Science Science

United States Department of Agriculture, University of Arkansas, and County Governments Cooperating

Volunteer Leader Training Guide

Could YOU Have Prediabetes?

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Background Information

Prediabetes is a serious condition affecting one of three American adults. In Arkansas senior adults, one out of every two individuals could have prediabetes, and many of them may not even be aware they do. It is important to share in our communities that lifestyle changes can reduce the risk of for developing Type 2 diabetes.

Target Audience

- EHC members
- Other adults

Objectives

- Participants will be able to define prediabetes.
- Participants will be able to identify indicators for prediabetes.
- Participants will be able to name behavior changes that can reduce the risk for developing Type 2 diabetes.
- Participants will be made aware of available tools on prediabetes for community outreach.

Major Teaching Points

Prediabetes is a condition where blood sugar level in the body is higher than normal but not high enough to be diagnosed as Type 2 diabetes. Diabetes occurs when the body has too much glucose (sugar) in the blood. In normal conditions, the body uses insulin, a hormone, to pull glucose from the blood into cells of the body. When the body doesn't make enough insulin or is not able to use the insulin that is produced (called insulin resistance), sugar in the bloodstream builds up.

A normal blood sugar reading is 70 to 110 mg/dL. According to the American Diabetes Association, a person who has a fasting blood sugar (FBS) of 126 mg/dL or higher is diagnosed with Type 2 diabetes. A person whose FBS is between 100 and 125 mg/dL is considered to have prediabetes. The good news is that research has shown that lifestyle changes can prevent or delay Type 2 diabetes in persons who have prediabetes.

Volunteer Leader Training Guide

A hemoglobin A1C test is a blood test that averages the blood sugar in the body over the last three months. Sometimes this test is called an "A1C." An A1C that is less than 5.7 percent is normal, an A1C between 5.7 to 6.4 percent is considered prediabetes, and an A1C of 6.5 percent or higher is considered criteria for a diabetes diagnosis. An A1C test should be performed by a medical professional.

Suggested Handouts or Visual Aids

- CDC Prediabetes Screening Test
- Healthy Habits to Prevent Diabetes
- Pen or pencil

Advanced Preparation

Prior to teaching the lesson, review the main teaching points and study the handouts. Make copies of the handouts.

Discussion/Presenting the Lesson

Prediabetes is a growing concern among Americans. In Arkansas, the risk for prediabetes is higher than the national average. The Centers for Disease Control and Prevention (CDC) has developed a screening tool to use as the first step to assess one's risk for prediabetes. Let's answer these seven questions together. (Pass out CDC Prediabetes Screening Test and a pen or pencil to each participant. Read each question aloud and instruct participants to check "yes" or "no" to each question. Follow the directions on the handout to complete the screening. Make sure to read the information on the back of the handout regarding the scoring.)

As you can see, being overweight and inactive are strong predictors for acquiring Type 2 diabetes. Age and genetics also play a role in our risk. We can't do anything about aging or our genes, but we CAN do something about our weight and physical activity! Simple lifestyle changes – trying to be more active every day, being mindful of portion sizes (bigger is not always better) and drinking water instead of sugar-sweetened beverages – all help lower our risk.

If you do have prediabetes, getting Type 2 diabetes does not have to be a sure thing. In fact, prediabetes can be reversed. Prevention of Type 2 diabetes is proven, possible, and powerful. The CDC and National Diabetes Prevention Program (NDPP) have performed scientific studies proving modest weight loss and regular physical activity CAN reduce the risk of Type 2 diabetes by more than 50 percent. People who lose 5 to 7 percent of their body weight and participate in 150 minutes per week of physical activity significantly reduce their risk for Type 2 diabetes. Lifestyle changes, such as trying to eat smaller portions and taking a brisk walk each day, can help you accomplish this.

Let's talk about that weight loss with some simple math. For example, a person who weighs 200 pounds and loses 10 to 14 pounds would have met the recommended goal of 5 to 7 percent of their body weight. By adding in 30 minutes per day of brisk walking or, if needed, three 10-minute bouts each day of chair exercises, the 150 minutes per week of physical activity goal could be met. These two lifestyle changes – weight loss and physical activity – are what the NDPP and CDC have based their recommendations on.

Volunteer Leader Training Guide

Activity

Referring back to the CDC screening test, if your weight for your height was as much as or more than the number listed on the chart, take a moment to calculate exactly what 5 to 7 percent weight loss would equal in pounds. Take your weight, multiply that number by .05 (or .07); the result is the pounds needed to lose for a 5 percent (or 7 percent) weight loss. For example:

Current weight: $150 \text{ pounds} \times .05 = 7.5 \text{ pounds}$ $150 \text{ pounds} \times .07 = 10.5 \text{ pounds}$

This person would need to lose between 7.5 and 10.5 pounds to achieve the recommended 5 to 7 percent weight loss, which is an achievable goal!

If your weight is less than what is listed on the chart for your height, good job! Keep your weight under control by continuing to make healthy food choices and regular physical activity. This will keep you risk lower for prediabetes.

Hand out "Healthy Habits to Prevent Diabetes" to attendees. There are three tips at the top of the handout that remind us to make healthier food choices to reduce the risk of diabetes: half the plate with veggies, one-fourth plate with whole grains, and one-fourth plate with lean protein. This plan follows the USDA MyPlate recommendations.

Community Outreach

The CDC Prediabetes Screening Test is free and available at www.cdc.gov/diabetes. Please consider using it as an awareness tool at EHC community outreach events. Other opportunities to distribute information on prediabetes risks would be to prepare a display board on prediabetes to be used in high-traffic community areas such as libraries, grocery stores and medical clinics. Present this lesson to groups in your community, such as senior centers, fire department, church and other civic groups. The "Healthy Habits to Prevent Diabetes" handout is free and is available at http://www.joslin.harvard.edu/docs/Joslin-Diabetes-Prevention-Handout_Feb-2017.pdf

Summary

Prediabetes is a serious condition but can be reversed. Lifestyle changes, including modest weight loss and regular physical activity, are key components to preventing or delaying Type 2 diabetes. Many Arkansans do not know they are at risk for prediabetes. A seven-question screening tool from the CDC can assist with community awareness and identifying citizens who may need follow-up with a medical provider.

Evaluation

Distribute the evaluation form and ask participants to complete it.

Resources

• American Diabetes Association. Prevention or delay of type 2 diabetes. Sec. 5 in Standards of Medical Care in Diabetes-2017. *Diabetes Care* 2017:40:S44-47.

Volunteer Leader Training Guide

- Centers for Disease Control and Prevention. Diabetes Prevention Program: Standards and Operating Procedures. Retrieved from www.cdc.gov/diabetes/prevention/recognition
- Joslin Diabetes Center, "Healthy Habits to Prevent Diabetes." Retrieved from www.joslin.org
- Rodibaugh, R., "How to Plan a Healthy Diet for People With Diabetes" Leader Training Guide. Retrieved from https://uaex.edu/health-living/extension-homemakers/leader-training-guides.aspx