Be Healthy @ Work:
Diabetes—What do you know about it?

Do you know if you have diabetes? Chances are you or a family member may be prediabetic or diabetic. According to the 2011 Missouri Community Data Profiles, 467,372 adults over the age of 18 (or 10.2 percent) have physician-diagnosed diabetes.

What is diabetes?
It is a disease involving problems with a hormone called insulin. Normally, your pancreas releases insulin to help your body store and use the sugar and fat from the foods you eat. Diabetes occurs when:
- The pancreas does not produce insulin.
- The pancreas produces very little insulin.
- The body does not respond appropriately to insulin (insulin resistance).

What role does insulin play in diabetes?
Your body is made up of millions of cells. These cells need food in a simple form to make energy. When you eat or drink, most of your food is broken down into a simple sugar called glucose. The glucose is transported through the bloodstream to the cells to provide energy to your body for daily activities. Insulin regulates the amount of glucose in your blood stream. Your pancreas constantly releases small amounts of insulin. As the amount of glucose in the blood rises, the pancreas releases more insulin to help push it into the cells. This causes your blood glucose levels to drop.

Types of diabetes
There are three types of diabetes. They are:
- **Type 1 diabetes**
  Type 1 occurs when the insulin-producing cells of the pancreas are destroyed by the immune system. People that have type 1 do not produce any insulin and must use insulin injections to control their blood sugar.
- **Type 2 diabetes**
  People who have type 2 diabetes produce insulin, however it is not enough or the body is resistant to it. When the cells don’t recognize insulin or there isn’t enough of it, glucose cannot get into the body’s cells.
- **Gestational diabetes**
  This type is triggered by changes in hormones that occur during pregnancy. Risk increases for women who are over 25 years of age, above a normal body weight before pregnancy, have a family history of diabetes or are of Hispanic, African-American, Native American or Asian ethnicity.

Prediabetes, also known as “impaired glucose tolerance” or “impaired fasting glucose” is a precursor of diabetes. People with prediabetes have no symptoms, but it is almost always present before a person develops type 2 diabetes.

What are the symptoms of diabetes?
For type 1 diabetes, the symptoms can often occur suddenly and can be severe. They include:
- Increased thirst
- Dry mouth
- Frequent urination
- Blurred vision
- Fatigue (weak, tired feeling)
- Labored, heavy breathing

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- Loss of consciousness (rare)
- Increased hunger (especially after eating)
- Unexplained weight loss (even though you are eating and feel hungry)

The symptoms for type 2 diabetes are similar to those of type 1. Often you may not have any symptoms or they develop over a period of time.

Other type 2 symptoms can include:
- Slow-healing sores or cuts
- Itching of the skin (usually in the vaginal or groin area)
- Yeast infections
- Recent weight gain
- Numbness or tingling of hands and feet
- Impotence or erectile dysfunction

Risk factors for type 2 diabetes
There are certain factors that can increase your risk of developing type 2 diabetes. They are:
- **Family history.** Your risk increases if you have a parent or sibling with type 2 diabetes.
- **Physical inactivity.** Physical activity helps the body use glucose to power cells and helps to make your cells more insulin sensitive. It also helps to control weight.
- **Weight.** Being overweight is a primary risk factor for developing type 2 diabetes. The more fat tissue you have, the more insulin resistant cells are. You do not have to be overweight to develop diabetes.
- **Fat distribution.** Storing more fat in your abdomen than in your hips and thighs increases risk.
- **Age.** Risk increases after the age of 45 years.
- **Abnormal lipid levels.** HDL ("good") cholesterol levels under 35 mg/dL (milligrams per deciliter) and/or a triglyceride level over 250 mg/dL increases risk.

How is diabetes diagnosed?
Your healthcare provider can do one of three tests to determine if you have prediabetes or diabetes. They are: fasting plasma (blood) glucose (FPG), the oral glucose tolerance test (OGTT) or hemoglobin A1C. During the FPG test, your blood sugar level is tested via a blood draw after an eight hour fast. This test helps to determine if your body metabolizes glucose correctly.

<table>
<thead>
<tr>
<th>Condition</th>
<th>FPG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Less than 100 mg/dL</td>
</tr>
<tr>
<td>Prediabetes</td>
<td>100mg/dL-125 mg/dL</td>
</tr>
<tr>
<td>Diabetes</td>
<td>≥ 126 mg/dL</td>
</tr>
</tbody>
</table>

With the OGTT, blood sugar is measured via a blood draw two hours after a period of fasting followed by drinking a beverage that has a large amount of glucose.

<table>
<thead>
<tr>
<th>Condition</th>
<th>OGTT at 2 hours</th>
</tr>
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<tbody>
<tr>
<td>Normal</td>
<td>Less than 140 mg/dL</td>
</tr>
<tr>
<td>Prediabetes</td>
<td>140 mg/dL to 199 mg/dL</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Greater than 200 mg/dL</td>
</tr>
</tbody>
</table>

The Hemoglobin A1C reflects your average blood sugar for the past 3-4 months. It can be used to check if blood sugar levels are being controlled or to diagnose diabetes.

