyle plan, unlike all other diet fads, embraces this.

The *self-care* dietary guideline is sustainable and measurable, which is why it is so effective. By following a Paleolithic based diet, with zone as its second dimension, individuals will avoid chronic illness, and enhance their longevity. They will improve their lives because they will be fueling their bodies in a way that will enable them to achieve top performance. Since the *self-care* life plan prescribes ancestral living, and with that, ancestral exercise in the form of CrossFit training, following the prescribed *self-care* diet is necessary to fuel the body properly. In return, combining the prescribed *self-care* exercise model, with its dietary guideline will lead to improved adaptation. The better an individual can adapt, the more likely he/she will thrive. Yes, you were born to move and you are what you eat!

Chapter 5

The Force of the Human Connection: The Influence of Group Support on Our Health

Human beings are complex entities comprised of a body, a mind, and a soul. You have probably already heard the expression, “healthy body in a healthy mind”. Thus far, I indicated the distinct ways to promote wellness by improving our lifestyle physiologically, through proper nutrition and exercise. Since the *self-care* model is designed to promote wellness, aside from promoting physiological health, I will now discuss the importance of maintaining psychological health and thus, a healthy mind.

Dr. Allison Belger indicates in her book that communities are a critical aspect of the human experience.¹⁴⁴ Belger defines a community as a group of people with enhanced social connections mutually engaged in an activity or common interest ad pursuit.¹⁴⁵ According to social epidemiologist, Lisa Berkman, social networks and community support has a major role on the physical health and wellness of individuals.¹⁴⁶ In research that Berkman conducted, she found that individuals who are socially isolated have higher mortality rates than those who are involved in a community setting.¹⁴⁷ Therefore, this exemplifies that there is a direct correlation between our physical and mental health.

According to Stanton Peele, there are three generations of disease. The first generation, he suggests, is comprised of disorders that are defined through their physical effects (such as diabetes, cancer, heart disease, etc.).¹⁴⁸ The second generation of disease

¹⁴⁴ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing, 2012. Print. P25.

¹⁴⁵ Ibid. P33.

¹⁴⁶ Ibid. P35.

¹⁴⁷ Ibid.

¹⁴⁸ Peele, Stanton. *Diseasing of America: How We Allowed Recovery Zealots and the Treatment Industry to Convince Us We Are Out of Control*. San Francisco: Jossey-Bass Publishers, 1995. Print. P5.

is diagnosed by people's emotions and is measured according to the thoughts, feelings, and behaviors that individuals produce while experiencing these emotions.¹⁴⁹ Peele indicates that the third generation of disease-addiction-strays away from the first generation of diseases even more, as these diseases are known by the behaviors that they describe.¹⁵⁰ As Peele suggests, an addict is an individual whose life is devoted to seeking out an ongoing behavior.¹⁵¹ Although first, second, and third generations of disease affect our health to a different degree (physical, psychological, or both) it is fair to say that they equally influence our wellness. Since the *self-care* model is designed to re-establish people's health status by promoting wellness, it is imperative to delineate how to promote not only physical, but psychological health as well. As it was described earlier, since an individual's social connections have an impact on his/her behavior-and thus, mental state-the community plays an important role on the individual's mental health, overall. Conclusively, not only is it necessary to surround ourselves with others, but to also to surround ourselves with people who will provide a positive impact on our lives. As Belger indicates, social connectedness can help us live healthier and longer lives.¹⁵² Next, by using two distinct narratives, I will demonstrate how surrounding ourselves with a community of individuals who provide social support has a therapeutic component on the individual's mental state, in return, physical state as well.

In her book, Belger discusses the significant impact that being involved in a CrossFit community had on the lives of individuals by relaying the stories of individuals

¹⁴⁹ Peele, Stanton. *Diseasing of America: How We Allowed Recovery Zealots and the Treatment Industry to Convince Us We Are Out of Control*. San Francisco: Jossey-Bass Publishers, 1995. Print. P5.

¹⁵⁰ Ibid. P6.

¹⁵¹ Ibid.

¹⁵² Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing, 2012. Print. P36.

that belonged to her husband's gym. The idea of CrossFit is that the fittest individuals are well prepared for what life throws their way.¹⁵³ As discussed earlier, CrossFit is a broad and inclusive fitness methodology which demands ten distinct capacities: cardiovascular/respiratory, endurance, stamina, strength, flexibility, power, coordination, agility, balance, and accuracy.¹⁵⁴ Therefore, CrossFit can lead individuals to a higher level of physical preparedness, and allows people to reach new levels of personal achievement. An exceptional feature that this fitness methodology has on the individual- other than physically preparing him/her to any life endeavor-is providing a feeling of social connectedness. The community aspect of this exercise program plays a very powerful role in the lives of all CrossFit athletes. CrossFit makes positive changes in people's lives by engaging a system that focuses on proper nutrition and physical wellness, by offering an exercise program that increases work capacity and thus, general physical preparedness. This program is exceptional in the sense that its process of transmission promotes social connectedness.

CrossFit's methodology is designed to be transmitted in a group setting, to individuals who share similar fitness goals. It is especially powerful because this transmission via group setting changes people's lives on personal and social levels. As Belger indicates, membership in a group whose goal is to spread information about exercise, nutrition, health, and wellness provides an exponential benefit because distribution of information throughout a community, improves members' retention of said information.¹⁵⁵

¹⁵³ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing. 2012. Print. P23.

¹⁵⁴ Ibid. P22.

¹⁵⁵ Ibid P37.

The following is a summary of a narrative that describes how being a part of a CrossFit community where an individual is surrounded with other fellow CrossFit members that are enthusiastic about exercise, nutrition, and wellness on a whole, and share a form of discomfort on a daily basis through workouts, helped to transform a person's life. It did so by providing a solid support system through sickness, and at a time of great emotional stress. In return, it helped this person to not only maintain mental sanity, but also, to get her life back. This narrative was extracted from the section "Arbella's Story" (P39-42) in Belger's book, *The Power of Community*.

