**Cholesterol : The Good, The Bad, The Ugly and The Truth**

For the first time in years I am going to write on a topic that has practically nothing to do with traumatic injury. I had a long flight last week and had the opportunity to catch up on some reading. I usually enjoy political thrillers or medical fiction but decided to read a book recommended by the professors at Functional Medicine University; an on-line alternative medicine program in which I participate. The book is written by Jonny Bowden, Ph.D. and Stephen Sinatra, MD. Dr. Sinatra may be familiar to some of you because he is a cardiologist with an office in Manchester. The book was excellent and emphasized in sufficiently complex but lay terms why we have been mislead and misinformed about the role of cholesterol in health and illness. In this atypical newsletter I will share the highlights of the book.

1. Cholesterol levels are poor predictors of heart attacks and a minor player in heart disease. Therefore lowering your cholesterol has very limited benefits.
2. Cholesterol is essential for your body and produced by the liver. Dietary cholesterol is not a large contributor to total cholesterol.
3. Cholesterol is used to make Vitamin D, sex hormones, bile acids and is a major component of the cell membranes. You cannot live without cholesterol.
4. Not all High Density Lipoprotein (HDL) cholesterols are good and not all Low Density Lipoproteins (LDL) are bad. There are subtypes and particles. LDL particle A and HDL-2 are the good types. LDL subtype B is the bad. Lipoprotein A is VERY BAD.
5. A routine blood test will tell you Total Cholesterol, HDL and LDL levels. If you really want to know if you have a cholesterol concern you must have a particle test which tells you if your LDL is Type A or Type B. Your doctor may want to order the following tests as part of your basic cardiac lab profile: VAP Cholesterol, C-Reactive Protein (hs-CRP), Fibrinogen, Serum Ferritin, Lipoprotein A (LpA), Homocysteine, Interleukin -6
6. Despite the introduction of government endorsed low fat diet in the 1970’s (and the resulting increased use of high fructose corn syrup to add flavor) hypertension, obesity, diabetes and heart disease have demonstrated exponential growth.
7. The primary cause of heart disease is chronic inflammation (not acute inflammation like an ankle sprain). Inflammation is initiated by oxidation (like rust on metal) and is primarily the result of damage from free-radicals. Cholesterol only becomes problematic if damaged by oxidation.
8. Sugar and processed carbohydrates are highly inflammatory and the primary dietary contributor to heart disease, NOT FAT.
9. Sugar contributes to arterial wall inflammation allowing deposition of the bad types of cholesterol. Sugar, and its effect on Insulin, is the missing link between diabetes, hypertension, heart disease and obesity (aka: Metabolic Syndrome, Syndrome X).
10. Not all carbohydrates are bad. You must look at their Glycemic Load and Glycemic Index. These are a measure of how quickly the carbohydrates raise your blood sugar levels. The slower the better.
11. Statin drugs have exaggerated benefits and significant side effects. They deplete the body’s CoQ10 causing pain, weakness and fatigue. They can adversely affect memory, sex hormone production and have been linked to higher cancer and diabetes risks.
12. Supplements that can help with heart disease prevention include CoQ10, D-Ribose, L-Carnitine, Magnesium, Niacin, Vitamin E, Omega-3 fatty acids and Pantethine. You can also add Vitamin C, Curcumin, Reservatrol, Cocoa flavanols.
13. Chronic stress contributes to every known disease, especially heart disease, and can slow or prevent recovery. It provokes releases of hormones that imbalance the endocrine system and promote inflammation.
14. Eliminate sugar, soda, processed carbohydrates, trans fats, processed meats and excess vegetable oils from your diet
15. Eat more cold water fish, berries, grass-fed meat, vegetables, nuts, beans, dark chocolate, garlic, Pomegranate juice, green tea, red wine, extra-virgin olive oil
16. Reduce stress through exercise and play. Practice deep breathing or meditation, increase intimacy and pleasure, express your emotions.

The book is an easy read and I highly recommend it. It is called **The Great Cholesterol Myth** by Jonny Bowden and Stephen Sinatra and published by Fair Winds Press. I purchased it on Amazon. Next month I’m back on target with injury topics but I thought some of this may be thought provoking and beneficial for those who want to take charge of their health. On that note, my New Britain office now offers the Ideal Protein physician supervised weight loss program. The results have been nothing short of incredible. If you or your staff are interested let me know and we can make special arrangements for them. Best in health.