

AAS/SW
2011-
2012

ACTIVE AMERICA

MAKING AMERICA "FIT TO FIGHT!"

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INTRODUCTION

The Problem

America is extremely unhealthy and unfit. Currently, one in three American adults is obese and the rate is only climbing. Obesity, and unhealthiness in general, lead to many life threatening diseases including cancer, diabetes, and coronary heart disease.



The digression of America's health as a whole is a national security concern. With more and more people increasing their unhealthy habits, more and more people are becoming unfit to serve in any military branch. If there aren't people fit to serve, then the future of our military goes down the drain because there won't be one.

This is a problem.

The Solution

Active America is the solution, or at least a step in the right direction. Together, Arnold Air Society and Silver Wings can make a difference. We are two organizations with national reach, motivation, dedication, and a commitment to excellence. Using bonds already formed by the STEM initiative, we can

continue those relationships by educating them on health and wellness and providing them with the staggering statistics of today's society. Increasing awareness will be crucial to this project's success.



"Seventy percent of males ages 17-24 are unfit for military service."

- Sgt. Maj. of the Army Kenneth O. Preston

NUTRITION

Nutrition: the fuel for your body. The diet choices you make affect your wellness today and in the future. “Put good in. Get good out.” Eating right is an easy step towards your total well-being. It starts with making good food choices.

Think ahead. What am I about to eat? Avoid foods high in calories that have little nutritional value. These are the solid fats and foods with added sugars and salt. Stick to fruits and vegetables, lean protein, low fat dairy items, and whole grains.

Good Fats Vs Bad Fats. Found in meat, butter, cream, hydrogenated oils, and shortening, solid fats don't belong in a healthy diet. Instead, cook with healthy fats: olive oil, vegetable oil, canola oil, corn oil, peanut oil, sunflower oil, and margarine. Whether a fat is a cis or tran isomer determines the healthiness. Location, location, location. It all comes down to the position of hydrogen ions on the molecule. It's chemistry!

Not until you eat your veggies! A diet enriched with fruits and vegetables can lower your chances of developing heart disease and stroke. When it comes to vegetables, look for dark green, red, orange, or yellow colors. They pack the healthiest punch! Keep fruit on the table. This way you're more likely to take a bite. It's a great snack! Try sneaking in fruits and vegetables into every meal. It'll be a staple of your diet before you know it!

Where do I get my protein? That big juicy steak most people think of is one source. However, there are much better options that are lower in fat. Good sources include poultry (without skin), fish, dried beans and peas, nuts, and high-protein vegetarian meals. Limit the quantities of red meat you consume. Definitely see what you can do. Try having fish twice a week! And of course, never fry your food; grill, bake, or broil your next seafood dish. Protein helps your muscles grow and repair. Make sure it's part of your diet!

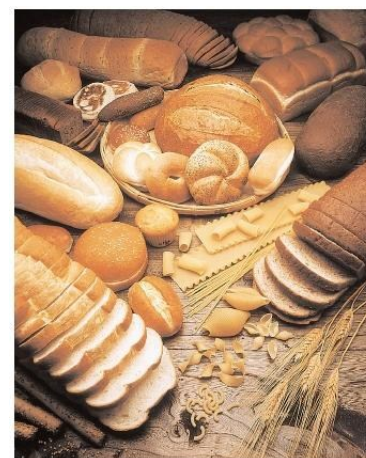
Got Milk ? Dairy is a great source of calcium, which promotes healthy bones. It also contains protein, riboflavin, and vitamins. Avoid the fat that can be associated with dairy products. Drink low or no fat milk, eat yogurt, or try calcium fortified soy and rice milk.

Swap up the grains. Whole grains don't go through the refining process which strips grains of valuable nutrients. Start replacing foods with whole grain alternatives. Start small with crackers, rice, and pasta. Work your way up to breads and cereals. It doesn't taste bad, just different! You'll get used to it in no time. Your new body will thank you! Remember, whole-wheat flour, cracked wheat, oatmeal, and brown rice are good for you. White flour, and foods derived from it, are far less nutritious. Make half your grains whole!



“Put good in. Get good out.”

-Minute Maid



NUTRITION CONTINUED

Consider the Carbs. Carbohydrates are an athlete’s friend; they provide more energy than fat per unit oxygen consumed. This is especially good during long events where oxygen can be a restraining factor. Complex and simple carbs are broken down into glucose. Muscles store this in the form of glycogen. When your body demands energy, the glycogen gets converted back to glucose; your ability to endure sustained exercise depends on the amounts of glycogen initially stored in your muscles. It can take up to three days of high carbohydrate consumption to totally fill glycogen stores!