Arbella, who is a member of the CrossFit program at TJ's gym, joined the CrossFit community in 2008 (where at the time she was in her early forties) in hopes to pursue optimal physical performance and overall health. Before she knew it, she was fully immersed in TJ's community. One day in the spring of 2009, Arbella received shocking news following a routine mammogram, which had initially revealed a lesion in her breast, which was later confirmed to be breast cancer. As Arbella began sharing her devastating news with close friends and family, she shared it also with the owner of the gym, TJ, as well as the narrator, TJ's wife, Dr. Belger. Belger noted that on the day Arbella had broken the news to her they ended the conversation by "embracing hope and promising that we'd figure out whatever plan would work best for her".¹⁵⁶ Although Belger could not offer any medical help, she promised Arbella to be there every step of the way, along with the hundreds of other members of the community, who would be there for her during the fight of her life. The following excerpt is Belger's description of some of the ways in which TJ's gym stepped in to help Arbella's situation:

¹⁵⁶ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing. 2012. Print. P40.

Margie, having been the recipient of this kind of help during a time of family crisis, spearheaded the meal delivery schedule for Arbella and her family. I was in charge of making sure her boys were well-stocked with DVDs, as the hours late in the day were typically the most exhausting for Arbella. We took walks, often talking about a non-FDA approved technique she was using to salvage her amazing hair—a long, thick, black mane for which Arbella was known. Other TJ's Gym members accompanied her on hikes and walks, as this was the level of rigor Arbella could tolerate through her treatment. She received flowers, gifts, and cards—all sent from members, many of whom she had never met. There were trips to our Corte Madera gym, a short walk from her home that provided a place of solace and comfort. Still, these visits sometimes left Arbella in tears as they forced her to reckon with the fact that for others life goes on, while her own life was in a holding pattern of terror and fear.¹⁵⁷

Belger indicated that as Arbella watched others in the gym, this motivated her to hold on to the goal of getting back to her training routine once she was finished with her treatment. In a great display of physical and mental strength, Arbella beat the cancer. Additionally, she returned to her workouts as soon as her body allowed and was back to being an active member of her gym's community. Belger noted that in October of 2010, TJ's gym held fundraiser workout event, "Burpees for Breast Cancer." During this event, the community successfully raised \$5,000 in honor of Arbella and other men and women within the community that had struggled with cancer. Belger concludes the story by describing her presence at Arbella's one-year anniversary of her diagnosis, where family, friends, and TJ's gym members joined Arbella to a toast for her health and long life.

As this excerpt suggests, social connections play an integral role in a person's life. Arbella was very sick, and thus, scared, lost, and helpless. The community of TJ's gym helped Arbella by providing an immense emotional support. This, in turn, led to her gaining mental toughness and stability as the members helped Arbella to remain focused on battling the disease by helping her around the house, keeping her motivated, and

¹⁵⁷ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing, 2012. Print. P41.

involving her in activities that would aid in her desire to return to working out at the gym. Conclusively, this narrative demonstrates how our mind, body, and soul are connected and how important it is to surround oneself in a community that provides an immense positive emotional support. Especially during times of need, this helps to improve one's mental stability, and thus, mental health. By maintaining good mental health, an individual's well being is improved distinctively; stimulating his/her physical, as well as psychological states. Consequently, by having a solid psychological state, an individual is able to stay away from second and third generations of disease (emotional disorders and addictions) by remaining mentally stable and by curbing compulsive behaviors. In this narrative, the power of social connections not only helped Arbella to remain mentally motivated and stable throughout a time period in her life that led to great suffering, but it also helped her indirectly to fight cancer, and thus, regain her physical health and return to a healthy lifestyle that promotes wellness.

The next narrative is somewhat similar to the one above in the sense that it demonstrates how social connections can help us to live a longer, healthier life; but different in the sense that it demonstrates how being involved in a certain community has a powerful impact on an individual's behavior. In this case, the narrator describes how involving oneself in a community has a major impact on the individual's behavior-be it positive or negative. The following is a brief biography from the CrossFit Journal's library, contained in the article, *Meet Shari Keener: Changing the Pattern*.

Shari Keener, a former drug addict, started smoking marijuana when she was in the sixth grade. Very quickly, she started abusing pharmaceutical drugs and selling them to kids at school, which turned to her surrounding herself with bad company that led her

to start abusing harder drugs such as meth. Due to her involvement with drugs, she left her home when she was 16 to move in with her peers in a party house, located in San Jose, CA.

She married young, and overdosed on a few occasions with her husband. Her husband passed away due to an overdose, while she was saved by her cousin who happened to be in the right place at the right time. Keener cleaned up her life by the age of 24. At this point, she shifted her focus to a healthier addiction: running. She stated, “You are going to be addicted to something in this world; whether it is food, alcohol, drugs. Taking that energy and transferring it to something positive is the only way to change a behavior.”¹⁵⁸

Aside from being a runner, Keener is a mother of two, as well as a CrossFit coach and athlete. Keener connected with CrossFit because it filled in a void for her addictive behavior and because training by using the CrossFit methodology has helped her to become a better runner.¹⁵⁹ While discussing the topic of CrossFit, Keener indicated that is “powerful because it brings the intensity up and connects a lot of people with addictive personalities, because it is so intense and overwhelming.”¹⁶⁰ Keener concluded that as a person, it is up to you to change the pattern of your life, and that it is imperative-as she has done at her gym- to surround yourself with individuals who provide support and come together on a regular basis in order to reach a personal goal of bettering themselves.

