

A GUIDE TO CARDIO, NUTRITION AND
STRENGTH TRAINING

Bridget Benson

Hello 2006 Crossmen!!! I am very honored to have been given this position to work with the corps especially since it's hasn't been long since I was in your very shoes. I look forward to working with you and getting to know you all throughout the summer and hope to help out the corps in an area that I happen to specialize in. With this packet I hope to enlighten you on a few things about Nutrition, Cardio workouts, and strength training, as it would pertain to what you will be doing this summer. Also this will introduce you to some of the things we will be doing during spring training to get you ready for tour and marching AND playing pretty this summer.

Since most of you know nothing about me, here's something to get you started...

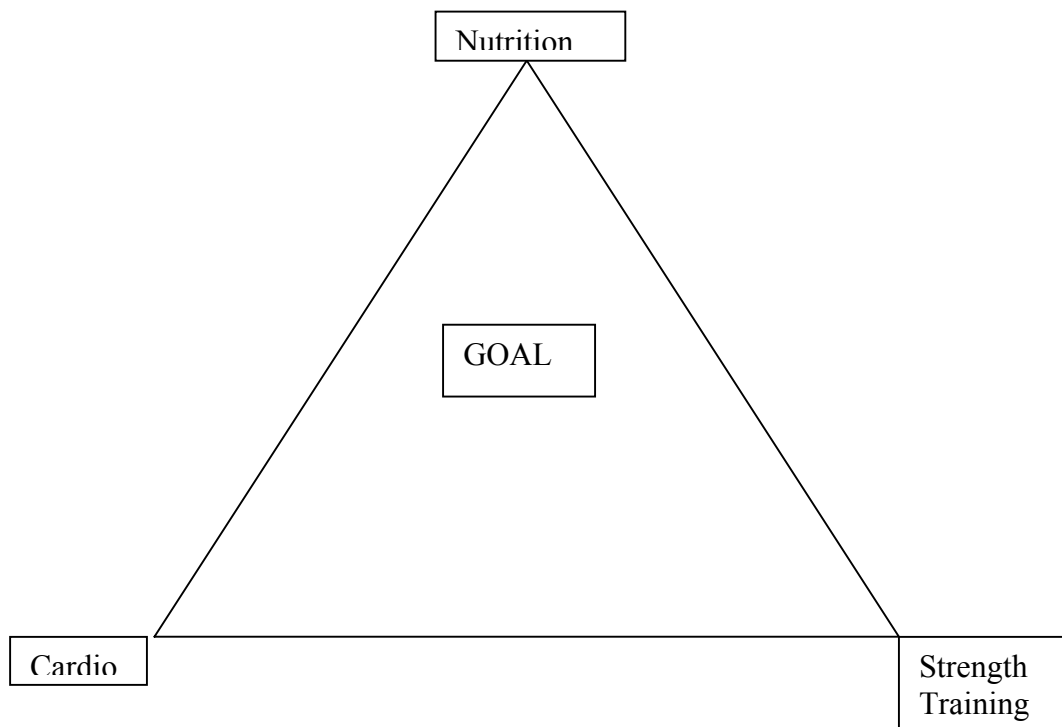
- I live in Abington, PA
- I just graduated from Indiana University of PA with my B.S. in Sports Medicine and Exercise Science (December 2005) and a Minor in Music (Euphonium)
- I marched Reading Buccaneers 2002 (lead baritone) Crossmen 2003,2004 (lead Baritone) and Project Percussion 2005 (WGI PIW) (bass 4)
- I am currently working for a gym called LA Fitness working as a Personal Trainer
- I am applying to graduate school to pursue a degree in Physical Therapy, or Kinesiology.
- I have taught Norwin High School (PA) for the past 2 years, as a visual tech and bass tech.

If you have an individual question, need something explained better, or just want to say hello, feel free to hit me up at Bridget.Benson@gmail.com. I will make every attempt to find the answer to your question if I don't know it off-hand.

WARNING: If any or all of the following is over your head, it's OK. If you can pick up at least 2 tips from each section, I will be happy about the hours I spent trying this up. If something in particular needs further explaining, please feel free to ask. Thanks in advance for taking the time to read this, it means a lot!

