

Diabetes In Control 10,000 Step Study **30 Million Steps** and **15,000 Miles** Later

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(If you are interesting in implementing a Step Program for your office or workplace, click on the Office/Worksite/Organization Registration Form, fill in the requested information, submit, and you will be linked to the Office/Worksite/Organization Kit containing all of the materials you need to get started. [Click here for Worksite/Organization Registration Form.](#))

Last September, with the help from Omron Healthcare, we enrolled educators who each signed up patients with diabetes to complete a 3-month study. The study consisted of each patient receiving a pedometer to monitor their steps and a commitment that they would make 10,000 steps a day.

By using a pedometer to motivate patients, we hoped to show a reduction in A1c's and lipids, thereby reducing the risk for complications for those with Diabetes.



The Diabetes Prevention Program showed that in 3234 people with IGT (Pre-Diabetes), those who walked or exercised five times a week for 30 minutes lost 5% to 7% of their body weight and reduced their risk of diabetes by 58% and for those over the age of 60, the reduction in diabetes risk was 71%, better than any drug used in the study.

Well, the results are in, after 44 patients completed the study with a total of over 30 million steps, which is equivalent to almost 15,000 miles.

The study shows that people with diabetes who wear pedometers and have a daily goal become more active all day and see improvements in fitness, blood glucose, A1c, total cholesterol, LDL, HDL, Triglycerides, Blood Pressure and Weight.

If you're one of those people who believe that only vigorous exercise - such as jogging 2 miles - counts toward fitness, you'd better think again. The Diabetes in Control 10,000 step study proves that just increasing your everyday activities - walking the dog and just getting up more often - can make a big difference. The fundamental health benefits of exercise walking are many. Metabolically, it helps control weight, blood sugar, and cholesterol levels. A brisk walk can burn up to 100 calories per mile or 300 calories per hour.

We put a group of patient with diabetes on a pedometer program. Each patient had to document the number of



steps each day and report back to their educator each week with their total number of steps.

Prior to the study, the patients wore the pedometer and went about their daily activities so we would have a base number of daily steps. The average number of steps taken was 3100 a day. They then had to work at their goal of increasing their step count to 10,000 steps a day.

After just 4 weeks, they saw improvements in blood glucose, weight, body fat, cholesterol, and fitness. The secret of the Pedometer is that it is inexpensive, low-tech, and doesn't require any expertise. You just snap it on and look at it every now and then

You don't have to make time the way you have to plan for visiting the gym or going to aerobics class. Hooking on a pedometer can easily become part of your day,

The greatest power of the pedometer, though, seems to be its ability to motivate. You can park your car farther away in the parking lot, take the stairs instead of the elevator - but now, you can look down at the pedometer that you are wearing and see that it does make a difference. It can be very satisfying to see your steps growing. It's

like a reward for yourself.

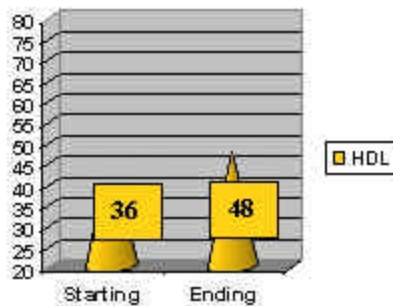
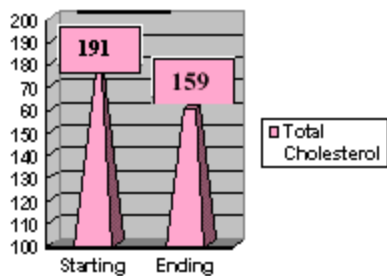
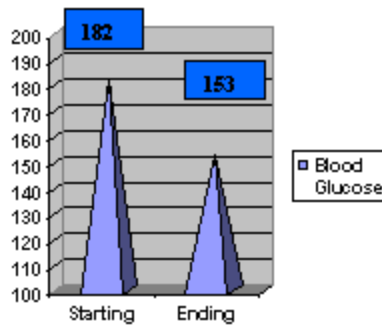
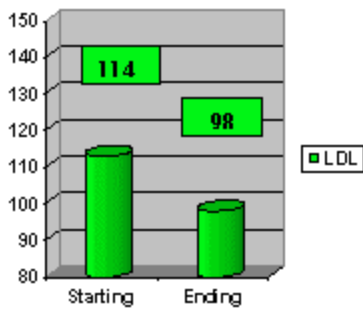
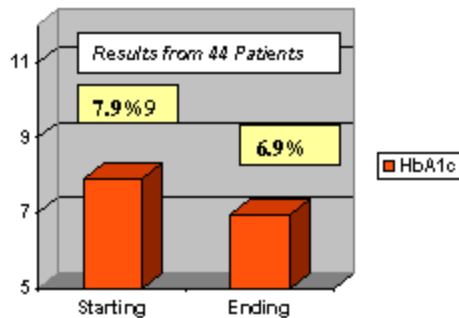
(The Graphs represent all 44 patients results)