I decided to specifically use Keener’s narrative because it conveys a very powerful message. It demonstrates the impact that a community has on an individual

¹⁵⁸ Keener, Shari. “Meet Shari Keener: Changing the Pattern.” Dir Jon Gilbert, CrossFit Santa Cruz Central, Santa Cruz, CA. 14 Aug. 2013. Video, 10 Dec. 2013. Available at: <http://journal.crossfit.com/2013/08/changing-the-pattern-part-1.tpl#featureArticleTitle>.

¹⁵⁹ Ibid.

¹⁶⁰ Ibid.

from a positive as well as a negative perspective. Here, Keener exemplifies how the community that she surrounded herself with during her early days had a negative impact on her life as it introduced her to drug abuse, and supported this habit of hers. She later described how social connections (familial and non-familial) may also have a positive impact on a person's life. By discussing how her family-more specifically her cousin-got her out of the community that supported her drug abuse, she exemplified another powerful force that an individual's social connections have on a person's life. Keener said that had it not been for her cousin, she would have suffered the same fate as her ex-husband. Following her discussion about the positive impact that her familial connections had on her life, she discussed the positive impact of the non-familial social connections that she experienced. By immersing herself in a community that's members share the same interests as her, Keener remains mentally stable by focusing her energy on positive things. By involving herself in CrossFit, Keener fills the void of her addictive personality, and channels her addiction towards something positive.

Based on the two narratives that I used in this chapter, it can be seen that social integration not only has a therapeutic psychological component, but a therapeutic physical component as well. In the first narrative, I demonstrated how Arbella got the support she needed from the CrossFit community, at a time where she had to fight for her life. As Arbella was battling for her life with breast cancer, not only did her community help her to hold her head up high through the suffering and become a stronger individual, but essentially, also helped her to regain her life and health back by beating the cancer. Contrarily, I validated that the community has such a powerful influence on our behavior, in the negative sense, by demonstrating through Keener's narrative that surrounding

oneself in a certain company can even lead to death, in this case, through addiction. Following such example, Keener displayed the therapeutic effects that having social connections had on her life both, in the psychological as well as physical senses. By getting the support from her family and from the CrossFit community, Keener regained her life by surviving a serious overdose, and eventually, cleaning up her life. Aside from having a strong support system to help improve her physical health, Keener surrounded herself by a community that enabled her to go on with life by not having to depend on getting high off of substances. Instead, she found a way to take all her energy and change it to something positive. These two narratives further prove Belger's theory that an important feature of a community is its ability to provide support for its members, which, in return, leads to both personal and public benefits.¹⁶¹

On a side note, this chapter is especially important because aside from indicating the therapeutic effects that the social community may have on individual (when it provides the social support towards a positive goal), it also shows through Keener's narrative and confirmed in Belger's writings that exercise has positive benefits for people with addictive disorders, who are now in recovery. As Belger suggests, regular exercise appears to diminish many risk factors that contribute to addictive tendencies, such as depression, anxiety, and stress.¹⁶² She follows to imply that experts agree that some form of exercise should be included in the treatment of addictions; in order to increase the chances of achieving long term recovery, as well as improving the individual's overall health, wellness, and psychological well being.¹⁶³

¹⁶¹ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing, 2012. Print. P13.

¹⁶² Ibid. P189.

¹⁶³ Ibid.

Another subject I would like to address in this chapter is the prescription of CrossFit as a recovery tool for substance abusers. Since CrossFit's methodology is based on two main components: exercise and the community, I find it to be a powerful program with regards to helping addicts overcome their addiction, based on two bodies of evidence. First, it is shown that interactive accountability can help recovering addicts free themselves from substance abuse (take Alcoholics Anonymous and the Twelve Step Model for example).¹⁶⁴ Secondly, unlike other exercise programs, CrossFit newcomers who have quit other exercise programs tend to stick with CrossFit.¹⁶⁵ Although there is not solid clinical evidence to prove the ideology that CrossFit should be used to as a recovery program for addicts; based on Keener's history, I believe that the CrossFit methodology is as therapeutic a tool for the mind as it is for the body. It is widely known that many recovery programs fail. According to the National Institute on Drug Abuse, 60 percent of addicts end up relapsing, which is almost similar to the relapse rate for patients with chronic illnesses such as Type I Diabetes, Hypertension, and Asthma.¹⁶⁶ Since CrossFit encompasses a high level of community support in their exercise programs, I believe that CrossFit will have a higher success rate with regard to helping addicts recover from their drug dependence behavior, and instead turn their addictions in a more positive direction.

¹⁶⁴ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing. 2012. Print. P190.

¹⁶⁵ Ibid.

¹⁶⁶ National Institute on Drug Abuse. "Relapse Rates for Drug Addiction are Similar to Those of Other Well-Characterized Chronic Illnesses." National Institutes of Health. n.d. Web. 20 Feb. 2014. Available at: <http://www.drugabuse.gov/publications/addiction-science/relapse/relapse-rates-drug-addiction-are-similar-to-those-other-well-characterized-chronic-ill>

Chapter 6

Putting All the Pieces Together

Although health is the most important factor of our existence, it is evident that in today's society, it has taken a back seat on people's list of priorities. In modern living, in order for one to be successful, he/she is encouraged to have a high level of intellect and income. While everything is evolving at such a fast pace around us, we forget the old adage that money cannot always buy what really matters (in this case, health). Although money can provide for better healthcare, we cannot buy our health because like money, we have to work for our health. Therefore, in order to gain health, one is required to make a lifelong investment. I believe that by investing in our health, we in turn, invest in our wealth. I aim to redefine society through health by following a lifelong wellness plan, called *Self-care* that I outlined in this thesis. My goal is to help individuals achieve a long life, where sick days are very few, and where the involvement of the healthcare system is miniscule. Unlike any other program, this wellness program is especially unique because it is designed to fit every individual. It discourses a lifestyle that works in harmony with our genetic code, DNA, which essentially, controls everything that we do. Therefore, the *self-care* wellness plan is an investment lifestyle for those who believe that health is wealth.

