Happy Healthy (H2)

The art of achieving a healthy mind and body is a particularly popular topic and the world of resources is overflowing with new ways to achieve “optimum health.” I have always been fascinated with the human mind and body and the process of making my own healthy, so I decided to explore the process of attaining physical well being.

 Losing weight, getting stronger or simply leading a healthier lifestyle, can be achieved with three simple steps. These steps are accepted in our society and your average Joe would vouch for them. The three tips include: Eating healthier, exercising more and sleeping better. This is the way to get healthier, but it can’t always be the most enjoyable. People see demanding training and dieting plans only as a temporary adjustment to life in order to reach a destination. The problem with this is that people develop a narrow mindset about fitness and feel that if they endure an extended amount of time and give up the things they love to do to and all the foods they love to eat eventually they will be healthier.

 For my senior year project I have designed a set of 5 guidelines that can be applied every day of ones life in order to help them happily lead a healthier lifestyle. The factor that separates my guides from any in the past is the subconscious attitude that correlates with it. Happiness should not be a destination; it should be a mode of travel. These guidelines, when applied, can help anyone find their own H2: happy healthy (credits to Mr. Chinosi for giving the idea a creative name). This of course was my result, how I got there was quite the adventure.

When I first set out to find the route to Happy Healthy I decided to design a guide of my own. I began by researching and designing a big “how to guide” for those looking to get healthy. This program was easy to mold into a busy schedule of anyone looking to lead a healthier lifestyle. I began by accruing volunteers to put my preliminary research to the test. Twenty-one students originally volunteered to take part in my program.

 In the past many have tried what I set out to do. Special diets and training programs that are “the key to losing weight and getting fit” have hit the streets in the past.

 Training programs such as *P90x*, *Insanity, T25* and even *The Brazilian butt lift* all have brought many people success. These programs are designed for people who only have less than an hour a day to dedicate to physical training. However, each of these programs made a key set of mistakes that injured many subjects that are not expressed in their info commercials. Before we continue, let me just make clear that I am not bad mouthing these programs, anyone looking to make a healthy change in their life should certainly look into one however before you begin one do your research and educate yourself. Halpernfitness.com wrote:

 “Both p90x and Insanity are very intense and are not suitable for many people. The workouts are unprogressive and do not start everyone with the basics. The form is questionable and without the basic movement patterns perfected the exercises are downright dangerous. There is also no one there to correct you if you are doing it wrong.”

Semperfitness.com wrote:

“P90x is only good for people with athletic backgrounds. We do not advise beginners to start on P90x. However P90x has a wide range of workouts to be utilized after completion and utilizes muscle confusion to keep the body guessing. A great tool for gaining muscle and getting a cardio workout as well”

Semperfitness continues to explain the dangers of insanity stating that because of it’s abbreviated length: “the workouts are strictly cardio and although it will make you lose weight it will not help you put on muscle mass.” Other segments of this article examined, insanity’s format for intervals and explains that for a beginner insanity can be extremely difficult and ineffective. An article published by Fabio Comana, M.A., M.S. in the American Council on exercise tends to agree with the these claims[[1]](#footnote-1). He explains that insanity demonstrates overly difficult levels of metabolic conditioning. His article analyzes all these fitness guides and proceeds to explain that this rushed design in the workouts leads to poor muscle group recovery and improper plyometric technique. Furthermore Comana attacks insanity for their ineffective dynamic warm up and erroneous stretching. Intervals should be performed by doing steady state output at a sustainable heart rate and then finishing with a short amount of time at an unsustainable high intensity output followed by an adequate break. Insanity has you perform at an unsustainable output for a longer segment of time and stop for an inadequate duration of time. Comana does not undermine p90x as much and would recommend it over insanity. At the end of the day p90x is your best bet for losing weight and getting in shape. Personally, I have tried workouts from both and enjoy p90x more as well.

 I developed my guides with all these flaws in mind. First I made sure that all the subjects knew how to reach me in case they had a question or concern. Second I designed three different levels of training so that people with different starting abilities and different goals could pick the one best suited for them and their lifestyle. Because time was an issue and I did not want to just cut the workouts in the guide short I simply went about designing them with efficiency in mind without rendering a workout ineffective. I did not want my guide to be just another piece of junk mail from a fitness sight. My subjects received a few different documents: A nutrition guide, a training guide, a safety guide and a stretching guide.

 The three levels for the training can fit any amount of commitment ranging from 30 minutes 3 times a week to 2 hours 5 times a week. Two of the training guides required a gym while the other consisted of body weight exercises and nightly routines without a gym. The key element of my training guidelines was the “highly recommended” exercises. These exercises are there to maintain balance throughout. Basically, if you were only going to do a few of the lifts on the workout, do these. The most important part of resistance training is that all muscles are worked evenly. For example when training legs equal time and effort has to go toward quads as hamstrings. For the upper body, if the chest is trained more than the back, the muscles on the back will not be able to support the chest muscles and the subjects posture is compromised leading to injuries[[2]](#footnote-2) . Subjects can also follow the guidelines just as they are written, in which case they would complete a 20-minute cardio segment followed by basic resistance training and then stretching to cool down. Looking back this was truly horrendous; it was no different than any workout you could find anywhere else. Yes after some feedback and some good old-fashioned research I changed up my program immediately. By the end, the challenging session at the gym looked a little like this: Ballistic and dynamic stretching followed by resistance training and 15 minutes of steady state cardio (or intervals for those looking to lose weight) and then another static stretch to cool down. The first complaint I received of course had to do with time so I cut the cardio short by 5 minutes and decreased the set count by 1 for many of the moves however told the subjects to challenge themselves with the weight on the last set whenever they felt comfortable (I was always available for consulting). This way the workouts took shorter however were just as efficient. I moved the cardio vascular conditioning to the end because running and increased blood pressure helps clear lactic acid from your muscles. Cardio also depletes glycogen levels (sugar stored for immediate energy) while weight training will not so if you run before a lifting session you may not have as much energy to get the most out of your weight training[[3]](#footnote-3).

