# Section 1: General Recommendations for Care

| Concern | Care/Test | Frequency |
|---|---|---|
| **General Recommendations for Care** | ▪ Perform diabetes-focused visit | Type 1: Every 3 months❖<br>Type 2: Every 3 – 6 months❖ |
| | ▪ Review management plan; assess barriers and goals | Each focused visit; revise as needed |
| | ▪ Assess physical activity level | Each focused visit |
| | ▪ Assess nutrition/weight/growth | Each focused visit |

❖ Consider more often if A1C ≥ 7.0% and/or individual risk and/or complications exist or less often if at goal an individual risk and/or complication do not exist.

## MAIN TOPICS INCLUDED IN THIS SECTION:

- Diabetes Health Care Team
- Diabetes-Focused Visit Frequency
- Medical Home
- Diabetes Across the Life Span
- Physical Activity
- Nutrition
- Weight and Growth
- Bariatric Surgery
- Sleep-Disordered Breathing and Diabetes
- Disaster Preparedness
- Sharps Disposal
- Additional Resource
- References

# Diabetes Health Care Team

People with diabetes need to participate in a health care delivery system that provides high quality, patient-centered care on an ongoing basis. This approach assures that timely changes in their treatment are made to achieve optimal control of diabetes. Ongoing communication among all professionals involved in treating the person with diabetes is essential to ensure optimal diabetes management.

No single practitioner is expected to provide all of the care required by a person with diabetes. While the primary care provider is responsible for ongoing care, people with diabetes gain even greater benefit when they have access to a **multidisciplinary health care team.** This team consists of primary health care providers and specialists with particular skills and expertise and an interest in diabetes care. Team members with special knowledge in diabetes education, nutrition, pharmacy, podiatry, wound care, ophthalmology, dentistry, nephrology, neurology, cardiology, exercise physiology, social work, and counseling may be needed. Each member of the multidisciplinary health care team is in the unique position to deliver prevention messages, communicate the need for metabolic control, reinforce screening recommendations, and encourage a proactive approach to diabetes care. Collaboration and communication are essential components of a **team care** approach. A system for referrals can facilitate coordination of care. In areas where it is impractical to develop a team, it is beneficial to develop a system for ongoing consultation and referrals for these essential services.

The person who has diabetes, his/her family, the primary care provider, and other members of the health care team should develop the management plan together. Management goals should be negotiated with each person individually and should be realistic and achievable. In evaluating the person's management plan, make sure the goals are outcome-driven, with success measured through metabolic parameters, such as self-monitored blood glucose (SMBG) results, A1C and lipid levels, body weight, blood pressure, and quality of life. Health care providers with expertise in meeting the special medical, educational, nutritional, and behavioral needs of children and adolescents should provide diabetes management for children and adolescents.

# Diabetes-Focused Visit Frequency

A diabetes-focused visit is a regularly scheduled appointment for the primary purpose of assessing diabetes care. During a diabetes-focused visit, it is important to address:

- Current self-care management skills, needs, and barriers
- Review individual goals
- SMBG data and most recent A1C level
- Nutrition needs and weight/body mass index/growth
- Physical activity status
- Medication and insulin use and related side effects.
- Frequency, severity, and treatment of hypoglycemia
- Preventive exams (e.g., dilated eye exam, comprehensive foot exam, oral/dental screening, kidney screening, and any other preventive exams for general health)
- Psychosocial concerns (e.g., screening for depression, anxiety, sexual disorders, eating disorders)
- Blood pressure control and lipid management
- Sleep apnea assessment
- Lifestyle modifications
- Potential referrals to other team members and scheduled follow-up with primary care provider

The recommended frequency of diabetes-focused visits is quarterly for people with type 1 diabetes and every three to six months for people with type 2 diabetes. However, frequency of visits may vary if blood glucose goals are not met, changes in the treatment plan are needed, and/or the presence of complications or other medical conditions exist.

All visits for people with diabetes are an opportunity to advance the treatment and management of diabetes. Diabetes-focused visits at the recommended frequency are needed in addition to routine physical examinations and general health care visits. An incidental, acute care visit for another health care need does not meet or fulfill the intent of a diabetes-focused visit but may provide an opportunity to review the impact of diabetes control on the current health concern. The availability of a diabetes checklist or flow sheet to provide ready access to essential components of diabetes care is especially useful in integrating diabetes care with other personal concerns during a non-diabetes related visit. For an example of a flow sheet, see the tool titled "Diabetes Flow Sheet/Chart Audit Tool" in the Tools Section.

