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ONE COACH'S LIFE SAVING LESSON THE ULTIMATE SERVICE A COACH CAN PROVIDE THEIR ATHLETES - ASSESSING HEART HEALTH ISSUES

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MTB** **C**yclists have very strong hearts due to the nature of the sport. It requires a strong and efficient heart to keep up with the aerobic and anaerobic demands of the sport, especially at a competitive level. Therefore cyclists typically are healthier than the average person. But that doesn't preclude cyclists and endurance athletes in general from falling victim to cardiovascular disease, and coronary artery disease (CAD) in particular. I am a case in point. I have been training and racing for more than 40 years. I have always assumed my fitness would protect me from CAD despite a family history of CAD and marginally high LDL cholesterol readings. All my other risk factors were very favorable, including very high HDL cholesterol, very low C-reactive protein (a measure of inflammation), very low triglycerides, low glucose levels and fairly low body fat percentage, so I assumed I was in good shape. That wasn't the case.

This past season I started developing a pain when breathing hard which started after having a bad chest cold, so assumed it was related to that. My symptoms were a pain that felt like it was in my trachea or bronchi and was most pronounced when inhaling. It was irritating but didn't prevent me from training and even doing hard intervals. I also raced during the season. Some days the symptoms were worse than others, and some days I had no symptoms. Often the symptoms would go away once I was warmed up. I went to the doctor and was checked out for bronchitis and that was ruled out based on symptoms. I was given prednisone to treat a respiratory irritation and that didn't help. A chest x-ray showed no problems. I was sent for a breathing test to see if it was asthma or allergies and came back clean. I asked my doctor whether this could be angina and was told that these weren't angina symptoms. After trying a couple more medications with no success, I just decided to live and ride with it. Fortunately, my wife didn't give up, at her urging, I went to a different doctor as she was skeptical that it wasn't angina, or at least wanted to rule that out.

Sure enough, the first thing this other doctor did was order a stress test. Despite my activity level and symptoms, he said it would be good to rule out the heart while looking for other causes. I performed the stress test and had no symptoms during it despite hitting a heart rate of 185. However, from the echocardiogram, the cardiologist noticed an abnormality of my left ventricle and suggested an angiogram. Despite the invasive nature of this, I decided to do it to make sure everything was working well, as I am constantly stressing my heart during training and racing. The angiogram discovered my left anterior descending artery was 90% blocked. This artery feeds the left ventricle, which is the heart chamber that pumps blood out to the body. I had a stent inserted and opened up the artery to 100%. Since then I have resumed training and feel tremendous. I am able to work harder, my threshold power is up, and my breathing is much more under control. I never noticed the gradual decrease in performance as it was happening.

Needless to say, I was shocked and surprised as were my doctors. But it demonstrates that none of us are guaranteed clear arteries despite our great cardiovascular fitness. In retrospect there were several indicators that I was having heart related issues. First was pain in the chest area. Although my doctor said I wasn't having typical angina symptoms, I now know that heart issues



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can express themselves in a number of ways and radiate in different areas of the chest and arms. Second, I noticed that my performance had dropped over the past couple of years. I attributed that to my age (I am 56) and a lack of usual training due to a busy life. Looking back, my performance dropped faster than my age was increasing. My ability to keep up on team training rides was getting harder and was dropped on hills I never used to get dropped on. Also, my threshold power had dropped during the past two years. Interestingly, my heart rate did not decrease, maintaining a threshold heart rate of 184 and a maximum well into the 190's despite this condition. Curiously, I never experienced a shortness of breath which is a common symptom for CAD. I attribute this to the fact that I frequently am training in the anaerobic range and I am used to breathing hard so didn't notice anything unusual.

I would like to use my own experience to provide some points to consider for you as an athlete and a coach, regarding awareness of heart issues

Considerations From an Athlete Perspective

If you are a coach, chances are you are also an athlete, and need to be aware of warning signs as an athlete yourself. These are also points you may wish to share with the athletes you coach. As athletes we tend to be very in tune with our bodies. We notice every little new twinge, sore muscle and joint. Sometimes we are overly concerned, even obsessed, with these pains when there is really nothing wrong. Most of the time these pains go away with rest and recovery. Conversely, we tend to think of ourselves as invincible and above having any serious health issues and we also have a tendency to push ourselves through pain that we should pay attention to. We want to believe we are too fit to have heart disease. I certainly did. So here are a few things to considerations on what to do to avoid finding yourself in the same situation I did.