<table>
<thead>
<tr>
<th>Condition</th>
<th>A1C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>5.6% or less</td>
</tr>
<tr>
<td>Prediabetes</td>
<td>5.7 to 6.4%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>6.5% or above</td>
</tr>
</tbody>
</table>

Complications of diabetes
Diabetes can affect every part of your body. The long-term complications develop over time. Your risk for complications increases with time and poor blood sugar control. Possible complications include:
- Cardiovascular disease (heart disease and stroke)
- Nerve damage (neuropathy)
- Eye damage (retinopathy)
- Kidney damage (nephropathy)
- Foot damage
- Skin conditions
- Hearing impairment
- Alzheimer’s disease

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What can you do to control or prevent diabetes?
It is important that you control your diabetes. Living a healthier lifestyle can help you do that. Some things you can do are:

- See your healthcare provider 2-4 times a year
- Eat a balanced diet
- Get 30 minutes of physical activity most days of the week
- Reach and maintain a healthy weight
- Visit your dentist two times yearly
- Quit smoking
- Get yearly eye and foot exams
- Monitor your blood glucose levels
- Learn to relax and decrease your stress levels

To learn more about diabetes, visit:
http://www.diabetes.org
http://www.mayoclinic.org/diseases-conditions/diabetes
http://www.cdc.gov/diabetes/prevention
http://www.webmd.com/diabetes

With all of the holiday activities coming up, what are your favorite tips for eating healthy?

“If I am going to a restaurant I look to see if the restaurant has a menu or nutritional guide available for me to view prior to going. That way I can look at the food choices and try to look for things that are baked, not fried and getting sauces or dressings on the side. Restaurants are getting better at offering some healthier alternatives. If I am attending an event where I need to take a food dish, again I try to make something with fresh veggies or fruit. I have found with a lot recipes with a few changes or modifications you can turn most dishes into healthier versions.” Wendi Matlick, Section for Child Care Regulation

“Map out what you intend to eat before a party so you don’t gravitate to high fat, high calorie foods.” Anonymous

“I try to eat something healthy before I go to the activity, then I am not so tempted to fill up on things I should not be eating.” Anonymous

We want to hear from you for the next Employee Buzz! “What is your favorite tip for saving money?” For example, “Each month I put some money in a ‘household’ account to cover any unforeseen emergencies.” Email your response to worksitewellness@health.mo.gov. Please tell us if you do not want your name included with your quote.
Eat Smart @ Work: Hawaiian Steak Kabobs

**Ingredients:**
1 (20-oz.) can pineapple chunks in juice, undrained
2 tbsp. less-sodium soy sauce
2 tbsp. light brown sugar
1 tsp. minced garlic
1 tsp. ground ginger (optional)
1 (1-lb.) flank steak, cut into ¾-inch pieces (about 32 pieces)

**Preparation:**
1. Drain pineapple chunks, reserving the juice in a small bowl. Cover pineapple chunks and refrigerate until needed. For the marinade, add soy sauce, brown sugar, garlic and (if desired) ginger to bowl with reserved juice; mix well. Place marinade in a large resealable plastic bag; add steak. Seal bag and turn to coat. Refrigerate at least 12 hours.

2. Coat grill rack with nonstick cooking spray. Preheat grill to medium (300°F to 350°F). Remove steak from marinade; discard marinade. On each of 8 (6-inch) skewers* alternately thread 4 steak pieces and 4 reserved pineapple chunks. Reserve any unused pineapple chunks for another use.

3. Grill skewers, covered, 3 to 4 minutes per side for medium-rare (145°F) or to desired doneness. Transfer skewers to a platter and serve.

*If using wooden skewers, soak at least 30 minutes before adding ingredients to prevent burning.

**Nutritional Information**

<table>
<thead>
<tr>
<th>Amount per Serving</th>
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<tbody>
<tr>
<td>Calories: 240</td>
</tr>
<tr>
<td>Fat: 7g</td>
</tr>
<tr>
<td>Cholesterol: 45mg</td>
</tr>
<tr>
<td>Sodium: 230mg</td>
</tr>
<tr>
<td>Carbohydrate: 18g</td>
</tr>
<tr>
<td>Dietary fiber: 1g</td>
</tr>
<tr>
<td>Protein: 23g</td>
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</tbody>
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**Yield:**
8 servings

**Source:** [https://www.healthy100.org/recipe/](https://www.healthy100.org/recipe/)

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Move More @ Work: Streaming Workouts

Busy Schedule? Too rainy, cold, hot, or snowy outside to walk or workout? Missing your workout due to business travel? Have you ever thought about streaming a workout video during lunch, a break or overnight trip? With the availability of wifi in many locations, you can stream videos for walking, stretching or just about any other type of exercise. You can get a good workout in a short amount of time right from the convenience of your laptop, ipad, tablet, e-reader or even phone.

