Physical Education is More Than Participation Sport
Introduction

People from young to old are finding themselves overweight in higher numbers. Society has reached a point of needing to refocus attention towards the problem of obesity. A great area of concern is how obesity has become a threat to our children. Children’s obesity rates are increasing every year and as a society we need to figure out ways to help combat the problem. It is important to figure out ways to intervene at a young age because children have a higher chance of having health problems as adults if they are obese during their childhood years. These health problems they may experience can and/or will lead to high expenses throughout life due to surgeries, medicine for diseases, increased doctor visits, etc.

Children have no knowledge of what is truth or what is false when it comes to these advertisements. Is it fair that television ads use influential athletes, musicians, socially attractive people, or even recognizable actors to promote junk? “Television commercials that encourage the consumption of poor quality but attractive foodstuffs may contribute to the development of obesity, particularly when the energy intake is not counter balanced by an adequate energy output… Therefore, television reflects a cultural contradiction by promoting both food consumption and leanness” (Parizkova and Hills, 2001).

Adults and children are influenced heavily by advertisements and may feel that they have to live up to a particular image in order to fit in. Image tends to be the main focus. The focus should be directed towards health. Not all human bodies look the same. To have such high expectations socially can be detrimental to anyone who is focused on image rather health. “Running in tandem with food advertisements is the portrayal and subsequent adoration of the ultra-slim, lean, and very tall ‘beautiful people’ with bodily characteristics that approximate ‘Barbie’ dolls. Individuals with this shape represent an extremely small proportion of the normal
population. Unfortunately, such images are powerful in the portrayal of an idealized shape. Those who attempt to make wholesale changes to size and shape to emulate a societal ideal may be at risk of serious nutritional problem such as anorexia nervosa, bulimia, bulirexia, and obesity” (Parizkova and Hills, 2001).

“Rising rates of obesity in populations are of concern because obesity is intricately associated with various diseases that compromise quality of life, predispose to premature death, and place enormous cost burdens on health care systems. These include type 2 diabetes (non-insulin-dependent diabetes mellitus), high blood pressure, dyslipidemias, coronary heart disease, and certain types of cancers (breast, endometrial, prostate, and colon)” (Pond, Nichols and Brown, 2009).

These side-effect diseases are hard enough to see happen to adults, but more and more children are dealing with these same diseases. Added to this, kids are more likely to be ridiculed and ostracized by their peers because of body image. Ferraro states: “Children who are overweight suffer from increased health problems in several ways. First, many overweight children are developing health problems that in days past were thought of as exclusively adult problems, including type 2 diabetes and high blood pressure… Second, children who are overweight are at risk of becoming severely overweight adults… and third, overweight children suffer from social stigma and emotional ill health in many cultural environments” (Pond, Nichols and Brown, 2009). One has to wonder about the quality of life for these children who should be active, happy, and enjoying a normal childhood. Certainly the attitudes and reactions from others towards obese people are not generally positive. “It is often stated that attitudes of non-obese children and adults toward those who are obese are negative and discriminatory. A review by Wooley, and Dyrenforth revealed that children who are overweight tend to be rejected by
their peers. Harris and Bochner stated that the negative perception of obesity is so powerful that other characteristics such as gender or wearing glasses have no additional negative effects on person perception. It has even been suggested that some of the physiological aberrations associated with obesity (e.g. hypertension) are the result of the chronic derogation heaped upon obese persons” (Alexander-Mott and Lumsden, 1994).

“Annual medical expenditures attributable to obesity have doubled in less than a decade, and may be as high as $147 billion per year” (Finkelstein, 2009). This alone is a good reason to combat obesity. Add to that the social pressures added to children and the many dangerous side-effects, and it is easy to see that obesity is a major problem in America. It may seem as simple as changing our diets and increasing activity.

Knowledge is power! Learning and using nutritional information to make better-informed decisions helps fight obesity and other health problems that can occur as a side effect of obesity. Being active is also beneficial to other areas that contribute to mind and body. As we look into these areas and find out the importance they provide, it will soon be clear as to why finding different ways to enhance health as a society will be crucial in helping to turn things around. The health status of our nation is something that is of concern. There must be commitment from all of us to do what we can to help bring ways to enhance the health of all people hoping to secure a stronger future.

Food

Good food habits need to be formed at a young age so that these kids can have a higher chance of living a healthy life. It seems that sweets, fats, and overeating have become part of
how we eat and that has become a problem. Food can play a role in the rate of fat increase if we constantly eat the wrong foods without any participation in energy expending activities.

Food that is commonly eaten and how that food is brought into the home has greatly changed since the first appearance of the human ancestor on the ancient time line. “It is important to remember where we came from, despite our ability to adjust to radically new circumstances through our technology. We are descended from a long line of frugivore-olivores; our ancestors moved into a novel omnivorous niche. Our nutrient requirements, metabolism, and digestive abilities are heavily influenced by our evolutionary past. The difference between our diet of the past and the diet of today is not just about the increase in energy density of the modern diet; there are many nutrients that are important to our health” (Power and Schulkin, 2009).

Our bodies were designed through evolution to be able to handle a variety of circumstances created by our surroundings. At first, nuts, berries, and plants were our main source of food; therefore, that is what our bodies craved. The introduction of meat only came with the advent of the simplest of technologies: fire and stone tools. These allowed our ancestors to hunt and process simple, small game such as birds and small mammals. The interesting thing is that when you think of our ancestors, it is rare that an image of a “fat body” appears. Why is that? The amount of food, surely, plays a part, but is there more? Our bodies have so much going on in them to make them function on a day-to-day basis that we must put certain nutrients into our bodies in order to be healthy. These nutrients, called micro-nutrients, are essential for our bodies, past and present, to be able to function, and therefore process what we put into it properly. Take vitamin C for example:
Based on a comparison of modern human diets with that of extant nonhuman primates, Milton (1999a) determined that the modern human diet was lower in many micronutrient levels. For example, vitamin C levels of modern human diets are much lower than is typically found in the diet of a wild ape or monkey. Vitamin C is a key enzyme in metabolism. Vitamin C deficiency leads to significant metabolic pathologies, including the disease scurvy. Scurvy is a classic disease of modern human life; it was likely completely absent from our early ancestors (Power and Schulkin, 2009).

What has happened to our diets? What has changed throughout our existence that could possibly lead to where we are today? Certainly our bodies are no strangers to a changing diet. “The diets of our ancestors have changed several times over the course of our evolution. The pregenus Homo diet was likely vegetarian… the genus Homo are associated with a change in diet…about 2 million years ago, coincident with the transition to Homo. The most notable change was an increased consumption of animal tissue” (Power and Schulkin, 2009). The earliest of man was able to adjust to different diets, depending on what they had around them, so one might be led to believe that our bodies are perfectly capable of handling any type and variety of food that we ingest. But there are many other things to consider when we look at our food.

