



## Section 10: Emotional and Sexual Health Care

Concern	Care/Test	Frequency
<b>Emotional and Sexual Health Care</b>	▪ Assess emotional health; screen for depression	Each focused visit
	▪ Assess sexual health concerns	Each focused visit

### MAIN TOPICS INCLUDED IN THIS SECTION:

- Psychosocial Factors Associated with Diabetes
- Depression and Other Psychological Disorders
- Diabetes-Specific Distress
- Postpartum Depression
- Depression Screening
- Treatment for Depression
- Encouraging Self-Help
- Other Psychological Disorders
- Sexual Health Concerns
- Essential Education
- Additional Resources
- References

# Psychosocial Factors Associated with Diabetes

There are psychosocial factors crucial to understanding a person's reaction to a diagnosis of diabetes, as well as his or her ability to self-manage and adhere to recommendations. Being diagnosed with diabetes can be traumatic. Such a diagnosis can trigger a myriad of reactions including a sense of mourning and loss, guilt and shame, fear about the future, and a preoccupation or obsession with blood glucose control. Acknowledging emotions can help a person to self-manage their diabetes and obtain optimal long-term blood glucose control.

For many, having diabetes is perceived as a chronic stressor due to the self-management that is needed. Ongoing obligations of healthy eating, physical activity, weight management, blood glucose monitoring, and timing and dosage of prescribed medication regimens can be overwhelming. Diabetes management is particularly challenging for those who have not previously practiced much discipline in their lives. Planning meals, remembering to check blood sugars, sticking to a routine, and carving out time to tend to self-care are self-discipline skills that are important to effective diabetes management.

Social support can alter the emotional impact of diabetes and have a positive influence on health. People with diabetes may cope better when they have friends and family who support their efforts at managing their diabetes and do so in a manner that is gentle and respectful. Some support can be negative, especially when a person with diabetes is nagged or harassed about their self-care behaviors (Behavioral Diabetes Institute, 2007). Family and friends can undermine a person's attempts at diabetes self-care, either intentionally or unintentionally. Even when family members are emotionally supportive of a person's self-management care plan, they are often not interested in making similar changes in their own lifestyle habits. As a result, they may inadvertently make it more difficult for the person with diabetes to adhere to dietary or physical activity regimens. Family interventions or counseling can be helpful when incorporated into the diabetes care plan. People with diabetes may need help with negotiating their relationships and learning how to ask for the kind of help that they need. It may also be necessary for people with diabetes to learn to accept help.

While many people with diabetes know what they should do to improve their health, many do not make the recommended changes or have trouble following the advice they have been given. This occurs because of a problem with their "mindset" or approach towards behavior change. It is not a reflection of their motivation or willpower although many will attribute their failed attempts at behavior change to these two concepts. Many people attempt to tackle all of their lifestyle problems at once and take an "all-or-nothing" approach to change. Most are unrealistic with their expectations for self-care and frequently set themselves up for failure by setting unattainable goals. When people are unable to meet their goals, they end up frustrated and feeling bad about themselves for not being able to follow through. Past failed attempts at behavior change contribute to frustration, detract from motivation, and erode a person's sense of self-efficacy. A shift in mindset is often needed before successful health-related behavior changes can occur. A more appropriate mindset is one that focuses on **small, gradual, and consistent change**.

Many people with diabetes are concerned about developing complications and grow impatient with a slow pace of behavior change. It is helpful to provide frequent reminders that the goal of diabetes management is sustained behavior change. A slow pace of change enables the new behaviors to become more easily incorporated into a person's general lifestyle, and the new behaviors become self-reinforcing because many small goals are achieved sequentially over time.

People with diabetes bring with them a history shaped in part by the circumstances surrounding their diagnosis and treatment and the reaction of family, friends, parents, and others to their diagnosis. A person with type 1 diabetes who was secretive and felt helpless and ashamed as a child may present in adulthood

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with similar feelings. Some people feel angry or responsible for “causing” their diabetes. A person’s misconceptions and experiences with others who have diabetes can form and/or alter their ability to cope, learn, and self-manage positively or negatively.

There are a myriad of psychosocial factors that may contribute to poor self-management or an inability to attain or maintain optimal blood glucose control. Some common obstacles to self-care include lack of knowledge or skill, communication problems with health care provider(s), harmful health beliefs, unachievable goals, environmental obstacles, poor social support, limited coping skills, and cultural issues. Identifying and understanding these psychosocial factors is necessary in order to enhance the treatment and management of diabetes.