 My nutrition guide included 8 parts. Before I jumped into them I had the subject establish their body type. There are always exceptions however the three main body types are: Ectomorph, mesomorph and endomorph. This is important because each body type flourishes best under certain conditions. It is also important to remember that there is no “one size fits all” method for eating healthy, different things work for different people. For example an endomorph has a lower metabolic capability therefore develops the best under higher fat and lower carbohydrate diets. This part of the process is extremely important because it helps the subject visualize a goal and a game plan to reach that goal. Recipes that I have provided like the hummus and whole-wheat pita with veggies would not be effective for an endomorph because the high amount of carbohydrates. Meanwhile an ectomorph would benefit from this post workout snack because their body type can burn carbohydrates more efficiently[[4]](#footnote-4).

 The first “guideline” is perhaps the most important because it makes the nutrition plan “yours.” I recommended that all my subjects choose two foods that they can always eat. These foods would ordinarily be deemed “cheat foods” or foods with little nutritional value. People chose foods such as fried chicken, ice cream and bacon (these were the most popular). As much as I wanted to say “avoid these high fat oily non nutrition foods, all the research and data I collected suggested otherwise. Before I explain you need to understand the two premises that diets derive from. Some diets tell you to eat a bunch of one type of food. Other diets tell you to completely cut out one type or grouping of food. For example the “Atkins diet” has you eliminate all carbohydrates. Well my nutrition guide is not a diet; in fact it’s just the opposite. By allowing my subjects to give themselves the satisfaction of their favorite two foods when they are given an opportunity keeps them happy and on track, making this a way of life and not some 2-month temporary eating style. When a cheat day or meal is incorporated into an eating plan you are less likely to binge eat junk food. Knowing that there is a dedicated time to eating unhealthy food settles the mind and will relieve the stress of knowing you’re on a strict diet. This is good because one of the main reasons people cheat in the first place is because of the stress of the diet they were on in the first place that probably told them they could never eat sugar again. Basically, the more you take something away the more you will crave it: A cheat meal is a reward[[5]](#footnote-5). A few kids I interviewed actually mentioned that their motivation for getting into the gym is the small treat and big guilt free meal.

 The second is related to vegetable intake constantly throughout the day. If you have a doctor or a mother you’ll know that you need to eat 5 fruits and vegetables a day. But what you probably don’t know is why. Vegetables contain vitamins and minerals that are bodies need to function properly, without them we can get sick or develop fatal bodily illnesses. Vegetables are filled with nutrients such as potassium, dietary fiber, folic acids, vitamin A and vitamin C. Consuming vegetables rich in potassium such as sweet potatoes, beans, tomato products, beet greens, lima beans, spinach and lentils can help stabilize blood pressure reducing the risk of having a heart attack. Foods like split peas, lima beans, artichokes, broccoli, brussels sprouts and avocado are all high in fiber. Dietary fiber does a number of helpful deeds for our body including: lower blood cholesterol levels, aids in the breakdown and management of sugar, and even helps us feel full so we do not over eat. Fiber is also important because it helps us take regular bowel movements, which is a sign of good health[[6]](#footnote-6)(insert signs of good health website). Folic acid can be found in dark green and leafy vegetables such as spinach. This is an important mineral to consume because it aids the synthesis of DNA, which controls cell function and heredity. It is especially important for pregnant women to prevent cervical cancer, if you were at all interested. And finally vitamin A helps keep your skin and eyes healthy by protecting against infections. Meanwhile vitamin C helps cuts and wounds heal, clean your gums and backs up your immune system.
 The third, fourth and fifth guidelines relate to out of the house eating (where most tend to eat unhealthy). The third guideline advises that you get a buddy, a partner in crime. And stick with them especially when dinning out. This became the number one tip for achieving a healthier lifestyle in my big five because it was so popular with my subjects. It’s important to have a friend that keeps you in check and mildly competitive. When you are out with friends and everyone is eating crap, it helps to agree with your partner “I won’t cheat if you won’t.” The biggest reason we eat crap food is because it’s all around us and everyone eats it, yes I blame peer pressure. Having someone in the same boat as you helps infinite amounts. A study done at UMASS Dartmouth showed that subjects who had friends trying to lose weight with them lost more weight than those tackling the challenge alone.[[7]](#footnote-7)

 I needed to make these guides adaptable to the average persons lifestyle, and to do this I needed to face some unfortunate truths. People eat fast food. Fast food is convenient and cheap, and for a teenager who neglects health it’s perfect. The second part of guideline three provides the healthiest tactic if you absolutely must eat fast food. I recommend just ordering a burger and avoiding the fried stuff. Additionally savor every bite of that burger and never look back. Fried foods are submerged in fatty oily grease that will impede your cholesterol and blood sugar. French fries especially that are high in carbohydrates and starch will cause your blood sugar to shoot up. [[8]](#footnote-8) Your much better off eating a burger to at least get some nutritional benefit from the meat and hopefully the vegetables that are on it. The guilt free tactic is not a joke. It’s very important that a cheat meal does not beat your mind. An article by Claudine McDonald (certified strength, fitness and health coach with cleanhealth.com) discusses the psychological component of cheating on your meal plan. Thinking positively about a cheat meal and not stressing about it can actually restore some vitality and speed up your metabolism. An article by [Dr. John M Berardi, Ph.D](http://www.leehayward.com/john_berardi.htm) exclaims that Although the mysteries of the placebo effect have yet to be fully understood, you can apply this mechanism to your cheat meals. Use the placebo effect to your advantage and don’t fret over a cheat meal. If you get stressed you blood pressure goes up and you will release cortisol. A well know contributor to stomach fat (note I said contributor, cortisol is not the only thing that causes weight gain, it has simply been proven in the past to aid weight gain). So you see, avoid the fries and savor that burger! On the subject of cheat meals, a restaurant dessert menu is a common reason people give in to temptation. If you know you have eaten well that week, spoil yourself and order a dessert however if you’re on the edge follow my instructions. Hopefully the people at your table will all be wiling to split the largest dessert served, this is the healthiest and quite frankly most economical option. If this is the case and the table orders one or two desserts simply try a bite. What happens next is the most crucial part of this scenario. Unless it is absolutely incredible and from another universe “out of this world” amazing…it’s not worth the empty calories. That first bite will taste just as good as the second, third, fourth and so on. Try your one piece and savor it. This principal can be applied at dinner parties when the tray of brownies comes out. Remember, what you eat in private you wear in public.