American diets have, within the last 50 years, become driven by convenience. It seems that most people, as a society, are always going somewhere to do something. This constant movement typically means less time in the kitchen and more time in the car. “Fast food has become associated with the automobile, from which one can order at the first window, and pick up food at the second, usually in less than two minutes. The meal can be eaten while driving, which often fits with the fast pace of life characteristic of the late twentieth and early twenty-first
The high availability of food that is “ready-to-eat” combined with how cheap the food is means that it has quickly become a staple of the American diet. Often, when questioned about the American fast food trend, most Americans don’t see the problem. Fast means that there is more time to worry about the important things, like family or work. And with the cost of fast food being so low, it saves money. Yes, these statements are true, but, what this also implies is that what we put into our bodies has taken the back seat when it comes to our lives. “‘[P]rocessed food’, which tends to be less nutritious the more it is processed, although sometimes nutrients are added back in…typically not only degrades the original nutrient complement of the food, it also often involves the addition of sugar, fat, salt, or various chemicals. At the extreme, processed food may add so many calories and process out so many nutrients that it becomes junk food” (Albritton, 2009).

While people think that fast food is convenient and may provide for family time, there should be a concern for that individual’s overall wellness of life. Unfortunately people have to eat according to their wallet or savings account, but that should not be acceptable as a society. No matter your wallet size, healthy food should be available for all at an affordable price. There is an obvious difference in how wealthy people eat versus poor people. “Those with higher incomes can afford better diets, live in places where better diets are accessible, afford the education to know what a better diet is and afford the time it takes to invest in a better diet. … Obesity rates themselves tend to be higher amongst the poor in the United States, and this is at least partly because junk foods are cheap, accessible, convenient and often quasi-addictive. Margo Wootan, nutrition policy director of the Center for Science in the Public Interest (CSPI), commenting on fast food chain meals for children, claims that: McDonald’s, Burger King, KFC, and other chains are conditioning kids to expect burgers, fried chicken, pizza, French fries,
macaroni and cheese, and soda in various combination at almost every lunch and dinner ....

Most of these kids’ meals appear to be designed to put America’s children on the fast-track to obesity, disability, heart attack, or diabetes” (Albritton, 2009).

Advertising is all around us and is hard to avoid. If educated, one can recognize the true meaning behind the money-driven product and will be able to know if the product is truly good or bad for the human body. Large amounts of money and research is devoted to creating “junk” food that the consumer may know is bad for them, but they choose to eat anyway. In The End of Overeating: Taking Control of the Insatiable American Appetite, author David A. Kessler told of a leading food consultant who revealed how his industry operates. This food consultant (who did not want to be identified) was candid in revealing “the food industry creates dishes to hit what he called the ‘three points of the compass.’ Sugar, fat, and salt make a food compelling. They make it indulgent. An example of this type of food is potato skins. Typically the potato is hollowed out and the skin is fried, which provides a substantial surface area for what he calls ‘fat pickup.’ The some combination of bacon bits, sour cream, and cheese is added. The result is fat on fat on fat on fat, much of it loaded with salt” (Kessler, 2009). The consultant gave many other examples including cheese fries, buffalo wings, spinach dip, and chicken tenders. “[H]e observed that the food industry is ‘the manipulator of the consumers’ minds and desires” (Kessler, 2009).

Being more aware of the food industry’s desire to manipulate us into choosing indulgent food helps the consumer to be more likely to avoid the trap. Although indulgent food may be tasty, it is full of things we don’t want in our bodies. Recent changes have been made to improve the nutritional quality of lunch served at school, but then those same children go home
to find cupboards full of processed, high-carb, high-fat food options. It is important to educate parents about making good healthy snack options readily available for children.

Our bodies have a hard time breaking down and actually using those processed ‘nutrients’ for our needs. Typically, if unrecognized, our body stores the unknown as a fat. Too much fat can then turn into a serious health problem which leads into obesity. Serious reform into educating kids how to properly manage the energy that they put into their bodies should be considered. There will be no hope without the kids’ guardians who provide most of the eating environment that these children are placed. Educating children, as well as their families, will give hope in creating the right environment for them and/or their families to reach a healthy adulthood.

Knowledge of food and how it is catabolized in the body is powerful because understanding how the body breaks down food will give more of an understanding of the types of food that have the proper type of energy for the body. How do people find out what is in the food? All foods are required to have a nutrition label, which tells what ingredients are in the food, the amount of the specific ingredients, and total calories, among other things. Are the labels a trustworthy source? Are the foods on the labels consistent with what people consider healthy for the body? “Opponents of food biotechnology define genetic engineering as altering or disrupting the genetic blueprints of living organisms. They believe that it is inherently unpredictable and dangerous, fraught with uncertainties and that consumer are now guinea pigs in a vast genetic experiment” (Roberts, 2001). Who oversees the foods that are being tested and then decides whether they are good or bad for us? Would they have any reason to lead people astray or do they really care about the health of the people? “As evidence of lax government regulation, (opponents of food biotechnology) point out that FDA uses the results of industry-
sponsored research to determine the safety of GE foods, instead of conducting its own studies. Scientists opposed to the new technology claim that academic research departments now receive over 50 percent of their funding from private corporations and that producing results that these corporations don’t like isn’t likely to result in further funding” (Roberts, 2001).

It comes as a surprise that the food industry testing is funded privately. This should worry people because it opens the door to bias as to how the tests are conducted. It should raise questions as to why companies spend money on desired results for their product, but if the company does not like the results then the testing facility may be blackballed from receiving any further testing business. Proper and unbiased testing should be done without fear of retribution – only looking for the best interest of the end consumer. Consumers should be able to read labels and trust that the nutritional information is correct.

But there are so many outside factors like the food industry, which is actively seeking ways to manipulate the average consumer into eating their creatively “indulgent” food. How can one combat eating unhealthy if they think that they are making a healthy choice but not knowing that the food was manipulated?

Parents need to become more aware of what is in their cupboards. They are determining their child’s environment and how well they are eating. Parents should care about what is happening with obesity and how it is affecting so many children in this day and age. A little extra time in cooking or meal planning could go a long way with guiding their child in the right direction. Not only will they live a healthier life they will live a more happy life, and that is the main reason we need to pay attention. Education is the ultimate force one can use to defend
oneself against obesity. Take time to learn about and understand the basics of food and the activities that one will enjoy to help combat obesity.