We live in an era where science, technology, and medicine are so advanced, and where thousands of lives are being saved on a daily basis. Additionally, our lifespan is the highest it has ever been because we live in such a modern age. Living a modern lifestyle also has its disadvantages. Due to such a fast-paced lifestyle, the quality of our living is now poorer than it was in the past because we are looking for quick solutions to

our problems, and neglecting to take the proper care of our mind and bodies. For example, according to nutritionist Michael Pollan, there is a correlation between the rise of the obesity epidemic with the decline in “time cost” of eating-cooking, cleaning up, and so on.¹⁶⁷ Additionally, Pollan indicated that the widespread availability of cheap convenience foods could explain most of the twelve-pound increase in the weight of the average American since the early 1960s.¹⁶⁸ He pointed out that in 1980, less than ten percent of Americans owned a microwave, while by 1999 that figure had reached 83% of households.¹⁶⁹ He concluded by saying that as technology reduces the time cost of food, we tend to eat more of it.¹⁷⁰ This indicates that although we are now living in a golden age where everything is accessible, if we continue to follow the herd with regard to living a poor lifestyle, we will in fact, set ourselves up for failure. This leads to the fact that even though we now we live much longer than we did just a century ago, we spend far more days being sick than our ancestors ever did. This is due to a number of factors: stress, sedentary lifestyle and improper eating.

The aim of this paper is to stress that the key to a high quality of life is using the best services that the healthcare system has to offer only at times when things go beyond our control; to adopt the *self-care* lifestyle to avoid having to depend on the healthcare system for its services, and in return, to live long and prosper. Throughout this paper I have discussed in great detail what one must do in order to be fit and live long. I devised a functional exercise program, which is constantly varied, and is performed at a high intensity in order to achieve fitness. Coach Greg Glassman, the founder of CrossFit,

¹⁶⁷ Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P186.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid. P187.

¹⁷⁰ Ibid.

discussed that in order for one to achieve health, he or she has to attain and maintain fitness, since health is fitness across a broad time period, i.e. years.¹⁷¹ Since Glassman describes fitness as the ability to perform an increased work capacity in as many modalities of the ten bases of fitness (endurance, stamina, strength, flexibility, coordination, balance, agility, accuracy, power, and speed); in order for one to achieve health, he/she must be able to perform an increased work capacity in each of these modalities over time. The fitness program I discussed in my paper follows the CrossFit methodology and thus, touches on the importance on developing each of these ten modalities of fitness. Rather than simply focusing on one modality as most people usually do (such as running), building skill in each of these modalities will enable the individual to be prepared for the unknown and the unknowable.

I completely agree with the ideology of the naturaceutical company, Faster Stronger Healthier (SFH); that it is possible to be fit, but still not healthy.¹⁷² As a result, my *self-care* wellness program is comprised of other foundations as well. The second foundation in which the *self-care* model lies on is diet. The diet deliberated in this paper is one that has a Paleolithic underpinning. The Paleo diet was applied to this model, even though we live in a modern era, because we evolved from our primal ancestors. If we share a similar genetic makeup with our ancestors that existed without the chronic illnesses we suffer from today, it only makes sense that our bodies are designed to feed the way our ancestor's fed. The Paleo diet is a low calorie, nutrient rich diet, in

¹⁷¹ Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped Down the Gym, and Rebuilt My Body*. Boulder: Velo Press, 2012. Print. P34.

¹⁷² "Healthy Science." *Stronger Faster Healthier*. n.p. 2013. Web. 24 Feb. 2014. Available at: http://www.sfh.com/education/science_healthyscience/

comparison to the conventional, new-age diet. It is comprised of naturally sourced foods, rather than highly processed food-like items. Such Paleo diet is based on veggies, high quality proteins, healthy fats, and most importantly, no added sugars. Due to the fact that I prescribe a diet that is rich in nutrients and lower in calories than the the modern, sugar laden, high caloric diet, portion control also plays an important factor. Although the reader has to follow an active lifestyle, portion control has to be considered not necessarily in order to control the number of calories being ingested (as all fad-diets do) but rather, to manage hormonal release prior to eating. This is so because hormonal regulation affects all bodily responses, and in return, our health. Following the consumption of macronutrients, especially that of carbohydrates, insulin is being released from the pancreas and insulin regulation is imperative with regard to weight control and the development of inflammation. Since inflammation plays such a major role in the onset of life threatening chronic diseases such as type II diabetes, cancer, and cardiovascular disease, insulin regulation and portion control is necessary, if one is concerned about his/her health he/she must eat to control inflammation. Unlike other diet plans, the *self-care* plan works because the guideline for every person's portion control is given based on his/her sex, level of activity, and body type.

The last foundation of the *self-care* wellness model addresses mental health; for what is a healthy body without a healthy mind? In this part I discuss the role of community on the individual and promote social connectedness. As psychologist Dr. Allison Belger indicates, human being perform better in groups.¹⁷³ In order to promote mental stability I recommended forming social connections with those individuals who

¹⁷³ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing. 2012. Print. P23.

share similar interests as you, or have the same goals as you, because it will benefit you and those around you. As Belger implies, by creating a community that is based on similar values or experiences programs thrive because they provide individuals with support and a feeling of connection.¹⁷⁴ Another way in which this paper promotes mental health is by promoting rest. We live in an era where our lifestyles are sedentary, and yet, we are not restful. This results in mood swings, and in return mental instability. Furthermore, it promotes weight gain, which may lead to depression; anxiety and other clinically recognized mental issues. Thus, this paper promotes rest not only for proper recovery from activity but also in order to promote mental health.

