

Optimus Mission & Vision

To provide research-based, life-style interventions designed to reduce the risks for chronic diseases.

We strive to provide a positive, safe, and comfortable environment to help you achieve your personal health and wellness goals.

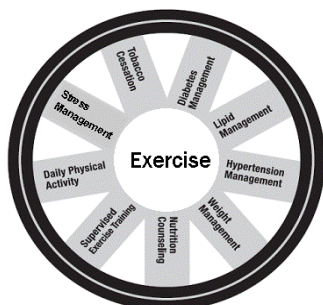
Optimus staff members are experienced health and wellness professionals. Optimus has state of the art fitness equipment for total body conditioning and various services to better your health and fitness.

HOURS

Monday-Friday:
6am-1pm and 4-7pm
Saturday: 7am-noon

Inside this issue:

- Member Spotlight and Optimus Weightlifters 2
- Bike MS and "Where does the US stand when it comes to daily walking?" 3
- Tai Chi and Holiday Hours 4
- Nutrition Corner 5
- Feature Recipe 5
- Member Birthdays and Our Weekly Schedule 6



Bi-Monthly Newsletter for Optimus: The Center For Health

Volume 4, Issue 6

Type 2 Diabetes Mellitus: A Largely Preventable Disease!!

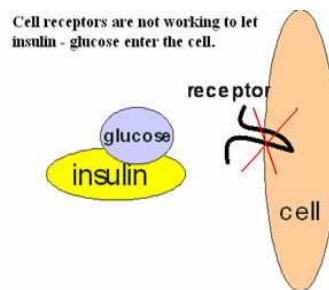
Tom LaFontaine, PhD, ACSM RCEP

November is Diabetes Month (for more information visit the American Diabetes Association at www.diabetes.org) and Optimus is focused on preventing this potentially crippling disease. Over 24 million US citizens have been diagnosed with diabetes mellitus. Ninety percent of these cases are Type 2 diabetes (T2D) and the rest are Type 1 (T1D) or Gestational (diabetes occurs in about 6% of pregnancies). Another 8 million have undiagnosed diabetes. Sixty million US citizens and 40% of those between the ages of 40 to 70 years have either diabetes or pre-diabetes (See Table 1 and Chart 1, which presents guidelines for diagnosing diabetes).

T1D is an autoimmune disease in which the body recognizes the pancreatic insulin producing cells as foreign and attacks them causing a deficiency in insulin. T1D

usually occurs before age 20. T2D is a disease in which the cells of the body, particularly muscle cells, are resistant to the action of insulin. (See Chart 2 below).

Chart 2: Description of Insulin Resistance



T2D is a highly preventable disease. Harvard and other studies show that persons who eat a healthy diet, exercise regularly, maintain a healthy bodyweight, and don't

smoke have a 92% lower risk of T2D than sedentary persons who eat a poor diet, are overweight or obese and smoke. Exercise is just one factor that is related to a much lower risk of T2D. Chart 3 below shows how resistance (weight training) exercise, aerobic exercise, or a combined exercise program results in improved insulin action and uptake of glucose from the blood to the cells. Note particularly that a combination of resistance and aerobic exercise is significantly better than either program done alone. However, comprehensive lifestyle changes are the most effective means for preventing the onset of T2D. The Diabetes Prevention Study was completed in 2001 and showed that persons at risk for T2D who engaged in 150 minutes or more of exercise per week, lost 7% of their bodyweight, and ate a low fat, high fiber diet had a 58% lower risk for developing T2D over 3 years. Those persons who were

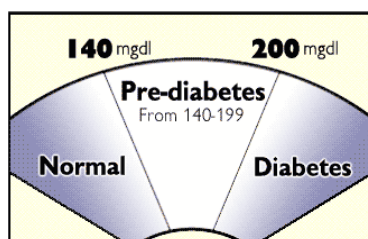
Table 1: Diagnosis of Pre-Diabetes and Diabetes

Classification*	Fasting Blood Glucose	Random Blood Glucose	Hemoglobin A1c
Normal	<100 mg/dl	<140 mg/dl	<5.7%
Pre-Diabetes	100-125 mg/dl	140-199 mg/dl	5.7-6.4%
Diabetes**	>125 mg/dl	>199 mg/dl	>6.4%