Cardio Workouts

The dreaded cardio workout. I know first hand, I have heard EVERY excuse in the book from my clients that I personal train... “The OC or 24 is on soon”, “my foot hurts”, “but, I’m already sweating”, “I’ll do it later”... Yeah right. As much as it is worse than watching grass grow, it’s essential to the pyramid.



So as you can see, without one side, you are not going to completely achieve your goal. A few rules of thumb to follow:

- At least 30 minutes of CONTINUOUS cardio constitutes as a workout, period. The more, the merrier, but anything less is not going into your stored fat, thus pointless.
- For a **fat burning** workout you need to stay in you target heart rate zone of about 65-75% of your max heart rate. For a **cardio training** workout, you need to be at or above 75-85% of your max heart rate. To find this number – take 220 – your age, then multiply that number by the percentage you are trying to work at.
EXAMPLE – for a 21 year old person, $220 - 21 = 199$ $199 \times 0.65 = 129$ BPM

- Most cardio equipment at the average gym should have heart rate sensors built into the equipment so you can check on it, or do it the old fashioned way (find the carotid artery in the neck or the radial artery (thumb side) in the wrist (with pointer and middle finger), count pulses in 15 seconds, multiply by 4.
- The high intensity (cardio) workout will help prepare you for run-throughs and things like circle drill/ across the fields (my favorite) and the low intensity workout will be better for helping shed some weight. Over all, both workouts will benefit you in what is going down this summer, but depending on your body type and needs, try a little bit of both.
- **Running...** I know, I used to hate it myself, but get used to it, there is no gym on tour. Some things you can do to get better at running → intervals – run for a minute, walk for a minute and increase the time as you get better. Also you can interval sprints for 100 meters (the straight length of the track) and then jog or walk around again until you get to the straight part and sprint again. Stadium stairs – if you have access to a track with a stadium around it, try jogging a lap then running up and down all the steps on the home side of the stadium, then walk a lap, then stairs, then run a lap, and so on.... Walk up hill – on a treadmill or somewhere in your neighborhood or school. Works on your endurance and the glutes (the backwards marching muscle). Find a friend to run with, or your dog, anything to take your mind off of it and help push you. Whatever you do, be consistent and try to do it a few times a week, you'll only get better if your work at it.
- BE CREATIVE – seriously, if your body gets used to something i.e. the same workout on a treadmill 3 days a week, it WILL NOT change. You have to mix up your workouts and keep the body guessing, forcing it to adapt and change. So for instance, if you have access to a gym at school or at home, try a treadmill one day, then try the bike (or a spinning class, these are great and can burn up to 1000 calories in a hour!!!), then try an elliptical machine, then try a stair master. Your body has no choice but to change and get stronger.
- I always get a little case of ADD while doing cardio so I force myself to do different things as I do cardio. Such as split my cardio session between 2 machines (elliptical and treadmill) or shoot hoops, or play racquetball. This can help pass the time, and the more you don't think about the time, the easier it is. Also once the weather breaks, feel free to break out the skates, or bike and get outside. Get used to running outside; it is a little different than on a treadmill. Take the iPod or whatever with you, put on some music that motivates YOU and try enjoying yourself instead of hating cardio.

- **Getting through the door is HALF the battle.** I know working out, let alone making it to the gym when your student is rough. But I survived... how? I WROTE it in my schedule. I promise you, if you write something down and make it a part of your schedule, you will do it. Also I got a little help from my yoga ball (Those big exercise balls you sometimes see on TV). They are very inexpensive and you can do exercises for the WHOLE body on them especially abs and low back, two crucial parts to a great visual program! * I will demonstrate some exercises on this piece of equipment at camp and hopefully you can do these at home if you don't have access to a gym.*

Strength Training

My specialty. Well, first and foremost, a common misjudgment.... Doing a million pushups will NOT help you hold up a horn ::cough baritones cough:: But they WILL make you think about whatever mistake you made on the field.... Pushups do *help* with upper body strength, but if you think about it, a pushup is the same as doing a bench press, so it really targets the chest and tricep muscles, with the anterior deltoid (front of the shoulder) as the secondary mover. Drum corps is all about ENDURANCE. Not how many pounds you can lift, but for how many reps you can do that same thing, over and over without fatigue.