# Medical Home

All persons with diabetes should receive coordinated, ongoing, comprehensive care within a medical home. A medical home is an approach to providing comprehensive primary health care in a high quality and effective manner to children, adolescents, adults, and older adults. The ideal medical home includes a primary care provider or specialist and a diabetes team who work in partnership with the person who has diabetes.

Whether a person with diabetes is cared for within a medical home or not, coordination of care is essential to assure that appropriate consultation and co-management by specialty services occurs in a timely manner.

# Diabetes Across the Life Span

Diabetes can occur at anytime across the lifespan and taking care of diabetes is a lifelong process. Experts have identified core messages for maintaining health at every stage of life. The diagram "Healthy People at Every Stage of Life Framework: Core Messages," found at http://www.dhs.wisconsin.gov/publications/P0/P00237.pdf provides an overview of one model that lists important health messages to provide to people at every stage of life. Diabetes care and management can be incorporated into this model for each of the various life stages as diabetes care needs and treatment change over time.

# Physical Activity

To promote and preserve good health, all people should maintain a physically active lifestyle, including those who have diabetes. There is evidence that in older adults, physical activity reduces the risk of falls and injuries from falls (Nelson et al., 2007).

It is recommended that people with diabetes perform moderate-intensity aerobic (endurance) physical activity for a minimum of 150 minutes over at least 3 days each week or vigorous-intensity aerobic activity for a minimum of 75 minutes over at least three days each week. Moderate-intensity aerobic activity involves a moderate level of effort relative to an individual's aerobic fitness. On a 10-point scale, where sitting is 0 and all-out effort is 10, moderate-intensity activity is a 5 or 6 and produces noticeable increases in heart rate and breathing. On the same scale, vigorous-intensity activity is a 7 or 8 and produces large increases in heart rate and breathing.

In addition to aerobic exercise, it is recommended that adults also do muscle-strengthening (resistance type) activities that involve all major muscle groups at least two or more days per week. Clinical trials have shown strong evidence for the A1C lowering effect of resistance training in adults with type 2 diabetes as well as improvement in many abnormalities associated with metabolic syndrome. Therefore, people with all types of diabetes should include physical activity (aerobic + resistance type) as part of the treatment plan unless contraindicated.

Medical evaluation and individualized guidelines for managing a safe physical activity program are necessary before starting physical activity. Prior to initiation of any physical activity program, evaluate for any underlying or undetected complications affecting the eyes, heart and blood vessels, kidneys, or nervous system. For more on stress testing prior to physical activity, see *Section 5: Cardiovascular Care*.

The potential peripheral neuropathic complications of diabetes require attention to strategies that prevent trauma and/or prevent aggravation of existing foot problems. Discuss proper footwear, socks, and the potential use of shoe inserts when reviewing physical activity regimens. Vascular and structural changes can cause foot injury at any time, making regular re-evaluation of footwear necessary. People with peripheral neuropathy may need physical activity modifications. Hydration can affect blood glucose levels and heart function. Adequate hydration prior to and during physical activity is recommended.

People with type 1 diabetes who do not have complications and are in good glucose control can participate in all levels of physical activity. However, persons should check ketones if blood sugar is greater than 250 mg/dL. Tracking blood glucose data with physical activity records allows for adjustment of insulin and caloric intake to allow safe participation in activities. Referral to a personal trainer can reduce risk of injury and optimize goals for physical activity.

Providing specific instructions for physical activity in the form of a prescription can effectively motivate consistent and sustained physical activity. Such a prescription may direct the agreed type of activity, amount or duration, frequency, and rate of increase. For an example prescription that could be used for physical activity, see the tool titled "Practice Prevention Prescription Template" in the Tools Section.

It is important to individualize any physical activity plan for people with diabetes. The following are general guidelines for people with diabetes:

- Have a medical evaluation prior to beginning a physical activity program; the presence of specific long-term complications of diabetes may be contraindications to general physical activity recommendations.
- Avoid physical activity if fasting glucose levels are > 250 mg/dL and ketones are present (especially for people with type 1 diabetes).
- Use caution if glucose levels are > 300 mg/dL and ketones are not present.
- Consume carbohydrate if glucose levels are < 100 mg/dL before physical activity to prevent low glucose levels, especially if taking oral sulfonylureas and/or insulin.
- Have carbohydrate-based foods readily available during and after physical activity as glucose levels are known to drop for hours after physical activity has ended (for those with type 1 diabetes, the potential for low glucose levels can last up to 24 hours).
- Learn the glycemic response to different physical activity conditions and identify when changes in insulin and/or food intake are necessary. For the athlete with diabetes, factors to consider include: type of competition/sport, intensity and duration of the activity, time of day, and stress.

