

## HOW ACTIVE DO I HAVE TO BE?

Research shows as little as thirty minutes of physical activity such as brisk walking five days a week is all it takes. Remember, it does not have to be all at one time. You might find that three, ten minute walks in a day work better for you.

## WHAT ELSE CAN I DO?

### 1. Make gradual changes in your eating habits.

- If you eat only one or two vegetables a day, add an extra serving at lunch and at dinner (*one serving of cooked vegetables is only one half cup, if you eat a whole cup of cooked vegetables, you are eating two servings of vegetables*)
- Substitute fruit for higher calorie desserts
- Use half the butter, margarine, or salad dressing you normally use
- Try low-fat or non-fat condiments, like non-fat salad dressings
- Drink low-fat (1%) or skim milk with meals instead of soda, alcohol, or sugar-sweetened tea

### 2. Balance your meals with the right portions of grains, fruit, vegetable and protein/meat.

- Treat meat as one part of the meal instead of the focus, and limit the amount to six ounces a day (*two to three ounces is about the size of a deck of cards*)
- Include two or more meatless meals every week
- Choose lean cuts of meat and include fish and lean poultry more often

### 3. Use these fruits or low-fat foods as desserts and snacks:

- Popcorn, plain with no added salt
- Raw vegetables
- Fresh, whole fruits or canned fruits packed in their own juice
- Dried fruit (easy to take with you)
- Unsalted pretzels or nuts mixed with raisins
- Graham and other reduced-fat crackers
- Gelatin
- Low-fat and non-fat regular and frozen yogurt
- Low-fat, sugar free pudding

## References:

Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.

Diabetes Prevention Program Research Group, *Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin*. The New England Journal of Medicine, 2002. 346 (6):393-403.

American Diabetes Association. (2010). American Diabetes Association. Retrieved from <http://www.diabetes.org/diabetes-basics/prevention/pre-diabetes/diagnosis.html>

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# AN APPLE A DAY

# Pre- Diabetes



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FS 04-65 (Revised 2012)

Prepared by University of Nevada Cooperative Extension and  
the University of Nevada School of Medicine.

## **WHAT IS PRE-DIABETES?**

Pre-Diabetes is a condition in which your blood glucose levels are higher than normal but not high enough to be diagnosed as diabetes. It is rapidly reaching epidemic proportions in this country. Approximately 79 million people in the United States 20 years and older have pre-diabetes.

## **WHO IS AT RISK FOR DEVELOPING PRE-DIABETES?**

The people most at risk for developing pre-diabetes are people over the age of 45 and people who have diabetes in their family—that is they have a parent or brother or sister who has diabetes. The other important risk factors are:

- Being overweight or obese
- Being physically inactive or sedentary
- Being African-American, American Indian, Hispanic/Latino, or Pacific Islander
- Having had gestational diabetes or having given birth to at least one baby weighing 9 pounds or more
- Having high blood pressure
- Having low HDL cholesterol levels (below 40 for men or below 50 for women), or having triglyceride levels at 250 or higher

## **HOW DO I KNOW IF I HAVE PRE-DIABETES?**

Check with your health care provider. People with pre-diabetes have either impaired fasting glucose (IFG) or impaired glucose tolerance (IGT). IFG is diagnosed by a fasting elevated blood glucose level (100-125 milligrams per deciliter or mg/dl). IGT is diagnosed by an elevated blood glucose level (140 to 199 mg/dl) after a 2-hour glucose tolerance test. Your health care provider can tell if you have IFG or IGT depending on the results of your blood tests.

## **WHY IS IT IMPORTANT FOR ME TO KNOW IF I HAVE PRE-DIABETES?**

The reason it is important to know if you have pre-diabetes is that you can do something about it! You can prevent or delay diabetes with modest lifestyle modification. Leaving pre-diabetes unchecked will almost certainly lead to diabetes and all of its potential problems.

People with pre-diabetes are also at higher risk for cardiovascular disease. Very small steps to improve your lifestyle can lead to very big rewards.

## **WHAT CAN I DO ABOUT PRE-DIABETES?**

If you are diagnosed with pre-diabetes you can make a big difference in your health and your risk status by losing a small amount of weight and by increasing your physical activity.

*The Diabetes Prevention Program* was conducted by the National Institutes of Health in 29 different centers throughout the United States. 3,234 adults of all ethnicities (25 years of age or older), 20% of whom were over the age of sixty, participated. One out of three people in the study were assigned to the “intensive lifestyle intervention” group. People in this group had access to individual counseling as well as exercise and weight loss classes. Another third was given medicine and the final group took placebos commonly known as “sugar pills.”

The results showed that modest weight loss as well as an increase in physical activity and in some cases medicine could help prevent the development of diabetes. Modest weight loss means losing 5-10% of total body weight.

## **WHAT KIND OF FOOD DID PEOPLE EAT TO LOSE WEIGHT?**

The people who were part of the “intensive lifestyle intervention” followed a low-fat, low-calorie eating plan. On average, women ate 1200 to 1500 calories and men ate up to 2000 calories. This amounts to about three small meals a day. Both groups limited fat intake to 25% of total calories.

Foods that are good choices are whole grains, legumes (dried beans and peas), fruits, vegetables, low-fat dairy products, lean meats, poultry, and fish.

Foods to limit and eat in moderation are fats such as butter, margarine, salad dressings, oils and cream cheese. Sweets and desserts are usually high in fat and sugar so choose them infrequently. If you choose to drink alcohol, check with your health care provider about a safe amount for you. Alcohol will add calories, and is very low in other nutrients.