Consider the nutrition facts. The labels on most packaged foods are valuable tools to eating healthy. Avoid foods with high levels of saturated fats, trans fats, cholesterol, and sodium. Foods with high quantities of fiber, calcium, iron, potassium, and vitamins are generally good. The daily value column can help put the numbers in perspective. 5% DV is low while 20% or greater is high.

How much should I eat? The label also tells you how much you should consume. You might be surprised to find out how small a serving is! You may realize that you typically eat double the servings, which means double the calories.

Counting Calories. The amount of calories per serving is also on the label. You can use this to track your daily calorie consumption. Start small by simply avoiding foods with 400 or more calories per serving.

Know what you’re eating. The label also includes the ingredients listed in decreasing order of quantity. Use this to minimize sugars and undesirable ingredients. The nutritional facts help you get the most nutrients per calorie consumption!

It’s a balancing act. To maintain weight, you must consume as many calories as the square of your weight. Eat more, weigh more. The opposite is also true. By cutting calories, you may begin to burn fat reserves. However, there is a healthy way to do it.

Do the math. 3,500 calories equals 1 pound of body fat. A safe weight loss approach is to cut 500 calories per day. This leads to a weight loss of around one pound per week. Do not attempt to drop more than 1 to 2 pounds per week! Pushing weight loss can cause you to lose water and muscle. It’s a process!

Weight loss tips: Picture the new you, find a weight loss buddy, get a cheering section, set goals, monitor your progress, and stay motivated!

What does my BMI tell me? The BMI, or body mass index categorizes people as underweight, normal weight, overweight, or obese. It is found by taking the ratio your height to

Sample label for Macaroni & Cheese

Amount Per Serving		% Daily Value*	
Calories	250	Calories from Fat 110	
Total Fat	12g		18%
Saturated Fat	3g		15%
Trans Fat	3g		
Cholesterol	30mg		10%
Sodium	470mg		20%
Total Carbohydrate	31g		10%
Dietary Fiber	0g		0%
Sugars	5g		
Protein	5g		
Vitamin A			4%
Vitamin C			2%
Calcium			20%
Iron			4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	2,000	2,500
Total Fat	Less than 65g	80g
Salt Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

www.fda.gov

NUTRITION CONTINUED

the square of your weight. The BMI is not always accurate, because it does not differentiate between the weight of muscle and fat, but it is a good guideline. What's my number? Calculate your own BMI here: <http://www.cdc.gov/healthyweight/assessing/bmi/>

Hydrate or Die-drated! Consuming the proper amount of fluids helps keep your body happy! Liquids help digest food, absorb nutrients, remove waste through urination, and maintain body temperature during hot weather. You should drink at least 8 cups of water per day, and much more if you are in hot weather or perform physical activity. If you do not drink enough water each day, you will be dehydrated. Dehydration can cause muscle cramps and fatigue. Be aware that sweat depletes you of liquids and electrolytes!

What are electrolytes? They are minerals such as sodium and potassium that your body needs. You should replenish electrolytes after intense and long duration workouts. Gatorade is good because it also contains carbohydrates. Make your own electrolyte beverage! Try dissolving 6 tablespoons of sugar and 1/3 teaspoon salt per quart of water!

Water is best! H₂O is what you should be drinking throughout the day. Typically, the foods we eat contain adequate electrolytes. Drink it throughout the entire day. Your urine should be clear or straw colored if you are sufficiently hydrated. It's ok to drink during workouts, just don't be overly zealous. Chilled fluids are absorbed faster and can lower body temperature. Don't attempt to catch up on hydration by chugging water. Slow and steady wins the race!



“Hydrate or die-drated!”

-2nd Lt Nicholas Ridley

SLEEP

What exactly goes on when I sleep? Many things! Assuming adequate nutrition, your muscles will repair and your body will produce growth hormones.

How much do I need? Adults should be sleeping eight quality hours. Kids need even more! Not enough sleep can detrimentally affect your mood and cause hormonal stress. Don't try and oversleep to “catch up” on lost hours. This may make it even harder to fall asleep the next night.

Tips on falling asleep. Exercise! It does wonders! Try some calming music, it helps to relax you. However, avoid the over stimulation of television. Also, stay away from stress or exercise right before heading to bed. Finally, writing your thoughts down can help ease your mind.



PHYSICAL FITNESS

What is physical fitness?

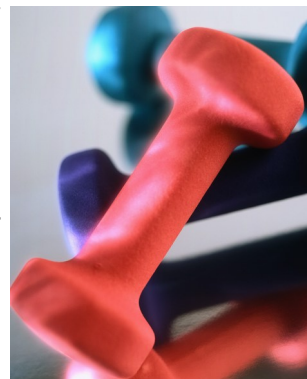
Physical Fitness is different for each person. What one may consider “physically fit” can be barely in shape for someone else. Regardless, fitness can be broken into four different major categories, strength, muscular endurance, cardiovascular endurance, flexibility. You don’t have to look like Gerard Butler to be in shape; in fact, you can look quite normal and still be considered a stud. The trick is to be physically fit.