*these classifications should be confirmed on two tests

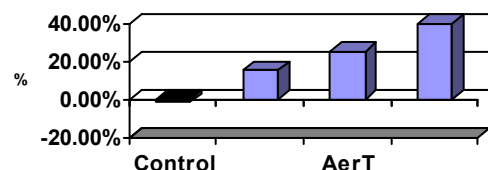
**your physician may order an Oral Glucose Tolerance test to confirm diabetes (see Chart 1)

Chart 1: Tolerance Test



Oral Glucose Tolerance Test

Chart 3: The Improvement of blood glucose uptake after Resistance Training (RT), Aerobic Training (AerT), and Combined Resistance and Aerobic Training (RT+AerT), and Combined Exercise Training on Insulin Resistance.



over 55 years of age had a 71% lower risk. In addition, these **modest** lifestyle changes were twice as effective as taking a diabetes medication called Metformin. For more information on the Diabetes Prevention Program go to this website, <http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram/>.

Table 2 to the right illustrates how an individual can reduce their risk for T2D or how they can increase their risk for **“acquiring”** T2D through the choices they make everyday!

Table 2:

How To Reduce Your Risk For T2D	How to Acquire T2D
Attain/maintain a normal bodyweight & Body Fat	Be overweight or obese
Participate in regular aerobic exercise, 30-60 mins most days of the week	Remain Sedentary – get no greater than 5,000-6,000 steps per day on a regular basis
Be physically active during the day – attain 11,000 to 14,000 steps per day	Spend a majority of your day “sitting”
Perform Resistance Exercise 2-3 days or more/wk	Avoid muscular work and Resistance Exercise
Eat a low fat, low saturated fat, low cholesterol, low calorie, high fiber diet	Consume a diet high in fat, saturated and trans fat, calories, and cholesterol and low in fiber
Consume NO processed and less than 18 ounces of red meat per week	Consume a diet high in red meat and processed meats
Avoid processed and simple carbohydrates and consume a high fiber, low fat breakfast	Consume a diet high in processed and simple carbohydrates and skip breakfast regularly
Eat more fish rich in Omega-3 polyunsaturated fat and white chicken/turkey in place of red meats	Accumulate body fat around the waist (the proverbial “beer belly”)
Avoid accumulation of fat around the waist	Eat little or NO fish such as salmon, trout, mackerel
Consume beans, legumes small amounts of nuts	Consume few beans, legumes, and nuts

Member Spotlight: Steven Fair By Dan Smith, MA, NSCA CSCS



In October of 2009, Steve Fair underwent open heart surgery to repair a leaky mitral valve (see picture at right of the mitral valve which lies between the left atrium and ventricle and controls blood flow between these two chambers of the heart). Steve is an avid bicyclist and one of the better riders in his group of friends, so this was a significant set-back. After surgery

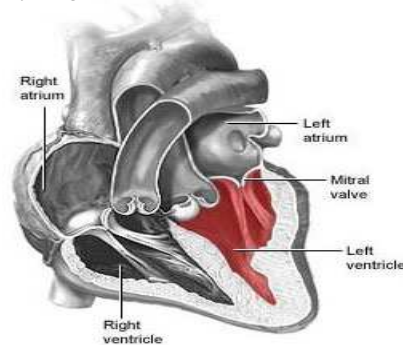
and 3 to 4 months of recovery, Steve decided to do something to “get back” to his former prowess. Steve contacted Tom LaFontaine, Optimus Manager, and in February began exercising at Optimus. In April he started working with Personal Health Fitness Mentor (PHFM), Dan Smith, MS, ACSM RCEP.

During his first session, he expressed to me that he was tired of getting beat by his friends and wanted to “kick some butt” during their weekly rides. Biking is a large part of Steve’s lifestyle as attested to in his own words: *“For me, bicycling is like flying, a celebration of being alive. So to ride again with my friends in good-natured competition has given me back a quality of life that I almost lost. I am grateful to have gotten the help I needed to come back*

from zero.”

