

Population Focused Nursing Process Project: Nutrition, Diabetic Education, and Glucose and
Cholesterol Screenings

Mollie Nickelsen, Brittney Thingstad, Kelly Paul, & Mary Keller

Minot State University

Abstract

The Adult Health Maintenance Clinic (AHMC) is a clinic operated by the Minot State University Public Health Nursing class. The clinic provides foot care services at Henry Towers, a low-income housing facility located in Minot, North Dakota. Services provided at the clinic are donation-based and open to all individuals. Many of the clients who seek services at the AHMC have diabetes and are older than 55 years, making foot care essential in preventing complications. In addition to foot care services, members within this population would benefit from nutritional education combined with glucose and cholesterol screenings. All of these aspects are important in assessing the health of the individuals and the community. Based upon research, a program was developed to provide combination glucose and cholesterol screenings at the AHMC on a selected day.

Keywords: Adult Health Maintenance Clinic, Diabetes, Screening

Population Focused Nursing Process Project: Nutrition, Diabetic Education, and Glucose and
Cholesterol Screenings

Diabetes is a disease that does not discriminate based on age, race, or gender. Anyone can develop diabetes; however, this disease is more prevalent in certain populations. In 2011, the Center for Disease Control and Prevention [CDC] (2014) estimated that 20.8 million Americans were living with diabetes. Many factors including genetics, age, and gender play a role in who develops diabetes. According to the CDC (2014), African Americans, Hispanics, Asians, and Pacific Islanders are at an increased risk for the development of diabetes. In these populations, genetic factors play a key role, as both type 1 and type 2 diabetes can be linked to familial lineage. Men are at a slightly higher risk for developing diabetes than women; 13% and 11% respectively. As individuals age, the risk for developing diabetes also increases. “Of people in the United States aged 65 years or older, approximately 26.9% (10.9 million) have diabetes” (CDC, 2014, para 1). With such a high incidence of diabetes in the United States, it is crucial that all levels of intervention be implemented to manage this overwhelming disease.

As we age, endocrine function declines, resulting in reduced insulin production and increased insulin resistance (Sole, Klein, & Moseley, 2012). Subsequently this causes increases in glucose levels & tolerance “Fifty percent of adults age 65 years and older have elevated blood glucose levels and are at increased risk for diabetes, and over one fourth of elders have glucose levels that meet diagnostic criteria for diabetes” (Sole et al., 2012, p. 551). Studies have shown that the epidemic of type 2 diabetes can be linked to increased numbers of individuals being overweight and obese (Kirkman et al., 2012). Some individuals may be unaware of their risk and remain asymptomatic despite their blood glucose levels being extremely elevated. This phenomenon is called hyperglycemia unawareness, and puts the elderly and those taking beta-

blockers at even higher risk (Sole et al., 2012). This reflects the importance of screening the older adult population.

Several complications arise from diabetes. Older adults with diabetes have the highest rates of lower-extremity amputation, heart attacks, visual impairments, and end stage renal disease when compare to all other age groups (Kirkman et al., 2012). The rates of complications are even higher for those aged 75 years and older. As a result of the aging population, it is predicted by the CDC that those diagnosed with diabetes will double in the next twenty years (Kirkman et al., 2012). Glycemic control can prevent or limit diabetic complications; therefore, diabetes education and screening will be more important than ever before.

Diabetic Neuropathy is one of many complications associated with diabetes (CDC, 2015). Neuropathy occurs as a result of prolonged poor glycemic control, which damages blood vessels and the nervous system. Neuropathy, most commonly seen in the arms and legs, can cause weakness, numbness, and pain. The highest rates of neuropathy are found in individuals who have had diabetes for at least 25 years. It is also more common in people with poor glycemic control, elevated blood pressure, obesity, and those over 40 years old. The longer an individual has diabetes, the greater the risk of neuropathy (CDC, 2015).

Neuropathy is the cause of many other complications due to nerve damage and circulation problems (CDC, 2015). Nerve damage can cause deformities in feet, resulting in pressure points that turn into sores and ulcers. Inadequate circulation can cause delayed healing time and poor healing outcomes, which ultimately may lead to amputation of toes, feet, and legs. Damage to the small blood vessels in the eye can cause swelling and fluid accumulation in the retina. This damage may lead to blindness and increases the risk of developing cataracts and glaucoma. Blood vessels supplying the kidneys can be damaged, which leads to impaired kidney

function and buildup of toxic bodily waste. Often, damage caused by neuropathy contributes to end stage renal failure (CDC, 2015).

Nerve damage also leads to delayed gastric emptying called gastroparesis. “Symptoms of gastroparesis include heartburn, nausea, vomiting of undigested food, an early feeling of fullness when eating, weight loss, abdominal bloating, erratic blood glucose levels, lack of appetite, gastroesophageal reflux, and spasms of the stomach wall” (CDC, 2015, para 1). Further concern for individuals with diabetes is poor oral health. “Studies show that older U.S. adults with DM have worse dentition and a higher prevalence of edentulism (complete tooth loss) than those without” (Huang, Chan, & Young, 2013, p. 1783). Furthermore, individuals with neuropathy may battle conditions such as gingivitis and periodontitis. Diabetics are also prone to fungal infections, poor post-operative healing, and chronic dry mouth (Huang et al., 2013).

Another concern for those diagnosed with diabetes is depression. Although there is not a clear reason why, several studies have shown that individuals with diabetes are at double the risk of being diagnosed with depression (CDC, 2015). Some theories suggest the cause may be due to the disease’s metabolic effect on brain function. In contrast, others believe depression is due to psychosocial stressors that accompany the diagnosis of diabetes. Depression may be related to difficulties controlling blood glucose levels. Lastly, studies have shown that treatment for depression may improve blood glucose control.

Glycemic control is imperative to preventing complications related to diabetes. The American Diabetes Association (2015a) recommends that fasting blood glucose levels for individuals diagnosed with diabetes should range between 70-130 mg/dl. Post-meal or random blood glucose should be less than 180 mg/dl (American Diabetic Association [ADA], 2015a). “For the majority of non-critically ill patients targets should be lower than 140 mg/dl (7.8

mmol/L) in conjunction with random blood glucose values less than 180 mg/dl (10.0 mmol/L)” (Ignatavicius & Workman 2013, p. 1143). It is important to note that target glucose levels are individualized and set for each patient by the primary care provider. Methods for achieving target glucose levels include both pharmacological and non-pharmacological methods. Non-pharmacological methods include exercise and proper nutrition (Ignatavicius & Workman, 2013).

Proper nutrition and diet are essential in the management of diabetes. According to Fienman et al. (2015), carbohydrate restriction is crucial to glycemic control. Considering both type 1 and type 2 diabetes represent dysfunction in carbohydrate metabolism, it is possible to control type 2 diabetes with proper education and diet. Hyperglycemia is the most prevalent feature of diabetes and dietary carbohydrate restriction has the greatest effect on lowering blood glucose levels (Fienman et al., 2015). Dietary carbohydrate restriction and its effectiveness in glycemic control in type 2 diabetes frequently leads to reduction or elimination of the need for diabetic medications. Replacement of carbohydrates with fats or protein is beneficial in both type 1 and type 2 diabetes, leading to better glycemic control, reduction in cardiovascular risk, weight loss, and reduction in medication (Fienman et al., 2015).