 The fourth guideline is a simple manual. Learning to read a nutrition label can make all the difference when you don’t know which trail mix to buy at that gas station food mart. Many people make the mistake of just looking at the nutrition facts and claiming that because its low in calories it must be ok. This is why we’re fucked. The calories don’t matter: what makes up those calories does. For example your much better off consuming 400 calories of whole grains and veggies as apposed to 100 calories of a chocolate bar. Why? Because your body can put those 400 calories to good use in order to rebuild muscle fibers or fight a brewing cold. The 100 calories of oil and fat (if not burned soon) will simply be slopped on to your body as excess weight. Many people don’t know this but the order that the ingredients are in is based on the quantity of that item in the product. For example if the first ingredient is sugar, or a word you can’t pronounce, it probably does not belong in your body! The guide proceeds to highlight some “danger words” that are on nutrition labels which you should steer clear from. Some of these words include: *High Fructose corn syrup ,Dye [Color, #], Partially hydrogenated soybean oil, Corn syrup, Monosodium Glutamate, Xanthan Gum*. The other aspect of this tip is about not getting fooled. Companies often try and dress up the labels on their food products with “healthy” words in order to entice a consumer into thinking it’s the healthier better option. For example you may see “no trans fat” on a label. Although it may say this on the front, don’t hesitate to look at the nutritional facts. The FDA (food and drug administration) made it a law that if the product holds more than .5 grams of trans-fat per serving the company is required to indicate this somewhere on the label. What companies now do is toy with the serving size by making it smaller in order to reduce the amount of trans-fat per serving to sub .5 grams. Now, candy bars and other unhealthy products with trans-fat in them may say “no trans fat” on the package. So keep an eye out for that. The other major ploy companies use to dress up their products and make them look healthier is the name disguise. The most common example is “yeast extract.” This term is used instead of writing MSG (monosodium glutamate) and sodium nitrate, two ingredients that have been proven to cause cancer. An article by Dr. Joseph Mercola in the Huffington post confirms it.[[9]](#footnote-9) I really didn’t want to scare my subjects; I simply needed them to understand that products are not always what they seem.

 In the book: *Total Body Transformation* Steven ilg (a well known health coach and fitness expert) proclaims that over eating is the one of the unhealthiest things you can do to your body. He explains that after a meal your stomach should be one third filled with food, one-third water and one third empty. Guideline 5 is precisely this: watch your portions. Eating smaller meals more frequently throughout the day is a much healthier option than two or three meals where you gorge your face. This eating strategy will help you maintain constant blood sugar levels (good for weight loss) and prevent crashes. Eating this way will make you feel more alert and energetic throughout the day as apposed to extreme highs and lows. Your metabolism will be continually running strong as well. By eating infrequently your metabolism stops for extended periods of time and this can cause it to slow down leading to weight gain. When I visited Barcelona, Spain last summer I noted how much smaller their portions were and how often the locals we stayed with ate. I also noticed the lack of obese people. Coincidence? I don’t think so. Most of the feedback I received from my subjects about this guideline was about how hard it was to limit their portion sizes. I feel that this is because we as Americans are so used to having portions that are way to big. Here’s my advice for cutting down your portion sizes: Drink more water, separate the need from the want and recognize satisfaction. Often times we think we are hungry when really we are thirsty. Why go choke down an entire meal when all you needed was a glass of water to satisfy you. Drinking water frequently also will take up space in your stomach, reducing your appetite and in turn help you eat better portions. Just like shopping it’s important to recognize what you need to eat and what you want to eat. Of course I want to eat the whole chicken and an entire potato salad however my nutritional requirement only calls for a chicken wing and one serving of the salad. Eat to meat long-term goals not short-term satisfaction. It is important to recognize when you have eaten enough so you can push away the plate in front of you and not over indulge. A trick I have developed is once I feel satisfied and still want to eat for no reason I fill up the rest of the space with water. Not only will this suppress the desire to eat more, but it will also aid the digestion process.[[10]](#footnote-10)

 Another common excuse I hear in regards to not being able to eat healthy is not having enough time to prepare a meal after hitting the gym. Guideline number 6 is about pre made food that nutritious and easy to prepare. Coming home from the gym starving to no food ready in the kitchen could lead to a poor decision like finishing an entire bag of potato chips. To avoid this simply prepare meals that can be microwave easily before you go and workout. I took the liberty of researching some easy muscle meals.

 Guidelines seven and eight are individualized guidelines that people with different goals can follow. Guideline number seven is geared towards those trying to put on weight and gain mass. Meanwhile eight is for those looking to shred away some fat and cut down. A key point I made for putting on mass to consume a handful of almonds cashews and pistachios before you hit the hay every night. These nuts contain casein protein that thickens in your intestine and throughout the night release nutrients to your muscles. This will help you prevent muscular catabolism if you are to go hungry. For losing weight my biggest advice was not to completely stop eating carbs, simply cut down on them. I recommended not going lower than 50 carbohydrates a day. This is against the “no-no diet” principles and avoiding the “yo-yo” effect. This effect occurs when you deprive your body from carbs for one day so your metabolism slows and when you crack and indulge, you will put more weight on.[[11]](#footnote-11)

 In addition to the training and nutrition guide I included a stretching guide with a routine to target all the major muscle groups that the subjects could take part in whenever they needed.

