

## **Increasing Physical Activity – One Step at a Time**

People with diabetes are often told to increase physical activity. Their healthcare provider may say “you need to exercise more,” but give them no counseling on how to do so. This type of advice leaves patients with little direction as to exactly how to get started. Explaining to patients the importance of physical activity, helping them set goals and teaching them how to use a pedometer are all ways that we, as healthcare providers, can help.

### **Why is it important to be physically active with diabetes?**

Physical activity improves the uptake of glucose by cells, overcomes insulin resistance and, if done regularly, lowers A1C. Physical activity can also improve cholesterol levels, help with weight loss, create a sense of well being and reduce blood pressure, all with very few side effects. The key is helping to motivate our patients to get started; setting goals with patients is one way to begin.

### **What are the physical activity goals for adults with diabetes?**

For blood glucose control, the physical activity target is 150-175 minutes per week of moderate intensity physical activity (30 minutes, 5 to 6 days per week, at 50-70% of maximum heart rate). For weight loss, the target is 60-90 minutes, 6 to 7 days per week. The blood glucose-lowering effect after moderate physical activity lasts for about 48 to 72 hours, so participating in physical activity at least every other day is recommended. For patients who are inactive, these goals may initially be overwhelming. It is important for them to understand that these are goals to work towards, not the ones they will start with. The initial goals should be small and be increased slowly. For instance, walking 5 to 10 minutes every day and increasing this by 5 minutes every week may be a reasonable initial goal for someone who is very sedentary. Another way to set activity goals is by counting number of steps, rather than by time.

### **Counting steps or counting minutes?**

A recent meta-analysis of pedometer use found that counting steps was more effective at increasing physical activity than giving patients time-specific goals. This same study established that setting the goal of 10,000 steps per day helped patients achieve higher levels of physical activity, and that pedometer use in general was associated with a reduction in BMI and systolic blood pressure. So now that we know pedometers are useful, what’s the best way to help patients get started?

### **Pedometers: getting started**

When starting your patients on a pedometer, it is important to set up an appointment specifically to instruct them on how to use it. Do not assume that the equipment is so easy they will automatically understand how to use it, particularly if they are an older adult.

Once they understand how to use the pedometer, they will need to measure their current activity level using the worksheet entitled “Calculate Your Steps.” The eventual goal for pedometer use is 10,000 steps per day. For some, this goal will be achievable. Others may not be able to achieve this many steps each day. Physical activity goals must be individualized to each patient. The main emphasis should be on steady improvement in activity from one week to the next. To give your patients some idea of how to gauge their level of activity in terms of steps, use the following:

<b><u>Steps Per Day</u></b>	<b><u>Activity Level</u></b>
>12,500	Highly active
10,000-12,499	Active
7,500-9999	Somewhat active
5,000-7,499	Low active
<5,000	Sedentary

Remember, patients need to understand that physical activity is important, but just telling them to exercise is not enough. Giving patients the right tools, helping them set achievable goals and tracking these goals are areas where healthcare providers can be most helpful.

#### Resources:

1. Joslin Diabetes Center and Joslin Clinic Guideline for Adults with Diabetes 4/03/2009. Joslin Diabetes Center website. Available at [http://www.joslin.org/Files/Adult\\_Guideline\\_Graded.pdf](http://www.joslin.org/Files/Adult_Guideline_Graded.pdf). Accessed July 7, 2009.
2. Sigal, RJ, Wasserman, DH, Kenny, GP, Castaneda-Sceppa, C. Physical activity/exercise and type 2 diabetes. *Diabetes Care* 2004;27(10):2518-2539.
3. Tudor-Locke, C, Bassett, DR. How many steps/day are enough?: Preliminary pedometer indices for public health. Current opinion. *Sports Medicine* 2004; 34:1-8.
4. Bravata DM, Smith-Spangler C, Sundarum V et al. Using pedometers to increase physical activity and improve health. A systematic review. *JAMA* 2007;298 (19):2296-2304.
5. Yates T, Davies M, Gorely T, et al. Effectiveness of a pragmatic education programme aimed at promoting walking activity in individuals with impaired glucose tolerance: a randomized controlled trial. *Diabetes Care* 2009 published ahead of print online July 14, 2009
6. WIN – The weight control information network – link re: increasing walking. <http://win.niddk.nih.gov/publications/walking.htm>