There are three main types of carbohydrates that constitute food: starches or complex carbohydrates, sugar, and fiber. Patients should plan their meals to make their carbohydrates count by choosing the most nutrient-dense choices and keeping portions small. Individuals with diabetes or those at risk should avoid sugary drinks, eat more whole fruit instead of fruit juices, choose sweet potatoes instead of regular potatoes, consume more whole grains and whole-wheat pasta instead of white bread and regular pasta, and cook with brown rice instead of white rice (ADA, 2015b). The most beneficial foods for those with diabetes have a low glycemic index and provide key nutrients for a healthy diet. Some of these foods include beans, dark leafy greens

like spinach, citrus fruits, sweet potatoes, berries, tomatoes, fish high in omega-3 fatty acids like salmon, whole grains, nuts, and fat-free milk and yogurt. To eat a balanced meal, patients should fill their plate one-fourth full with starchy vegetables or grains like rice, one-fourth with protein including lean meat, fish or chicken, and half with non-starchy vegetables (ADA, 2015b).

Along with the proper diet, it is imperative that individuals with diabetes monitor their cholesterol level to avoid vascular complications associated with diabetes. According to Ignatavicus and Workman (2013), total cholesterol should be maintained at less than 200 mg/dl. High levels of low-density lipoprotein (LDL) in the blood in conjunction with a diagnosis of diabetes can contribute to significant vascular alterations. Diabetes can cause significant vascular problems. “Changes occur in both the small and large arteries because of degeneration related to the metabolic abnormalities associated with diabetes” (Gould & Dyer, 2011, p. 555). The vascular changes in small arteries include thickening and hardening of capillaries, which leads to retinopathy and neuropathy (Gould & Dyer, 2011). Type 2 diabetes can also lead to atherosclerosis in large vessels, which increases the client’s risk for cardiovascular disease, myocardial infarction, stroke, and peripheral vascular disease. Hyperlipidemia and diabetes positively correlated in that they both share an affinity for insulin resistance (Tajima et al., 2014). Since serum lipids, especially LDL are positively correlated with type 2 diabetes, the individual is subject to increased atherosclerosis related to exacerbated vessel inflammation (Wang, Lammi-Keefe, Hou, and Hu, 2013). According to Wang et al., (2013) 70% of deaths among individuals with type 2 diabetes are caused by cardiovascular disease.

According to the American Diabetes Association (2014), LDL should be maintained at less than 100mg/dl; high-density lipoprotein (HDL) should be greater than 40mg/dl for men and 50mg/dl for women; and triglycerides should be less than 150 mg/dl. It is recommended for

those diagnosed with diabetes to have lipid levels checked annually; however, levels might need to be assessed more often if the levels are outside of the target ranges (Guidelines American Geriatrics Society, 2013).

Maintenance and/or reestablishment of lipids within recommended target ranges can be achieved through several methods including diet, exercise, and medications. “Pharmacological therapy with a statin is recommended in addition to medical nutritional therapy and increased physical activity unless contraindicated or not tolerated” (Guidelines American Geriatrics Society, 2013, p. 2022). Statins are the recommended drug of choice for lowering lipids levels; however, alanine aminotransferase (ALT) should be monitored in patients taking statins (Guidelines American Geriatrics Society, 2013).

Population of Focus

The target population for this project is the clients of the Adult Health Maintenance Clinic (AHMC). The AMHC is a foot care clinic run by the Minot State University nursing students at Henry Towers in Minot, ND. Foot care is offered to the clients six times during the fall semester, six times during the spring semester, and one or two times during the summer.

In a review of the charts at the AHMC, it has been-noted that several of the clients have diabetes. The majority of the population, 91.1%, who obtain foot care at the AHMC are over the age of 55. The prevalence of individuals diagnosed with diabetes is 42.9%. Many of the clients also have comorbidities that are related to diabetes such as neuropathy, obesity, cardiovascular disease, and vision impairment.

The residents of Henry Towers and the clients of the AHMC may face multiple barriers to achieving proper nutrition, a well-balanced diet, and access to care. Henry Towers is an income based housing facility; therefore, many of the residents are low income and have limited

access to resources. These barriers may include, but are not limited to the following: lack of education relating to proper nutrition, financial constraints, limited transportation or mobility problems, poor dental health, and lack of local fresh markets. A local grocery store provides bread to the residents free of charge; however, this implies the diet of the residents is often high in unhealthy carbohydrates. Other possible barriers to proper nutrition include decrease in sensitivity to taste and a decreased appetite, medication side effects, forgetfulness, depression, and disease comorbidities.

Program Development

Mission Statement

It is our mission is to educate the population of the AHMC regarding diabetes and proper nutrition; perform glucose and cholesterol screenings; and provide appropriate referral and follow up for individuals with results outside the recommended reference ranges.

Plan

The Healthy People 2020 objective for members of this population is to: “Improve the health, function, and quality of life of older adults” (US Department of Health and Human Services, 2014b, para 1). Diabetes is clearly a concern in this population; therefore, we feel it is important, along with providing foot care, to provide education regarding diabetes and nutrition. In addition, we will offer combined glucose and cholesterol screening during each AHMC. Our intention is to encourage this population to participate in our screening procedure, where we will be able to detect potential problems and refer these clients for further testing with their primary care providers. While providing diabetic and cholesterol screening, we will seize the opportunity to assess the patient’s prior knowledge of the disease and educate our patients on risk factors of

diabetes, preventative practices, and self- management to encourage a healthier lifestyle. Our restated objectives in SMART terms are as follows:

- Increase the proportion of AHMC clients who receive a glucose and cholesterol screen while receiving foot care within 1 year.
 - Baseline: 0%
 - Target: 60%
- Increase the proportion of Henry Towers residents not currently admitted as clients of AHMC who receive a glucose and cholesterol screen by the AHMC within 1 year.
 - Baseline: 0%
 - Target: 10%
- Increase the proportion of at AHMC clients at risk for diabetes who have received education regarding prevention and screening procedures.
 - Baseline: 0%
 - Target: 60% (US Department of Health and Human Services, 2014a)

Individuals, if consent is given, will be screened for glucose and cholesterol. Based on the result, individuals with **random** blood glucose greater than 180 mg/dl and/or a total cholesterol level greater than 200mg/dl will be referred to his or her primary care provider. A risk assessment will be performed with each client not currently diagnosed with diabetes in order to educate them on their potential to develop this disease. Nutrition information, regarding control of carbohydrates, limiting the intake of dietary sugar, and selecting nutrient-dense foods will be provided to clients. Finally, information regarding normal blood glucose levels and tracking blood glucose will be provided to individual clients.