Changes in Activity Levels

When taking a look back on how human activity from day-to-day has changed and how that has influenced obesity rates, it becomes apparent that humans used to be more active. The research started with humans about 2 million years ago. That obviously is not relatable to this day and age, however it was not too long ago when getting a meal consisted of some sort of manual labor. Life was a little more challenging back then compared to today. So if humans’ activities have changed, then what are those activities and do they help cause obesity? “The lifestyle of most people in industrially developed countries is significantly influenced by the mass media… television, can play both positive and negative roles in the management of obesity during the growth period. Many children and adolescents spend more time in front of the television and with computers and video games than in any other daily activity except sleep. A number of studies have confirmed that obesity is directly related to the number of hours spent watching television” (Parizkova and Hills, 2001).

Physical activity from the time of our ancestors included going out hunting for food, gathering, taking care of animals, and walking or horseback riding (up until motor vehicles were invented). If they weren’t active, then typically they would not survive. Today, people have luxuries that our ancestors did not. This is an obvious reason of rising levels with obesity and other common diseases associated with sedentary life-styles. People of today, in general, are not as active as our ancestors and the activity continues to decrease with the increase of new
technology. Activities today include watching television, playing video games, surfing the internet (usually smart phone), etc.

Physical activity is an encouraging and proven way to help not only combat these expenses, but to combat the overall epidemic of obesity inclination in all ages of our society. Physical activity used to be a part of everyone’s lives due to not having the luxuries we do today, but today’s society has an increase in sedentariness. Living a high sedentary life-style will ultimately lead to health risks such as obesity. Do people not enjoy being active? Are the activities they are choosing not enjoyable enough to participate regularly? Many people have not been exposed to enough of a variety of activities. How does society fix this problem?

People must realize that staying active should be on the top of the priority list when wanting to live a healthy life. Sitting around not burning calories is not a wise decision for adults or children. People do have disorders and/or disabilities which can make it difficult to be active. One might think these differences would be an obvious reason for one to become obese, but that is simply not the case.

*Physical Education History*

Physical education classes are a great start to helping kids figure out what activities they might enjoy to which they have not yet been exposed. Physical education classes, though, typically have the same activities across the nation with very little variety to choose from. When these students become older there may be a higher chance that they stay active because of the joy they have towards certain activities that they were exposed to through their physical education
classes. The idea of giving students choices can help them become exposed to a variety of activities.

The most effective way in educating people about how to maintain their physical health is through their physical education classes. As early as the 1600’s, American immigrants were influenced by sports as a way to become physically active. During those times people were beginning to put together the connection between being active and how it influenced the body’s health and soul. Round Hill School in New Hampshire Massachusetts was opened by George Bancroft and was the first school to have physical activity as part of its curriculum. Its teachings were modeled after a German system known as the ‘Turner Movement.’ Turner Movement was created by an individual named Friedrich Ludwig Jahn during the early 1800’s. Jahn was a German gymnastics educator and nationalist. He was known to his followers as ‘Turnvater Jahn’, meaning “father of gymnastics.”

Jahns’ system was one that emphasized the use of apparatuses like the horizontal bar, rings, parallel bars, the horse, and a balance beam, which were all invented by Jahn. In Germany, these principles developed by Jahn became influential, and from there, to America. During the early times in America, schools like Round Hill and alike were far and few between to have an impact on the masses of citizens in America. The goal for the country was to have a physically fit citizenry. During those times, though, if there was a school that had a PE program located in an area, typically, it would only have boys participating. Very few schools offered PE classes for girls. Back then it was viewed that women should only do physical activity that was focused on domestic responsibilities, such as cooking, child bearing, cleaning, washing, etc.
Pehr Henrik Ling was also a person who influenced the American physical fitness movement. Ling’s system was influenced by teachings from the Swedish. In 1813, Ling founded a teacher-training center called, the ‘Royal Gymnastics Central Institute’, located in Stockholm. He integrated physiology, anatomy, and circulation as a way of teaching physical fitness through his system. This system of gymnastic movements was designed to provide medical benefits for the individual. Early American school programs also used Lings’ gymnastic system because of its effectiveness.

In the early 1860’s, Dr. Diocletian Lewis founded the Normal Institute for Physical Education. Dr. Lewis opened a public gym that allowed men, women, and children a place to exercise, a rare thing in the early 1860’s. He quickly realized that there were very few educators that could teach important concepts of exercise and the overall well-being of the human body. To help combat this, he founded the Normal Institute for Physical Education. The only way to get people healthy was to get educators that could teach how to properly train ones’ body. Dr. Lewis’ course was a 10 week program that taught people about his system. His exercises could be done anywhere and were focused on the ‘non-athlete.’ The first educators of physical fitness consisted of medical doctors simply because they knew the human body best.

Physical education classes have been looked at in the past as some sort of ‘break’ for the students from their studies. The overall understanding of physical education was to have a class where they could go and move their bodies because the knowledge of health benefits that it provided was proven to have a direct positive effect on individuals. It was not understood how physical activity had such a positive effect on how we learn. Now we know how important physical education class can be for students during their school day. It should not be viewed as a subject that has no value but rather as a subject with extreme value when dealing with how
activity helps them learn, which will help to benefit them in their other classes. There should be closer attention drawn to incorporating ways for students to receive this knowledge effectively, preferably in their earlier years. If children can be taught effective methods of dealing with stress as they grow, there is a high possibility that they will be able to think more clearly while staying healthy.

How do we get teachers to become more creative in motivating their students? Are the activities not challenging enough to the students that it causes boredom? Does motivation come with completing challenges on a personal level? A great example of challenging students while making it fun was a nationally recognized physical education program at La Sierra High School, in Carmichael California. A program that was adapted in the 60’s by Stan LeProtti, who was the physical education director and football coach. Mr. LeProtti had more than 900 boys that would wear different colors of shorts and compete against each other. This would classify them into a “group status.” “When a boy enters La Sierra, his physical capacity is rated. Then he is put through 15 minutes of vigorous exercise daily, and his progress is evaluated by fitness tests. Ninety-three percent of the whites (beginners) advance to red (intermediate) status by spring, the other 7 percent by the next fall. Passing tougher tests enables a red to become a blue (advanced). A median performance by a blue qualifies him to wear purple. A ceiling achievement in 15 strenuous tests ranks him as a physically gifted gold. Neither age nor class affects rating. A freshman can win his gold in one year. Blue performers cannot be matched by many college athletes. The minimum number of pull-ups for a man entering the Naval Academy is two; for a La Sierra blue, it is 13. Minimum-performance requirements for reds and blues were raised last year because so many of them scored above the old levels. Of 387 blues, only four settled for the minimum. The La Sierra physical fitness program is also accepted enthusiastically by the
girls, who admire the boys for their achievements and sometimes try to emulate them in the easier tests… La Sierra’s program does more than prove that rigorous exercise can be made popular with all the students. A graduate of LeProtti’s obstacle course, including three sets of parallel bars and pegboard, will not find the armed forces’ obstacle courses difficult… The program, in sum, not only builds physical fitness, but produces good Americans” (Gordon, 1962).