1) Get an annual checkup. As athletes we put our bodies through a lot of stress during the season so you want to make sure everything is working well. But be aware that a typical physical exam will not catch everything. It would not have caught my condition. My EKG was perfect. So you might ask your doctor whether you should have a stress test done especially if you are male, you are middle aged and have any risk factors for cardiovascular disease. Be sure to explain to your doctor just how hard you work. You push yourself much harder than a typical patient. You might even bring in a heart rate graph showing how high and how long your heart rate is elevated.

2) Don't be afraid to keep asking your doctor if you can't get answers to your satisfaction or finding cause of your malady. Don't be afraid to go to a different doctor if not satisfied. No one is more interested in your health than you.

3) Pay close attention to any pain in the chest area. While it could be caused by several things, you should always rule out that it is the heart.

4) Listen to your coach, friends and spouse when they suggest you get something checked out. They are often in a more objective, less biased position to look at your situation than you are.

Considerations From a Coach Perspective

Coaches commonly are or were athletes themselves so tend to have the same mentality as the athletes they are coaching so we may fall victim to the above athlete comments as a coach, so be aware and try to keep an objective perspective of your athletes' condition. Here are some suggestions of things to do as a coach to ensure your athletes are healthy and are not at risk of heart disease.

1) Coaches should know the health history of their athletes, including blood measurements such as cholesterol, triglycerides and glucose levels. You should ask about family history of high cholesterol, heart disease, diabetes and blood pressure.


2) Coaches should ask how their athletes are feeling, on daily basis. With all the neat ways to capture data on our athletes, including heart rate, power, speed, maps, etc, it is easy to become overly focused on these objective data readings. It is important as a coach to also pay attention to athlete comments about how they are feeling. I find that these subjective comments are just as valuable as the data files and are essential to accurately interpret data files. Subjective comments can also lead to indicators that there may be something wrong, whether early signs of overtraining, emotional or personal issues at home, or perhaps more serious medical conditions. Unusual or persistent issues should lead to questions you ask the athlete. Expect athletes to try to explain these away – that will be their typical response. But as coach, because of your more objective position, you should continue to push for answers when something seems wrong and unexplained. Ask where and when the symptoms occur. You are in a difficult position of trying to downplay one-off pains versus symptoms that may indicate a serious condition. Look for patterns as to when they occur. It is very important that you don't try to diagnose but rather to understand when you should suggest that they see a doctor.

3) As a coach, you probably know the athlete's physical status better than anyone, possibly including their spouse or doctor. So you are in a good position to spot unusual or unexplained changes in health or performance. Keep in mind, these changes may occur gradually as in my case, and may be difficult to notice. Things to look for include reduced power (whether measured through threshold power, reduced power at a given heart rate or just through perceived exertion), loss of ability to keep up with comparable athletes and slower average speed on rides. Don't simply blame it on age (performance changes due to age occur very gradually) or that it

is due to lack of training, especially if your training hasn't changed much.

4) Don't assume the athlete's symptoms are typical or classic. Find out where the symptoms are. If it is anywhere in the chest, shoulders or arms, they should get it looked at. If symptoms continue, keep pushing the athlete to get answers.

5) If an issue is identified by a doctor, be sure you as a coach understand what this means for the athlete's ability to keep training. Find out if there are any restrictions. Depending on the diagnosis, you may need to contact the doctor to learn of any restrictions requested. If there was an episode that has been treated, then it is essential for the coach to understand the level of exertion that is allowed, and the timeframe for resuming activity and intense training. Again, keep in mind that the athlete may downplay restrictions because of his or her desire to keep training. If you are not comfortable with their answers, you should feel obligated to directly contact their care giver.

We never want to have deal with CAD but if you do this long enough, chances are you will run into this situation either yourself or with one of your athletes. Hopefully this article will give you some points to keep in mind should it occur. You are in a great position to help your athletes identify potentially serious conditions so take advantage of your position, and the responsibility that goes along with it. 

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