Someone who builds a body made for strength is going to work with different exercises than someone who wishes to build endurance. The recommended workout for strength generally involves lifting some type of weight in addition to your own body mass. Whether it’s lifting in the gym or running outside with a weighted back-pack, the idea is to exercise your muscles harder than your heart rate and build larger, stronger muscles. In the gym, lower repetitions and higher weight is preferable. Fair warning, strength exercises will make you larger, not more toned! For toning, endurance is much more useful.

Muscular endurance is force exerted over a period of time. Muscles made for strength are like capacitors which release all of their energy at once, where a muscle built for endurance will act like a battery, having strength over a much longer period of time. To build muscular endurance, it is best to use calisthenics or lifting exercises with light weight and high repetitions. This will lead to toned muscles and decreased fat; it will not get you huge.

Cardiovascular endurance refers to your body’s cardiovascular and respiratory stamina. It is generally built up by running, however, any exercise that increases your heart rate (biking, elliptical, stairs) will be of benefit. The effects of high cardiovascular endurance can be seen in all types of workouts; you will be able to breathe easier, tire less quickly, and be rejuvenated faster. It is also the most calorie burning intensive workout which makes it excellent for trying to lose weight.

Flexibility is an often overlooked part of physical fitness. Sure, we can’t all be Olympic gymnasts, but it is necessary to maintain flexibility. Being flexible is more than just being able to stretch well, it also improves blood and nutrient flow to muscles, decreases risk of injury and decreases soreness. For these reasons it is imperative that stretching become part of any workout schedule.



“If it weren’t for the fact that the TV set and the refrigerator are so far apart, some of us wouldn’t get any exercise at all.”
-Joey Adams



PHYSICAL FITNESS CONTINUED

Why is it important?

Proper physical fitness is the first step to living a healthy lifestyle. Being physically fit has been proven to directly decrease your risk for many diseases such as coronary heart disease and diabetes, and plays a role in many other illnesses such as arthritis and even cancer, according to Dr. Ritva Butrum, Senior Science Advisor to the American Institute for Cancer Research. Just as important, it helps you look good, which in turn boosts confidence. There are no down sides to being physically fit, so why not spend a little time getting into shape?

Workout Plans

Lose Weight:

To lose weight, it is best to work on endurance with an emphasis on cardio. Any exercise that boosts your heart rate will also burn calories, and the more calories that are burned the more weight a person can lose. Calisthenics are also a great way to get your heart rate up while at the same time building strength.

Gain Weight:

Gaining weight is simple: Lift, lift, lift. Use low reps and heavy weights; you'll look like a line-man in no time. Try going for a run with a 30lb bag. It may not seem like much, but it's just enough to focus on building muscle instead of strengthening it. The key here is to build muscle while burning fat. By mixing heavy weight lifting and cardio, you're burning calories while forming new muscle instead of just toning.

"If it weren't for the fact that the TV set and the refrigerator are so far apart, some of us wouldn't get any exercise at all."
-Joey Adams

Flexibility exercises help stretch muscles, protect against injury and allow the maximum range of motion for joints



MENTAL HEALTH

What is Mental Health?

According to the World Health Organization, mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.” There are many things that you can do to maintain a strong mental well-being.

The Five R's

Everyone encounters problems or roadblocks in life. Using the Five R's will help you to solve problems. Think of them as the 5 Steps of Problem Solving.

Recognize

Recognize is the first step. You have to acknowledge that you are having a problem before you can fix it.

Release

Let go of the problem. Flush it from your thoughts and stop stressing about it.

Regroup

Let out any leftover, negative emotions.

Refocus

Focus on a new goal or target and come up with a plan.

Respond

Trust yourself and your abilities and execute your new plan.

Relaxation

Relaxation is when you turn your mind “off” from whatever you are working on or stressing over. Relaxation is important to decrease stress in your life and to decompress between strenuous activities. It comes in many forms, including sleep, hypnosis, and down time. Staying calm, focused, goal-oriented, and positive will keep your body and mind relaxed.

The following are relaxation techniques that will take mere seconds and will keep your mind and body calm.

1. *Meditate*

Although many people think meditating requires twisting your body into uncomfortable positions while saying “ooohs” and “ommms,” meditating is really any repeated action that soothes your mind. For example, bouncing a tennis ball off the wall and into your hand lightly for a couple minutes is a form of meditation since it is a repeated action and your mind will focus on your tosses instead of your problems.

2. *Picture yourself relaxed*

Have you ever heard the saying “it's all in your head.” Well, it's true. Picturing yourself is a form of self-hypnosis. By picturing yourself relaxed, you take your mind off of whatever is causing stress and evoke a sense of calm. The more detailed you make this “daydream,” the more relaxed you will actually feel.