The following information regarding physical activity for children and adolescents, adults, and older adults are general recommendations. All people with diabetes, regardless of age, must consult with their primary care provider to reduce risk of injury or harm.

## Physical Activity for Children and Adolescents

Physical activity is a fundamental part of a healthy lifestyle for all children and adolescents. Children and adolescents with diabetes can participate in gym class and after-school sports, just as any other student can. When participating in school-based activities, a Diabetes Medical Management Plan (DMMP) should outline specific instructions for physical activity. For additional information on diabetes care in children and adolescents in the school system (including specific information on physical activity), refer to the resource Students with Diabetes: A Resource Guide for Wisconsin Schools and Families, located at: http://www.dhs.wisconsin.gov/diabetes/srg.HTM.

Increases in metabolism/carbohydrate burning can cause a low blood sugar during or after a period of vigorous physical activity. A child may need to consume additional carbohydrate before, during, or after physical activity. It is recommended that a child check his/her blood glucose level before starting an activity to use as a guide for carbohydrate replacement. The general rule is to consume 15 grams of carbohydrate (1 carb serving) for every hour of activity to prevent a hypoglycemic episode.

Children and adolescents with type 1 diabetes are more likely to develop ketones if they participate in physical activity with high blood glucose levels. Participating in physical activity when urine ketones are present will result in accelerated production of ketones, which can quickly lead to diabetic ketoacidosis and dehydration.

If participating in organized sports, ensure that all coaches are aware of the child's diabetes and that a responsible person is present to provide any necessary help if the child has a low blood glucose reaction (including administration of Glucagon).

## Physical Activity for Adults

All healthy adults aged 18 to 65 years need moderate-intensity aerobic (endurance) physical activity for a minimum of 150 minutes over at least three days each week or vigorous-intensity aerobic activity for a minimum of 75 minutes over at least three days each week. Performing bouts of moderate-intensity aerobic activity (generally equivalent to a brisk walk and noticeably accelerating the heart rate) each lasting 10 or more minutes can accumulate toward the 150 minute minimum. Vigorous-intensity activity causes rapid breathing and is exemplified by activities such as jogging, bicycling, and dancing. In addition, every adult should perform activities that maintain or increase muscle strength and endurance a minimum of two days each week.

Because of the dose-response relationship between physical activity and health, adults who wish to further improve their personal fitness, reduce their risk for chronic diseases and disabilities, or prevent unhealthy weight gain, will likely benefit by exceeding the minimum recommended amount of physical activity.

## Physical Activity for Older Adults and Adults with Clinically Significant Functional Limitations*

*American College of Sports Medicine and American Heart Association recommendations for men and women age 65 and older and adults age 50 to 64 with clinically significant chronic conditions or functional limitations that affect movement ability, fitness, or physical activity. Adults age 50 to 64 with chronic conditions that do not affect their ability to be active should follow the adult recommendation.

It is recommended that older adults perform moderate-intensity aerobic (endurance) physical activity for a minimum of 150 minutes over at least three days each week or vigorous-intensity aerobic activity

for a minimum of 75 minutes on at least three days each week. However, it is important to take into consideration individual circumstances and limitations. **Cardiac stress testing may be appropriate for older adults who are planning to start a new physical activity program.** For more on stress testing prior to physical activity, see *Section 5: Cardiovascular Care*.

Given the variety of fitness levels in older adults, a moderate-intensity walk is a slow walk for some and a brisk walk for other older adults. Individuals can perform a combination of moderate- and vigorous-intensity activity to meet minimum recommendation. Older persons who wish to improve their personal fitness, reduce their risk for chronic diseases and disabilities, or prevent unhealthy weight gain, will likely benefit by exceeding the minimum recommended amount of physical activity. These moderate- or vigorous-intensity activities are in addition to the light-intensity activities frequently performed during daily life (e.g., self care, washing dishes) or moderate-intensity activities lasting 10 minutes or less (e.g., taking out trash, walking to parking lot from store or office).