Mr. LeProtti is an example of a teacher who used his creativity to help kids achieve fitness. He thought of unique ways of challenging his students to the point where they enjoyed performing the test. Most of the exercises did not require anything other than the students’ own body weight. There were no machine weights, only the students own body weight, pull up bars, peg boards, ropes, etc. The program focused on balance, endurance, strength, power, and agility. People that complain about their health typically use the excuse of “I don’t have enough time to go to the gym,” but Mr. LeProtti showed his students how to be physically fit without going to the gym. Students of Mr. LeProtti went home and built some of the obstacle so the boys could practice. These kids were taking with them what they had learned in physical education class and applying it to their lives outside of school.

The students of Mr. LeProtti were motivated by the way he taught his classes. They give plenty of activity choice; it just depended on what level they were on at that particular time. Mr. LeProtti only had his students work for 15 minutes of vigorous activity during the hour of class. He set aside the rest of the time for proper pre-warm-up movements for the students’ bodies to ready for activity and post-cool-down movements to help unwind the body properly. He is an example of a great teacher and someone who cared about what he passed on to his students through fitness. Mr. LeProtti taught physical education the same way as Jahn and Ling, which
was more individual based, less sport based, and was focused on providing ways of long lasting health. Mr. LeProtti’s system attracted so much attention because of the results that were produced. The kids in his physical education classes were in phenomenal shape and they were only doing an hour’s worth of activity daily. Because of the knowledge that Mr. LeProtti had, he knew how to implement a system that worked for all of his students.

The La Sierra program was implemented into thousands of American schools during the 1960’s after being recognized by JFK. Unfortunately, it was eliminated in most of those schools during the mid-70s due to social pressures of the program being too military-like. Why get rid of a program that produced such positive results? Mr. Leprotti was recognized by his students as a motivator and as a person who was passionate about helping to make a positive impact on the health of his students with the program that he put into place at La Sierra High. Not all teachers are alike; the reason for the program not withstanding time simply could be that others did not have the knowledge or skill to teach and advance the human body into healthy levels in the way Mr. Leprotti was able.

Physical Education and Sports Influences

Around this time, a game was invented that won over Americans by the excitement that it brought. Baseball was, and still is, a sport that many men and women play. Rowing was also a popular sport and was one of the first competition events that involved colleges competing against each other. This is around the time when intercollegiate sports and physical education started to become one. During these times, sports were becoming more popular due to their accessibility to the masses. Even people from poor backgrounds were able to be physically
active with the invention of sports. It used to only be available to people with money who could afford the luxury of having an educator.

Sports were viewed in a different way compared to the ways of Jahn and Ling teachings. Sports were played by a set of rules and when play was active that would be the people’s exercise. Jahn and Ling teachings, however, were more focused on teaching the individual about how to properly exercise and take care of their bodies. With the requirement that all children attend school through the 6th grade, a struggle developed as to which PE system was better, Jahn (German) or Ling (Swedish). However, as sports grew even more popular, it was seen by school systems and PE teachers alike as a good way to be physically active. Sports eventually replaced most gymnastic programs due to the excitement and pleasure that they brought to the students. Students started being heavily influenced by sports teachings and lost the individual teachings.

Today, sports play a major role in education by offering education in return for representing that institution while playing a specific sport. Educational institutions have become very profitable with the money that is brought in by the revenue their student-athletes provide. Are sports good to have as the focus point of a physical education class? Do sports provide enough knowledge to the average individual, so that individual can take what they learned and be able to apply it to stay healthy? Physical education classes up until recent years (some still do) taught activities such as dodge ball, volleyball, kickball, basketball, football, soccer, etc., all activities that one could argue are mainly sport related.

*Being Active – General Benefits*

There are many benefits to physical activity but some of the important ones include positive effects on stress levels, cognitive learning improvement, as an obesity combatant, social
interpersonal increase, increased self-esteem, decreased resting heart rate, and reducing the risk of high blood pressure (hypertension).

How do we continue to keep people interested in staying or becoming active with all of the new inventions that help make our lives easier (meaning less active)? Does physical activity preference play a role in how to motivate people to become continuously active through adulthood? If they enjoyed the activity and knew the benefits it would give them, would the ‘type’ or ‘preference’ of the activity be what helped individuals become continuously active? Many people have a hard time finding even one activity they enjoy. There are many options people can do that would be considered active, yet finding a single activity has become a challenge for most people.

Many older individuals who haven’t been exposed to broad activity choices end up doing activities such as walking. Walking is great and should be encouraged. It is promoting the body to move and in some cases walking can be vigorously challenging to an individual. But is walking enough? An argument can be made in some areas of the population, such as with the elderly. As previously mentioned, walking has been shown to increase in activity choice as people get older. “Among the 704 individuals who were regularly physically active, the most preferred form of exercise was walking, cited by 50% overall. Within that group, the preference for walking increased as age progressed, from 42% of people ages 45-54 years favoring walking to 55% of those 65 years and older.” (Ryan, 2012) While walking may be an excellent activity choice for older individuals, it is probably not aerobically taxing enough for younger or more physically capable individuals to get the needed benefits that are provided only with increased levels of intensity.
However, not all individuals play sports or are interested in sports. Not playing a sport does not mean that they are not interested in being active. It means that they don’t enjoy that particular activity. Could it be that many adults don’t know what they enjoy because they were never exposed to broader activity choices during their physical education classes? As individuals get older, this question becomes more serious due to the need to strengthen our body because of the depletion of certain systems that occur from increased age. Statistics given on the Centers for Disease Control website tell how people who are older tend to have fall-related injuries. It states, “People age 75 and older who fall are four to five times more likely than those age 65 to 74 to be admitted to a long-term care facility for a year or longer” and “Over 95% of hip fractures are caused by falls. Each year, there are over 258,000 hip fractures and the rate for women is almost twice the rate for men” (Centers for Disease Control and Prevention [CDC], 2015).