 Too often people new to the fitness world will go into the gym, do some jumping jacks and head right for the weights. It is crucial to actively engage the joints and muscles before resistance is applied. In order to succeed in training program one must engage in a dynamic warm up prior to workouts and make static stretching a day-to-day focus. Even on the off days, I have told my subjects to take a measly 5 minutes out of their day to perform my full body-stretching guide.

 I could write an entire thesis on the important of stretching but won’t. Although it may seem like a no brainer, there has always been an argument over stretching and the most opportune time to do it. Stretching in general facilitates the release of lactic acid from your muscle fibers in order to relieve soreness and or stiffness in the muscle. An article in the *New York Times* that argues against stretching notes two studies that indicate that static stretching before a workout can leave your muscles “feeling weaker and wobblier than you expect during your workout.” Personally, I stretch before every workout and my mother (a professional physical therapist) vouches for stretching as well. The article proceeds to discuss the uncertainty behind the subject; it is still unclear the true effect stretching will have on a particular workout or physical activity in the future. On a personal level before I train my lower body and perform complex muscle movement such as the squat and dead lift I must thoroughly stretch my hamstrings and lower back. On occasions when I have failed to stretch properly I have had to cut my workout short because my lower back had developed a crippling strain that needs attention. Unfortunately, because people spend long days sitting down at desks and in cars our muscles are wound up at the end of every day making stretching even more apparent regardless of if we exercised. An article published on *Justintimewellness* explains how by spending the majority of our days in the same posture we restrict constant blood flow throughout our bodies. Duane Knudson wrote an article in the Journal of physical education about the controversy and how more evidence points towards positive consequences from stretching. By not stretching we let our muscles “tighten and shorten” over time. When a muscle gets too tight it begins to develop “adhesions and connective tissue” that can further decrease circulation, mobility and increase the risk of tendentious.[[12]](#footnote-12) An article in *Men’s fitness* called: “stretch or die” describes a common injury described as a “vertebral herniation.” This is actually what happened to me when I got too lackadaisical with my stretching before performing squats. I’ve rehabilitated by now however, the injury had set me back quite a few weeks and could have been easily avoided. Building strength and size is quite all right however in the words of Steven Ilg in his book: *Total body transformation*: “strength without flexibility is immobility”[[13]](#footnote-13)

To ensure safety beyond always being in touch with my subjects I included a safety guide organized in alphabetical order by exercise with written explanations and safety tips for everything and anything in the training or stretching guides.

 Before they all began I had my subjects take a survey giving me the overall athletic capability and condition of the test group, this made tracking their progress possible. Over the course of the 8 weeks that my test subjects followed these guidelines I periodically provided questionnaires to collect feedback. After periodically tracking their progress I could analyze that data and alter the guides to be more efficient and more suited for the average lifestyle. Of course there is no “average” lifestyle however, there are specific factors in my guides that can and will be modified to improve compatibility with busy lifestyles.

 Now at a certain point I theorized that any of my test subjects will be unhappy or unwillingto complete a component of my programs or there would be an element of the guide that is not suited for the average lifestyle. I presumed this point would occur at different moments for each subject. Turns out I was right, I quickly realized that everyone will have a different happy healthy. This meant that I would need to track them all individually to monitor exactly where they all are at certain points of the program.

 Measuring healthiness was a complicated topic because there are various methods I could have used. There are watches and electronic devices such as the *FitBit®*

 That can track your exercise on a daily bases and give you a rough estimate for how “healthy” you are. There are various quizzes online that you can take in order to determine you’re over all health however I have developed a specific set of “regulators” that can underline your general health. *Fitday.com, Probioticsmart.com* and *Healthfiend.com* provide an excellent list of bodily indicators to determine your overall health in relation to your nutrition. Many of the same points are brought up in an article written in Oxford’s journal of Gerontology about a study done to access the health of a test group[[14]](#footnote-14). I took the most common of the indicators and designed a nutrition feedback sheet that my subjects completed after 3 and 6 weeks. This way I could determine how well my subjects were eating over the course of the 8 weeks. This data was great in determining the credibility of my workout plans. For example if my subjects demonstrated progress after working out I would cross reference this data with how well they were eating, in order to determine how important keeping a clean diet actually is.

 In a perfect world I could have all my subjects where a device that tracks there every step, and take regular tests of there body fat, resting heart rate, alkalinity and maybe even blood pressure however with the resources I have and facilities I can afford, this method simply will not do. My best option is to incorporate “personal satisfaction.” Doing what makes you happy and doing what helps you achieve an athletic profile that you are content with. In the first survey I asked my test subjects to rate (on a scale from 1-10) how content they were with their current athletic profile. The average at the before the training began was a 4.95 out of 10.

 When dealing with the subject of body image and how people perceive their own appearance, I had to talk to a professional. I interviewed my school’s psychologists to get some insight. Although there is no direct correlation between healthiness and happiness, people who lead healthier lives tend to be making healthier decisions which could in turn lead to a happy outcome. A healthier person may feel more inclined to take risks both socially and emotionally especially when everyone is always comparing himself or herself to the “ideal physique” that we all see on T.V. A great example would be a subject who has been going to the gym may feel more inclined to speak up and be more social because they feel that they look better, even if they haven’t necessarily made progress on paper. Simply getting into a routine of exercise can help boost someone’s body confidence and help him or her overcome social fears. Of course this applies to non-physical health maintenance as well. Practices such as tai chi, yoga and meditation are supposedly “exercise for the mind and soul.” This spiritual cleansing can heighten awareness and calmness throughout the day and possibly lead to better decisions in all aspects of someone’s lifestyle. A recent book and study conducted by Dan Harris regarding meditation and its brilliance revealed that simply engaging in meditation on a regular basis can make you happier, perhaps “10% happier.”[[15]](#footnote-15)

 When my subjects finished the program I was going to have them retake the initial survey to analyze the effectiveness of the program. The best data I ended up collecting was after 2 weeks of being on the training program because 14 of my test subjects were still on the program. All my subjects on the basic program (4) confirmed that just from doing some pushups and sit-ups every night they felt better even though they did not see physical results yet. After two weeks all but one of my test subjects reported an increase in how comfortable they were with their athletic profile. When asked about outside exercise, 80% of the subjects brought up a sport they participated in instead of the actual cardio segment, this factor later became the foundation of happy healthy, but more on that later. Of my original 21, 17 ended up dropping out by the end (approximately 8 weeks). Failure is a part of life and although I knew this I was about to bag the entire project when this happened. Luckily my teachers, parents and friends helped me persist. I wasn’t about to scrap the guides I had created. I decided to look into other issues that could potentially have lead to failure.