In addition, at least twice each week, older adults should perform muscle strengthening activities using the major muscles of the body that maintain or increase muscular strength and endurance. It is recommended that individuals perform 8–10 exercises on at least two nonconsecutive days per week using the major muscle groups. To maximize strength development, it is recommended that individuals use a resistance (weight) that allows 10–15 repetitions for each exercise. The best level of effort for muscle-strengthening activities is moderate to high.

To maintain the flexibility necessary for regular physical activity and daily life, older adults should perform activities that maintain or increase flexibility on at least two days each week for at least 10 minutes each day. To reduce risk of injury from falls, community-dwelling older adults with substantial risk of falls should perform activities that maintain or improve balance. Older adults with one or more medical conditions for which physical activity is therapeutic should perform physical activity in a manner that effectively and safely treats the condition(s).

Older adults need to have a plan for obtaining sufficient physical activity that addresses each recommended type of activity. Those with chronic conditions for which activity is therapeutic need a single plan that integrates prevention and treatment. For older adults who are not active at recommended levels, plans can include a gradual (or stepwise) approach to increase physical activity over time. Many months of activity at less than recommended levels is appropriate for some older adults (e.g., those with low fitness) as they increase activity in a stepwise manner. Encourage older adults to self-monitor their physical activity on a regular basis and to reevaluate plans as their abilities improve or as their health status changes.

# Nutrition

Nutritional intake or "healthful eating" is at the foundation of optimal blood sugar control and is essential to an overall healthy lifestyle. However, it is important to note that eating plans for people with diabetes have changed over time from strict "diabetic diets" to food choices recommended today based on the same dietary guidelines recommended for all Americans which include:

- Eat a variety of foods including vegetables, fruits, whole grains, non-fat dairy foods, healthy fats, and lean meats or meat substitutes.
- Eat balanced meals throughout the day to meet individual calories needs while controlling portion sizes
- Limit foods with excess fat, cholesterol, salt (sodium), and sugar
- Keep food safe to eat with proper food handling and storage

A meal plan developed with a registered dietitian who knows about diabetes can help in making the best food choices for each individual's health needs. The meal plan should take into account food preferences including cultural foods, eating habits (including snacking), and medical nutrition therapy (MNT) needed for other conditions such as hypertension, hyperlipidemia, and weight control. A registered dietician has expertise in creating meal plans that balance the nutritional content of foods to meet energy needs and medical needs. Refer to *Section 3: Medical Nutrition Therapy* for more information on meal planning.

# Weight and Growth

Weigh adults at every visit and periodically assess body mass index (BMI) as the measurement of choice to determine health risks due to overweight or obesity.

BMI is a mathematical formula (ratio between height and weight) that correlates with body fat and is a better predictor of disease risk than body weight alone. BMI is body weight (in kg) divided by height (in $m^2$). Calculate BMI by using an automatic BMI calculator such as the example located at: http://www.cdc.gov/healthyweight/assessing/bmi/index.html or by using one of the following equations:

BMI = [weight in pounds / (height in inches)$^2$] x 703
BMI = [weight in kilograms / (height in meters)$^2$]

For adults, a BMI ≥ 25.0 kg/$m^2$ but < 30 kg/$m^2$ denotes overweight and a BMI ≥ 30 kg/$m^2$ denotes obesity. Table 1-1 provides categories of weights related to BMI in adults.

Approximately 88% of adults with diabetes are either overweight or obese. For a sample adult BMI chart, see the tool titled "Body Mass Index (BMI) Table for Adults" in the Tools Section. This chart is not appropriate for frail or sedentary elderly individuals, women who are pregnant or lactating, or competitive athletes or body builders.

**Table 1-1: Weight Status Categories Associated with Body Mass Index Ranges for Adults**

| BMI (in kg/$m^2$) | Weight Status |
|---|---|
| Below 18.5 | Underweight |
| 18.5 – 24.9 | Normal |
| 25.0 – 29.9 | Overweight |
| 30.0 and Above | Obese |

In addition to measuring body mass index (BMI), tracking changes in waist circumference over time may be beneficial. The waist circumference measurement can provide an estimate of increased abdominal fat even in the absence of a change in BMI. In obese patients with metabolic complications, changes in waist circumference are useful predictors of changes in cardiovascular risk factors. Table 1-2 provides obesity classification related to BMI and waist circumference measurements.