In a study titled, ‘Role of physical activity in the occurrence of falls and fall-related injuries in community-dwelling adults over 50 years old,’ individuals’ activity level and intensity who were in fall or fall-related injuries were examined. They concluded that, “Being active, especially sufficiently active, reduces fall-related injuries by decreasing falls and by safeguarding against severe injuries when falls occur. At least 1125 MET (a unit of measure of the rate at which the body expends energy)-min/week of total physical activity including >500 MET-min/week of vigorous intensity seems to prevent falls and, therefore, fall-related injuries” (Pereira, Baptista, & Infante, 2014).

Being active according to this study will safeguard against severe injuries. Fracture injuries can be a long process to heal even in adolescents, while older individual’s bones lose density more easily the older we become (generally starting at age 25). If older people are not
active enough then they can put themselves in real danger by having any type of injury that involves a fracture because these types of injuries can leave elderly immobile for long periods of time. It is great that older people enjoy walking as an activity and it’s also important to enjoy, but it raises the question of the importance of resistance training and health. The older generations generally were never taught in their school years that an important component for bone density growth is resistance training. When bones become weak from limited to no training at all, they need the resistance for growth and strength for injury prevention. It’s not only true for the elderly, but science finds that resistance training has an effect on all ages, all the time. “In contrast, changes in bone improve more slowly, perhaps over a 6-12 month period… Such adaptations from resistance training help to protect joints and muscles from injury and justify resistance exercise for preventive and rehabilitative strategies. Resistance training also positively affects bone dynamics in young individuals. Elite 14-17 year old junior Olympic weight lifters, for example, have higher bone densities in the hip and femur regions than age-matched control subjects or adults” (McArdle, Katch & Katch, 2011).

This is a good thing for both present and future because benefits will continue to improve and help the body sustain healthy levels as long as exercise is part of the equation in either present or the future. There are many old myths about weight training, a familiar one is that it would stunt growth or that it was mainly for athletes (though not always believed). It has only been recently accepted that resistance training is healthy for kids.

Where do people get information to help them be more active? For adults, it would be to seek different opinions and figure out activities they enjoy. To some that statement is simplistic in how to figure out what to do for exercise. People seem to have no idea where to begin the process of being active. It seems like an overwhelming task to accomplish and most people feel
they don’t have the time. As people age, most of us get ‘stuck in our ways’ with how we live life. People tend to not have multiple activities they enjoy and that are aerobically challenging as well. Should the focus for physical education class be to help expose students to a variety of activities that are aerobically challenging, yet brings them joy?

A study was completed that discussed choice for activity in physical education classes by Grant Hill and James Hannon, presented the idea of whether choice mattered when it came to interest in being active. “The idea of providing student’s choice over curricular offerings in physical education has gained a considerable amount of attention in recent years. The purpose of this study was to determine which physical education activities middle school students would like to have included in the yearly curriculum and if there were differences in responses based on gender, student motor skill competency, grade level, and participation in physical activities outside of regular school hours. Of the 33 activities listed on the survey…[s]tudents wrote in an additional 30 activities not included on the survey checklist” (Hill & Hannon, 2008).

This is an important number because it doubled the activities that were listed on the survey. Obviously the suggested activities did not cover or include those that these children would have been interested in participating if offered during class. In the Hill-Hannon study, they concluded that “It appears important for teachers to identify strategies to maintain student interest in physical activity as they grow older. One strategy would be to incorporate novel units during the 9th grade year rather than having students repeat the same activities that are offered during 7th and 8th grade. Consequently, the 9th grade curriculum might include activities they may not have been exposed to before such as team handball, orienteering, bowling, archery, golf, skating, and tennis. Another approach would be to make the 9th grade curriculum primarily elective with students indicating preferences at the beginning of the year” (Hill & Hannon,
The idea is to help them find life-long activities that they will enjoy, giving them a higher chance of keeping that exercise a part of their daily routine.

*Physical Education – Teaching Challenges*

Jack LaLanne is an excellent example of someone who found an activity that he kept as part of his daily routine, and it was life-changing. At a young age, he was addicted to sugar and sweets. This eventually put his health into a level of increased risk. At the age of 15, he decided to change the way he ate and to incorporate exercise regularly into his life, which would eventually allow him to regain his health to desirable levels. Jack caught an interest in lifting weights. This is an activity rarely taught at the middle school level today and back in 1940, it was believed to be unhealthy to lift weights at that age because of the stunt growth myth. Even knowing the health benefits that resistance training provides our bodies and minds, it is still generally not provided to students of middle school today.

How many ‘Jack LaLannes’ are being missed because of the lack of exposure and activity choice in students’ physical education classes? He personally sought out ways to become educated on how to heal his body, and weight training is what caught his interest. Because of that interest, he kept weight training part of his life. “Throughout Jack LaLanne’s 70 plus year career he motivated millions throughout the world to help themselves by improving their health. Not only did he have the first modern health studio, which opened in 1936, he was a pioneer in television. He is known as the man that started the American Fitness Revolution and is often called the “Godfather of Fitness.” He commonly said “Exercise is King, Nutrition is Queen, put them together and you have a kingdom” (LaLanne, 2015).
The gym is not for everyone. Individuals that are of higher fat percentages are less likely to make that first step (the most important) on trying to improve their health. This could be because of a fear of injury and/or the self-image they perceive others to have of them when they do go to the gym. Jack went a different route where his was based solely on becoming healthier, which led him to explore and didn’t let the perception of others come before his health.

Another individual who has been a prominent voice in how exercise helps children and adults if properly executed is Dr. Avery Faigenbaum. “Dr. Faigenbaum prospective research involves exercise interventions in public schools and youth centers to understand changes in health, fitness and athleticism in children and adolescents. As an active researcher and practitioner, he has co-authored over 200 peer-reviewed publications, 40 book chapters and 10 books including Youth Strength Training, Strength and Power for Young Athletes, and Progressive Plyometrics for Kids. Dr. Faigenbaum has been lead or co-author on several position statement papers on youth resistance training.

Dr. Avery Faigenbaum is a Fellow of the American College of Sports Medicine and of the National Strength and Conditioning Association, and serves as Associate Editor of Pediatric Exercise Science and the Journal of Strength and Conditioning Research. He was elected Vice President of the National Strength and Conditioning Association in 2005 and served on the Massachusetts Governor’s Council on Fitness and Sports from 1998 to 2004. He has been an invited speaker at more than 300 conferences throughout the United States, Argentina, Canada, Chile, Denmark, England, Ireland, Italy, Japan, Portugal, Scotland and Spain. Dr. Faigenbaum was an invited research scholar at the Universidad Europea de Madrid, Spain in 2011 and the Instituto Regionale di Ricerca Educativa del Lazio, Italy in 2003. In 2014, he was invited to the
International Olympic Committee in Lausanne, Switzerland to develop guidelines on youth athletic development” (Faigenbaum, 2015).