### Depression and Other Psychological Disorders

Depression is common among people with diabetes and is the most frequently cited psychological disorder associated with diabetes. It is roughly three times more prevalent in those with diabetes (18-35% of people) (Fisher, Glasgow, Mullan, Skaff, & Polonsky, 2008) than in those without diabetes. Depression has an adverse impact on diabetes outcomes (Bogner, Kanshawn, Post & Bruce, 2007). Evidence linking depression to both type 1 and type 2 diabetes complications continues to accumulate (Katon et al., 2004).

Depression differs from normal negative emotions in both duration and intensity. Major depression is a clinical disorder which is diagnosed by a cluster of mental and physical changes, all of which may persist and worsen over an extended period of time. People with diabetes experiencing major depression usually struggle to adhere to meal plans and medications, testing schedules, and activity recommendations. Poor adherence leads to high blood glucose levels, increasing the risk of long-term complications (Groot, Anderson, Freedland, Clouse, & Lustman, 2001). Typical symptoms of depression are:

- Decreased ability to cope with changes or challenges in life
- Crying spells for no apparent reason
- Changes in sleep patterns
- Changes in weight or appetite
- Fatigue or loss of energy
- Changes in ability to concentrate or make decisions
- Changes in sexual desire
- Increased pessimism
- Loss of interest in normal daily activities or things once enjoyed
- Feeling sad and down
- Feeling guilt, hopelessness, or worthlessness
- Thoughts of death or suicide

Females have a higher prevalence of major depression than males. There are also differences in the prevalence of major depression among racial and ethnic subgroups. Hispanics have higher rates of depression than non-Hispanic whites (Dunlop, Song, Lyons, Manheim, & Chang, 2003). The lowest prevalence is seen among Asian Americans (1%) and the highest prevalence is found among American Indians and Alaskan Natives (28%). Different cultures attach different meanings to symptoms of depression and their severity based on what is considered “normal” in those cultures. In some cultures, emotional distress and suffering may be more likely to be expressed in terms of physical symptoms and functional impairment.

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Depression has been linked to poor glycemic control, less optimal lifestyle/self-care habits, higher obesity, increased risk of long-term complications, higher health care costs, and higher morbidity and mortality (Finkelstein, 2003). Depression has a strong impact not only on medical outcomes in diabetes but also on psychological and social outcomes. Quality of life is considerably reduced with respect to psychological, physical, and social functioning (e.g., the ability to work). Satisfaction with diabetes treatment is lower when a depressive comorbidity is present (Hermanns, Kulzer, Krichbaum, Kubiak, & Haak, 2006).

Depression may be more severe, with a longer duration and a higher recurrence rate, in people with diabetes (Behavioral Diabetes Institute, 2007). Recurrent periods of depression are common; therefore, ongoing assessment or reassessment is essential. Lack of optimal diabetes self-care is sometimes interpreted or labeled as non-compliance by health care providers, when in fact a lack of self-care could be a possible sign of depression. Therefore, screening for depression is crucial. Early detection of depression, prompt treatment, and referral may lead to improved diabetes self-care and quality of life.

The cause of increased instances of depression in people with diabetes is not clearly understood. The rigors of managing diabetes can be stressful and lead to symptoms of depression. Diabetes management requires considerable attention and effort. The person with diabetes is asked to adjust eating patterns and selection of foods, increase physical activity, monitor blood glucose levels, take medication, perform foot care, and make multiple decisions each day based on this information. In addition to these demands, there is also stress associated with fears about the future, complications, difficulties dealing with well-intended but potentially intrusive friends or family members, and keeping up with treatment options.

Diabetes-related complications may trigger or worsen symptoms of depression. Frequent high and low blood glucose levels can be frustrating and exhausting. Depression can affect task performance and effective communication. It can also lead to poor lifestyle decisions such as unhealthy eating habits, decreased physical activity, tobacco use, and weight gain.

Depression varies in terms of how the symptoms manifest (i.e., emotionally, physically, or cognitively). A person can have a major depressive episode that is mild, moderate, or severe. Mild depression is present when a person has some symptoms and extra effort is needed to complete normal daily activities. Even minor depression can affect diabetes care and should be treated (Petrack & Herpertz, 2009). Moderate depression is present when a person has many symptoms, often keeping the person from doing normal daily activities. Severe depression is present when a person has nearly all the symptoms, preventing them from doing normal daily activities.