Waist circumference can also be a better indicator of obesity-related diseases compared to BMI, especially among different populations. The elderly and individuals with less muscle mass tend to have underestimated BMI values. Certain ethnic groups are genetically predisposed to storing more fat in the abdomen, even at healthy weights; these include non-Hispanic blacks, Mexican Americans, non-Hispanic whites, and people of Asian descent.

The waist circumference measurement is taken by placing a measuring tape snugly around the natural waist (just above the navel). The risk for health problems and complications increases with a waist measurement equal to or greater than 40 inches in men and equal to or greater than 35 inches in women. Lower thresholds for waist circumference have been recommended for Asian populations by the World Health Organization due to recent research findings. For Asian men, a waist circumference equal to or greater than 35 inches is considered high risk and for Asian women, a waist circumference equal to or greater than 31 inches is considered high risk. For more information, see the tool titled "Waste Circumference Measurement and Risk Assessment" in the Tools Section.

**Table 1-2: Classification of Overweight and Obesity by BMI, Waist Circumference, and Associated Disease Risk**

| | BMI (kg/m$^2$) | Obesity Class | Men ≤ 102 cm (≤ 40 in)# Women ≤ 89 cm (≤ 35 in)# | Men > 102 cm (> 40 in)❖ Women > 89 cm (> 35 in)❖ |
|---|---|---|---|---|
| Underweight | <18.5 | | — | — |
| Normal | 18.5 - 24.9 | | — | — |
| Overweight | 25.0 - 29.9 | | Increased | High |
| Obesity | 30.0 - 34.9 | I | High | Very High |
| | 35.0 - 39.9 | II | Very High | Very High |
| Extreme Obesity | ≥ 40 | III | Extremely High | Extremely High |

# Asian men ≤ 89 cm (≤ 35 in); Asian women ≤ 79 cm (≤ 31 in)

❖ Asian men > 89 cm (> 35 in); Asian women > 79 cm (> 31 in)

Wisconsin data from the 2008 Pediatric Nutrition Surveillance System (PedNSS) show that 16% of children aged 2 to 4 are overweight and 4% are obese. (Note that these values are population values for children participating in the Special Supplemental Nutrition Program for Women, Infants, and Children; the values do not represent values for all Wisconsin children or even for all low-income Wisconsin children.) Data from the 2009 Youth Behavioral Risk Factor Survey (YRBS) showed that 14% of Wisconsin high school students are overweight and 9% are obese. Therefore, nearly 25% of adolescents (1 in every 4) are either overweight or obese.

Children and adolescents need adequate calories and nutrients to facilitate normal growth and development. Assess height and weight at every visit. Calculate BMI identically to an adult BMI calculation (see above) and regularly plot on gender- and age-specific growth charts. Growth charts for children and adolescents ages 2-20 published by the Centers for Disease Control and Prevention (CDC) are included in the Tools Section. For infants less than 2 years of age, growth charts for children, developed by the World Health Organization (WHO), are recommended for the assessment of growth, regardless of type of feeding; these charts are included in the Tools Section.

The terminology used to describe weight categories in children and adolescents has previously differed from that used for adults. However, an expert panel on pediatric overweight and obesity recently recommended consistent use of these terms across the lifespan. Table 1-3 provides categories of weights related to BMI in children. Children and adolescents (ages 2 through 20) who are at or above the 95th percentile on growth charts are now termed “obese,” while those between the 85th and 95th percentiles are considered “overweight.” In addition, because BMI for some older adolescents may fall below the 95th percentile on growth charts but still exceed the adult obesity BMI cutoff value of 30 kg/m$^2$, the panel recommended that such individuals also be considered obese.

**Table 1-3: BMI-for-age Weight Status Categories and Corresponding Percentiles for Children and Adolescents (ages 2-20)***

| Weight Status Category | Percentile Range |
|---|---|
| Underweight | Less than the 5th percentile |
| Healthy weight | 5th percentile to less than the 85th percentile |
| Overweight | 85th percentile to less than the 95th percentile |
| Obese | Equal to or greater than the 95th percentile |

* When using the WHO growth charts for children < 24 months of age, values of two standard deviations above and below the median, or the 2.3rd and 97.7th percentiles (labeled as the 2nd and 98th percentiles on the growth charts), are recommended for identification of children whose growth might be indicative of adverse health conditions.