 The program itself could not have been the only factor in success. The other piece of the puzzle was the subject’s output. I get that this seems a bit arrogant however even the small bit of responses I got proved my guidelines work and are usefull. When you apply yourself and dedicate an adequate amount of time to getting fit, you will. Quite simply, “you give and you get back.” People know this because this concept can be applied to most any aspect of a person’s life.

 There are a variety of mistake that people will make on their road to fitness however here are some common culprits: Malnourishment, sleep deprivation, and a lack of effort towards improvement.

 Malnutrition frequently occurs directly after a workout. By not providing your muscles with adequate sustenance after a workout can render the workout useless. After a workout when your muscles are depleted and your body enters a state of absorbance called the anabolic window (or metabolic window) when your increased blood flow allows nutrients and amino acids to reach your muscles more efficiently. Although there is much controversy over the actual duration of this window it is proven that the window does exist. An article by Alan Albert Aragon (California State University, Northridge, CA) and Brad Jon Schoenfeld (Department of Health Science, Lehman College, Bronx, NY), in the *Journal of the International society of sports nutrition* confirms that the timed post workout sustenance is perhaps more important than someone’s overall daily intake.If no food and no nutrients are given to the body during this window your muscles can undergo catabolism, which essentially breaks down the muscle tissue[[16]](#footnote-16).

 Although my guidelines do not incorporate tips concerned with sleep it is important to note that sleep depravity can be a major factor of a “failed” health kick. The original 16 subjects that took the initial survey, on average got just under seven hours of sleep, 2 less than the recommended amount for teens. Many people beginning a training program assume that the training aspect of it all carries the most weight in succeeding. This is a key mistake because this will lead to sacrificing sleep just to workout. Neglecting sleep is problematic for a variety of reasons. Research shows that during sleep the body produces the most natural growth hormone allowing your muscles to grow and repair. Additionally, sleep deprivation is correlated with increased levels of cortisol, a hormone that actually encourages the breakdown of body tissue to be stored as excess energy, because the body is in need of sleep[[17]](#footnote-17). Perhaps next time around I’ll include a sleep journal of some sort. Sleeping and eating were already incorperated in the lives of all my test subjects long before they came to me. The last resort was the exercise component.

 Getting to the gym is half the battle. In many cases a subject will decide for whatever reason) that they should not work out that day. The only thing standing between them and achieving their goal is the lame excuse they use as to why they shouldn’t be exercising. An article written by the general manager of *gymjones* (well known fitness center with many locations across the us), Rob Macdonald, demeans many common excuses we hear today. The main excuse I pinpointed in this article was: “I don’t have the time.” Rob responds to this by mapping out the average person’s day and helping them find the time. He exclaims that with 60 hours of work (or school) a week and “10 hours of sleep a night, which they probably are not getting” people should have 38 hours of unutilized time every week. “You can’t tell me…that you can’t allot three or four hours to train. Now of course I’m not asking my subjects to hit the weight for that long everyday however Rob is correct in saying there is plenty of time in everyone’s schedule to exercise. Rob proceeds to explain that if you do 10 pushups an hour (this takes less than a minute) everyday for a year you will have done 36,500 pushups[[18]](#footnote-18). Again, I wasn’t about to force my subjects to do 10 pushups every hour however that principle of small application of effort can certainly be applied to anyone’s lifestyle but more on that later. On the other hand Injury of course is a common issue; people with bad joints or stiff backs avoid the gym for obvious reasons however the trick is to ease back into exercise, not to just stop completely. Rehabilitation and excuses are not the focus of my project however it’s important to note their role in people’s motivation to get fit. This was a major culprit for the failure of my program.

 Unfortunately by the end of the 8 weeks only 4 test subjects remained in the program and had enough information to complete the final survey. All the kids who volunteered for the hardcore program (2 kids that had previously led athletic backgrounds) stayed until the end. Meanwhile none of my subjects on the basic program stayed until the end. This tells me that the difficulty of my program was not the problem and it’s clear that once someone becomes invested in leading a healthier lifestyle and sees a result, they are more likely to stick with it. Although the data collected from this segment of the research is deemed inconclusive because of its magnitude, the four subjects all reported to feeling happier and healthier at the end of the 8 week program. All four subjects agreed that they would be continuing to be more conscious about their overall health in the future. All four subjects agreed that they feel more confident after the 7 weeks. The four test subjects averaged an 8/10 when rating how content they were with their athletic profile (a 3 point increase from the begging survey). So what was it that the hardcore subjects (and two challenging subjects) had to complete the program that the rest didn’t? Time and Motivation.

 After not receiving as much feedback as I’d liked I contacted all my test subjects to get some insight on why they dropped out. Many of them mentioned time (more than half) and the rest mentioned lack of motivation. I proceeded to do some research on motivation and how to stay committed to leading a healthier lifestyle. This included a multitude of additional interviews.

 Research has taught me that your happy healthy will be where your goal does not exceed your capability and your capability does not interfere with your passion. To enjoy the time you spend achieving a healthier lifestyle you must incorporate your moving passion. Your moving passion could be tennis, soccer, basketball, golf, yoga, jumping on a trampoline, really anything you enjoy doing that keeps you physically active. The active passion helps you engage in some form of physical activity that you enjoy in order to become healthier.