At the community level, a social marketing project will be implemented. A simple, easily readable pamphlet and poster board will be developed to provide basic information regarding diabetes, normal blood glucose levels, and normal cholesterol levels (see Appendices B and C). The pamphlet will be distributed to clients during the AHMC and made available to all residents and the poster will be displayed at Henry Towers.

Preparation

In preparation for project development and implementation, the group met with the course faculty to discuss ideas and methods of project implementation. It was confirmed that the group would proceed with nutrition education in conjunction with glucose and cholesterol screenings during the AHMC on April 23, 2015. In addition, it was decided that the group members would contact the diabetic educator at Trinity Health for guidance and assistance with finding education materials to provide to individuals who decide to participate in the screening. To ensure adequate time management in the development of this project; the group developed a Gantt chart. This chart provides a visual representation of a projected timeline for project completion (see Appendix A).

Two group members contacted the local diabetic educator from Trinity Health and proceeded with an informal meeting in order to discuss our mission and plan for diabetic education and screening at the AHMC. The diabetic educator was able to provide group members with insight into this vulnerable population as well as printed education materials for the clients. Some of the information she provided to the group included dates for local grocery stores tours, cooking classes, and diabetic education classes. The diabetic educator encouraged group members to contact her with any further questions or educational needs.

Social Marketing

The goal of this social marketing project is to improve the quality of life of residents residing within Henry Towers through diabetic education, screening and referral. This goal parallels the Healthy People 2020 objective of improving the quality of life for older adults (US Department of Health and Human Services, 2014b). It is our goal to go beyond the individual level with this social marketing campaign, and engage clients and facility residents at a community level. At the community level, Trinity Health works to educate people on prevention and proper diabetic management through a diabetic education program (~~Diabetes Education & Management~~ Trinity Health, 2015). Through the AHMC, we will be able to collaborate with local agencies, including First District Health Unit (FDHU) and Trinity Health, to provide referrals and additional education through their programs. The quality of life of this target population has an impact on the quality of life at the state and national level as well. Our long-term aim is that, through educating this population and collaborating with local agencies, friends and family members of this population will be educated about disease processes of their loved ones, which will also affect health at a broader national scale, as awareness will be increased.

In order to achieve our goal, we developed the message, “Check yourself, before you wreck yourself.” This message was formed from a popular song by Ice Cube in 1993, called “Check Yo Self.” We feel as though it was popular enough to be remembered by many of the target population, as well as poignant enough to deliver the message that early screening is essential to maintain health (Cube, 1993).

Through our social marketing campaign, education will be provided to the target population on diabetes, its associated risk factors, and the importance of early detection.

Our target market is primarily comprised of elderly and low-income residents. Many of the residents are not computer savvy, do not have access to the internet or radio, and may need additional time to review and understand the information; therefore, our social marketing strategy is to compile information that will be easily viewable and readily accessible to this population. Observations, while attending the AHMC, revealed that a popular meeting area of Henry Towers residents is the front hallway of the building. We have put together an informative poster to keep in this area where it will be easily visible to residents (see Appendix C). The poster includes essential information about diabetic risk factors, preventative measures, and the importance of early detection. The poster clearly highlights the contact information for the AHMC and encourages residents to schedule an appointment for glucose and cholesterol screening and foot care. Observation of this population revealed that its members are socially active. At the systems level, our plans incorporate the staff at Henry Towers in sharing this new screening opportunity with the residents. The residents of Henry Towers will then discuss and share this information with one another.

Once screened within the AHMC, our social marketing campaign will go one-step further, by providing informative and interactive brochures. The tri-fold pamphlets contain two wallet-sized charts adapted from a handout developed by the Nurse Practitioner Healthcare Foundation (2013). The first chart contains the titles of healthcare providers they may visit and a location to write their phone numbers. Also included, is the phone number to the AHMC, for easy access. The second chart provides clients with the opportunity to keep track of important diabetic information, including blood pressure, A1C, and cholesterol levels over time. Patients will be encouraged to discuss their target levels with their primary physician and include it in the provided space (see Appendices B and C). Once determined, the clients will be able to write

their actual numbers and easily compare them to their other screening results obtained and written in the chart over time (Nurse Practitioner Healthcare Foundation, 2013). This provides a wonderful resource and visual representation for patients at risk for developing diabetes and/or those who are self-monitoring their condition. Use of these brochures will not be limited to use by the AHMC, they will be shared with FDHU and Trinity to be distributed to their clientele who are diabetic and/or receiving foot care. Since the AMHC accepts all clients, sharing of the pamphlets with other local agencies will spread the word about the services offered by the AHMC. Our goal is that once educated within the clinic, these clients will be able to use these charts to take charge of their health and obtain personal goals by keeping their by helping them track the changes in their glucose, cholesterol, and blood pressure.

Screenings

As noted in the research, for those with diabetes, glucose and cholesterol control is important for preventing cardiovascular complications related to diabetes. According to the Minnesota Department of Health (2001), “screening identifies individuals with unrecognized health risk factors or asymptomatic disease conditions in populations” (p. 63). Screening will be focused on a targeted population of the residents at Henry Towers, but will be available for all who would like to be screened. Minot State University Nursing Department has four glucose/cholesterol meters, which will be used for this screening. The faculty in charge of the monitors was contacted in regards to using those meters at the AMHC. The faculty approved and reserved the meters for use at the AMHC on April 23, 2015. The students providing this screening were educated on proper procedure through an educational video developed by the manufacturer of the equipment.

A simple referral sheet was developed for all of the clients who had glucose and cholesterol screenings completed (see Appendix D). The referral sheet allows space for the nurse to fill in the patient's glucose, blood pressure, and cholesterol results. In addition, the form has an area that is checked if referral to the client's primary care provider is deemed necessary based upon the recommended guidelines. Logs, intended to be kept at the AHMC, were developed to track patient screening information and provide opportunity for follow-up and continuity of care (see Appendix E).

Education

During the AHMC, group members will take the time to provide clients with education regarding diabetes. These educational materials will be in the form of evidenced based, easy to read handouts retrieved from the American Diabetes Association and Trinity Health (see Appendices F-K). Materials provided to the group by the diabetic educator will also be available. Basic information provided to all clients will include healthy food choices and simple menu ideas. Group members will individualize the education provided to meet client needs. Clients not yet diagnosed with diabetes will be provided with a risk assessment and information on ways to decrease the likelihood of developing diabetes. Clients already diagnosed with diabetes will be provided with information on ways to manage their condition in a healthy and effective manner to achieve optimal health outcomes. Group members will be prepared to answer any questions clients may have throughout their screenings.

