



Editorial

Fighting Obesity: The Benefit of Diet and Exercise for High School Students

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Abstract

Obesity in the United States is a plague: more than 35 percent of adults in the U.S. are obese and about 32 percent of children and adolescents in high school are obese. Children pick up the bad habits from their families and continue to follow them throughout their life. Obesity has many health risks which include high blood pressure, diabetes, high cholesterol, heart disease, bone problems, and severe fatigue. The school needs to make sure that the students are getting check-ups from their doctors regarding their health. It is up to the school to provide these students with healthier meals that are going to benefit them nutritionally. With the help of the school making healthy diets and providing good physical activities, every student will have the opportunity to have a healthier life and prevent themselves from being obese.

Approaching a change in diet, exercise plan and fighting obesity can seem challenging but it is possible. Building a healthy lifestyle can be challenging but worth it. Finding some motivation within yourself will help you make a difference. Write a plan down and set short and long-term goals and monitor yourself accomplish your goals. Make a change for yourself and you will be able to live a long good healthy fit life. Fitness can promote a strong immune system and influence our susceptibility to illness.

Keywords: Calorie Intake; Changing Life Style; Diabetes; Diet; Exercise; Exercise Sets; Help Program; Metabolic Syndrome; Obesity

Introduction

35 percent of adults in the U.S. are obese and about 32 percent of children and adolescents in high school are obese. About half of all American adults have one or more preventable diet-related chronic diseases, including cardiovascular disease, type 2 diabetes, and overweight and obesity (2015-2020 dietary guidelines). Our goal is to achieve good health and wellness, though it is important to know the difference between the two; health is the "State of being free from illness or injury" while wellness is the "Progress towards achieving good health and maintenance" (Webster Dictionary). But why is this important; students in high school are one step away from becoming adults and taking on a role of responsibilities, taking care of your health is one of them. There

are three things to consider before beginning your journey on a healthier lifestyle including a change in diet thus a plan, a how and what, an exercise plan thus how to approach and monitor, and finally ways to fight obesity.

Metabolic syndrome is the consequence of obesity and it is becoming prevalent in adult and present in children, with diabetes and sleep apnea. Children pick up the bad habits from their families and continue to follow them throughout their life. Obesity has many health risks which include high blood pressure, diabetes, high cholesterol, heart disease, bone problems, and severe fatigue. The school needs to make sure that the students are getting check-ups from their doctors regarding their health. It is up to the school to provide these students with healthier meals that are going to benefit them nutritionally. With the help of the school making healthy diets and providing good physical activities, every student will have the opportunity to have a healthier life and prevent themselves from being obese. Approaching a change in diet, exercise

plan and fighting obesity can seem challenging but it is possible.

Help

The HELP philosophy provides a basis for making healthy lifestyle change possible. The acronym, HELP, characterizes an important part of the philosophy: Health is available to Everyone for a Lifetime and it is Personal. Physical activity is not just for athletes it is for everybody. It is important to adopt and sustain healthy habits early in life is because you will increase long-term health, wellness, and fitness. It does take everyone to take personal responsibility for learning and using these skills. Health is more than freedom from illness, disease, and debilitating conditions. The students need to take in consideration that every single one of them is unique. Each person’s unique characteristics influence health and wellness. We all have personal limitations and strengths. Some dimensions that involve health-related physical fitness are: body composition, muscular endurance, strength, power, cardiorespiratory endurance, and flexibility. Having a strong cardiorespiratory endurance will allow the heart, blood vessels, blood, and respiratory system to supply nutrients and oxygen to the muscles and give them the ability to utilize fuel to allow sustained exercises.

Diet

The importance of good nutrition for optimal health is well established. Most people believe nutrition is important but still

find it difficult to maintain a healthy diet. Many individuals have misconceptions about what constitutes a healthy diet. Eating the right number of calories is very helpful because you won’t have to worry about reducing fats or sugars.

We need to help guide the children in the right direction to a healthier life. This will hopefully influence the society. The first step is changing the food that is served in the cafeteria, a change in their diet. For these students to achieve a healthy lifestyle, eating healthy plays an important role. 80 percent is diet and only 20 percent is exercise. Therefore, nutrition outweighs exercise when it comes to an overall change in their body. The school needs to address the average calories that these high school students should be consuming every day.