It also cues you to be more active. When you see or feel the pedometer on your waistband, you're reminded to get moving, especially if you've got a long way to go to hit your goal.

By using a pedometer, you'll be reminded to be more active throughout the day. And the more you move, the more calories you burn.

THE RESULTS:

Out of the patients who started, 44 patients completed the 3-month study with startling results. Not only did their blood glucose and A1c improve, but they also improved their lipids, lowered their blood pressure and lost some weight. They also had more energy, had less general pain, had more flexibility and all 44 patients will continue using the pedometer after the study.



In a recent study that appeared in an article in the June 23, 2003, issue of the Archives of Internal Medicine, they showed that walking appears to be linked with lower death rates among adults with diabetes.

Regular physical activity has been associated with reduced risk for cardiovascular disease (CVD), diabetes, and death in the general population, according to the article. Additionally, walking and other forms of physical exercise were key components of lifestyle changes shown to prevent progression to diabetes among people with impaired glucose tolerance (those at risk for developing diabetes). Physical activity has also been shown to improve insulin sensitivity, glycemic control, and CVD risk factors on people who already have diabetes.

Edward W. Gregg, PhD, of the Division of Diabetes Translation, U.S. Centers for Disease Control and Prevention, and colleagues investigated the association between walking and the risk for all causes of death, and death due to CVD among people with diabetes.

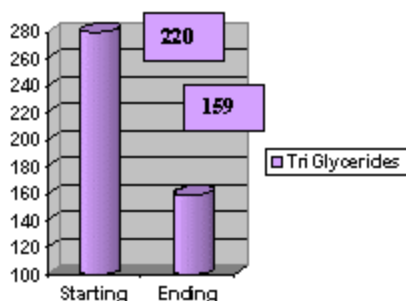
The researchers examined data on 2,896 adults aged 18 years and older (average age, 58.7 years) with diabetes (average time since diagnosis of diabetes, 11 years) who participated in the 1990 and 1991 National Health Interview Survey. Of the participants, 39.2% also were considered overweight (body mass index (BMI): 25-29) and 32.4% were obese (BMI greater than or equal to 30).

Gregg and colleagues found that compared with inactive adults, those who walked at least 2 hours per week had a 39% lower all-cause death rate (2.8% vs. 4.4% per year) and a 34% lower CVD death rate (1.4% vs. 2.1% per year). The mortality rates were lowest for people who walked 3 to 4 hours per week and for those who reported that their walking included moderate increases in heart rate and breathing rate.

"Walking was associated with lower mortality [death rates] across a diverse spectrum of adults with diabetes," wrote the authors. "One death per year may be preventable for every 61 people who could be persuaded to walk at least 2 hours per week."

In an accompanying editorial, Frank B. Hu, MD, PhD, of Harvard School of Public Health, said, "Persuasive evidence from epidemiologic studies and clinical trials demonstrates substantial benefits of exercise, especially walking, in the prevention and treatment of type 2 diabetes mellitus. Because walking is accessible, is relatively safe, and can easily be incorporated into a daily routine, it is a form of exercise that is practical and suitable for most individuals, especially women, diabetic patients, and the elderly.

"Because of the high prevalence of underlying ischemic heart disease and the augmented risk of joint-related injuries, adoption of a moderate, rather than vigorous, activity program may be more suitable for diabetic patients. For the vast majority of the population, the benefits of walking are enormous, with little or no harm. So far, [walking is] the 'best medicine' for both prevention and treatment of diabetes mellitus," Hu concluded. the Archives of Internal Medicine, June 23, 2003



MORE FACTS:

Over 15 patients reduced their medications, 6 eliminated some of their medications. 3 patients were able to get off all of their medications. Most lowered their blood pressure and had more energy. The average weight loss was 4+ lbs and everyone agreed to make the program as part of their lifestyle.