Outcome Evaluation

Glucose and cholesterol screening were offered on April 23, 2015 in conjunction with the foot care clinic at the AHMC. Minot State Nursing Students, under supervision of the Public Health Nursing 456 instructor, provided screenings for approximately five hours. During this

time, two students were available to provide screenings. Fourteen individuals participated; nine females and eight males between the ages of 41 and 80. Not all individuals who participated in the screening were clients of the AHMC. Of the fourteen participants, two people were referred to their primary care providers for cholesterol levels greater than 200 mg/dl. One participant was referred based on a random fasting blood glucose result greater than 180 mg/dl.

Another aspect for referral was quickly implemented during the screening process. All clients scheduled for foot care also have their blood pressure checked. Not all individuals who participated the glucose and cholesterol screenings were scheduled for foot care; therefore, blood pressure was measured on all individuals who desired to be screened. Four participants were referred to their primary care providers for elevated blood pressure.

Our previously stated goals for the number of individuals living in Henry Towers and the clients of the AHMC have not been met through the implementation of one screening. Continued screenings provided during the foot care clinics must be implemented during the year to work towards goal achievement. Now that an initial screening day has been implemented and individuals become aware of the opportunity for screening, the proportion of individuals who are screened during the year should continue to increase.

Barriers to education were apparent in a variety of ways. The room was noisy, as it was the same room in which foot care and other screenings were being provided. In addition, diabetes is a complex condition that affects multiple systems, making concise education and obtaining a complete system assessment during a spot screening difficult related to the amount of time available to spend with each client. In the future, it may be more beneficial to provide two sets of education materials: one directed at those already diagnosed with diabetes and another for those who have not been diagnosed, but may be at an increased risk. In addition, a cooking class

provided at Henry Towers in conjunction with nutrition education to facilitate psychomotor learning and enhance cognitive learning may be beneficial for this group of clients to address and reinforce concerns related to carbohydrate intake.

We would recommend that the AHMC purchase two combination glucose and cholesterol monitors and the necessary supplies. However, if two machines exceed the financial resources of the AHMC, one monitor would be sufficient until funds can be procured. Research would need to be conducted so the selected machine(s) are both accurate and cost effective. The machine(s) would then be stored at the AHMC and would always be available for use, if necessary or requested, during any foot care clinic.

Patient satisfaction must also be addressed. Although the screening participants seemed satisfied with the services provided it is difficult to determine patient satisfaction based upon the judgement of those providing the screenings and education. To determine patient satisfaction, a simple anonymous survey relating to satisfaction with the screenings could be developed and distributed to those who were screened. Also, an area for individuals to make suggestions for changes in the program could be provided in this survey to help improve the program in the future.

Conclusion

Screenings for this population are an effective way to create additional awareness of disease processes such as diabetes, hyperlipidemia, and hypertension. In addition, it provides an additional opportunity for patient education. Continued implementation of combination glucose and cholesterol screenings, blood pressure screenings and nutrition education will continue to be beneficial for this population, as diabetes requires lifelong management to prevent and reduce associated complications.

References

American Diabetes Association. (2009). *Protect your heart: heart healthy menu ideas*. Retrieved from

http://professional.diabetes.org/PatientEducationLibraryDetail.aspx?pmlPath=Heart-Healthy_Menu_Ideas_96eb4262-9e89-4b57-9202-befdb17b99a6&pmlName=Heart-Healthy_Menu_Ideas.pdf&pmlId=62&pmlTitle=Protect Your Heart: Heart Healthy Menu Ideas—English

American Diabetes Association. (2012). *Protect your heart: make smart food choices*. Retrieved from

http://professional.diabetes.org/PatientEducationLibraryDetail.aspx?pmlPath=Make_Smart_Food_Choices_a9ffa7d4-1871-4a7f-ac8e-1ebfec7e5731&pmlName=Make_Smart_Food_Choices.pdf&pmlId=54&pmlTitle=Protect Your Heart: Make Smart Food Choices—English

American Diabetes Association. (2014). *All About Cholesterol*. Retrieved from

<http://www.diabetes.org/are-you-at-risk/lower-your-risk/cholesterol.html>

American Diabetes Association. (2015a). *Checking your blood glucose*. Retrieved from

<http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/checking-your-blood-glucose.html>

American Diabetes Association. (2015b). *Understanding Carbohydrates*. Retrieved from

<http://www.diabetes.org/food-and-fitness/food/what-can-i-eat/understanding-carbohydrates/>

American Diabetes Association. (n.d.). *A1C/eAG*. Retrieved from

http://professional.diabetes.org/PatientEducationLibraryDetail.aspx?pmlPath=A1CeAG_

5fd96ed2-4c29-496b-8aff-

5cf6ed944514&pmlName=A1CeAG.pdf&pmlId=118&pmlTitle=A1C/eAG

~~American Diabetes Association. (n.d.). *Are you at risk for type 2 diabetes?* Retrieved from http://professional.diabetes.org/PatientEducationLibraryDetail.aspx?pmlPath=risk-test-paper-version_b45c545c-1cea-41a9-9f81-79558fa264e9&pmlName=risk-test-paper-version.pdf&pmlId=134&pmlTitle=Are-You-at-Risk-for-Type-2-Diabetes?~~

Centers for Disease Control and Prevention (2014). *Diabetes in Older Adults*. Retrieved from <http://www.cdc.gov/diabetes/home/index.html>

Centers for Disease Control and Prevention. (2015). *Complications due to diabetes*. Retrieved from <http://www.cdc.gov/diabetes/living/problems.html>

Cube, Ice. (1993). Check Yo Self. On *The Predator* [Vinyl]. Los Angeles, CA: Priority.

~~Deborah L. Huang, MD, Kwun Chuen Gary Chan, & and Bessie A. Young, MD,;~~ **Huang, D. L., MD; Chan, K. C. G.; and Young, B. A., MD.** (2013). Dental and oral health: Poor oral health and quality of life in older u.s. adults with diabetes mellitus. *JAGS, (61)* 1782-1788. doi: 10.1111/jgs.12452

~~Echouffo-Teheugui, J. B., Simmons, R. K., Prevost, A. T., Williams, K. M., Kinmonth, A., Wareham, N. J., & Griffin, S. J. (2015). Long-term effect of population screening for diabetes on cardiovascular morbidity, self-rated health, and health behavior. *Annals Of Family Medicine, 13(2)*, 149-157. doi:10.1370/afm.1737~~

Feinman, R. D., Pogozelski, W. K., Astrup, A., Bernstein, R. K., Fine, E. J., Westman, E. C., & ... Worm, N. (2015). Dietary carbohydrate restriction as the first approach in diabetes management: Critical review and evidence base. *Nutrition, 31(1)*, 1-13. doi:10.1016/j.nut.2014.06.011

Gould, B. E., Dyer, R. M. (2011). *Pathophysiology for the health professions*. (4th ed). St. Louis: Saunders Elsevier

American Geriatrics Society. (2013). Guidelines abstracted from the american geriatrics society guidelines for improving the care of older Adults with diabetes mellitus: 2013 Update. (2013). *Journal of the American Geriatrics Society*, 61(11), 2020-2026.
doi:10.1111/jgs.12514

Ignatavicius, D. D., & Workman, M. L. (2013). *Medical surgical nursing: Patient-centered collaborative care*. (7th ed., Vol. 1). St. Louis, MO: Elsevier

Kirkman S., M., Briscoe, V. J., Clark, N., Florez, H., Haas, L. B., Halter, J. B., & ... Swift, C. S. (2012). Diabetes in older adults: A consensus report. *Journal Of The American Geriatrics Society*, 60(12), 2342-2356. doi:10.1111/jgs.12035

~~Mectoo, D. D., & Wong, L. (2015). The role of point of care testing in diabetes management. *British Journal Of Healthcare Management*, 21(2), 63-67.~~

Minnesota Department of Health. (2001). *Public Health Interventions: Applications for public health nursing practice*. St. Paul, MN: Minnesota Department of Health, Division of Community Health Services, Public Health Nursing Section

Nurse Practitioner Healthcare Foundation. (2013). *Keep track of important information*.

