



# State of Nevada

Department of Administration

# Peak Performance

Risk Management Division

Volume 2010 – 3

July/Aug/Sept 2010

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## LIPIDS AND DIABETES

By Warren S Gilbert, M.D.

Everyone is aware of the association between elevated cholesterol and triglycerides, and the role that they play in causing arterial occlusion which can lead to heart attack, stroke and peripheral artery disease. But most people are not aware of its effect on promoting Type 2 diabetes, commonly referred to as Adult Onset Diabetes Mellitus.

Every cell in the body requires glucose to function properly. The pancreas produces insulin which it releases in response to glucose in the blood. The higher the glucose level in the blood, the more insulin that has to be released to clear from the bloodstream.

One of the relative recently discovered targets for developing diabetes, and making existing diabetes harder to manage, is an elevated triglyceride level. It has been found that when the triglyceride level is above the accepted threshold of 150 it impairs the ability of insulin to transport the glucose into the cells. This leads to increasing levels of glucose in the blood which, in turn, leads to the development of diabetes, or worsening of existing diabetes.

For individuals who have an elevated triglyceride level, whether or not they already have diabetes, lowering those levels below the 150 threshold is very important. When it is quite elevated, in the 300 and above range, the individual will usually require a prescription medication to lower the level, in addition to limiting the saturated fat in the diet. At levels below 300 it has been found that niacin, in combination with a low fat diet, can work very nicely to bring down the triglyceride level to within the normal range.

Niacin is a B-Vitamin that is very safe, with the only side effect being a sense of flushing or a hot flash. This is usually dose related and can be mitigated by doing the following three easy steps:

1. Make sure that you take the time-released form of niacin.
2. Take the niacin shortly before going to bed.
3. Start out at a low dose and gradually increase up to 1000mg per day over several weeks.

If you do all of the above you should be able to tolerate the niacin very well. Remember, there is no substitute for exercise and eating a healthy diet. But not everyone has the same metabolism, or produces the same levels of the enzyme that metabolizes triglycerides, and for those who need a little help, niacin can be just the ticket.

# EATING NUTS IS HEALTHY FOR YOUR HEART.



Several studies conducted over the years have strongly suggested that eating an ounce of nuts four or five times a week can significantly reduce your risk of coronary artery disease by as much as 40%. The FDA has issued a statement saying that certain specific nuts – almonds, hazelnuts, pecans, pistachios, walnuts and peanuts – could reduce the risk of heart disease. In addition to unsaturated fats and plant fiber, nuts also contain arginine, a precursor to nitric acid, which is a substance made in the walls of blood vessels that relaxes the blood vessels and prevents clotting.

While nuts may be good for you, be careful of the added calories. A handful of nuts contain about 150 calories. Eating nuts with sugary coating and salt not only add even more calories, but the salted nuts may cause problems with your blood pressure. When adding them into a heart-healthy diet, they should be substituted for another source of calories. Try replacing potato chips, candy or ice cream with a tablespoon or two of nuts or adding them to your salad, pasta or even fish dishes.

# NOT ALL FATS ARE THE SAME

Both saturated fat and trans fat are bad fats because they raise your bad cholesterol and can increase your risk for heart disease. Monounsaturated fat and polyunsaturated fat are the better fats and can lower your bad cholesterol and reduce your risk of heart disease.

Saturated and trans fats can often be replaced with better alternatives like monounsaturated and polyunsaturated fats. Try using tub margarine instead of stick margarine or liquid vegetable oil instead of butter. Eat fish instead of meat.

Remember that all fats are equally high in calories – 9 per gram. That is more than twice the calories found in carbohydrates and protein, which are both 4 calories per gram. While your body needs some fat, keep in mind that if you consume more calories than you burn you'll gain weight, so it's important to eat all fats in moderation.

Don't be fooled by free. Just because a label says "trans fat-free" doesn't mean the food is healthy. It might still be high in the other bad fat – saturated – or have lots of empty calories. So take a closer look before you toss it into your cart or put it on your plate.

# HEART HEALTHY TIPS FROM THE AMERICAN HEART ASSOCIATION



Eating smarter and keeping your heart in peak shape is about more than munching on a celery stick now and then. Your food choices affect your overall heart health. Heart disease claims more American lives than any other illness.

To help keep your blood pressure, cholesterol, weight and blood sugar (glucose) at the heart healthy levels, try eating a wide variety of nutritious foods, with a focus on fruit, vegetables, whole grains, low-fat dairy products and lean meat, and poultry, and fish twice a week.

## TRY THESE SMALL CHANGES TO SMARTER EATING

1. Focus your eating plan on vegetables and fruits, which are high in vitamins, minerals and fibers.
2. Reduce the role of meat from star to supporting player. If you do serve meat or poultry, make sure it is lean and skinless.
3. Oily fish such as salmon, trout, and herring contain omega-3 fatty acids, which studies show may help lower the risk of getting coronary heart disease. Serve fish at least twice a week.
4. Choose whole-grain, high-fiber foods such as shredded wheat, whole-wheat pasta or whole-wheat tortillas. The fiber content and vital nutrients can help lower cholesterol levels and aid in weight management.
5. Use fat-free, skim or low-fat dairy products. You can jazz up plain fat-free or low-fat yogurt with fresh fruit.
6. To quench your thirst, drink water or club soda. Zest it up with a wedge of lemon or lime.