I recommend complying with this program for at least thirty days to give your body an opportunity to adjust to this lifestyle, and in return, not only see a difference, but feel it as well. In summary, in order for one to be healthy and fit, it is imperative to do the following: exercise, maintain and build muscle mass, facilitate post exercise recovery, support a normal inflammatory response, optimize metabolic rate, sleep well, prevent and fight infections, eat right, and to read products' labels (and not be a victim to marketing strategies). By following these steps of the *self-care* wellness plan, I guarantee that you will achieve long-term health and therefore, will have to rely on medicine only as a last resort. By following such a lifestyle, your body will function like it is meant to.

It is important to signify another reason to justify the writing of this paper. Because factors such as education, the environment, and inequality have an overall influence on our health, I find it important to try to change the things that we can because we have the power to do so. Although we can neither change the environment that we

¹⁷⁴ Belger, Allison. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Publishing, 2012. Print. P12.

live in (i.e. mass production of processed foods or the fact that we have a busy schedule and only 24 hours in a day etc.) nor can we provide an equal level of medical service to all of our citizens, I can still transform the health of the nation by educating people about what needs to be done to transform one's health. By providing the tools that will improve one's well-being and will most likely, improve one's longevity, I aim to ease the stress association with paying for expensive health insurance. Rather than depending on pharmaceuticals to solve to our health problems, we should focus on ways that prevent the causes of disease, and rely on the pharmaceutical industry only as a last. Although society plays a role on how healthy we are, the control of our health is in our hands. As this paper stresses, we have the power to control our own lives.

Finally, I will briefly discuss how this paper can make an impact on the macro level. The prevalence of sickness in this country is so high that it can be described as a social epidemic. Americans worry about cutting the cost of eating as a way to save money, but our economy ultimately suffers because as food spending had decreased, healthcare costs have soared.¹⁷⁵ Like with money, health is an investment. If we place more of an emphasis on our health investment, rather than just looking for alternatives to save money, we will find ourselves wealthier in the long run in the sense that we will have saved more money, and have ended up much healthier. The *self-care* wellness plan is an investment plan for your health, and with that, your longevity and life.

¹⁷⁵Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: The Penguin Press, 2008. Print. P187.

Appendix A

Zone Diet's Daily Block Requirement According to Individual Body Type¹⁷⁶

Breakfast	Lunch	Snack	Dinner	Snack	Total daily blocks	Body Type
2	2	2	2	2	10	Small Female
3	3	1	3	1	11	Medium Female
3	3	2	3	2	13	Large Female
4	4	1	4	1	14	Athletic-Well Muscled Female
4	4	2	4	2	16	Small Male
5	5	1	5	1	17	Medium Male
5	5	2	5	2	19	Large Male
4	4	4	4	4	20	Extra-large Male
5	5	3	5	3	21	Hard gainer
5	5	4	5	4	23	Large hard gainer
5	5	5	5	5	25	Athletic-well muscled male

¹⁷⁶ "Meal Plans." *The CrossFit Journal*. CrossFit, Inc. May 2004: 21. Web. 4 Feb. 2014. Available at: http://library.crossfit.com/free/pdf/cfjissue21_May04.pdf. P2.

Appendix B

Zone Food Block Guide¹⁷⁷

Zone Food Blocks were developed to provide the most precise way to balance protein, carbohydrate, and fat. Once you become accustomed to the size of your favorites in terms of Zone Food Blocks, making Zone meals is easy. One Zone Block of protein contains 7 grams of protein, one Zone Block of carbohydrate contains 9 grams of affordable carbohydrate (total carbohydrates minus fiber), and one Zone Block of fat contains 1.5 grams of fat. (If you are using the gram method, a fat block is 3 grams. Here, the value is given at 1.5 to take into account hidden fat in the rest of a meal.)

To make a Zone meal, a typical female needs three Zone Food Blocks of protein, carbohydrate and fat at each meal, whereas a typical male will require about four blocks of each at every meal.

1. Use the Zone Food Block Guide as a reference to assemble meals and snacks in exact proportions
2. Find out how many Zone Blocks you are allowed to consume in a day.

For most women it will be 11, and for most men it will be 14. Your activity level will increase your Zone Block daily allowance.

Protein

Most women should choose **3** blocks and men **4** blocks from the protein list per meal. (Each protein block below contains 7 grams of protein.)

Meat and Poultry (low in saturated fat) — Best Choices

- | | |
|-----------------------------------|-------------|
| • Beef (range fed or game) | • 1 oz. |
| • Chicken breast, skinless | • 1 1/4 oz. |
| • Chicken breast, deli-style | • 1 1/2 oz. |
| • Ground beef (Less than 10% fat) | • 1 1/4 oz. |
| • Lean Canadian Bacon | • 1 1/2 oz. |
| • Turkey breast, skinless | • 1 oz. |
| • Turkey breast, deli-style | • 1 3/4 oz. |
| • Turkey, ground (7% fat) | • 1 1/4 oz. |
| • Turkey bacon (Louis Rich) | • 1 1/2 |

¹⁷⁷ "Zone Food Block Guide." Dr. Sears Zone®. Zone Labs Inc. 2014. 12 Feb. 2014. Available at: <http://zonediet.com/food-blocks>

Meat and Poultry (moderate in saturated fat) — Fair Choices

- Beef (lean cuts) • 1 oz.
- Chicken, skinless, dark meat • 1 1/4 oz.
- Corned beef brisket, lean • 1 3/4 oz.
- Duck, skinless • 1 1/4 oz.
- Ham, lean • 1 1/4 oz.
- Ham, lean deli-style • 1 1/2 oz.
- Lamb, lean • 1 1/4 oz.
- Pork loin roast, boneless, lean • 1 oz.
- Pork Chop • 1 1/4 oz.
- Veal, loin, lean • 1 1/4 oz.
- Turkey, skinless, dark meat • 1 1/4 oz.