Retrieved from http://nphf-ksw.com/pdfs/Keep_Track.pdf

~~Public Health Image Gallery [Online image]. (2005). Retrieved from~~

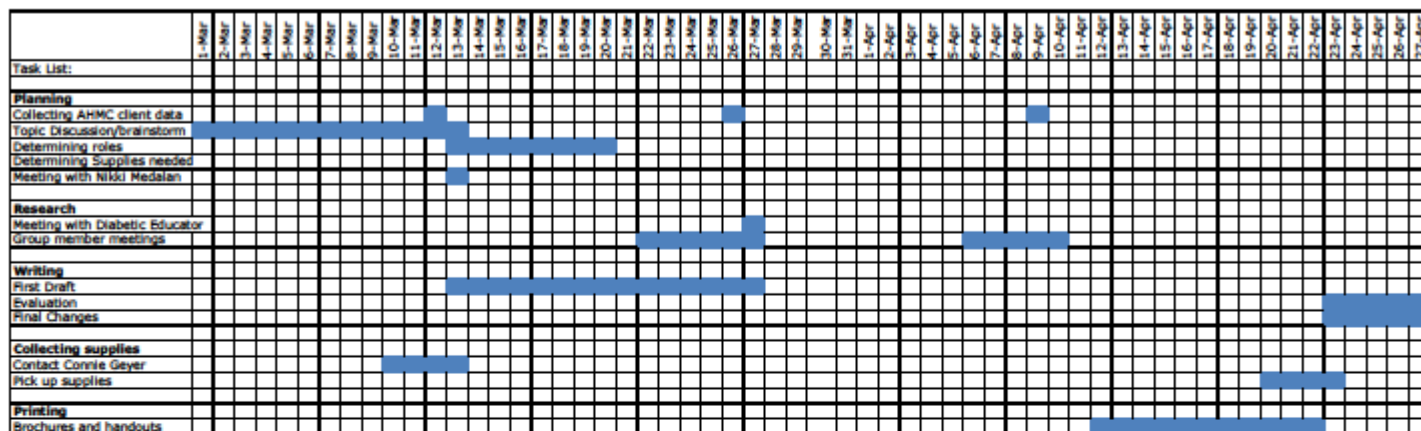
~~<http://phil.edc.gov/Phil/home.asp>~~

Sole, Klein and Mosely. (2012). ??

- Tajima, R., Kodama, S., Hirata, M., Horikawa, C., Fujihara, K., Yachi, Y., & ... Sone, H. (2014). High cholesterol intake is associated with elevated risk of type 2 diabetes mellitus – A meta-analysis1–4. *Clinical Nutrition*, 33(6), 946-950. doi:10.1016/j.clnu.2014.03.001
- Trinity Health. (2015). *Diabetes Education & Management*. Retrieved from <http://www.trinityhealth.org/index.php?page=diabetes>
- US Department of Health and Human Services. (2014a). *Diabetes*. Retrieved from <http://www.healthypeople.gov/2020/topics-objectives/topic/diabetes>
- US Department of Health and Human Services. (2014b). *Older adults*. Retrieved from <http://www.healthypeople.gov/2020/topics-objectives/topic/older-adults>
- Wang, Y., Lammi-Keefe, C. J., Hou, L., & Hu, G. (2013). Impact of low-density lipoprotein cholesterol on cardiovascular outcomes in people with type 2 diabetes: a meta-analysis of prospective cohort studies. *Diabetes Research & Clinical Practice*, 102(1), 65-75. doi:10.1016/j.diabres.2013.07.009

Appendix A

Population Focused Nursing Process Project 2015
GANTT Chart



Appendix B

Risk Factors:

- Obesity
- Hypertension
- Family History
- Sedentary lifestyle
- Over the age of 45
- Male



Diabetes



Preventative Strategies:

- Blood Pressure Management
- Weight Management
- Regular Exercise
- Well balanced diet

References

Diabetes. Retrieved March 25, 2015, from <http://www.cdc.gov/diabetes/home/index.html>

Diabetes Education & Management. (2015). Retrieved March 25, 2015, from <http://www.trinityhealth.org/index.php?page=diabetes>

Public Health Image Gallery. (2005). Retrieved March 25, 2015, from <http://phil.cdc.gov/Phil/home.asp>

Nurse Practitioner Healthcare Foundation. (2013). *Keep Track of Information* Retrieved March 26, 2015, from http://nphf-ksw.com/pdfs/Keep_Track.pdf

Adult Health Maintenance Clinic
1000 2nd St NE Minot, ND 58701

Please call 701-839-9295
to make appointment
for foot care and
diabetic screening

Appendix B

Provider Contact Information

Primary Physician:

Registered Dietitian:

Diabetes Educator:

Social Worker:

Pharmacy:

Optometrist:

Podiatrist:

Dentist:

AHMC: 701-839-9295

Importance of Early Detection and Self-Management

- You can reduce your risk of Pre-Diabetes and Type 2 Diabetes through early detection and preventative strategies.
- Once diagnosed, proper self-management and maintenance can decrease your risk of developing long-term complications.

“Check Yourself Before You Wreck Yourself”

Cut along black lines to keep track of your information with these wallet sized charts

Exams, Tests, and Vaccinations	Goals determined by Dr.	Date and results	Date and Results	Date and Results	Date and Results	Date and Results	Date and Results
A1C : (Every 3-6 months)							
Blood Pressure: (Every Dr. Visit)							
Cholesterol: (once a year)							

Appendix C

Diabetes

*Check Yourself Before You
Wreck Yourself*



Risk Factors

- Obesity
- Hypertension
- Family History
- Sedentary Lifestyle
- Over the age of 45
- Male

Preventative Strategies

- Blood Pressure Management
- Weight Management
- Regular Exercise
- Well Balanced Diet

Importance of Early Detection and Self Management

- You can reduce your risk of Pre-Diabetes and Type 2 Diabetes through early detection and preventative strategies.
- Once diagnosed, proper self-management and maintenance can decrease your risk of developing long-term complications.