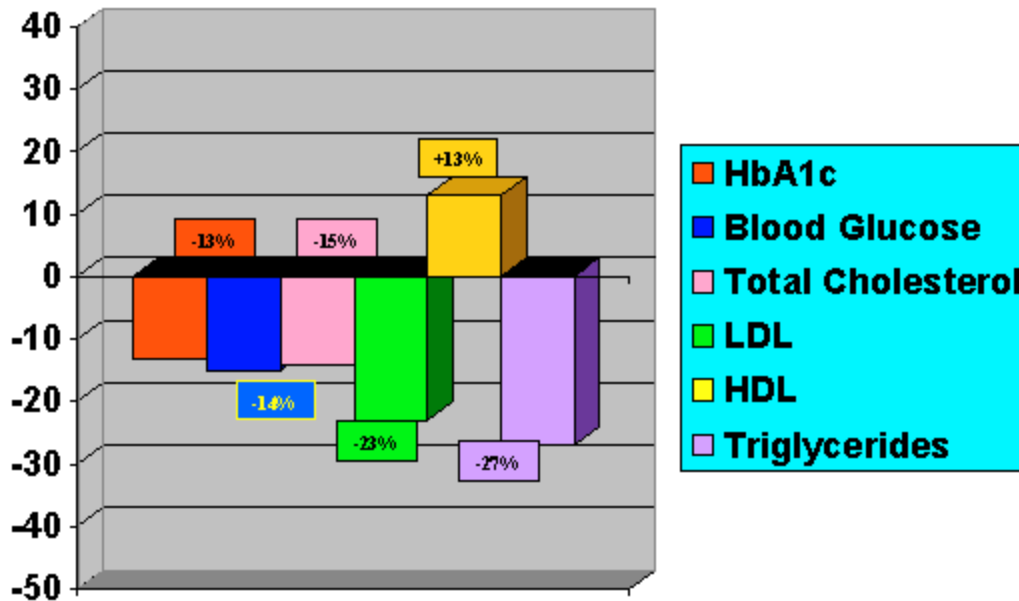
Patient Comments:

- 1 I reduced my stress levels
2. It was very easy to just put on the pedometer and check it during the day, it really works.
3. I never thought I could get to 10,000 steps a day, but just by tracking my steps and increasing 10% a week, I was able to do it!.
4. I was surprised to see that it became a habit after just a short time.
5. My whole family wanted pedometers and they also increased their steps.
6. Just by removing the remote controllers, we picked up 400 steps.
7. My dog is healthier then ever. (I wore the pedometer not the dog)
8. Walked with my husband and we had time to really discuss a lot of new topics and it brought us closer together.
9. Everyone in the office bought pedometers and now we have a competition.
10. It is simple, easy and it works.
11. I have more energy and my blood sugars have never been better. Now my doctor is wearing a pedometer.
12. My blood pressure is done to normal
13. My clothes all fit better

MORE RESULTS:

Diabetes In Control 10,000 Step Study 30 MILLION STEPS & 15,000 Miles LATER!

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- ? HbA1c -13%
- ? Blood Glucose -14%
- ? Total Cholesterol -15%
- ? LDL -23%
- ? HDL +13%
- ? Triglycerides -27%

Total 44 Patients

Total Steps 7956.66 / day / patient

Total Steps 667,464 steps for 84 days/patient

Total Steps 44 patients 84 days = 29,368,416 Steps

Avg. Wt. Loss: 4.1 lbs

Avg. Drop in BP -16 Systolic - 4 Diastolic

Average Starting Steps: 3100/day

Average Ending Steps: 7957/day

Chief Investigators: Stephen Freed, Publisher, R.Ph., Diabetes Educator David Joffe, Editor, R.Ph., CDE, FACA
10,000 Step Study Managed by DiabetesinControl.com and supported by a grant from Omron Healthcare.

Interested in starting a step program for your patients?

We have all the forms and logs that you need. We have arranged a special deal on pedometers.

Just email me at publisher@diabetesincontrol.com

“The distance is nothing; it is only the first step that is difficult.”

– Madame du Deffand, in a letter to Jean Le Rond d’Alembert, July 7, 1763

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The 10,000 Step Study