 The strategy for achieving your happy healthy is quite basic and very similar to planning a road trip. First you choose your goal or your destination. Once you know where you want to go, establish your active passion (the stops you want to make along the way that will lead you to your destination. Use your passion to generate the game plan just like you would use places you want to stop at the organize the route to take on you’re a road trip. Step four is perhaps the most critical: Readjust your goal with your passion in mind. If you wanted to make it from Massachusetts to Washington in a week but wanted to stop at the best botanical gardens in the country along the way you may need to adjust your destination, or how long it will take you to get there. Much like the happy healthy your goal will be directly influenced by your active passion because, pursuing your passion will keep you satisfied and bring you to your goal without strain. A great example of this is my mother loving to play tennis. By committing to one hour of tennis three times a week she lives her passion and becomes healthier in the process. During my Interview with the wellness and physical awareness teacher (Mr. Bower), a great point was brought up: “if you want to lose 150 pounds in 6 months, but your passion is doing yard work you may need to rethink a few things.” Well what if you have absolutely no active passion. In this case you’ll need to focus time and energy on your eating habits, because keeping a clean diet is at least half the battle. On that note, fulfilling your passion, although an important component is not everything you need to do to achieve happy healthy. Going to the gym or playing your favorite sport is only an hour to 2 hours a day. Enter *The slight edge*. This book, by Jeff Olson explains that to be successful your mindset must change about the task at hand. Beyond this he explains that to be succesfull you must constantly be applying effort in the direction you want to go. I developed the big 5 because I realized that beyond your active passion for a small bit every day, you could make healthier choices constantly to manifest into a healthier lifestyle. Basic and effective guidelines, influence better decisions which leads to a healthier lifestyle. For example always taking the stairs when given a choice. Taking the stairs once will not make a difference, taking the stairs 10 times won’t make a difference but after 40 and 50 times and 100 times the small steps begin to make a difference. “tiny adjustments make big changes.”[[19]](#footnote-19) Some of my test subjects on the basic program reported that after just one week of nightly pushups and planks they felt and saw a difference in their athleticism.

 In addition to the subjects on my program I also interviewed 50 kids (25 girls, 25 guys) who led active lifestyles (exercised 3+ times a week). I asked them questions that could provide solutions to some problems the subjects doing the program brought up. I asked them what their least favorite part of working out was, if they watched their diet outside going to the gym, what they use for motivation in the gym a if they felt happier because they worked out or just felt happier after a workout.

 When I asked the athletes what their least favorite part about going to the gym was or their least favorite part about the “getting fit process” I expected most answers to be along the lines of not meeting goals, or not setting personal records. Feedback from the test subjects also tempted me to suspect that motivation and finding time to hit the gym would be among the top responses to this question. I was surprised when only seven kids mentioned motivation and only five mentioned time. Although these were the second and third most popular answers the first was along the lines of: “actually getting through a workout because I hate being sweaty and breathing heavily and working really hard during a workout.” This left me at a bit of a dead end because being fatigued and sweating is the essence of working out. For the most part these symptoms occur when you’re doing cardiovascular training, which makes sense because another popular answer was simply “running.” I would recommend swimming because it can take care of the hot problem however there are in fact people who sweat when they swim. As much as I would like to solve this matter, I won’t because in my opinion (and any fitness sight around) if your not sweating and breathing abnormally you probably aren’t putting enough effort in. All I can say is that if sweating and being all strung out while working out is that much of an issue, use the post workout shower as your motivation and remind yourself how much better it will feel.

 Of the 50 kids, 30 of them did watch their diet in some way or eat clean. Meanwhile only 5 subjects said no or rarely. The last 15 of them said usually, offering up a fraction of days every weak that they ate healthy or admitting to a cheat day a few times per week. These statistics told me that the majority of people who workout are not going to the gym as a chore for the day, I can now see that many of these kids that lead athletic lifestyles do it more to attain that overall healthy lifestyle and understand that the gym is only single component. Given that so many of them

 Happiness is a difficult topic however I trust that you are the best judge if you are happy. I never gave the athletes a test or a checklist to help them decide if they were really happy, I simply let them answer the question: Do you feel happier after a workout, or happier in general because you workout often? 40 of the kids said yes to both parts of the question while only 2 kids gave me a full-fledged no. Kids gave me an answer that was in between however brought up some interesting points that are worth bringing to the table. The other 8 responses took another angle at the question and exclaimed that it wasn’t so much feeling happier after a workout; it was feeling unhappy when they don’t get to workout. Based on these responses it is quite clear that once a solid effort is made towards physical fitness and results are seen, skipping the gym does not seem like an option.

 For motivation to get into the gym, I heard a great deal of new answers. The most popular answer was: “wanting to have an attractive body,” followed by “beach season” and “wanting to look better than someone else. After analyzing the data I realized that these responses could all fall under the same category: competition. This idea of friendly competition and having a buddy to compete with or look better than became my number one tip for anyone trying to find their own happy healthy. There is an interesting difference between wanting to look “magazine good” and trying to look better than others. You can choose either one however I believe the healthier happier option would probably be the “one up scenario” because healthy competition is much better than thinking your worse and trying to get to where someone is. Always imagine your there and try to rise. It’s always good to have that positive attitude when trying to get fit, and believe in yourself. Confidence is the key to success here. Other responses for motivation included: Music, athletic role model’s, and looking to improve in a sport.