Please call **701-839-9295** to make appointment for foot care and diabetic screening through the Adult Health Maintenance Clinic

References

Diabetes. Retrieved March 25, 2015, from <http://www.cdc.gov/diabetes/home/index.html>
 Diabetes Education & Management. (2015). Retrieved March 25, 2015, from <http://www.trinityhealth.org/index.php?page=diabetes>
 Public Health Image Gallery. (2005). Retrieved March 25, 2015, from <http://phil.cdc.gov/Phil/home.asp>

Appendix D

Referral Form

Based upon your screening results, we are recommending follow up with your primary care physician

Based upon your screening results, we have determined your results are within normal limits. Cholesterol should be rechecked in 1 year, blood pressure should be rechecked during every doctor's visit and your glucose levels should be rechecked as determined by your doctor.

Patient

Name: _____

Blood

Pressure: _____

Cholesterol: _____

Non-Fasting Glucose: _____

Reason for Referral: _____

Primary Care Physician: _____

Adult Health Maintenance Clinic
1000 2nd St NE Minot, ND 58701
701-839-9295

Appendix F


American Diabetes Association.
THE DIABETES ADVISOR

A1C/eAG

WHAT IS AN A1C?

The A1C is a blood glucose test that may also be reported as estimated average blood glucose (eAG). It tells you what your average blood glucose levels have been for the past 2 to 3 months. It does this by measuring how much glucose gets attached to red blood cells. Because new red blood cells are always being made to replace old ones, your A1C can change over time as blood glucose levels change.

HOW OFTEN SHOULD I HAVE AN A1C/eAG?

Remind your health care team to measure your A1C at least twice a year. If you're currently changing your medication or making other changes in how you take care of yourself, you may have the test more often.

WHAT IS THE SUGGESTED TARGET FOR THE A1C/eAG?

The ADA's general target for A1C is 7% (eAG of 154 mg/dl). Your doctor may recommend a higher or lower level depending on how old you are and other factors. No matter what your number is, the closer you get to a result of less than 7%, the better your chances of preventing or delaying long-term problems such as blindness. Studies have shown that for every one point decrease in A1C levels, you reduce your risk of long-term diabetes complications by up to 40 percent.

WHAT DOES MY A1C/eAG RESULT MEAN?

Usually your A1C result will reflect the general trends you see with your day-to-day blood glucose checks. Sometimes, however, your A1C result may seem higher or lower than you expected. That may be because you aren't checking your blood glucose at times when it's very high or very low.

To interpret your result, first find your A1C number on the left. Then read across to learn your average blood glucose for the past 2 to 3 months.

6%	126 mg/dl	8.5%	197 mg/dl
6.5%	140 mg/dl	9%	212 mg/dl
7%	154 mg/dl	9.5%	226 mg/dl
7.5%	169 mg/dl	10%	240 mg/dl
8%	183 mg/dl	10.5%	255 mg/dl

If your A1C/eAG is different from what you expect, talk to your health care provider.

DO I STILL NEED TO CHECK MY BLOOD GLUCOSE WITH A METER IF I GET THE A1C/eAG TEST REGULARLY?

Both kinds of checking are important. You'll use your meter results to make day-to-day decisions. The A1C provides an overall picture of what's going on.

More handouts about this and other topics can be found at <http://professional.diabetes.org/PatientEd>

For more information visit diabetes.org or call 1-800-DIABETES

Appendix G

Toolkit No. 12**Protect Your Heart: Heart-Healthy Menu Ideas**

One way to stay healthy is by eating heart-healthy meals. Use these menus at home or when you're eating out. They are healthy for you and your whole family.

About the menus

These menus include plenty of heart-healthy foods: fruits, vegetables, beans, whole grains, lean meats, fish, low-fat dairy foods, and certain nuts and oils. The meals and snacks are also low in saturated fat and high in fiber. Talk with your health care provider about whether you need to change these menus to meet your personal needs.

You can mix and match the menus. Choose a breakfast, lunch, dinner, and 2 snacks. On average, the menus for one day provide about:

- 1600 calories
- 182 grams of carbohydrate (an average of about 45 to 60 grams per meal)—46% of total calories
- 77 grams of protein—19% of calories
- 62 grams of fat—35% of calories
- 11 grams of saturated fat—6% of calories
- 205 milligrams (mg) of cholesterol
- 1900 mg of sodium
- 30 grams of dietary fiber

You can cut 200 calories from the daily total by skipping the snacks. Or you can add 200 calories by eating 3 ounces of meat, poultry, or fish at lunch; 4 ounces of meat, poultry, or fish at dinner; and an extra half-serving of carbohydrate food, such as bread or rice, at 2 of your meals.

Menu ideas**Breakfast menu 1**

- 1 toasted whole-wheat English muffin
- 2 tablespoons almond butter (like peanut butter, but made from almonds)
- 1 cup fat-free milk

Breakfast menu 2

- $\frac{3}{4}$ cup oatmeal
- 1 tablespoon walnuts
- 1 cup fat-free milk
- 1 hard-boiled egg
- $\frac{3}{4}$ cup blueberries

**Breakfast menu 3**

- 1 ounce low-fat cheese
- 1 slice toasted rye bread
- 1 cup fat-free milk
- 2 small tangerines

Lunch menu 1

- 2 slices whole wheat bread
- 2 ounces sliced turkey breast
- Lettuce, tomato, onion, sprouts, and cucumber
- 1 tablespoon mustard or mayonnaise
- 1 orange

Lunch menu 2

- Salad with 1 cup fresh spinach, plus tomatoes, cucumber, onion, and red cabbage
- $\frac{1}{2}$ cup black beans
- 1 ounce low-fat cheese
- 1 tablespoon low-fat or fat-free salad dressing
- 6 whole-wheat crackers

Lunch menu 3

- Small hamburger on a bun
- 1 tablespoon mustard or ketchup
- 1 side salad
- 1 tablespoon low-fat or fat-free salad dressing
- $\frac{1}{2}$ cup fresh fruit mixture

Dinner menu 1

- 3 ounces salmon

Appendix G

Toolkit No. 12: *Protect Your Heart: Heart-Healthy Menu Ideas* continued

- ½ cup roasted red potato
- ½ cup zucchini squash
- 1 cup broccoli
- 1 tablespoon olive oil for cooking/seasoning
- 1 tablespoon trans fat-free light margarine
- ½ cup fat-free frozen yogurt
- ½ cup canned sliced peaches

Dinner menu 2

- 3 ounces roast pork loin
- ¾ cup brown rice
- 1 cup fresh spinach salad and 1 tablespoon sliced almonds
- 1 tablespoon low-fat or fat-free salad dressing
- ½ cup green beans
- 1¼ cups whole strawberries
- 6 ounces light vanilla yogurt

Dinner menu 3

- 3 ounces baked chicken
- ¼ large (3 ounces) baked potato
- ½ cup roasted baby carrots and onions
- 1 tablespoon olive oil for cooking/seasoning
- 1 tablespoon trans fat-free light margarine
- 1 cup green salad
- 1 tablespoon low-fat or fat-free salad dressing
- 5 vanilla wafers
- 1¼ cups watermelon cubes