For staff in the Wildwood complex in Jefferson City remember that the physical activity room has a DVD player and collection of workout DVDs. In addition, workout videos/DVDs have also been provided to some regional offices. Contact the Worksite Wellness Committee to see what is available in your location.
DHSS Wellness Superstar

Melissa Seaver works in the WIC and Nutrition Services section and is a 20 year veteran of DHSS. Over the last three years she has made incredible strides to lose weight, quit smoking and improve her overall health.

Making lifestyle changes
“Before I began my fitness journey, I literally couldn’t stand up for more than about 5 minutes because my back hurt so badly,” says Melissa. “Walking was a chore that I avoided at all costs. I smoked at least 1 to 1½ packs of cigarettes a day. I developed diabetes and high blood pressure and was well on my way to having a stroke or heart attack, and probably wasn’t going to live very long.” Weighing in at over 350 pounds, doctors were unwilling to perform knee replacement surgery until she lost weight. “I just didn’t care anymore.” adds Melissa. “I kept thinking if I could just get my son through high school, then I could go ahead and die.” A turning point came in January 2012, when Melissa and her son were in Springfield visiting SMSU. She couldn’t even walk around the campus with him to check it out-something she felt she should have done as a parent who was excited for her child to begin college. As she was waiting for him to get back from his tour, she decided that she had to do something. She did not really want to die young and wanted to be around to see her son continue to grow into a young man, go to college, get married and have children.

She started immediately and for over a year she counted calories, cut back on portion sizes, started exercising, and learned how to eat healthier foods. From January 2012 to June 2013, she lost about 100 pounds. In April 2013, she quit smoking. In a little over a year that is 9255 cigarettes she did not smoke, which means she avoided 37 grams of tar and saved over $1600.

Then she hit a six month plateau. Even though she was continuing to watch her food intake and exercising, nothing was working. She began getting really frustrated and finally joined a gym. Still there were no results and her frustration grew. She knew she didn’t want to give up because she had accomplished so much. She eventually asked one of the trainers how people got their “before/after” pictures up on the wall - she wanted to be on that wall! She had never worked with a personal trainer before and was scared. In June 2013, she decided to make the commitment.

Melissa has also participated in Zumba classes and is participating in cardio kick boxing classes twice a week. After knee replacement surgery in February 2014, recovery was quick and she was back in the gym in 3 weeks. She uses the blood pressure cuff at DHSS for monitoring her blood pressure. With the improvements in health, her blood pressure and diabetes medications have been decreased by one half. Her goal is to get off all her medications completely.

Keeping on the right track
Melissa has made huge progress since beginning this journey. She has lost about 150 pounds and several inches. She is getting leaner and building muscle. About 95% of what she eats is healthy food (not processed foods) so she can fit in a few less healthy items occasionally. Standing and walking are not something she avoids anymore. She loves her life and is very happy. Finally, Melissa says, “I still have quite a bit of weight to lose, but I know now that I will make it and NOTHING is going to stop me. I also have my ups and downs (both weight and moods) but I am learning how to work through these times. As long as I keep a positive attitude, I am going to make it. My family and friends are proud of me and are very supportive. My son starts his third year of college this fall and is in the military. He is a runner and eats healthy food. He is proud of me and I am seeing him grow into a fine young man – that was my ultimate goal!”

Melissa before and today
**Strive For Wellness Ambassador Update**

The Strive for Wellness Program archives past campaign materials on their website at [http://www.mchcp.org/stateMembers/striveForWellness/index.asp](http://www.mchcp.org/stateMembers/striveForWellness/index.asp). Find toolkits, worksheets and videos on many wellness topics including stress, weight loss, healthy eating and creating a healthy relationship with your health care provider.


Sincerely,
Pat Simmons & Meredith Curry
DHSS Wellness Ambassadors

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**Upcoming Wellness Events**

**Walking Wednesdays**
The 1st and 3rd Wednesdays of every month are Walking Wednesdays. But don’t forget that if there is a 5th Wednesday in a month, that too is a Walking Wednesday! Approved t-shirts to be worn are: Worksite Wellness, Tackle the Flu and 100 Missouri Miles Challenge.

**REMINDER:** T-shirts are not approved to be worn on Friday Jeans Days.

**DHSS Holiday Challenge**
Starting in November, the Worksite Wellness Committee will be offering a seven-week Holiday Challenge for all DHSS employees! The challenge will provide healthy tips for nutrition and physical activity to help you maintain your weight during the holidays.

**Exercise Classes**
Start your new year out right by joining the WWC-sponsored exercise classes at the Wildwood campus. Watch for more information in the Weekly Messages!