Design A Diet

For a high school boy that is between the ages of 14 and 18 they should be consuming anywhere between 2,200 to 3,200 calories a day. While a high school girl that is between the ages of 14 to 18 they should be consuming anywhere from 1,800 calories to 2,400 calories. This is where the school must make their meals reasonable for both the males and females.

In (Table 1) the activities and calories are matched and reported and showed the number of calories indicated according to the age and the activity.

Activity Level	Male			Female		
	Sedentary	Moderately Active	Active	Sedentary	Moderately Active	Active
Age						
14	2,000	2,400	2,800	1,800	2,000	2,400
15	2,200	2,600	3,000	1,800	2,000	2,400
16	2,400	2,800	3,200	1,800	2,000	2,400
17	2,400	2,800	3,200	1,800	2,000	2,400
18	2,400	2,800	3,200	1,800	2,000	2,400
19	2,600	2,800	3,000	2,000	2,200	2,400

Table 1: Chart to help in estimating your caloric intake.

This table is quite important and should be implemented before suggesting any diet to the student.

An 1,800 calories diet is advisable if the students do not exercise. An example is reported in (Table 2).

Breakfast:	Calories	Protein	Carbohydrates	Fat
8 ounces of Oatmeal	132	19	92	21
One Apple	96	1	86	9
8 ounces of plain Yogurt	227	39	161	27
8 ounces of Orange Juice	114	8	100	6
Total	569	67	439	63
Lunch:	Calories	Protein	Carbohydrates	Fat

Tuna Salad Sandwich	390	101	109	150
Plain Salad	37	6	27	4
Banana	101	4	95	2
Total	528	121	231	156
Dinner:	Calories	Protein	Carbohydrates	Fat
Broiled Chicken Breast	284	224	0	60
Salad with Italian Dressing	162	8	28	126
Cooked Broccoli	60	19	26	15
Rice	213	17	160	36
Total	719	268	214	237
Daily Total	1789	456	884	436
Total Percentages	100%	26%	50%	24%

Table 2: Sample of Diets.

Schools and Meals

Most schools are responsible for two meals a day for the school week for their students, this is two-thirds of what they are going to eat that day and that is why it is important that they serve food that is healthy and enjoyable. Schools need to follow the Dietary Reference Intake, this should do with having the adequate amount of nutrients in these student's diets. The recommended nutrient intake is around 10 to 35 percent protein, 20 to 35 percent fat, no more than 10 percent saturated fat, and 45 to 65 percent carbohydrates. Therefore, the school needs to consume nutrient-dense foods, reduce solid fats, added sugars, and reduce sodium intake. These steps can help to reduce these student's chances of obesity, heart disease, and help them maintain an overall good nutrition and health. A typical plate for a school meal needs to have fruits, vegetables, grains, protein, and dairy servings. There should be 1 percent milk and even add in almond milk because of the benefits it provides. The number of calories for these two meals needs around 800 to 1,000 calories and the rest they can get at home. It is so important that these students are getting the right amount of nutrition during school, but whatever they eat out of school is beyond the schools control. They need to follow the guidelines of the food pyramid. Milk, yogurt, and cheese group should have 2 to 3 servings. Meat, poultry, fish, eggs, and nuts group should be 2 to 3 servings. Vegetable group should have 3 to 5 servings. Fruit group should have 2 to 4 servings and bread, cereal, rice, and pasta group should have 6 to 11 servings. This is a good plan that will help the school accomplish the goal of getting these kids healthy and having a healthy diet.

Exercise

Having good physical fitness will allow anyone to have energy at the end of the day even though you have worked productively. Regular physical activity can increase health span. Living longer is important, but being able to function effectively during

all years of life is equally, if not more, important. Many benefits in health, wellness, and fitness are obtained with moderate amounts of activity, so the key is to be at least active enough to obtain these benefits. All people benefit from physical activity, but the benefits are unique for each person. Heredity, age, gender, ethnicity, lifestyles, current fitness and health status, and a variety of other factors make each person unique at any point in time. The principle of individuality indicates that the benefits of physical activity vary from individual to individual based on each person's unique characteristics.

What High School Students Should Know

For high school students, it is important to understand the five basic types of physical activity. Each step represents a step toward achieving health, wellness, and fitness. Any physical activity can be combined with another but each will have its unique benefit. About 45 to 60 minutes of daily moderate activity may be necessary to maintain energy balanced for body composition. Enrolling in a PE, yoga, or sports class during high school is very important because you will get at least 50 minutes of moderate physical activity per week day.