Snacks

- 1 cup carrot sticks and 1 ounce low-fat ranch dressing
- 1 sliced apple and 1 tablespoon peanut butter
- ½ banana and 2 tablespoons sunflower seeds
- 6 whole-grain crackers and 1 ounce low-fat cheese
- 6 ounces (¾ cup) low-fat fruit-flavored yogurt
- ¾ cup high-fiber cereal and ½ cup fat-free milk

Other resources

Where to find recipes online

Take a look at the American Diabetes Association’s Recipes for Healthy Living at diabetes.org/recipes

Each month, find new:

- Meal plans
- Quick and budget-friendly recipes
- Healthy eating tips
- Shopping lists

You can also find recipes in the Association's Diabetes Forecast magazine at diabetesforecast.org

Websites

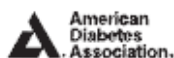
You'll find more healthy menu ideas and recipes at the following websites:

- The United States Department of Agriculture offers a tracker, recipes and meal planning advice at myplate.gov.
- The National Heart, Lung, and Blood Institute, part of the National Institutes of Health, provides information about the DASH eating plan, a healthy diet for lowering blood pressure. Search “DASH” at nhlbi.nih.gov.

American Diabetes Association books

Find cookbooks and books about meal planning at shopdiabetes.org. Titles include: the *Family Classics Diabetes Cookbook*, *The Healthy Home Cookbook*, *Month of Meals* series, *The Ultimate Diabetes Meal Planner*, *Diabetes & Heart Healthy Meals for Two*, and *Diabetes Meal Planning Made Easy*.

Provided By



Appendix H



Protect Your Heart: Make Smart Food Choices

How can smart food choices help keep my heart and blood vessels healthy?

Diabetes raises your chances of having a heart attack or a stroke. But you can protect your heart and blood vessels by taking these steps:

Eat more

- whole grains
- vegetables and fruit
- healthy fats (but not too much)
- fish
- foods with omega-3 fats
- cholesterol-lowering margarine

Cut back on

- saturated fat
- trans fat
- cholesterol
- fat for cooking
- calories
- salt (sodium)
- alcoholic beverages

Making smart food choices can also help you lose weight and keep your blood glucose (sugar) levels on target. For recipes and information about foods, visit www.diabetes.org/MyFoodAdvisor.

How can I make smart food choices?

Here are some ways to make smart food choices. Put a check mark next to 2 things you'd like to try. Talk with your health care provider for more ideas.

Foods to choose more often

- **Eat more whole grains.** Try to eat whole-grain versions of breads, cereals, crackers, pasta, and other grains at least half of the time.
 - Check the list of ingredients on foods made from grains. Choose foods that show "whole" or "whole grain" as the first ingredient. Examples include whole-wheat flour, whole oats, oatmeal, whole-grain cornmeal, popcorn, whole-rye flour, barley, and bulgur.
 - Try whole-wheat pasta instead of regular pasta.
 - Have brown rice, whole-wheat couscous (a quick-cooking grain), or a boxed whole grain mix instead of white rice.



Making smart food choices can protect your heart and blood vessels.

• Eat more vegetables and fruit.

- Eat at least one vegetable or a salad at lunch and dinner. Snack on raw vegetables.
- Try new ways of cooking vegetables, such as steaming, stir-frying, or roasting.
- Eat dark green and dark yellow vegetables every day, such as broccoli, spinach, collards, kale, carrots, squash, chilies, and peppers.
- Choose fruit for dessert or when you crave something sweet.

• Choose heart-healthy fats.

Choose the kinds of fat that can help lower your cholesterol. But keep in mind that all fats are high in calories. If you're trying to lose weight, you'll want to keep servings small.

- Cook with healthy fats. Choose from olive oil, canola oil, corn oil, soybean oil, sunflower oil, and safflower oil.
- Have a handful of low-salt nuts for a snack several times a week.

Appendix H

Protect Your Heart: Make Smart Food Choices continued

- **Eat more fish.**

- Have fish 2 to 3 times a week. Choose from albacore tuna, herring, mackerel, rainbow trout, sardines, and salmon. They all are high in omega-3 fats, a type of fat that may help lower blood fat levels and prevent build-up of unhealthy plaque in the arteries.

- **Eat foods with omega-3 fats.**

- Add flaxseeds and walnuts to your morning cereal.
- Use canola oil, soybean oil, flaxseed oil, or walnut oil.

- **Use cholesterol-lowering margarine.**

- Switch to a cholesterol-lowering margarine. These margarines contain an ingredient (called plant stanols) that keeps cholesterol from being absorbed.

Foods to cut back on

- **Cut back on foods with saturated fat.**

- Eat less butter, whole milk, high-fat ice cream, high-fat cheese, and lard.
- Choose meats with less fat, such as ground beef with 7% fat instead of 15%, poultry without the skin, and leaner meat cuts such as pork tenderloin, beef round, chuck roast, or rib roast.
- Choose meat substitutes such as beans or "veggie burgers" more often.
- Choose lower-fat versions of cheese and milk. For example, try reduced-fat cheddar cheese. If you buy 2% milk now, try 1% milk. If you already use 1% milk, try fat-free milk.

- **Cut back on foods with trans fat.**

- Check food labels and avoid trans fat whenever you can.
- Watch out for foods that list trans fat, hydrogenated oil, or partially hydrogenated oil on the labels.
- Buy soft margarines that are trans fat-free or low in trans fat. If you buy stick margarine, choose margarine with liquid vegetable oil listed as the first ingredient.

- **Cut back on high-cholesterol foods.**

- Cut back on egg yolks, organ meats such as liver, high-fat dairy products, and high-fat meat and poultry.
- Choose packaged foods with little or no cholesterol. Check the Nutrition Facts and the list of ingredients on food labels.

- **Cook using low-fat methods. Use heart-healthy fats.**

- Broil, microwave, bake, roast, steam, or grill foods.
- Use nonstick pans and use heart-healthy oils like canola, olive, sunflower, or corn oil cooking sprays.

- **Cut back on calories if you need to lose weight.**

- Compare your usual daily calories to the total you should have to lose weight. Keep track of what you eat for a day or two. Then go to www.diabetes.org/MyFoodAdvisor and click on "Explore Foods." Add up your total calories for a day.

- **Cut back on salt (sodium).**

- Limit sodium to no more than 1,500 milligrams each day.
- Check on sodium content online at www.diabetes.org/MyFoodAdvisor. Click on "Explore Foods." Or check food labels for sodium content.
- Add less salt to your food. Try to get used to the taste of food without salt.
- Use herbs, spices, or lemon juice instead of salt.

Appendix I

ARE YOU AT RISK FOR TYPE 2 DIABETES?