One study that Dr. Faigenbaum helped to conduct was geared towards resistance training and the affect it has on children. In that study he and others that were part of the study concluded “As pediatric researchers, physical education teachers, and health care providers continue to embrace the challenge of dealing with overweight and obese youth, creative interventional techniques and motivational strategies are needed to increase the likelihood for successful outcomes in schools, recreation centers and primary care settings. Progressive resistance training gives overweight and obese youth an opportunity to improve their health, fitness and quality of life.

While additional clinical trials are needed to examine the long-term effects of resistance exercise on children and adolescents who are overweight or obese, current findings indicate that resistance training may offer observable health and fitness value to children and adolescents regardless of body size provided the exercise programs are supervised by competent professionals and systematically varied over time. We now have a growing body of evidence to recommend participation in resistance training in schools, recreational centers and health care facilities as part of a multi-faceted approach to long-term health and well-being” (Faigenbaum, Perez, & Naclerio, 2011)

If presenting a broader physical activity choice is a way to help individuals become and stay healthy for continued life, why do schools not implement new activities for broader choice? The answer may lie in what activities are liability risks to the schools when presenting new material to the students. When discussing the introduction of broader choice for students there
must be consideration of those students becoming injured while performing the activity. The type of activity plays an obvious part in an injury occurring. Along with ‘choice’, having ‘safe’ activities for the students becomes important. Kids can become disengaged when the material they are currently learning may be not interesting enough.

In an article written by Suzan F. Ayers, that is titled: Serious Injuries in Physical Education Class, she discusses a study that was taken on physical education class injuries in emergency departments in the US from 1997-2007. The study was done on children from ages 5 to 18. They analyzed data based on gender, age, types of injuries (lacerations, soft-tissue, fractures, sprains, concussions, etc.), body region injured, how the injury occurred, and type of activity during which the injury occurred. “Based on the data, an estimated 405,305 students across the nation were treated in emergency rooms during this 11-year period for injuries related to physical education. Children ages 1 to 14 (middle school) represented 52 percent of all cases, and boys accounted for 54 percent of the injuries. Seventy percent of all injuries occurred in six activities: running, basketball, football, volleyball, gymnastics, and soccer (listed from most prevalent to least). Males were more likely to be injured during group activities, whereas females were more often injured during individual activities. The incidence of injuries per year increased 150 percent during this study” (Ayers, S. e., & Smith, C. A. (2010). If these students end up not paying attention to the ‘safety’ part of the activity introduction they can become injured during that actual participation, and then it can quickly turn into a legal battle for both parties (school versus student/parent). “Schools take on liability risks every time they adopt a program or engage in any activity. Thus, the important question is not whether a new program creates any risk of liability; rather, schools must ask whether the benefits of the activity or program justify the risk involved. In this case, the benefits of healthy school programs are
The decline of physical activity in American life has potentially serious consequences for students, not only affecting academic performance, but creating lifelong health risks. SRTS, joint use, and active playground programs are all interventions that are both low-cost and effective.

At the same time, however, physical activity should be increased safely. Schools can accomplish this goal by integrating injury prevention strategies into healthy school initiatives. Doing so also minimizes any liability risk because injury prevention not only reduces the risk of an injury occurring in the first place, but also helps schools show that they have satisfied the tort duty to act with reasonable care, negating any tort liability even if an injury occurs. It thus behooves injury prevention and active-living professionals to coordinate their efforts as much as possible.

In light of the reductions in liability risk provided by injury prevention strategies, immunity, insurance, risk-shifting, and recreational user statutes, any remaining minor threat of liability is far outweighed by the vital benefits children gain from physical activity. Students lose when schools fail to support physical activity as well as when they put programs in place without injury prevention goals. Healthy school policies with a focus on injury prevention protect students from injury while supporting student health and also protect schools from liability, making schools and students into winners” (Zimmerman, Kramer, & Trowbridge, 2013). Schools are in a tricky situation with liability being such a concern. Liability can cost schools a high amount of money and if accidents continue to happen then the more the school has to compensate for injuries that keep occurring to the students during those activities.
Recognizing the importance of having a qualified individual to manage the students could reduce possible injury outcomes. Physical Education classes are supposed to be designed towards challenging the students’ body physically (and mentally). Not having the proper education and the knowledge of what to look for while working with people who are elevating their heart rate levels can lead to not only an accident but death as well. In an article written by Andrew T. Pittman, that is titled: Negligence, he discusses the ‘James v. Jackson’ case. “On September 21, 1998, Darrel James, a 16 year-old student at Frederick Douglas Senior High School in New Orleans, collapsed during the physical education class in which he was playing basketball. He was transported to a medical center where he was pronounced dead. The class was conducted by a substitute art teacher in a gymnasium lacking air conditioning, and the temperature inside reached at least 90 degrees. The class played basketball for 20 minutes before any rest period was taken. The substitute teacher did not require the students to take any water breaks and participated in the game himself rather than observe. Prior to his death, James, who weighed 327 pounds, suffered a headache and seizure. There are several risk management implications that can be gleaned from this case (Spengler, Connaughton, & Pittman, 2006) 1. School districts must insist that substitute teachers in physical education classes be certified in Physical Education; 2. Physical Education facilities should be properly ventilated; 3. At-risk students should be required to take a physical exam before participating in physical activity, and the results of this exam with any participation limitations should be kept on file at the school; 4. Physical Education teachers must not neglect their duty to supervise the activity and should not become active participants in the activity; 5. Students must be encouraged to hydrate themselves and must be taught to recognize the signs of heat exhaustion and heat stroke and to communicate these signs to the instructor; 6. Physical Education instructors must be currently certified in first
aid, CPR, and use of an AED and must know where this equipment is located; 7. School districts should be required to have proper first aid equipment and supplies and an AED” (Pittman, 2006).

One way schools are taking a more cognitive approach on how to combat injuries occurring to the students; injury prevention. The importance of injury prevention is not only valuable for schools to have for liability, but there is the added benefit of keeping the body injury free. Injury prevention is an effort to help get the body ready for elevated levels of movement to decrease chance of injury while performing those movements. The idea is to prevent such injuries before they occur. The goal for injury prevention is to help reduce possible injuries to help with the improving ones’ quality of life.