## Working outdoors In the summer heat



Jobs that take employees outside definitely have their appeal, especially to the office-based cubical crowd. But people whose line of work requires them to be outdoors in the hot summer months, from construction and agriculture workers to parks employees, face unique health hazards. So the Occupational Safety and Health Administration (OSHA) is offering some tips on working outdoors in warm climates.

**Clothing and Sunscreen:** Employees who are working outside in the heat should wear light, loose-fitting clothing. But to avoid harmful UV rays, stick to long pants and long-sleeved shirts, and apply plenty of sunscreen.

**Breaks for Water and Shade:** If you're working in the heat, your employer should provide you with plenty of water, and breaks to drink it. Drink small amounts frequently, rather than a lot of water all at once. If your work is particularly strenuous and takes place in the direct sunlight, you should also be given regular work breaks in a "shade tent" or other rest area.

**Heat Stroke/Heat Exhaustion:** High temperature, high humidity and physical exertion that comes with some outdoor jobs raises the risk that workers will suffer heat stroke or heat exhaustion. Some warning signs are headaches, confusion, lightheadedness, irrational behavior, loss of consciousness, abnormally high body temperature and hot, dry skin.

**Lyme Disease, Poison Ivy, and West Nile Virus:** Working in the great outdoors, especially in the summer months, can mean exposure to some of Mother Nature's less pleasurable offerings, including ticks that can carry Lyme Disease and other bacteria, mosquitoes that can transmit West Nile Virus and poisonous plants that can cause skin problems. It's important to be aware of your surroundings and always use the correct insect spray to protect you.

## FLOSSING IS GOOD FOR YOUR HEART



Flossing is not just good for your teeth and gums, but it can also improve your heart health. Bacteria that forms in the mouth causes the immune system unnecessary stress and may thicken carotid-artery walls, which can eventually lead to vascular disease and heart attack.

# HEALTHY SUMMER EATING

## GRILLED TUNA WITH CHICKPEA AND SPINACH SALAD



### Ingredients

1 Tbsp olive or canola oil  
1 Tbsp garlic, minced (about 2-3 cloves)  
2 Tbsp lemon juice  
1 Tbsp oregano, minced (or 1 tsp dried)  
12 oz tuna steak, cut into 4 portions (3 oz each)

### For salad:

½ can (15½ oz) low-sodium chickpeas (or garbanzo beans), drained and rinsed  
½ bag (10 oz) leaf spinach, rinsed and dried  
1 Tbsp lemon juice  
1 medium tomato, rinsed and cut into wedges  
⅛ tsp salt  
⅛ tsp ground black pepper

Calories	282
Total fat	10 g
Saturated fat	2 g
Cholesterol	42 g
Sodium	418 mg
Total fiber	5 g
Protein	31 g
Carbohydrates	15 g
Potassium	874 mg

### Directions

1. Preheat grill pan or over broiler (with the rack 3 inches from heat source) on high temperature.
2. Combine oil, garlic, lemon juice, and oregano, and brush over tuna steaks. Marinate for 5 – 10 minutes.
3. Meanwhile, combine all salad ingredients. (Salad can be made up to 2 hours in advance and refrigerated.)
4. Grill or broil tuna on high heat for 3 – 4 minutes on each side until the flesh is opaque and separates easily with a fork (to a minimum internal temperature of 145 F).
5. Serve one tuna steak over 1 cup mixed salad.

# PEAK PERFORMERS

EMPLOYEE	AGENCY	LOCATION	MET LEVEL
Bailey, Norman	NHP	N	17.3
Bolton, Benjamin	NDF	S	16.9
Comba, Michael	NHP	N	17.6
Hillygus, Roger	NDF	N	16.9
Hult, Eric	NDF	N	16.9
Jackson, Jason	NDOW	N	16.9
Moore, Cory	NDF	N	16.9
Onorato, Peter	NHP	N	16.9
Rasor, Andrew	DPS	N	19.6
Shane, Ryan	NDF	N	16.9
Shoars, Bendan	NDOW	N	16.9
Tomac, Steve	NDOW	N	20.4
Winchester, William	OOTM	N	19.0

\* indicates MET level achieved using a modified Bruce Protocol.

## EMPLOYEES MAKING SUBSTANTIAL HEALTH IMPROVEMENTS

EMPLOYEE	AGENCY	LOCATION
Bloomfield, James	NDOC	N
Brooks, Tom	NHP	N
Burchett, Scott	NDOC	N
Gibson, Judith	NDOC	S

We will continue to keep you informed on topics ranging from the Heart-Lung Program, to diet, exercise and nutritional advice. We are always looking for guest contributors to relate personal accomplishments and success stories. We encourage you to drop Risk Management a note at 201 S. Roop St, Ste 201, Carson City, NV 89701, or call Mandy Payette at (775) 687-3194 or contact her by e-mail at [mpayette@risk.state.nv.us](mailto:mpayette@risk.state.nv.us). You can also contact the State Health and Wellness Coordinator, Josh Wilson, at (775) 323-1656 extension 21, or by email at [Wilson.jr@willis.com](mailto:Wilson.jr@willis.com) for a free individualized consultation in regard to addressing your risk factor(s) or request information on wellness and a heart-healthy lifestyle.