Fish and Seafood — Best Choices

- Bass (freshwater) • 1 1/4 oz.
- Bass (sea) • 1 1/2 oz.
- Bluefish • 1 1/4 oz.
- Calamari (squid) • 1 1/2 oz.
- Catfish, wild • 1 1/2 oz.
- Cod, Atlantic • 1 1/4 oz.
- Clams • 1 3/4 oz.
- Crab, canned • 1 1/4 oz.
- Crab, Alaskan king • 1 1/4 oz.
- Haddock • 1 1/2 oz.
- Halibut • 1 1/4 oz.
- Lobster • 1 1/2 oz.
- Mackerel • 1 1/4 oz.
- Salmon, Alaska (wild) • 1 1/4 oz.
- Sardines, canned in oil • 1 oz.
- Scallops • 2 oz.
- Snapper • 1 oz.
- Swordfish • 1 1/4 oz.
- Shrimp • 2 oz.
- Trout • 1 1/4 oz.
- Tuna (steak) • 1 oz.
- Tuna, light canned in water • 1 1/4 oz.
- Tuna, white canned in water • 1 oz.

Eggs — Best Choices

- Egg whites
- Egg substitute
- 2 large (66g)
- 1/4 cup

Protein-Rich Dairy — Best Choices

- Cheese, nonfat
- Cottage cheese, low-fat
- Greek Yogurt, plain no-fat
- 1 oz.
- 1/4 cup
- 2 1/2 tbsp

Protein-Rich Dairy — Fair Choices

- Cheese, low-fat
- Mozzarella cheese, part skim
- Ricotta cheese, part skim
- 1 oz.
- 1 oz.
- 2 oz.

Mixed Vegetarian Protein Sources (*Read labels carefully)

- Protein powder
- Soy Canadian bacon
- Soy hot dog
- Soy hamburger crumbles
- Soy sausage links
- Soy sausage
- Tofu, super firm (Nasoya organic)
- Tofu, firm (Nasoya organic)
- Soy-beans, boiled
- Soy burgers (47g)
- Tofu, silken soft (MORI-NU)(140g)
- Tofu, silken, extra firm (MORI-NU)(98g)
- Tempeh
- 7 grams
- 1 slice
- 1 link
- 1/2 cup
- 2 links
- 1 patty
- 2 oz.
- 3 oz.
- 1/3 cup
- 2/3 patty
- 5 oz.
- 3 1/2 oz.
- 1 1/2 oz.

Mixed Protein / Carbohydrate (Contain 1 block protein and 1 block carbohydrate)

- Milk, low-fat (1%)(183g)
- Yogurt, low-fat plain (123g)
- Soy milk(182g)
- 3/4 cup
- 1/2 cup
- 3/4 cup

Fat

Best Choice (rich in mono-saturated fat) (If choosing a fat-free protein source, just use 2 fat blocks instead of one for a total of 3 grams.)

- | | |
|----------------------------------|---------------------|
| • Almond butter | • 1/2 tsp. |
| • Almond oil | • 1/3 tsp. |
| • Almonds (slivered) | • 1 1/2 tsp. |
| • Almonds (whole) | • 3 each |
| • Avocado | • 1 tbsp. |
| • Cashews | • 3 each |
| • Guacamole | • 1 tbsp. |
| • Macadamia nut | • 1 each |
| • Olives, large (14g) (slivered) | • 3 (2 tbsp.) |
| • Olive oil | • 1/3 tsp. |
| • Olive oil and vinegar dressing | • 1/3 tsp Olive Oil |
| • Peanuts | • 3 each |
| • Peanut butter, natural | • 1/2 tsp |
| • Peanut oil | • 1/3 tsp |
| • Pistachios | • 5 each |
| • Sesame oil | • 1/3 tsp |
| • Tahini | • 1/2 tsp |

Carbohydrates: (Add 1 Zone Carbohydrate Block for each Zone Protein in a Meal)

Low Density Carbohydrates - Cooked Vegetables

- | | |
|-------------------------------------|--------------|
| • Artichoke, globe or french, large | • 2 each |
| • Artichoke Hearts (Canned) | • 1 1/2 cup |
| • Asparagus (28 spears 1/2" base) | • 2 1/2 cup |
| • Beans, green or wax | • 1 1/2 cup |
| • Beans, black | • 1/3 cup |
| • Bok choy | • 6 1/2 cups |
| • Broccoli, chopped | • 1 1/2 cup |
| • Brussels sprouts | • 1 1/4 cups |
| • Cabbage, chopped | • 1 1/2 cup |
| • Carrots, sliced | • 1 cups |
| • Cauliflower, 1" pieces | • 4 cup |
| • Chickpeas | • 1/4 cups |
| • Collard greens, chopped | • 2 3/4 cups |
| • Eggplant | • 1 1/2 cup |
| • Hummus | • 1/2 cup |
| • Kale | • 2 cup |

- Kidney beans
 - Leeks
 - Lentils
 - Mushrooms (canned)
 - Onions, chopped (boiled)
 - Okra, sliced
 - Sauerkraut (canned)
 - Spaghetti squash
 - Spinach
 - Swiss chard
 - Turnip, mashed
 - Turnip greens
 - Yellow squash, sliced
 - Zucchini, sliced
- 5 tbps
 - 1 1/4 cup
 - 1/3 cup
 - 2 cup
 - 1/2 cup
 - 2 3/4 cup
 - 3 1/4 cup
 - 1 cup
 - 3 1/2 cups
 - 2 1/2 cups
 - 1 1/4 cups
 - 7 cups
 - 2 cups
 - 3 cups

