

Jan 2, 2018

Dear Sunday Basketball Group:

Enclosed is a brief note of optimal "cardiac health" for anyone that might need it or want it.

Heart disease is responsible for 40% of all death in US, so by statistics alone, 4/10 of us will die of cardiovascular disease. This can be delayed or prevented by minimizing risk the major factors- high blood pressure, diabetes, smoking, high cholesterol, obesity, stress.

A few things to keep in mind specific to us:

- 1- Everyone should be acquainted with the location and use of the automated defibrillator in the gym. Knowing CPR is also a great idea, and consider taking a course in it. You could save someone's life, including someone in your family.
- 2- Exercise is great for many health issues and keeps these risk factors at bay, but it does not fully protect against heart disease. This is particularly true if you have these risk factors, or even risk factors you don't know about, such as specific genes not checked by your doctor. There are many cases of athletes dying young due to high cholesterol that they did not know about. Generally, exercise does not lower your cholesterol much unless you are also losing weight at the same time. The body has a way of re-calibrating your level based on your underlying genetics.
- 3- Keep your risk factors under control:
 - a. Blood pressure; NEW GUIDELINES in 2017 state blood pressure should be <130/80. If you are running higher than this on a regular basis, first steps are to improve health habits: weight loss if you need it, reduce salt intake, eat a low saturated fat, low calorie diet and keep stress levels manageable. If your body mass index (BMI) is >25, you need to lose weight. In some people, alcohol can raise blood pressure. If you drink, the recommendation for men is 1-2 drinks per day and women 1/day. Anything over this can lead to a variety of problems, including liver disease (cirrhosis, cancer), gastrointestinal disorders, accidents, depression, etc. Alcohol is also high-calorie, so if you are trying to lose weight cut out the alcohol. If it is still running high after improving what you can, then you should take a medication.
 - b. High cholesterol: LDL-Cholesterol (LDL-C) is the bad guy. Everyone should know his or her level. When we are born it is about 50 mg/dL. The lower the better. If your LDL-C is >130, talk to your doctor about diet (which only lowers it 5% in most patients) and medication, particularly if you have a family history of heart disease. If you do have a family history, have your doctor check an "Lp(a)" level, which is not checked routinely. This is a particularly bad type of lipid particle that causes heart disease in young people, like in our basketball group. Know that >90% of

interventional cardiologists that put in all the stents, including myself, take statin medications to keep LDL-C <70-100. Statins can cause muscle soreness or reduce your muscle power, so this is an issue for optimal performance on the court to keep in mind, so need to balance risk vs reward.

- c. Diabetes- if you have diabetes, take your medication regularly and keep your weight down and keep your glucose numbers as normal as possible. Know what you put in your body.
- d. Smoking- don't smoke, 90% of heart attacks in people under 50 yrs old occur in smokers. It's deadly to your arteries and causes them to develop blood clots and also constrict, so your on-court performance will also suffer because the flow to the heart muscle will be less.
- e. Weight control- The optimal BMI is <25. It is a person's weight in kilograms divided by the square of height in meters. A high BMI can be an indicator of high body fatness. Athletes with muscle bulk can have a higher BMI that does not necessarily mean they are overweight. You can Google how to calculate it, just put in your height and weight. Everyone with BMI over 25 can lose 5-10 pounds and get BMI <25 by end of this year!! More exercise is good, but hard to lose weight with only exercise, need to cut down on the total calories. To lose weight most of us need to be on <1800 net calories per day. If you exercise, say basketball, you burn 200-400 calories per hour, so you can now eat what you exercised off. Bottom line to lose weight is: "no exercise, no extra food" for that day.
- f. Diet- best diet seems to be a Mediterranean diet, rich in vegetables, legumes, nuts, fish, olive oil and red meat 1-2 times per month with a bit of wine if you drink. Olive oil has calories like any fat, so easy on it. Eat lean meats, there are huge amount of calories in fatty meats. Avoid fried foods, the oil oxidizes and you get a toxic bolus of fat. Dessert should be fruit and other types rarely. For those with higher BMI, a low carb diet is actually quite good, but watch the fat intake. When you don't eat carbs, calories have to be replaced by the other 2 sources of calories, protein or fat. Ideal diet for most people is 40% carbs, and 30% protein and 30% monounsaturated fat. Note fruit is mostly carbs, so avoid a lot of it if you are trying to lose weight. Consider using an app to keep track of total and types of calories.

Fell free to chat with me at the gym or email me (stsimikas@gmail.com) or call (858-699-3528) in private for any questions or further advice.

SAM