Weight loss in overweight or obese people with diabetes can improve both hypertension and blood glucose control. Studies show that even modest reductions in weight (5-10%) are beneficial. Modest calorie restriction and modification in eating habits, increasing physical activity, as well as ongoing support, can help people with diabetes achieve weight loss. Place emphasis on attaining reasonable body weight, defined as the weight that an individual and provider feel is achievable and maintainable. Referrals to dietitians, diabetes educators, physical therapists, and exercise physiologists are beneficial for problem solving and ongoing support to achieve physical activity, dietary, and weight goals.

Special health conditions disproportionately impact youth, such as eating disorders which commonly result in excessive weight loss and altered insulin needs. This type of health condition requires intensive intervention from a diabetes team of professionals.

# Bariatric Surgery

Bariatric surgery, including laparoscopic gastric bypass, biliopancreatic diversion, sleeve gastrectomy and adjustable gastric banding, when part of a comprehensive team approach, has been shown to be effective in treating obesity and eliminating or reducing the need for diabetes pharmacologic therapy for people with type 2 diabetes (Schauer et. al., 2012).

Bariatric surgery should be considered in adults with a BMI >35 kg/m2 and who have type 2 diabetes especially when the diabetes or associated comorbidities remain difficult to control with lifestyle and pharmacologic therapy. There is substantial evidence that procedures which bypass certain portions of the small intestine can reduce or eliminate the need for diabetes medication. This effect is independent of weight changes occurring after surgery (Mingrone et. al., 2012).

The benefits of bariatric surgery are best realized, and risks are best minimized when surgery is performed in a multidisciplinary center specializing in bariatric surgery. Lifelong support and monitoring are essential to optimize long-term outcomes. An unanticipated problem which is now becoming more common years after gastric bypass is hypoglycemia. Bariatric surgery is a reasonable tool for whom it's appropriate. A thorough evaluation and discussion of the risks and benefits of this teatment is citical. Life long followup and counseling is needed to monitor blood sugar levels overtime, lipids, blood pressure and to monitor for other complications.

# Sleep-Disordered Breathing and Diabetes

Sleep-disordered breathing (SDB) refers to a variety of sleep dysfunctions that involve the respiratory system. The most common form of SDB is obstructive sleep apnea (OSA). An apnea is a temporary absence or cessation of breathing, lasting ten or more seconds. With OSA, the upper airway collapses, obstructing air flow, even as the person makes an effort to breathe.

OSA is a prevalent condition associated with comorbidities such as hypertension, obesity or overweight, memory problems, headaches, erectile dysfunction, and cardiovascular disease. OSA has been associated with poor glycemic control, specifically for people with type 2 diabetes. Also, because of altered glucose metabolism (e.g., glucose intolerance, insulin resistance), OSA may be related to metabolic syndrome, but more evidence is needed. A consensus statement written by the International Diabetes Foundation recommends that all people with type 2 diabetes should be screened for OSA. For additional information, go to: http://www.sleepapnea.org/.

Signs and symptoms of OSA are:

- Snoring
- Irregular breathing
- Daytime sleepiness
- Awaken gasping for breath
- Frequent nocturnal urination
- Morning headache
- Large neck size
- Hypertension

A few simple questions to consider for early assessment of OSA include:

1. Do you snore at night?
2. Do you wake up tired after a “good” night of sleep?
3. Do you have daytime sleepiness?
4. Has anyone told you that you quit breathing while sleeping at night?
5. Have you gained weight or has your shirt collar size increased?