Steve worked hard, meeting with Dan one or two times a week, and getting in regular rides on his own. Throughout the summer Steve continued his training program, primarily focusing on riding, with supplemental training on his own at Optimus. He recently participated in the MS150 as a member of the Optimus team, the only member to do both days. He now has started working with Dan again in order to prepare for a trip to Italy in the Spring of 2011. He plans to ride around 75 miles per day for a couple weeks. I think he may need to bring his PHFM along just to make sure he stays on task!

In May of 2010, Steve had a repeat echocardiogram to assess his heart muscle and mitral valve function. This revealed excellent heart pumping capacity with very good mitral valve function. In summary, Steve has recovered remarkably well from his October 2009 mitral valve repair surgery and is well on his way to optimal health and fitness for a young man of 59!!



Optimus Olympic Style Weightlifters Do Well in St. Joseph, MO, Oct 16, 2010 By Tom LaFontaine, PhD, ACSM RCEP

Aaron Horschig and Jordan Kroell, Optimus employees and Anthony Jones, Optimus client, competed in the Larry Hanneman Memorial Olympic Weightlifting (OL) Championships in St. Joseph, MO, Saturday, Oct. 16th. OL involves performing two lifts called the Snatch and Clean and Jerk. OL has been an Olympic sport since the beginning of the modern day Olympics in 1896. Aaron weighed 89.9 Kgs and set 3

personal bests. He has moved closer to qualifying for the American Open competition in mid-December. Aaron did a 112 Kg Snatch and 143 Kg Clean and Jerk for a total of 255 Kgs. Anthony weighed 83.7 Kgs and made a 95 Kg Snatch and 127 Kg Clean and Jerk (his best) for a 222 Kgs total. Jordan weighed 69.9 Kgs and did a 78 Kg Snatch and 102 Kg Clean and Jerk for a 180 Kgs total (his bests). Aaron &

Anthony placed 1st & Jordan 2nd in their divisions.



Optimus Fields a Team in the Bike MS– September 11 & 12

Tom LaFontaine, PhD, ACSM RCEP

Optimus sponsored a Bike MS (Multiple Sclerosis) team for the MS Society on September 11 & 12, 2010. This event is held for the purpose of raising funds to support research and education regarding Multiple Sclerosis, a neurological disorder that results in damage to the “myelin” sheath that covers and insulates nerves. This results in a variety of symptoms mostly related to reduced speed of nervous impulse conduction.

MS affects women more than men (2-3 times as many persons with MS are women). Over 400,000 persons in the US have MS. A variety of viruses have been suspected of being involved in the origin of MS but none have been proven. MS is usually diagnosed between the ages of 20 to 40 years. Although the specific cause of MS is not for certain, tremendous advances have been made in treatment in the past several years. Some experts now contend that MS is

close to becoming a very manageable disease much like asthma. This is great news for persons with MS and their family members. Optimus has three members with MS, all of whom are very active and do well.

Optimus is proud to have participated in this event. Team-Members included Steve Fair (Optimus member spotlight in this newsletter, page 2), Charlie and Laurie Digges, Art Koptka, Tom LaFontaine, Christine and

Gary Stamper, Mark Gerling, and Stefanie Riepe. All team members rode a minimum of 40 miles on one or both days. Steve Fair rode 75 miles on the 2nd day. As a team, we raised \$1,650.00 for the MS Society.



Where's the US Competitiveness? The Aussies, Swiss, and Japanese all Take Almost Twice as Many Daily Steps than US Citizens

By Tom LaFontaine, PhD, ACSM RCEP

On a daily basis, American adults take fewer steps each day than their counterparts in other developed nations. This finding was recently published in the October 2010 issue of *Medicine & Science in Sports & Exercise*. The research team, led by Dr. David R. Bassett, Jr., from the University of Tennessee Department of Kinesiology, Recreation and Sports Studies, used pedometers to track the number of steps taken for two consecutive days in 2003 by 1,136 adults in the United States. The study was compared with similar studies conducted in Switzerland, Western Australia, and Japan.

Its purpose was to analyze data regarding the number of steps taken each day and to find predictors on the basis of demographic characteristics.

The study found that on average Americans take approximately 5,117 steps per day. In contrast, Aussies averaged 9,695 steps each day; those in Switzerland averaged 9,650 steps each day; and the Japanese participants took 7,168 steps on average each day.