Low Density Carbohydrates - Raw Vegetables

- Alfalfa sprouts
 - Beans, green or wax
 - Bean sprouts, Mung
 - Bamboo shoots
 - Cabbage, shredded
 - Carrots (7-8" long)
 - Cauliflower pieces
 - Celery, chopped
 - Cucumber, peeled & sliced
 - Cucumber, sliced
 - Endive, chopped
 - Escarole (broad leaf endive)
 - Green Bell Peppers, chopped
 - Red Bell Peppers, chopped
 - Lettuce, Iceberg (crisp-head types) 6"
 - Lettuce, Iceberg (crisp-head types) 1/2" chop
 - Lettuce, Romaine, chopped
 - Mushrooms, chopped
 - Onions, chopped
 - Onions, (2 1/2" dia)
 - Radishes, sliced
 - Salsa, tomato (check label)
 - Snow peas
 - Spinach
 - Spinach Salad (3 cups spinach)
 - Tomato med/lg (2 3/4" dia.)
 - Tomato, cherry
 - Tomato, chopped
- unlimited
 - 2 cups
 - 2 cups
 - 2 cups
 - 4 cups
 - 2 each
 - 2 3/4 cup
 - 6 1/2 cup
 - 5 cups
 - 2 3/4 cup
 - unlimited
 - unlimited
 - 2 cups
 - 1 1/2 cup
 - 1 heads
 - 9 cups
 - 16 cups
 - 5 1/2 cups
 - 3/4 cups
 - 1 each
 - 4 cup
 - 2/3 cups
 - 2 3/4 cups
 - 20 cups
 - 1 each
 - 2 each
 - 2 1/4 cups
 - 1 3/4 cups

- Tomato sauce plain (check label) • 2/3 cups
- Tossed salad - (3 cups shredded lettuce) • 1 each
- Water chestnuts • 1/2 cups

Low Density Carbohydrates

Fruits - raw unless specified (if frozen, use unsweetened)

- Apple • 1/2
- Applesauce (unsweetened) • 1/3 cups
- Apricots • 3 each
- Blackberries • 1 1/2 cup
- Blueberries • 1/2 cup
- Boysenberries, frozen • 1 cup
- Cherries, sweet • 8 each
- Fruit cocktail (in water) • 1/2 cup
- Fruit cocktail (in juice) • 1/3 cup
- Grapes, seedless • 1/3 cup
- Grapefruit, (4" dia.) • 1/2
- Kiwi, (2" dia.) • 1 each
- Lemon juice, fresh squeezed • 1/2 cup
- Lime juice, fresh squeezed • 1/2 cup
- Nectarine, large (2 3/4" dia.) • 1/2
- Orange, small (2" dia.) • 1/2
- Orange, Mandarin canned in juice/drained • 1/2 cup
- Peach, small (2 1/2" dia.) • 1 each
- Peaches, canned in water • 3/4
- Pear, small • 1/2
- Plum large (2 1/2" dia.) • 1 each
- Raspberries • 1 1/3 cup
- Strawberries, sliced • 1 cup
- Tangerine • 1 each

Grains

- Barley, pearled, raw • 1 tbsp.
- Barley, pearled, cooked • 1/4cup
- Oatmeal (steel cut) cooked • 1/3 cup
- Oatmeal (steel cut) dry • 1 1/2 tbsp.

Sources

- Baechle, Thomas R., and Roger W. Earle. *Essentials of Strength Training and Conditioning*. 3rd ed. Champaign, IL: Human Kinetics, 2008. Print.
- Belger, Allison Wenglin., Dr. *The Power of Community: CrossFit and the Force of Human Connection*. Las Vegas: Victory Belt Pub., 2012. Print.
- Boylan, Michael, ed. *Medical Ethics*. Second ed. Chichester, West Sussex: Wiley-Blackwell, 2014. Print.
- Carroll, Nicole. "Getting off the Crack." *The CrossFit Journal* 38 (2005): 1-2. Web. 29 Nov. 2013. <http://library.crossfit.com/free/pdf/38_05_off_the_crack.pdf>.
- Cecil, Andrea Maria. "Poor Diet Sinks U.S. in Health Rankings." *The CrossFit Journal* (2013): 1-3. Web. 29 Nov. 2013 <http://library.crossfit.com/free/pdf/07_2013_HealthStudy_Cecil_FINAL3.pdf>.
- Centers for Disease Control and Prevention. "FastStats." *Obesity and Overweight Data for the U.S.* Centers for Disease Control and Prevention, 02 June 2009. Web. 16 Nov. 2013. <<http://www.cdc.gov/nchs/fastats/overwt.htm>>.
- CrossFit Inc. "Meal Plans." *The CrossFit Journal* 21 (2004): 1-10. Web. 4 Feb. 2014. <http://library.crossfit.com/free/pdf/cfjissue21_May04.pdf>.
- CrossFit Programming Part 5*. Prod. CrossFit Inc. Perf. Dave Castro. CrossFit One World, 2008. Web. 22 Nov. 2013. <<http://journal.crossfit.com/2008/11/crossfit-programming-part-5.tpl>>.
- Dupont, Doug. "Enough Is Enough: Stop Picking on Mutivitamins." *Breaking Muscle*. n.p., n.d. Web. 24 Oct. 2013. <<http://breakingmuscle.com/nutrition/enough-is-enough-stop-picking-on-mutivitamins>>.

Feutz, Marybeth, Dr. "Peanut Butter." *Agricultured: Where People Who Eat Get Their Questions Answered*. N.p., 13 Nov. 2012. Web. 13 Nov. 2013.

<[http%3A%2F%2Fwww.agricultured.org%2F2012%2F11%2F13%2Fpeanut-butter](http://www.agricultured.org/2012/11/13/peanut-butter)>.

"Foundations." (n.d.): 1-8. 2002. Web. 30 Nov. 2013. <<http://www.crossfit.com/cf-download/Foundations.pdf>>.