 My first major tip for those trying to achieve happy healthy is to drink water and not soda. Yes soda is so bad for you it mad the top five health tips. Now the purpose of my paper is not about talking down soda however it is about helping you achieve a healthier lifestyle and in order to do so, soda must go. For starters, consuming high dosages of phosphorous (like the quantities found in cola) have been proven to shorten life span. In 2010 an experiment was conducted to see the effects of phosphorous. Mice with heightened levels of Phosphorous in their blood actually had a shortened lifespan by about a quarter.[[20]](#footnote-20) Soda increases your risk of having a heart attack and takes a toll on your metabolism. If you want to avoid this trouble by drinking diet soda, think again. A study done at the University of Miami, school of medicine found that drinking diet soda increases you chances of having attack and or stroke by 44 percent.[[21]](#footnote-21) Water is a much healthier option. Water helps you maintain and balance your bodily fluids in order to aid your digestion, circulation, transportation of nutrients, and maintenance of body temperature. Water can even lubricate your joints and keep the ph of your body regulated (we survive at a ph of 7.4, higher than 7.6 or lower than 6.9 can be life threatening).[[22]](#footnote-22) Water can also help aid in digestion when consumed 30 minutes prior to eating. In fact the healthiest option is to consume water before or after meal, not during. Drinking water during meal can interfere with stomach bile used for digestion. Consuming water before a meal ensures that your body is hydrated resulting in optimal digestion for an upcoming meal. Water after a meal helps replenish liquids lost during the process of digestion and the latter parts of the digestion process (intestinal breakdown and nutrient retraction, and pooping). My advice for is to consume a glass or two when you wake up, go to bed and before each meal. In addition to the digestion argument drinking water will prevent over eating at a meal.

 The second tip is about posture and the way you use your body in everyday life. A misconception that people have about posture is that it is simply to avoid back pain or to look confident however research proves that having good posture can lead to so many great perks in your life. A famous ted talk by Amy Cuddy provided insight as to how having good posture could correlate with testosterone and cortisol production. Testosterone is the power hormone that can help us be a more attentive and even better leader. Cortisol is correlated with stress and is known to make us feel overwhelmed and powerless. Cuddy’s experiment showed that subjects seated in “high power” poses (arms wider, good posture, not hunched over and confident looking) produced more testosterone and less cortisol after simply behaving in this manor for two minutes.[[23]](#footnote-23) Having good posture helps blood circulate more efficiently throughout the body and actually aid in getting more oxygen from breathing. By standing up right you lunges have more capacity to inflate and deflate to their full potential. Bad posture can also lead to soreness in the neck, back shoulders or even lead to a headache. Beyond posture, as you go about your day be conscious of how you move. Mr. bower suggested that wearing a pedometer to track you steps may increase your awareness of your daily output and lead to healthier decisions throughout the day even when your not wearing one. My advice is to always take the stairs. No escalators, no elevators, no segways. When you are driving somewhere, park a block or two away to get you blood flowing.

 The third tip is to snack with gusto. On a road to your happy healthy snacking will have to stay. We all snack, it’s only human. Just like I mentioned earlier the healthiest way to eat is in small increments to keep you metabolism up and running. The most popular time to slack on a diet is while watching movies or out of boredom. This fact I cannot change, however I can offer a solution. In my nutrition guide I included a few healthy snacks that are easy to prepare and offer adequate sustenance and a multitude of nutrients that the body needs. Among these snacks were recipes such as: Whole-grain cereal with milk and a banana, Greek yogurt with fruit and handful of granola, hummus with whole-wheat pita and vegetables. If these aren’t fast enough I suggested a basic protein shake with whey, milk, banana, blackberries (or any type of berry really), oats and some spinach. I also provided an alternate recipe for those who did not have whey protein powder. Now if these recipes don’t float your boat maybe some finger food to nosh on may be more your thing. A bag of Doritos® or some Oreos® have no nutritional value and contain ingredients that your body literally recognizes as poison (high fructose corn syrup, partially hydrogenated soybean oil and food dye). After some digging I have found few noshing snacks that taste good and are good for you as well. The Burdock root is my personal favorite because it tastes good and has incredible nutritional benefits. The root contains anti-oxidants and low in calories. Burdock root is a good source of low starch polysaccharides such as inulin (Pre biotic that helps reduce blood sugar and weight and cholesterol). It also contains folic acid, vitamin e and vitamin c vital for fighting off infections, cancer and neurological conditions. Last but not least it has minerals such as iron, manganese, magnesium; and small amounts of zinc. Other tasty healthy snacks I found include: Granola, almond butter, edamame, fruit (with the exception of large quantities of grapes and bananas due to their low quantity of fiber and high glycemic index).[[24]](#footnote-24)

 The fourth tip is one that can be utilized at every meal. Health plans like weightwatchers® gave foods numbers and people added these numbers up in order to fulfill a total, at which they must stop eating. Humans are not machines like cars; we are all different when it comes to the fueling we require. The other issue with that system is that at every meal you need to calculate how many “points” each and every thing you eat is worth. I asked my cousin about his experience with weight watchers and he explained that after two meals of taking a calculator or out before you are able to eat you get sick of the process and end of giving up and over indulging. I explained to him a basic remedy and idea that he should apply every time he fills a plate of food. Half green, quarter red, quarter brown. That image of what each plate should look like helped him tremendously and it was easy for him to manage what he ate. The idea was this: half of every plate of food should be mixed greens (vegetables), on quarter of each plate should have your meat (or high protein and fat substance) and finally the last quarter of every plate should be your carbohydrates (pasta, rice, beans).[[25]](#footnote-25)