Injury prevention has been a part of early civilizations in part due to Olympics becoming popular. This produced the beginnings of coaching and trainers because there was a need for assistance to enhance the performance of the athletes who were competing. They did this through proper exercise, injury prevention techniques, and with proper ways of treating certain injuries. “In addition to organized sports and activities, school children are required to take a specified number of physical education credits as set forth by state educational requirements. The Healthy People 2010 objectives address the need for an increased number of hours required in physical education or physical activities. These physical education classes are already very large with limited supervision and encompass students of varying ages along with differing athletic abilities. This scenario leads to an increased potential for injury during the school day” (Knight, Badros, Madden, Drewer, & Makuchal, 2006).

There is an argument as to whether or not physical education teachers receive enough education about how to properly use injury prevention and other important objectives within
their classes. Not having properly educated teachers/instructors in the area of injury prevention will only increase the chances of not only students, but people in general, becoming injured which can lead to further implications later on in their lives. Teaching kids the proper way to take care of their bodies will allow them to stay actively involved. When injuries start to happen, people tend to shy away naturally, due to wanting to avoid further injury. Broader choice of physical activities is possible for students with the help of implementation of injury prevention. This will help them to discover the activities they like versus dislike having already ‘safeguarded’ the body before participating in them. If kids can stay safe and away from injury this could open the door for more activity choice in physical education class. This would be beneficial to all parties. Schools will be educating properly and setting students up to succeed, which will have a cascading effect in helping them to discover new activities.

With the current ways physical education is practiced, being more sport based, and the currently rising levels of obesity of all ages, society is challenged with finding solutions. Finding ways to get students motivated and interested in life-long health has been a challenge, especially with rising conveniences. Researchers have begun taking a look at the idea of giving students choices on their physical activity preference during their physical education classes. As a society that is made up of all types; gender, race, age, etc., then it’s safe to assume that they would have different activity preferences. Should there be a focus on the inclusion of a more broad activity selection for educational systems?

Physical activities in our educational systems are too focused on the sport side of fitness. This does not teach students how to take care of their bodies as they age. It teaches them rules within that particular game and the exercise that goes into participating in the game. Having a sports emphasis model does nothing for the students who don’t like sports. For the students who
do like sports, the current model will only develop particular to how the body moves during that sport. When looking long-term, these students will typically only know how to exercise dependent upon participation in that sport or others alike. There needs to be more variety for activity choice because having more options means there is a higher chance they pick up activities they take interest in; so as students become older they will have knowledge of health body maintenance.

Physical activity is also a major contributor in helping to combat the obesity epidemic. There are too many important elements that being physically active give to a healthy body and mind that food can just not provide. Our school systems need to be the leaders when searching for effective ways to find answers to this problem because they have access to the masses of children in the country.

Having a model that is more personalized for the students will give them extra motivation in wanting to learn about how the activities that they are interested in will benefit them moving on. In order to obtain activity choice, educators should be properly certified in how to implement more activities that are not sport focused. Let’s teach these kids how to live and sustain long healthy lives. It begins with what educators are actually teaching and if they can properly motivate their students’. Physical activity preference is important because everyone is different. Encouraging students about taking care of ones’ body should include things that the students will have a preference in. Teaching children things like importance of posture, what movements with the body create resistance with what muscles, how to increase intensity with only body weight, concepts of health, different exercises that they can use wherever they may be. There needs to be less focus on sport exercise and include other activities for the kids who desire to learn about ways to sustain body health. I believe that with the action of implementation of
broader choice for students to explore, it may give them the knowledge to take with them and use for the rest of their lives. Incorporating a positive tool such as ‘activity choice’ into these kids’ lives will help in combating the increasing obesity rates among them.

*Health Benefits for School Activeness*

Another example of reasons for more choice for students to participate while in class is the effects it has on stress. People of all ages, especially kids going through school, have stress. Stress is something that is viewed as unhealthy for the body and could lead to developing chronic stress. People, in general, tend to have stress more often than not during the course of the day. It has been shown that stress has an effect on impairing efforts to be physically active. In a study done on, ‘The Effects of Stress on Physical Activity and Exercise,’ Stults-Kolehmainen and Sinha discover that if people are experiencing stress, it can have an effect on their behavior towards being motivated to be physically active at that very moment. “The current analysis concludes that stress and physical activity are associated in a temporal manner. More specifically, the experience of stress influences physical activity, and the great majority of studies indicate an inverse relationship between these constructs. In other words, stress impedes individuals’ efforts to be more physically active, just as it negatively influences other health behaviors, such as smoking, alcohol, and drug use” (Stults-Kolehmainen & Sinha, 2014).

The interesting thing about the Stults-Kolehmainen and Sinha study is that physical activity is one of the most preferred and suggested ways to reduce stress levels. People will have a higher difficulty being motivated to exercise while stressed, but at the same time refusing to understand that by choosing not to exercise, they will decrease their chances of relieving the
stress that is causing the impairment. With all of life’s new experiences that are being thrown at children as they grow older, stress can get in the way of proper growth of the cognitive part of the brain. People’s thinking brain (‘Einstein brain’) shuts down with stress and only leaves one side of the brain functioning, which is called ‘lizard brain.’ This is also known as ‘test anxiety’ which is common among students involved in school. These kids may have studied extremely hard, but come test time, their minds cannot remember what they have studied. What was found is that these kids are typically nervous for the test, which leads to increased stress levels. Come test time, the only side of their brains that are functioning properly is the ‘lizard brain.’ Society and education systems should focus more on how to help kids know how to deal with stress.

In a study done on the way stress and fatigue decrease cognitive functioning, it says “Fatigue and stress remain underestimated factors in learning. The aforementioned results support the inclusion of consideration of fatigue and stress in educational planning for individuals with and without learning challenges. The results of the current study revealed that stress and fatigue has detrimental effects on learning and neurocognitive functioning that can challenge student learners as they navigate through their college years. Closer attention should be given to highlighting the importance of good sleep hygiene, nutrition, coping and stress management as part of the standard “curriculum” for entering college students” (Palmer et al., 2014).