Glassman, Greg. "Metabolic Conditioning." *The CrossFit Journal* 10 (2003): 1-4. Web. 5 Dec. 2013. <http://www.crossfit.com/journal/library/10_03_metab_cond.pdf>.

Glassman, Greg. "Understanding CrossFit." *The CrossFit Journal* 56 (2007): 1-2. Web. 13 Jan. 2014. <http://library.crossfit.com/free/pdf/56-07_Understanding_CF.pdf>.

"Healthy Science." *Education : Science*. Stronger Faster Healthier, 2013. Web. 24 Feb. 2014. <http://www.sfh.com/education/science_healthyscience/>.

Lindeberg, Staffan. "Palaeolithic Diet ("stone Age" Diet) Food & Nutrition Research." *Scandinavian Journal of Nutrition* 49.2 (2005): 75-77. *Food and Nutrition Research*. Web. 25 Feb. 2014.

<<http://www.foodandnutritionresearch.net/index.php/fnr/article/view/1526>>.

Mayo Clinic Staff. "Dietary Fiber: Essential for a Healthy Diet." Mayo Foundation for Medical Education and Research, 17 Nov. 2012. Web. 13 Jan. 2014.

<<http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/fiber/art-20043983>>.

Mayo Clinic Staff. "Functional Fitness Training: Is It Right for You?" *Fitness*. Mayo Foundation for Medical Education and Research, n.d. Web. 17 Jan. 2014.

<<http://www.mayoclinic.org/healthy-living/fitness/in-depth/functional-fitness/art-20047680?footprints=mine>>.

Mayo Clinic Staff. "Weight Loss." *Weight Loss Basics*. Mayo Foundation for Medical Education and Research, n.d. Web. 8 Nov. 2013.

<<http://www.mayoclinic.org/healthy-living/weight-loss/basics/weightloss-basics/hlv-20049483>>.

McKinley Health Center. "Macronutrients: The Importance of Carbohydrate, Protein, and Fat - University of Illinois." University of Illinois at Urbana-Champaign, n.d. Web. 4 Feb. 2014. <<http://www.mckinley.illinois.edu/handouts/macronutrients.htm>>.

Meet Shari Keener: Changing the Pattern. Prod. CrossFit Inc. Perf. Shari Keener.

CrossFit Santa Cruz Central, 2013. Web. 10 Dec. 2013.

<<http://journal.crossfit.com/2013/08/changing-the-pattern-part-1.tpl#featureArticleTitle>>.

Melnick, Meredith. "The USDA Ditches the Food Pyramid for a Plate | TIME.com."

Time, 2 June 2011. Web. 11 Dec. 2013.

<<http://healthland.time.com/2011/06/02/the-usda-ditches-the-food-pyramid-and-offers-a-plate/#ixzz2vrPj0umM>>.

Moynihan, Ray, and Alan Cassels. *Selling Sickness: How the World's Biggest*

Pharmaceutical Companies Are Turning Us All into Patients. New York, NY:

Nation, 2005. Print.

Murphy, T.J. *Inside the Box: How CrossFit® Shredded the Rules, Stripped down the*

Gym, and Rebuilt My Body. Boulder: Velo, 2012. Print.

- National Institute on Drug Abuse. "Relapse Rates for Drug Addiction Are Similar to Those of Other Well-characterized Chronic Illnesses." *Addiction Science: From Molecules to Managed Care*. National Institutes of Health, n.d. Web. 20 Feb. 2014. <<http://www.drugabuse.gov/publications/addiction-science/relapse/relapse-rates-drug-addiction-are-similar-to-those-other-well-characterized-chronic-ill>>.
- Noel, Josh. "Caveman Exercising at Core Fitness Chicago." *Tribune Newspapers* [Chicago] 13 Jan. 2012, News sec. Web. 9 Dec. 2013. <http://articles.chicagotribune.com/2012-01-13/health/ct-health-mag-train-like-a-caveman-20120113_1_caveman-paleolithic-ancestors-regimen>.
- "Nutrition." *CrossFit: Forging Elite Fitness*. CrossFit Inc., n.d. Web. 8 Dec. 2013. <<http://www.crossfit.com/cf-info/start-diet.html>>.
- Peele, Stanton. *Diseasing of America: How We Allowed Recovery Zealots and the Treatment Industry to Convince Us We Are Out of Control*. San Francisco: Jossey-Bass Publishers, 1995. Print.
- Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: Penguin, 2008. Print.
- Reilly, Mikki. *Your Primal Body: The Paleo Way to Living Lean, Fit, and Healthy at Any Age*. Boston: Da Capo Lifelong, 2013. Print.
- Laraway, Russ. "Systolic: 140. Diastolic: 104. Impending Stroke." *The CrossFit Journal* (2013): 1-4. Web. 29 Nov. 2013. <http://library.crossfit.com/free/pdf/CFJ_Laraway_Saved.pdf>.
- Wolf, Robb. *The Paleo Solution: The Original Human Diet*. Las Vegas: Victory Belt, 2010. Print.

Zone Labs Inc. "Zone Food Block Guide." *Dr. Sears Zone*. N.p., 2014. Web. 12 Feb. 2014. <<http://zonediet.com/food-blocks>>.

VITA

Full name: Sarit Ashkenazi

Place and date of birth: Haifa, Israel May 14th, 1989

Parent's Names: Avraham Ashkenazi
Berta Ashkenazi

Educational Institutions:

	<u>School</u>	<u>Place</u>	<u>Degree</u>	<u>Date</u>
Secondary:	Immaculate Conception High School	Kingston, Jamaica	Diploma	June, 2007
Collegiate:	Drew University	Madison, NJ	B.A. Biology	May 14, 2011
Graduate:	Drew University	Madison, NJ	M.M.H.	May 17, 2014