A large proportion of people suffering from depression and diabetes never receive help for their depression. Proper diagnosis of depression in people with diabetes can be difficult as the symptoms of depression are often similar to those stemming from the poor management of diabetes. People who are depressed may not communicate their feelings of sadness to their health care providers, attribute their symptoms of depression to their diabetes, or even realize that they are depressed. The fear of being stigmatized can also prevent people from admitting, even to themselves, that they are depressed. It is important for providers to be sensitive and assist in eliminating the stigmatization often associated with depression. Early identification of depression is critical so appropriate treatment can be initiated.

### Diabetes-Specific Distress

Depression is not the only common emotional problem in people with diabetes. Many people with diabetes are also affected by diabetes-specific distress (Polonsky et al., 2005). Diabetes-specific distress is defined as the emotional burden experienced by a person that is caused by concerns of disease management, support, and access to care. Although there can be considerable overlap between symptoms of depression and diabetes-specific distress, the concepts are not identical. In fact, data suggests that they are distinct conditions. Diabetes-specific distress seems to have an independent negative impact on glycemic control and diabetes self-management, separate from general emotional distress. Diabetes-specific distress has been found to be about twice as prevalent as major depressive disorder and more persistent over time than major depressive disorder. In light of the high prevalence of both conditions, providers should continue to screen for depression and recognize that an assessment of diabetes-related emotional problems can be of great clinical utility. The information obtained from a diabetes-specific distress assessment can be incorporated in the formulation of a diabetes treatment plan or specific interventions to target the particular source(s) of distress. Assessments can also serve the function of facilitating a therapeutic dialogue between the provider and the person with diabetes.

The Diabetes Distress Scale (DDS17, containing 17 items) and an abbreviated 2-Item Diabetes Distress Screening Scale (DDS2) can effectively screen people with diabetes for diabetes-specific distress (Polonsky et al., 2005). Both of these Distress Screening Scales are available in English and Spanish and are available in PDF format at: <http://www.annfammed.org/cgi/data/6/3/246/DC1/1>.

The DDS2 can be used as an initial screening instrument (Fisher et al., 2008). Respondents rate the degree to which they feel overwhelmed by the demands of living with diabetes and the degree to which they feel they are often failing with their diabetes regimen on a 6-point scale, from 1 (not a problem) to 6 (a very serious problem). The full DDS17 can be administered to help define the content of the distress and to direct intervention for those respondents whose average to the two screening items is greater than 3, or whose sum is greater than 6. The DDS17 targets different areas of potential diabetes-specific distress and consists of four subscales:

1. Emotional burden (feeling overwhelmed by diabetes)
2. Physician distress (worries about access, trust, and care)
3. Regimen distress (concerns about diet, physical activity, medications)
4. Interpersonal distress (not receiving understanding and appropriate support from others)

The Problem Areas in Diabetes (PAID) questionnaire was developed as a measure of diabetes-related stress that can be useful in measuring the association between psychological adjustment to diabetes and adherence to self-care behaviors. More information on the Problem Areas in Diabetes questionnaire is available at: <http://www.musc.edu/dfm/RCMAR/PAID.html> and the questionnaire is available in PDF format at: [http://www.dawnstudy.com/News\\_and\\_activities/Documents/PAID\\_problem\\_areas\\_in\\_diabetes\\_questionnaire.pdf](http://www.dawnstudy.com/News_and_activities/Documents/PAID_problem_areas_in_diabetes_questionnaire.pdf). The PAID questionnaire is widely used and is available in several languages (only English is available at the link above) (Polonsky et al., 2005). This 20-item survey asks respondents to rate, on a 5-point Likert scale, the degree to which each item is currently problematic for them from 0 (not a problem) to 4 (a serious problem). The PAID measures diabetes-related emotional problems, treatment-related problems, food-related problems, and social support-related problems. PAID scores “have been linked to diabetes self-care behaviors and glycemic control and are associated with general emotional distress, perceived burden of diabetes, diabetes-related health beliefs, diabetes coping, and marital adjustment” (Polonsky et al., 2005, p. 626). The instrument is responsive to change and is sensitive enough to detect changes following an intervention.