Muscular Endurance – The ability of a muscle group to execute reps over time to cause fatigue.

Muscular Strength – The ability to perform a single repetition with maximum resistance.

Think about that for a second.... This applies to everyone. Hornline – holding up the horn. Drumline - running around with a drum on your back (back/ core strength). Drum majors – conducting. Guard – spinning. SO what I am trying to say is that though lifting weights is good for gaining strength, and increasing your metabolism, it has to be done in a way specific for what you are training for.

So let's say you go to the gym and decide to do legs. And your max squat or leg press is about 200lbs, for about reps of 8. You should try dropping that weight down to say 135-150lbs and increasing your reps thus training for endurance, but still gaining strength.

A few things about strength training...

- If you are a gym person, again try doing lighter weights and higher reps, for example lat pull downs (pull ups) try doing 3-4 sets of 15-20 reps, instead of 3 sets of 8-10 reps. This will force your muscles to work harder, longer, preparing you for long, repetitive blocks all summer long.

- **Split up your days.** If you can workout or make it to the gym lets say 3 days a week (or more) then try to do something different every time you go, letting the other muscle groups recover from breaking them down. The rest is just as important as the working out part. For example my split is:

Monday – Back and abs, Tuesday – Chest and Tri's, Wednesday – Legs, Thursday – Shoulders, Friday – Bi's, tri's and abs, Saturday – abs and cardio, Sunday – off. This includes at least 40 minutes of cardio each day.

Your split can be something like this: Day 1 – Back/ biceps/ abs, Day 2 – legs, Day 3 – Chest/shoulders/ triceps and abs. Obviously, not everyone can commit to such an extensive workout, but if you have the time for it, you can get this done in a little over an hour.

- **Hornline** – Things that will help you with marching and playing. Obviously shoulder and arm strength. Things like front raises, lateral raises, military and shoulder press, up-right rows, dips, tricep extensions, bicep curls, fly's and incline bench press will all help you with upper body strength. Again weight should be light, going for endurance for 15-20 reps and then burn out at the end (do until you can't do anymore). Also work on core strength, which means abs, obliques, and low back. We will be doing many variations of core strength exercises during spring training so worry not, you WILL have abs at the end of the summer. As for legs - lunges, glute presses and calf raises will be the best thing for you. ***There is NO better way to train for holding up a piece of metal in front of your face than doing just that. If you don't have the horn available, try holding up a weight at the gym or holding a 5 pound sack of flour or sugar, a book, anything. Stand with good posture and remember, the horn weight is mostly in your LEFT arm. The right arm is there for moving the valves and for some support***
- **Drumline** – Things that will help you with marching and playing. Back strength, abs, and legs are the most important. For the back, try things like pull ups (or lat pull downs), rows (bent over, high and low), pullovers, low back extensions (LBE's). For abs I have a lot of ideas for what to do so these names will make sense later – Russian twist, leg lifts w/ reverse crunch, suitcase crunch, toe touch, fly trap, six inch killers, and so on. As for legs - lunges, abductors and adductors (inner and outer thighs, for crabbing) glute presses and calf raises will be the best thing for you.
- **FACT:** 1 pound of lean muscle burn 50 calories a day, at REST. 10 pounds of lean muscle burns 500 calories a day, at REST. 7 days a week x 500 = 3500 calories. 3500 calories = 1 pound of fat.
- **FACT:** Muscle weights more than fat. Lean muscle mass burns more calories than fat.