If stress is causing students to struggle with the ability of learning, then the suggestion in the study has some validity. Physical activity has shown to be effective towards increasing the brains’ heightened awareness during their classes which leads to increased scores. Stress that causes the ‘lizard brain’ to become active can be detrimental to kid’s progress with cognitive learning. Physical activity has shown to be effective against combating stress and at the same
time will help increase cognitively. A before school program called ‘Zero Hour’ was designed to examine if there was any relationship between physical activity and learning. During Zero Hour the students would show up before their first period class and perform physical activities that were designed to meet a certain percentage of their maximum heart-rate for an hour. The results showed an increase in these students grades/test scores. “A 17-year study of 19,000 students in Naperville, west of Chicago, concluded that “Zero Hour”, a revolutionary PE program based on the development of aerobic fitness through regular gym-based exercise, minimizes obesity and maximizes educational attainment. The study found that students working at 80-90 percent of maximum heart-rate for an hour at the start of the school day developed a state of heightened awareness which resulted in a 17 percent improvement in reading and comprehension. A follow-up project in Titusville, a small industrial town in Pennsylvania, found test scores of 550 students rose from below the state average to 17 percent above it in reading, and 18 percent above it in math. The so-called TriFit system, which set targets for heart rate, blood pressure and body-fat percentages, helped to reduce obesity rates from 30 to 3 percent” (Calvin, 2013). Being able to recognize the impact that physical activity has with how the brain functions will help students (and others) as they attend their studies. This study, and others like it, are truly great examples of the impact physical activity can have in many different ways. If students want to achieve higher grades in their classes, they should find ways to incorporate physical activity participation prior to those classes.

Stress has been shown to have an effect on individuals getting injured as well. When people are stressed about the things that are happening in their lives they put themselves at a higher injury risk when participating in activities. “Exercise professionals need to educate their clients on the importance of exercise and mind-body practices in reducing the metabolic and
physiological effects of stress and potentially lowering the risk of cardiovascular disease, hypertension and obesity. Science indicates that some of the best stress reduction strategies are exercise, relaxation activities, yoga, and mind-body programs. In the long run, a decrease in stress can save the body from disease” (Montes, Kravitz, 2011). As discussed earlier, stress also leads to over-eating, and people that cannot control their own stress tend to eat at a higher rate instead of choosing to be active. In time, this can become a dangerous combination and can lead to obesity, hypertension, and cardiovascular disease. People who know how to implement easy, yet challenging and enjoyable activities into their daily lives, will end up helping themselves to receive those benefits that will aid in improving bodily systems and help fight off unwanted diseases. People will have a lower chance of knowing how to implement activities such as the ones that help reduce stress, if they have not been shown how to properly perform. Because there has been less choice in which activities will be taught during physical education class, there will continue to be more confusion when it comes to knowing what activities will work for that particular individual to help decrease the stresses that they are going through during that point in time. Exercise must be viewed as something we must all include in our daily lives because of the benefits that is provided to the body that food cannot.

*Food and Activity Work Together*

The discouraging thing about all of this sitting around is that most people tend to eat junk food while sitting around engaged in those so-called activities. “Inactive behavior of television viewing is combined with frequent, very attractive commercials advertising food and drink. Rather than promoting sound eating practices such advertisements more commonly promote
foods that are not recommended for the optimal development of the health and fitness of children” (Parizkova and Hills, 2001).

If people with disabilities want to do something about obesity, rather than focusing on a lack of mobility, they should instead turn their attention towards eating healthy, or ultimately risk having more disabilities.

Obesity levels continue to rise. People of this day and age have become more sedentary with conveniences that keep making life easier.

Student Study at Highmark Charter School

In an attempt to address the questions raised I conducted a study at Highmark Charter School, a kindergarten through grade 9 school, located near Ogden, Utah. The students, 71 in total, were between ages 13-15 with the highest percentage of 57.7% belonging to the 14 year old participants. All of the participants were enrolled in physical education class at Highmark. Out of the 71 students, 40 were female and 31 were male. A majority of the group was Caucasian, 81.7% overall, with the minorities being Alaskan Native, African American, and Pacific Islander, each with 1.4% of the total.

To begin the study, an understanding of the current status of the students’ health was required. Students that participated had to present a signed consent form from a legal guardian that allowed them to be part the study. The study consisted of measurements of height and weight, which we then used to calculate each student’s BMI (body mass index). The range was from 15.2 kg/m² to 34.0 kg/m² with the mean being 20.74 kg/m². According to the guidelines
published by the CDC (Centers for Disease Control and Prevention [CDC], 2015), it was found that 80.3% fell into the ‘Normal’ range and 19.7% fell into the ‘Overweight/Obese’ range. The study shows that when comparing male and female BMI, there was very little difference in the overall mean; the males mean equaled 20.652 kg/m$^2$, while the females mean equaled 20.810 kg/m$^2$.

Along with the height and weight measurements, students were asked their grade, age, sex, race, and then given 16 survey questions that they rated from ‘strongly disagree’ to ‘strongly agree’. Out of those, 3 questions were highlighted for further review. An independent samples t-test revealed a statistically significant difference between groups on Question 1, $t(69) = 2.49$, $p = .015$, suggesting that the normal weight students had a greater preference for running/jogging than their overweight/obese peers. Another independent samples t-test revealed a statistically significant difference between groups on Question 5, $t(69) = -2.21$, $p = .037$, suggesting that the overweight/obese students had a greater preference for weight lifting/strength training than normal students. A final independent samples t-test revealed a statistically significant difference between groups on Question 13, $t(69) = -2.66$, $p = .010$, suggesting that more overweight/obese students experienced pain and/or injury during physical education class than the normal weight students.

This study that was conducted did not have enough participants to adequately satisfy research standards. It does, however, give a very small look into what students think when it comes to activities that they participate in while in their physical education classes. It also shows that students who are overweight/obese have different experiences than the students with normal weight due to pain experiences with certain activities. Physical activity preference may be a way to help combat overweight and obese students. Allowing students to suggest, or even pick, their
activities could lead to a higher level of engagement during class. This would increase the chances of lifetime participation for that individual. This recommendation is consistent with that of Dr. Faigenbaum.
Bibliography


Jack LaLanne Website. Biography. Retrieved from


### Preferences for Physical Activity Survey

*Please respond to the following statements by indicating your level of agreement. (Circle the best response.)*

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I enjoy running and/or jogging.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I enjoy playing team soccer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I enjoy playing team basketball.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I enjoy swimming.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I enjoy lifting weights (strength training).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I enjoy playing ultimate Frisbee.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I enjoy playing team volleyball.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I enjoy doing pull-ups and/or pushups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. During PE class, I enjoy activities that make me feel out of breath.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. During PE class, I enjoy being the fastest runner in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. During PE class, I enjoy being the strongest in the weight room.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. During PE class, I enjoy being the most skilled athlete.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I get injured during PE class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Before playing in PE class our teacher has us warm-up.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. My PE teacher knows what to do if I get hurt in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I know what R.I.C.E. stands for.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### Table of Demographic Information

<table>
<thead>
<tr>
<th>What grade are you in?</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex?</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How old are you?</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>How tall are you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much do you weigh?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is your race?</td>
<td>American Indian</td>
<td>White</td>
<td>Alaskan Native</td>
<td>Asian</td>
</tr>
</tbody>
</table>