 The final tip I can give you all is to buddy up. Everywhere I looked it was apparent that having someone else on board with you as you strive for happy healthy was the best way to stay motivated. Having someone there to keep you in check when you eat out of your house is a huge help. When I’m at the movies and the best option is to avoid the buttery popcorn and candy my friend and I agree to not cheat and we hold each other to it. Personally, when I know a friend of mine is going to workout I feel obligated to workout my self. Being at the gym with a friend also entices you to do extra reps or even do more than you lifting buddy. Beyond having a friend on board to keep on track with you, this opens up a new dimension of competition. Not to the point where you hate your friends because they try harder than you, but healthy competition that drives you to make healthier choices. Working out with a friend is also a great way to improve your personal records. An article in US news by Keri Glassman talks of a survey done with professionals rowers who when rowing together and in sync produced more endorphins and had a higher tolerance for pain than when they rowed alone. "You're more likely to stick with a routine if someone else is there," says Cedric Bryant, chief science officer for the American Council on Exercise. "It's the accountability factor." Leigh Ann Burns, nutritionist at the Louisiana State University School of Medicine, encourages the buddy system in weight management programs. "Choose someone who is going to set a good example, whether it is your best friend or a family member," Burns says. An article in *streetdirectory.com* talks of the importance of a buddy during a weight loss program. “Having a diet buddy to lean on in times of trouble and triumph can help the weight loss process. You have more than just a sympathetic ear, you have the wisdom of another person who is going through the exact same trials, shares the same goals, and is willing to help you for your benefit and his.” My mother (professional physical therapist with masters degree), and the two school psychologists tend to agree that working out with friends or others in a class is an extremely motivating experience with positive outcomes. The last 17 weeks have been eye opening and quite daunting. I realize my true potential when I can apply myself to something I enjoy. I loved working with kids and helping them achieves happier lifestyles and teaching them about the world of health. It’ truly incredible that with all I have discovered and found, it is merely the tip of the iceberg when it comes to the idea of overall health. Mental health and calming the mind are certainly areas I look forward to studying in the future to add onto my arsenal of knowledge, after all being physically healthy is only half the battle. Beyond information about health this project has helped me appreciate the element of time. Time stops for no one and how we spend every minute makes us who we are. Time spent procrastinating and watching T.V. or doing nothing on my computer are minutes wasted that I’ll never get back. On the other side of this coin I realize that working as hard as you can all the time is just as unhealthy as it is useful. It’s important to relax and enjoy life before it completely passes by. The final realization I have made is the necessity o consistency. Learning a new skill or mastering a known skill is nothing short of art. Hours and hours applied to one dream or one goal will help you achieve it, beyond this it is the belief that you will succeed that you need to keep in your mind. Failure occurred often throughout the last 17 weeks and there were times I felt I would not be able to push through it. Keeping a positive attitude and simply believing in myself (and some parental encouragement) are the only tools I needed to produce a brilliant project.

To my reader: I hope you took something away from reading this and if you have not already thought about making physical exercise or nutrition an element of your life hopefully this helped you change your mind. In any case I wish you good luck in finding your happy healthy.

1. Comana, Fabio, “p90x, insanity and rushfit…” ACE fitness 2014 [↑](#footnote-ref-1)
2. Escalante Guillermo MBA “train for symmetry and proportion” *Hooked on iron* 2012 [↑](#footnote-ref-2)
3. Snighter, Mathew F., BS. "When Is The Best Time To Do Cardio?" *Bodybuilding.com* 2005 [↑](#footnote-ref-3)
4. "Your Body Type - Ectomorph, Mesomorph or Endomorph?" *Muscle & Strength*. N.p., 2009. [↑](#footnote-ref-4)
5. Waisberg, Deena. "How Cheating on Your Diet Can Help You Lose Weight 2009 [↑](#footnote-ref-5)
6. Randela, Maggie P. "Good Nutrition: 10 Signs You Have It." */ Nutrition / Healthy Eating*. 2014. [↑](#footnote-ref-6)
7. Leeman, Shelley. "What's the Right Weight for You and How to Get There." *Student Health 101 2013* [↑](#footnote-ref-7)
8. Orenstein, Beth W. "7 Foods That Spike Blood Sugar - Type 2 Diabetes Center - Everyday Health." 2014 [↑](#footnote-ref-8)
9. Mercola, Dr. Joseph. "MSG: Is This Silent Killer Lurking in Your Kitchen Cabinets?" *The Huffington Post*. 2014 [↑](#footnote-ref-9)
10. Szaflarski, Diane, Dr. "Cruising Chemistry - How Is Water Purified?" *Cruising Chemistry* 2012 [↑](#footnote-ref-10)
11. Rankin, Kenrya. "End the Yo-Yo Diet Cycle." *Fitness Magazine 2012* [↑](#footnote-ref-11)
12. Rail, Kevin. "How to Do Upper Body Dynamic Stretches?" 2013 [↑](#footnote-ref-12)
13. Ilg, Steve. *Total Body Transformation:* New York: Hyperion, 2004. [↑](#footnote-ref-13)
14. Wolinsky, Fredric “Journal of gerontology.” *Self evaluation of life function* 1984 [↑](#footnote-ref-14)
15. Selvaratnam, Tanya “Could Meditation Make Us All At Least 10 Percent Happier?" *XoJanecom RSS 2014* [↑](#footnote-ref-15)
16. Aragon, Alan Shoenfeld, Brad “"Nutrient Timing Revisited: Is There a Post-exercise Anabolic Window?" JISSN 2013 [↑](#footnote-ref-16)
17. Lewin, Daniel Dr. “Sleep and Teens” National sleep foundation 2013 [↑](#footnote-ref-17)
18. Macdonald, Rob. "Edge Strong-Arm Tactics." *Muscle & Fitness* Apr. 2014: 76 [↑](#footnote-ref-18)
19. Olson, Jeff A. *The Slight Edge*. 2013. Print. [↑](#footnote-ref-19)
20. Main, Emily M.D. "9 Disturbing Side Effects of Soda." 2012. [↑](#footnote-ref-20)
21. Lutz, Ashley. "11 Reasons Never To Drink Soda Again." *Business Insider*. 2014 [↑](#footnote-ref-21)
22. Szaflarski, Diane, Dr. "Cruising Chemistry - How Is Water Purified?" *Cruising Chemistry* 2012 [↑](#footnote-ref-22)
23. "FTC Targets Products Claiming to Affect the Stress Hormone Cortisol." *Federal Trade Commission*. 2005 [↑](#footnote-ref-23)
24. Atkinson, Fiona. "Glycemic Index." *Glycemic Index*.com 2014. [↑](#footnote-ref-24)
25. Gavin, Mary "MyPlate Food Guide." *KidsHealth - the Web's Most Visited Site about Children's Health*. Ed 2011 [↑](#footnote-ref-25)