Diabetes Risk Test

- 1 How old are you?**
 Less than 40 years (0 points)
 40—49 years (1 point)
 50—59 years (2 points)
 60 years or older (3 points)
- 2 Are you a man or a woman?**
 Man (1 point) Woman (0 points)
- 3 If you are a woman, have you ever been diagnosed with gestational diabetes?**
 Yes (1 point) No (0 points)
- 4 Do you have a mother, father, sister, or brother with diabetes?**
 Yes (1 point) No (0 points)
- 5 Have you ever been diagnosed with high blood pressure?**
 Yes (1 point) No (0 points)
- 6 Are you physically active?**
 Yes (0 points) No (1 point)
- 7 What is your weight status? (see chart at right)**
- Write your score in the box.*

Height	Weight (lbs.)		
4' 10"	119-142	143-190	191+
4' 11"	124-147	148-197	198+
5' 0"	128-152	153-203	204+
5' 1"	132-157	158-210	211+
5' 2"	136-163	164-217	218+
5' 3"	141-168	169-224	225+
5' 4"	145-173	174-231	232+
5' 5"	150-179	180-239	240+
5' 6"	155-185	186-246	247+
5' 7"	159-190	191-254	255+
5' 8"	164-196	197-261	262+
5' 9"	169-202	203-269	270+
5' 10"	174-208	209-277	278+
5' 11"	179-214	215-285	286+
6' 0"	184-220	221-293	294+
6' 1"	189-226	227-301	302+
6' 2"	194-232	233-310	311+
6' 3"	200-239	240-318	319+
6' 4"	205-245	246-327	328+

(1 Point) (2 Points) (3 Points)

You weigh less than the amount in the left column (0 points)

Adapted from Bang et al, Ann Intern Med 151:775-783, 2009. Original algorithm was validated without gestational diabetes as part of the model.

If you scored 5 or higher:
 You are at increased risk for having type 2 diabetes. However, only your doctor can tell for sure if you do have type 2 diabetes or prediabetes (a condition that precedes type 2 diabetes in which blood glucose levels are higher than normal). Talk to your doctor to see if additional testing is needed.

Add up your score.

Type 2 diabetes is more common in African Americans, Hispanics/Latinos, American Indians, and Asian Americans and Pacific Islanders.

Higher body weights increase diabetes risk for everyone. Asian Americans are at increased diabetes risk at lower body weights than the rest of the general public (about 15 pounds lower).

For more information, visit us at diabetes.org/alert or call 1-800-DIABETES (1-800-342-2383)

Lower Your Risk

The good news is that you can manage your risk for type 2 diabetes. Small steps make a big difference and can help you live a longer, healthier life.

If you are at high risk, your first step is to see your doctor to see if additional testing is needed.

Visit diabetes.org or call 1-800-DIABETES (1-800-342-2383) for information, tips on getting started, and ideas for simple, small steps you can take to help lower your risk.



Special Thanks to our National Sponsor



Appendix J

Diabetes Education PRE-DIABETES



What is Pre-Diabetes?

Pre-diabetes is a term used when you have more sugar (glucose) in your blood than normal, but not enough to be diagnosed with diabetes. Glucose comes from the food you eat and is the body's main source of fuel. If you have pre-diabetes, you are at risk for serious health problems, like type 2 diabetes, heart disease, and stroke.

Diagnosis	Diagnosis	Random	A1C
Normal	99 mg/dl or less	139 mg/dl or less	4.6–5.6%
Pre-Diabetes	100–125 mg/dl	140–199 mg/dl	5.7–6.4%
Diabetes	Greater than 126 mg/dl	Greater than 200 mg/dl	6.5% or Greater

What are the Signs and Symptoms of Pre-Diabetes?

Most people probably won't notice any signs or symptoms.

What are the Signs and Symptoms of Diabetes?

Not everyone who has diabetes has these signs. If you have any of these signs or think you may be at risk see your healthcare provider for a blood glucose test.

- Being very thirsty or very hungry.
- Feeling tired for no reason
- Urinating (going to the bathroom) more than usual
- Losing weight for no reason
- Having sores that are slow to heal
- Having trouble seeing (blurred vision)
- Losing feeling or having tingling in your hands or feet

Risk Factors:

- Obesity
- Physical Inactivity
- Family History of Diabetes
- High Blood Pressure
- High Cholesterol
- 45 years or older
- African Americans, Asian/Pacific Islanders, Latinos, American Indian/Alaska Natives
- Giving birth to a baby weighing more than 9 lbs.

Appendix J

Diabetes Education PRE-DIABETES



Now is the Time to Take Action!

Lifestyle changes to prevent or delay diagnosis of type 2 diabetes.

Eat healthy

How?

- Cut back on usual serving sizes
- Order smaller portions when eating out
- Try calorie free drinks or water instead of soda or juice

Get active

Being physically active regularly can lower your risk of Pre-diabetes and type 2 diabetes. Aim for 30 minutes a day at least 5 days a week (150 minutes/week).

How?

- Take the stairs instead of the elevator
- Park at the far end of the parking lot
- Take a 10 minute walk after each meal

Control your weight

How?

Lower your weight by 7%

Example: If your weight is 240 pounds multiplied by 7% (.07)

Your weight loss would be 16.8 pounds or 223 pounds

Lower your blood pressure and cholesterol

How?

- Eat more fruits and vegetables
- Cut down the fat and calories in meals and snacks
- Reduce the sodium (salt) in your diet

Diabetes is a serious disease that affects 23.6 million people in the US and is the 7ⁿ leading cause of death.

Appendix K



2015

Trinity Health Grocery Store Tours and Cooking Classes

THURSDAY MARCH 19, 2015
Grocery Store Tour ~ Free
"How to Read a Food Label"
 6-7 pm – Original MarketPlace Foods

THURSDAY APRIL 23, 2015
Cooking Class ~ \$10
"The Plate Method Made Easy"
 5:30-6:30 pm – Trinity Health Community
 Conference Room, Town & Country Center

THURSDAY MAY 21, 2015
Grocery Store Tour ~ Free
"Celiac Disease/Gluten Intolerance"
 6-7 pm – Original MarketPlace Foods

Original MarketPlace Foods – 1930 South Broadway
 (On the corner of 20th Ave and South Broadway)

TUESDAY SEPTEMBER 1, 2015
Cooking Class ~ \$10
"Enjoying the Harvest of Healthy Foods"
 Keys to Diabetes Success
 7-8 pm – Trinity Health Community
 Conference Room, Town & Country Center

THURSDAY OCTOBER 22, 2015
Grocery Store Tour ~ Free
"Diabetes and Heart Health"
 6-7 pm – Original MarketPlace Foods

THURSDAY NOVEMBER 19, 2015
Cooking Class ~ \$10
"Healthy Holiday Bites"
 5:30-6:30 pm – Trinity Health Community
 Conference Room, Town & Country Center

Join a Trinity Health Registered Dietitian for a small group tour or cooking class.

Space is limited. Please RSVP by calling 857-5268.