***“You have to be
in control of
yourself before
you can control
your
performance.”
-Brian Cain***



MENTAL HEALTH CONTINUED

3. *Breathe Deeply*

Shallow breathing is a sign of stress. To alleviate it, exhale with a sigh and then inhale slowly while feeling your stomach, sides, and lower back expand. Do this repeatedly. It will regulate your breathing again, and you will feel much more relaxed.

4. *Look Around You*

Staying in the present moment has been proven to promote relaxation and provide a buffer against stress, anxiety, and even depression. If you look around you and focus on what's happening around you, whether you are outdoors or in the comforts of your own home, your mind will relax and refocus. Trying to see the details of everything around you and not just the "big picture" will relax your mind even further.

5. *Massages*

Not only do massages relax your mind, they relax your body, and the best part about them is that you can give them to yourself by massaging sore muscles from working out or just frequently used muscles!

6. *Take a Time-Out*

Step back and out of the situation. Go to a quiet place where you can sit or lie down and take a few deep breaths. Take as long as you need, the stress can wait.

7. *Take a Musical Detour*

Make a playlist of your favorite songs. Bring this playlist with you wherever you go and break out some tunes when you get too stressed. Don't be afraid to just belt out the lyrics to your favorite songs if you can't bring them along with you. Music is proved to calm the soul, so use it to your advantage.

Goals

A goal is something that you strive to achieve. It is good for a person to have short-term and long-term goals so they always have something that they are working on. Having goals will help keep you focused and on track, especially if you make them S.M.A.R.T.

Specific

Make your goal well defined. This means establishing all parameters necessary for the goal.

Measurable

Establish concrete criteria for keeping track of the progress of your goal.

Attainable

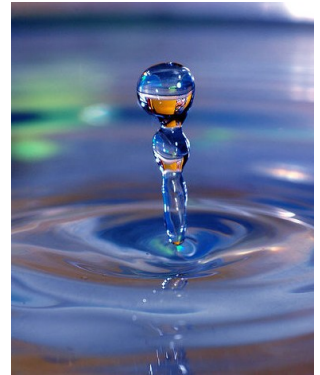
You should be able to complete your goal.

Realistic

Make sure you can actually complete the goal with all the other parameters you set including time.

Time Bound

Your goal should have a set start and end time. At the end of the time period, you should be able to measure whether or not, you have reached your goal.



"The difference between a goal and a dream is a deadline."

-Steve Smith



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We're happy to help and answer any questions that you may have! Feel free to contact us anytime!



Continue to build upon relationships that have already been made.

PROJECT IDEAS

1. Invite local CAP and JROTC to Detachment or Squadron or Chapter PTs

Contact your local CAP and JROTC squadrons and invite them to either a squadron or Detachment Physical Training Session. Check with your school for any liability issues before you invite them to PT on your campus with you.

2. Host a road race with your community school

This project will take a lot of planning and help from outside resources like local police or safety officers, but road races and walks are a great way to get a lot of people active in one event. If you are really ambitious, you can host a road race for a charity that supports our mission.

3. Organize public awareness events

Host events where you educate your community on the downward trend we are now in and how we are working on changing those trends. These events could be community wide, campus wide, or targeted at smaller groups and clubs, as long as you are informing them of healthy habits.

4. Invite guest speakers to your community or school

There are a lot of speakers out there that will come and talk about nutrition, mental well-being, and physical fitness. Figure out what the greatest weakness is in your area, and invite a speaker from that field to come and talk to you, your school, and your community.

5. Host a "Biggest Loser" competition with your community, school, or a health and fitness club

This will also take a lot of coordination. It is suggested that there is a sign-up fee for this event. Some of the sign-up fee will make up the prize for the competition and the rest of it will go to booking facilities and other costs. Make AAS/SW members the trainers and find participants in your school or community. Set a time table for the competition, and have weekly or bi-weekly weigh-ins.

6. Host a community or school sporting event

People love competition, so host a tournament with your school or community. Suggested activities include dodgeball, softball, soccer, flag football, and frisbee tournament

7. Hold a physical training session for your community or school

Schedule a time and advertise it. Host it at your school or a local park. If you host a series of PTs then you can start off easy and get progressively harder.

8. Work in conjunction with your school's or local schools' cafeterias to hold a healthy foods day

This will raise awareness in A LOT of places for a lot of age groups. Also, suggest that local schools start to place calorie counts on all of their foods, especially high schools

**GROUPS TO
WORK WITH**

- * Other AAS squadrons or SW chapters
- * Your local CAP and JROTC
- * Your college/university
- * Local schools in your area (pre-school, elementary through high school)
- * Boy, Cub, and Girl Scouts
- * Local health and fitness clubs, community centers
- * Your local community
- * Boys and Girls Club of