Nutrition

Mango gelati's from Rita's are my absolute favorite *cheat* food. But notice there I said cheat. I eat "clean" 6.5 days a week, but if I am going to take a cheat I know the difference between cheating and what I need to be eating. If you have ever been friends or known someone who body builds or just lifts weights like it's a part time job, you know that the kitchen is their laboratory. People that you see that are in really good shape don't get that way just working out, they eat like their life depends on it, but its all good food, with a specific purpose. Recall the pyramid seen earlier in this packet. Without proper nutrition, the other two sides are a waste, and nutrition being the most important of the requirements. Eating clean means eating food that's good for your body that will help it to grow stronger and benefit from all the hard work you do while training. Clean doesn't mean binge eating pizza at 3 am after a long night of consuming 'soda'. I can say as fun as that is sometimes, we are embarking on what may be the hardest summer of your life, preparing early can make your time on the road much more fun. As I said earlier with cheating, it can be done, but it can't be everyday, maybe a meal or two a week. But the thing about cheating is that it is hard to get back on track if you are easily tempted.

A few tips on cleaning up your diet...

- **Eat Breakfast!** Your body has gone without food for about 8 hours - and it's starving. Skipping breakfast keeps your body in 'starvation mode' and slows down your metabolism so you don't burn any needed calories. A morning meal revs up your metabolism and keeps your body burning fat all day.
- **Read the labels.** You would be surprised at what is printed on the back of all food containers. And if the first three ingredients rhyme with or sound like "high fructose corn syrup" it's LOADED with sugar, and probably isn't the smartest food choice.
- **Skipping meals** and eating too little actually lowers your metabolism. Cutting too many calories puts you in a fasting state, which causes your body to hold on to fat and calories to survive. This decreases your metabolism and makes it much harder for you to lose weight.
- Eating smaller, more frequent meals provides a steady source of energy to your body, which boosts your metabolism and increases your energy throughout the day. By eating five to six small meals instead of three large ones, your body burns calories as you go, rather than storing the extra as fat. Also keeping your metabolism at a steady pace will allow your body not to go into a deficit in the hours between eating.

- If you are someone who would like to lose some weight, try to cut your carbs after 6 pm and NO carbs after 9 pm. Your body is slowing down at the end of the day and will be more prone to store late night carbs as fat than in the middle of the day.
- **WATER.** Until move-in, try to get yourself a Nalgene bottle (or equivalent) that holds 32 oz of water. The old saying is to drink 8-8 oz glasses a day, or 64 oz. In my opinion it's much easier to look at 2 Nalgene bottles a day than looking at 8 glasses a day. Also if you exercise that day think of taking in 3 bottles a day or 96 oz (you sweat that much out just working out, and you need to replenish lost fluids). Make it a challenge for yourself; keep the bottle with you all day, in your book bag or whatever. Having about 2 pounds worth of water in your bag all day will want to make you get rid of it. I did this myself at school, it really works!
- Still hungry after dinner? Fill up on protein and vegetables. Try to avoid the late night deserts and munchies, they are killing you when your metabolism is shutting down for the night.
- **Supplements.** Vitamins and minerals are essential to the body's chemical makeup. If you can not fulfill the body's daily need per day through the food you consume, there is no shame taking a supplement to help you out. If you're interested, a good multivitamin that I would recommend to take is made by GNC, call Ultra Mega, and Men's Mega – there is a men's and women's version. I took this myself during both my summers of marching and it seemed to work well. Also if you're interested in any protein shakes or meal-replacement shakes (MRP) I would go with Optimum Nutrition's (ON) gold standard Whey protein. As for the meal replacement shake I would go with EAS Myoplex. It is pretty much a meal in a drink and can be consumed with milk or water, milk just adds more protein. The standard is that you are supposed to consume about 0.8-1.0 grams of protein per pound of your body weight. If you read your labels this is pretty hard to do with eating 3 meals a day, so sometimes a protein shake (usually 24-30 grams per serving) or a MRP (usually 42-45 grams per serving) would help out a great deal. They do taste pretty good and are good to use if you can't get a meal in-between class/ practice/ or a rehearsal. These drinks are also low calories, (less than 280), and high in vitamins, minerals and fiber.
- Easy substitutions (baby steps): 100% fruit juice, or green tea instead of soda or coffee, baked chips instead of fried, brown rice instead of white rice, skim milk instead of 2%, Fruit/ granola bar instead of a candy bar, yogurt instead of a bagel, wheat bread instead of white bread, a salad or wrap instead of a sandwich, and so on.