Moreover, cardiorespiratory endurance is probably the most important aspect of physical fitness because it has a major impact on health and greatly influences physical performance. A person with good cardiorespiratory endurance can persist in physical activity for relatively long periods without undue stress. The heart, blood vessels, blood, and respiratory system need to supply nutrients and oxygen to the muscles. Once oxygen is delivered, the muscle tissues must be able to use oxygen to sustain physical performance. It is important to note that the beneficial effects of cardiorespiratory endurance on risk for heart disease and early death are independent of these other effects. The examples of possible exercise to do every day which can be simple (Table 3).

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Rest	Cardio: leg and core stretches, 2mile jog,	Strength and Flexibility: free weights, Tai Chi poses, pushups, sit-ups	Cardio: leg and core stretches, 2mile jog,	Strength and Flexibility: free weights, Tai Chi poses, pushups, sit-ups	Cardio: leg and core stretches, 2mile jog,	Strength and Flexibility: free weights, Tai Chi poses, pushups, sit-ups

Table 3: This is an Example for Home Exercises.

In the morning if you wake up rest for at least 5 minutes to wake your sleeping cells up. Then do some regular warm-up, like stretching, arm rotation, hip rotation, knee rotation, 10 repetition jumping jacks, the same with push-ups, side lunges and you can add more basic exercises or you can switch them After the warm-up try some breathing exercises to lower blood pressure and to relax your body.

After school if possible find time to jog or walk, you can burn the same calories if you have the same destination, where jogging is much faster than walking. You can use the warm-up exercises to cool-down after jogging, you can add planking, sit-ups and chin-ups. Don't forget to finish it off with breathing exercises to reduce tension. Little more complex exercise to do every (Table 4) but still very doable.

Push day: Monday and Thursday	Pull Day: Tuesday and Friday
Chest	Legs
Bench press 4 sets	Squats 4 sets
Incline Dumbbell Bench Press 4 sets	Leg Press 4 sets
Chest Flys 4 sets	Leg Extensions 3 sets
Shoulders	Back
Military Press 4 sets	Wide Lat Pull-downs 4 sets
Upright Rows 4 sets	Bent Over Dumbbell Rows 4 sets
3-Angle Dumbbell Flys 3 sets	T-Bar Rows 3 sets
Triceps	Biceps
Lying Down EZ-Bar Extensions 4 sets	Standing Olympic Bar Curls 4 sets
Cable Rope Pushdowns 4 sets	Seated Dumbbell Curls 4 sets
Lying Dumbbell Extensions 3 sets	Preacher Curls 3 sets

Table 4: Sample Workout Plan.

Deadlifts, power cleans, snatch, clean and jerk are also good exercises for full body workouts. Exercising is an important part of these students lives and it provides them the health benefits they need. Exercising helps prevent obesity, increases endurance, reduces the risk for certain diseases, and delivers nutrients to the bodies muscles and tissue. The exercise should be balance and include both cardio and weight lifting to get the most benefit.

Benefit of Exercising

Here are 11 benefits from working out. 1 of the reasons is it will boost your happiness levels, like I have said before I was depressed and didn't like how I looked before but one I started working out I began to be happier. #2 you can set goals for yourself, if you never set a goal for yourself then here is your chance to set many goals such as fitness goals maybe doing a marathon, or a bike marathon as well. #3 you can reduce your risk of heart disease as I have mentioned before. #4 you can sleep better you won't be so tired throughout the day. #5 you will have an energy boost you will have more energy throughout the day. from reading the article www.draxe.com/benefits-ofexercise they have said that the fatigue levels have a 20% of energy boost. #6 you can increase your strength and flexibility from working out and build muscle, helps you improve muscle strength and muscle mass. #7 you will improve your memory. #8 it will help you increase your self-confidence and it will help you want to keep working out and stay healthy and eat healthy. #9 you will be able to perform better at school or even if you have a job as well, you won't be as stressed as you once were and you will can even perform better on your tests or whatever you want to accomplish. #10 you will become less susceptible to diseases that I have mentioned from before. #11 and finally you will live longer and want to be able do what you want to do in life.

Conclusion

Building a healthy lifestyle can be challenging but worth it. Finding some motivation within yourself will help you make a difference. Write a plan down and set short and long-term goals and monitor yourself accomplish your goals. Make a change for yourself and you will be able to live a long good healthy fit life. Fitness can promote a strong immune system and influence our susceptibility to illness.

Suggested Readings

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