These FACTS help to explain why the US has much higher rates of obesity than other coun-

tries. The United States has a 34% rate of obesity while Japan has a 3% rate, Australia has a 16% rate and Switzerland has an 8% obesity rate. The difference in number of steps taken daily between the United States and other countries is approximately 30-40 minutes of walking a day. Why are we NOT winning the battle of the most physically active nation?

Bassett DR. *Medicine and Science in Sports and Exercise*. Online: doi: 10.1249/MSS.Ob013e3181dc2e54 or October 2010. Volume 42: Issue 10, pages 1819-1825.



The Mediterranean Diet may Decrease the risk of Diabetes by as much as 83%!

A new study not only revealed the dramatic risk-reduction benefit of Mediterranean dining but also hinted at some of the potential magic at work. Because it tends to have more fruit and vegetables than other cuisines, a Mediterranean diet is rich in nutrients that combat inflammation and promote better blood vessel function. Best of all, sticking to a Mediterranean eating plan is easy because the food is tasty and satisfying.

Martinez-Gonzalez MA et al. *British Medical Journal*. 2008. June 14, Volume 336, pp 1348-51.

Diabetes Could Surge in US by 2050.

One in 10 US citizens has Diabetes. Recently the CDC predicted that if trends continue 3 to 5 in 10 US citizens will have Diabetes by 2050!! This would certainly be tragic considering that just 5 steps can reduce the risk by 92%:

1. Avoid refined sugars and processed carbs
2. Lose 10% or more weight if indicated or keep your weight at recommended
3. Exercise 30 or more mins per day
4. Eat a low fat, high fiber diet
5. Either avoid alcohol or drink no >1 per day for women and 1-2 per day for men.

Kate Walker, Optimus Employee to Compete in the World Drug Free Championships, Nov 13, in Castleblayney, County Monaghan, Ireland

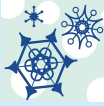
Tom LaFontaine, PhD, ACSM RCEP

Kate Walker, Optimus Yoga Instructor and part-time employee, will compete in the World Drug Free Powerlifting Championships in Castleblayney Co Monaghan, Ireland on Saturday, Nov 13. Kate qualified for this meet

at the National Championships held in June, 2010 at MU. The competition consists of lifting the maximum weight possible in the Squat, Bench Press, & Deadlift. Kate competes in the 60-64 year old, 70 Kilogram weight cate-

gory. Kate has a good chance of bringing home a gold and setting world records!! Congratulations Kate and we wish you luck (as the Irish might imply)!!

In the Event of Inclement Weather:

Check: 

- KOMU-NBC 8
- KMIZ
- ABC 17
- KFRU
- And KBIA for closing notices.

Optimus “Member get a Member Program”

As winter and the new year approach, we would like to remind all of our devoted members of the “Member Get a Member Program”.

Any present Optimus participant who brings a person to Optimus who joins for six months or more receives a “Free Month” membership! Talk to staff for

more information on how this program works and think about your friends who perhaps need to focus on their health and fitness more.

There’s no better place for them to get assistance than Optimus!!

OPTIMUS HOLIDAY HOURS

Optimus will be **CLOSED**:

- Thursday, November 25, *Thanksgiving Day.*
- Saturday, December 25th, *Christmas Day*

Optimus will be **OPEN**:

- Friday, Nov. 26th from 8am-12pm, 4pm-7pm
- Sat., Nov. 27th from 7am-12pm

- December 24th, Christmas Eve from 6am-1pm (There will be regular hours on Monday.)
- Fri. Dec. 31st New Year’s Eve from 6am-1pm (no evening hours)

- Sat., Jan. 1st, New Year’s Day from 8am-12pm.

The Science Behind Tai Chi

By Mason Stevens*, BS, ACSM CPT, NSCA CSCS

Tai Chi is an ancient exercise form that has been around for over a thousand years. Recently it has received a lot of attention in the public and scientific communities. Researchers from various disciplines have been investigating the physical and mental health benefits of Tai Chi and results are very encouraging. To better understand these findings, it first helps to understand Tai Chi.

The movements of Tai Chi were developed to strengthen and heal the body, mind and spirit. A primary goal of Tai Chi is to cultivate the body’s energy or *Chi*. There are approximately two thousand styles of Tai Chi, all of which involve slow,

controlled and fluid movements. Tai Chi is a low-intensity, low-impact exercise that is ideal for individuals of all ages and abilities. Tai Chi participants often report increased strength and endurance, decreased pain and stress, and improvements in overall health. What does the research say?