**Table 1:4 Multiple sleep assessment tools are provided in the chart and may be used to screen for sleep disorders.**

| | |
|---|---|
| The Epworth Sleepiness Scale (ESS)<br>Related Recommended Readings | The ESS presents various daily situations and asks the responder to rate the degree of sleepiness in each circumstance. |
| The Stanford Sleepiness Scale (SSS)<br>Related Recommended Readings | The SSS is used to assess sleepiness or alertness at a specific moment in time. |
| Pittsburgh Sleep Quality Index (PSQI)<br>Related Recommended Readings | The PSQI is designed to provide a reliable, valid, and standardized measure of sleep quality. It is comprised of 19 self-rated questions and 5 questions rated by a bed partner or roommate. All items are brief and easy for most adolescents and adults to understand. |
| STOP Questionnaire<br>Related Recommended Readings | The STOP questionnaire is a self-administered, 4-question survey that is designed to help identify obstructive sleep apnea (OSA) in advance of surgery and thus prevent complications. The 4 STOP questions are related to snoring, tiredness during daytime, observed apnea, and high blood pressure. |
| Berlin Questionnaire<br>Related Recommended Readings | The Berlin questionnaire consists of 3 categories related to the risk of having sleep apnea. Patients are classified as high risk or low risk based on their responses to the individual items and their overall scores in the symptom categories. |
| Apnea Risk Evaluation System Questionnaire (ARES Q) (see Fig 1)<br>Related Recommended Readings | ARES is one page in length and can be filled out by the patient in less than 5 minutes without assistance. Data obtained include age, gender, height, weight and neck size; diagnosis of diseases associated with risk for OSA, or prior diagnosis of OSA; the Epworth Sleepiness Scale score; and a 5-scale response to the frequency rating for snoring, waking up choking, and having been told that he/she stopped breathing during sleep. The questionnaire is available in several languages. |

Adopted with permission from John Hopkins Sleep University CME
This online tool is available at: www.sleepuniversitycme.com/screening_tools.asp

Refer a person with signs and symptoms of OSA to a specialist in sleep disorders for further evaluation, diagnosis, and treatment. Effective treatment of OSA improves morbidity, mortality, and quality of life.

# Disaster Preparedness

It is essential for people with diabetes to plan ahead for potential disaster situations. Some helpful resources include:

- The American Diabetes Association's *Tips for Emergency Preparedness:* http://www.diabetes.org/living-with-diabetes/treatment-and-care/medication/tips-for-emergency-preparedness.html.
- American College of Endocrinology and Lilly USA, LLC *Power of Prevention Diabetes Disaster Plan:* http://www.powerofprevention.com/diabetes-emergency-plan.
- The Centers for Disease Control and Prevention, Diabetes Public Health Resource information on "Diabetes Care During Natural Disasters, Emergencies, and Hazards:" http://www.cdc.gov/diabetes/news/docs/disasters.htm.

Health care providers can obtain information from the State of Wisconsin, Division of Public Health's Public Health Preparedness Program at: http://www.dhs.wisconsin.gov/preparedness/index.htm or their own professional organization such as the following examples for physician providers.

- The American Medical Association offers courses through its National Disaster Life Support™ Program: http://www.ama-assn.org/ama/pub/physician-resources/public-health/center-public-health-preparedness-disaster-response/national-disaster-life-support.shtml.
- The American Medical Association's Center for Public Health Preparedness and Disaster Response offers extensive resources and policies for physicians and people with diabetes on medical preparedness: http://www.ama-assn.org/ama/pub/physician-resources/public-health/center-public-health-preparedness-disaster-response.shtml.

# Sharps Disposal/Unused Medication Disposal

Do not dispose of sharps in the trash. Individuals must take syringes, lancets, and other sharp medical items to a sharps collection station. To find the location of the nearest sharps collection station or for more information about sharps disposal in Wisconsin: http://dnr.wi.gov/topic/HealthWaste/CollectSharps.html and search for the term "sharps disposal" in the "Search" box in the upper right hand corner of the webpage. For questions, refer to the Department of Natural Resources website about medical/infectious waste located at: http://dnr.wi.gov/files/PDF/pubs/wa/wa1239.pdf or refer to the Department of Natural Resources "Medical Waste: Disposing of Household Sharps" publication at: http://dnr.wi.gov/topic/HealthWaste/CollectSharps.html.

The Pharmacy Society of Wisconsin (PSW) and the Wisconsin Department of Natural Resources (DNR) have developed a flier that outlines options for the disposal of unused prescription medications. The safe disposal of unused medications protects the environment and ensures these medications will not get into the wrong hands. For more information on safe disposal of unused medication see: http://library.constantcontact.com/download/get/file/1011293851033-1162/DNR+2012.pdf.

# Web-Based Repository

The Wisconsin Diabetes Prevention and Control Program collaborated with the Diabetes Research and Wellness Foundation to design a web-based repository of resources in Wisconsin to support healthy behaviors for living with diabetes. People can search by zip code, town, or state to find resources in their area. Wisconsin's resources will begin to appear in spring of 2012. New resources will be added on a regular basis. To access this resource, go to: www.DiabetesLocal.org.

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