In 1995 an Emory University study looked at the relationship between Tai Chi and the risk for falling among older adults. Over 15 weeks and 17 months of follow-up, Tai Chi participants were shown to have a 47.5 percent decrease in risk of falls. The participants also demonstrated lowered blood pressure and

improved grip strength. As investigators continue to study Tai Chi, one thing is clear; Tai Chi is a safe and effective way to improve your overall health.

More recently, research has shown that Tai Chi may be one more tool in the treatment of depression. Another study suggested that Tai Chi can help lower hemoglobin A1C, the 3-month average of blood sugar levels. In August, the *New England Journal of Medicine* published a study showing an improvement in fibromyalgia with the practice of Tai Chi. The *American Journal of Health Promotion* recently reviewed 77 studies regarding Tai Chi and health and reported

positive results on a number of physical and psychological benefits.

Research has documented the benefits of Tai Chi. As investigators continue to study Tai Chi, one thing is clear; Tai Chi is a safe and effective way to improve your overall health.



**Mason teaches Tai Chi at Optimus on Mondays and Wednesdays, 4:00 to 4:45 PM and Thursdays, 8:00 to 8:45 AM. In January, we will start another 5 week, 2 sessions per week, beginning Tai Chi class. For more information, contact Mason at masonstevens@gmail.com.*

Holiday Eating

By Hannah Holzum, RD, LD, ACSM

The holidays are here! While some look forward to all of the festivities, others cringe just knowing what's in store: FOOD!!! As most of us know, the holidays are a time when baked goods and home-cooked meals make their appearance on what seems like a daily basis. Starting at Thanksgiving, the average American goes through a month long spell of eating. It has been reported that the average person gains one to two pounds from Thanksgiving until New Years Day. While this doesn't seem like much, over 20 years, it can make a huge difference in your body weight.

This year, let's try to change our thought process when we think of the holidays. Think of it as a time to celebrate rather than eat. Here are some tips for avoiding holiday weight gain:

- Just say no to baked goods or portion them if you have self-control.
- Continue to watch your portion sizes. Slow down and taste your food rather than shoveling it in your mouth. Contrary to popular belief, Thanksgiving Day doesn't give you the green light to eat more.
- You don't have to eat every-

thing on your plate. It's okay to save it for later when you are hungry again. No clean plate club!

- Be cautious of alcohol. Alcohol has almost double the calories per gram as carbohydrates and protein. Drink in moderation. (Football watching also doesn't give the green light to drink more beer!)
- Don't stand by the food table. This will only tempt you to pick at food and before you know it, you've eaten more than you realize.
- When baking, use substitutions



such as egg whites for whole eggs, applesauce for butter or shortening, and whole-wheat flour for white flour.

Feature Recipe: Crustless Pumpkin Pie

Source: Allrecipes.com



- 1/2 teaspoon salt
- 1 teaspoon ground cinnamon
- 1/2 teaspoon ground ginger
- 1/2 teaspoon nutmeg
- 1/2 teaspoon allspice
- 1/4 teaspoon ground cloves

Directions:

- Mix all ingredients together in order, in a large bowl.
- Pour into a 9-inch glass pie pan sprayed with non-stick spray.
- Bake in a preheated 350 degree oven for 1 hour, or until knife

inserted in center of pie comes out clean.

- Serve warm or let sit and serve.
- Makes one, 9-inch Crustless Pumpkin Pie

Ingredients:

- 2 cups canned pumpkin
- 2 cups water
- 1 cup low-fat milk powder (equal to 4 cups low-fat milk)
- 2 eggs
- 3/4 cup brown sugar



“A wise man should consider health as the greatest of human blessings, and learn how by his own thought to derive benefit from his illnesses.”

-Hippocrates

Nutrients Facts (per serving = 1/8 of the pie):

Calories	114
Total Fat	3g
Carbohydrate	15g
Protein	8g
Sodium	203mg

Dr. Mayer's Seminars for November and December:

Tuesday, November 16, 12:15-12:45 pm
“How to Deal with Holiday Stress.”

Tuesday, December 14, 12:15-12:45pm
“Do You Understand Depression?”

www.optimushealth.com

Optimus Staff Emails:

- Tom LaFontaine:
fithealth@aol.com
- Holly Delgman:
hollydelgman@hotmail.com
- Janene Sun:
janene@sunsportsmassage.com
- Linda LaFontaine:
linlafontaine@aol.com
- Laurie Kelly:
laurie@optimushealth.com
- Kate Walker:
integralife1976@yahoo.com
- Hannah Holzum:
hannahholzum@gmail.com
- Dan Smith:
smithda17@gmail.com
- Mason Stevens
masonstevens@gmail.com
- Aaron Horschig
adhyq9@mail.mizzou.edu
- Celsi Cowan
cecn69@mail.missouri.edu
- Bri Heese
briheese@yahoo.com
- Shaun Kelly
shkellym@gmail.com
- Jordan Kroell
jordan.kroell@yahoo.com

Member Birthdays

November

- Craig Van Matre 11/2
- Mary Carnahan 11/2
- Elizabeth Giuliano 11/5
- Sara Holzschun 11/5
- Garrie Morris 11/6
- John Battaglia 11/6
- Blake Becker 11/8
- Kenneth Lewis 11/8
- Dennis Smith 11/9
- Lynnanne Baumgardner 11/9
- Nate Bascott 11/15
- Richard Montgomery 11/17
- Sarah Swindle 11/17
- Tom LaFontaine 11/20
- Susan Tumulty 11/21
- Charles Blackwell 11/26
- Steve Millikan 11/26
- Tom Schultz 11/26
- Beverly Boyd 11/27
- Brent Moore 11/27
- Anne Weller 11/30
- Katherine Caldwell 11/30

December

- Tom Douglass 12/1
- Joe Johnston 12/2
- Nathan Blount 12/3
- Steve Stephenson 12/4
- Barry Williams 12/5
- Janice Morris 12/6
- John Russell 12/8
- Joan Dutil 12/9
- Jill Paul 12/10
- Marcia Dall 12/10
- Stephanie Riepe 12/12
- Terry Fraser 12/12
- Sharmini Rogers 12/19
- Roxanne Herron 12/20
- Dan Atwill 12/23
- Ben Stockman 12/25
- Tanner Cooper 12/27
- Billy McCormick 12/29
- Carol Van Sambeek 12/29
- Gary Stamper 12/30
- Lori Scanlon 12/30
- Michael Kelly 12/30
- Nirja Loyalka 12/30
- Bea Smith 12/31

Upcoming Local Running Events - Register Today!!

- PREVENT 5K/10K**
Sat. Nov. 6th, 9:00am starting at 3662 Scott Blvd
- Cranberry Crawl 5K/10K/Kids Mile**
Sat. Nov. 13th, 8:00am starting at 2101 Vandiver Dr.
- Jingle Bell 5K for Arthritis**
Sat. Dec. 4th, 8:00am starting downtown, 6th and Ash
- First Night 5K**
Friday, Dec. 31st, 4:00pm starting at 101 S. 4th Street

For more information about upcoming events
See ColumbiaTrackClub.com "Calendar" link

The Insurance Group

200 East Southhampton Drive
Columbia, Missouri, 65203
573-875-4800

November:

- **Diabetes Prevention Month**
- **Lung Cancer Awareness Month**
- **Pulmonary Hypertension Awareness Month**

December:

- **Dec. 1st is World AIDS Day**
- **Dec. 1-7 is National Aplastic Anemia and MDS Awareness Week.**
- **Dec. 5-11 is National Hand-washing Awareness Week**

WEEKLY CLASS SCHEDULE:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	6am Boot Camp	9am Boot Camp	6am Boot Camp 6am Tai Chi		
4pm Tai Chi	5pm Hatha Yoga	4pm Tai Chi	4:30pm Hatha Yoga		

Articles in *Optimus Connection* are contributed by the health and wellness professionals of Optimus. Information and recommendations presented in this newsletter are research-based and are given in the best interest of Optimus members and the Columbia community. Please contact Optimus to speak with any of our experienced staff if you have any questions or concerns regarding the content of this newsletter. Newsletter formatted by Brianna Heese and edited by Optimus staff members.