### Postpartum Depression

“Postpartum depression (PPD) affects 10-15% of mothers within the first year after giving birth” (CDC, 2008, p. 1). Given the prevalence of depression in people with diabetes, it is prudent to address PPD in women who have either pre-existing diabetes or gestational diabetes. It is recommended that women with diabetes be screened for PPD at the 4- to 6-week postpartum visit. Women exhibit the same symptoms listed above, as well as these additional characteristics:

- Worried/concerned about ability to care for baby
- Not feeling close to or having difficulty bonding with baby
- Thoughts of harming self or baby

When working with women with symptoms of postpartum depression, it is important to check for thyroid peroxidase (TPO) antibodies and obtain a thyroid-stimulating hormone (TSH) level to assess for potential postpartum thyroiditis (PPT). PPT can cause hypothyroidism and hyperthyroidism in postpartum women and women with type 1 diabetes have an 18%-25% higher incidence of PPT due to a higher prevalence of TPO antibodies. Symptoms of hypothyroidism include fatigue, weight gain, loss of concentration and depression. Because PPT typically occurs 2-10 months postpartum, the primary care provider is in the best position to recognize symptoms, diagnose and treat this disorder.

### Depression Screening

Screening for mood disorders is an important part of diabetes care because of the high prevalence of the depression-diabetes comorbidity. Depression screening tools (examples are provided in Table 10-1) can assist providers in identifying depression symptoms and determining whether additional assessment or treatment is necessary (Hermanns, Kultzer, Krichbaum, Kubiak & Haak, 2005). Health systems can make depression screening tools more accessible by building them into electronic medical records. Depression can be effectively detected in primary care settings with the use of the Patient Health Questionnaire (PHQ), Version 2 and Version 9 (PHQ-2 and PHQ-9). The PHQ-9 is a self-reporting questionnaire that is available in multiple languages and has been shown to be equally effective among white, Hispanic/Latino, Chinese American, and African American populations (Huang, Chung, Kroenke, Delucchi, & Spitzer, 2005). The PHQ-2 is a simple, direct, sensitive screening measure. It asks the following two questions:

1. “Over the past two weeks, have you ever felt down, depressed, or hopeless?”
2. “Have you felt little interest or pleasure in doing things?”

People who respond “no” to both questions are unlikely to have major depression. Therefore, unless clinical suspicion for depression is high, patients do not require additional screening after the two-question screen yields a negative result. A “yes” response to one or both questions in the screen indicates an approximately 80% likelihood of the person having major depression and warrants further assessment.

The PHQ-9 can be used independently or as a follow-up for individuals who score positive on the PHQ-2. The PHQ-9 is an instrument whose nine items are based on the DSM-IV diagnostic criteria for major depression disorder. Each of the nine items can be scored from 0 (not at all) to 3 (nearly every day). The PHQ-9 result is positive for depression if someone scores 10 or higher; scores over 20 represent severe depression. The PHQ-9 can also be used to monitor response to treatment in people who have already been diagnosed with depression as scores on the questionnaire will decrease when depressive symptoms improve (Lowe, Unutzer, Callahan, Perkins, & Kroenke, 2004).

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The Center for Epidemiologic Studies Depression (CES-D) Scale is another widely used assessment tool for depression (Radloff, 1977) (Kim, Huang, DeCoster & Chiriboga, 2011). It is a 20-item self-report measure that asks about the frequency of being bothered by depressive symptoms during the previous week on a scale of 0 (rarely) to 3 (most of the time). This scale was developed to screen for clinical depression in community samples. It places greater emphasis on the affective components of depression. CES-D scores range from 0 to 60 with higher scores indicating more severe depressive symptoms. A score of 16 or higher identifies potential clinical depression.

**Table 10-1: Depression Screening Tools**

Name of Test	Contact Information	Other Information
Patient Health Questionnaire-9 (PHQ-9), adapted from <i>PRIME-MD Today</i> , developed by Spitzer, Williams, Kroenke, and colleagues	Information and a copy of the PHQ-9 is available from the MacArthur Initiative on Depression and Primary Care at: <a href="http://www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9/">http://www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9/</a>	No charge; reproduction permitted for the purposes of clinical care and research only
Center for Epidemiologic Studies-Depression (CES-D) Scale and Edinburgh Depression Scale (English, Spanish, and Hmong) available at the Wisconsin Association of Perinatal Care website	<a href="http://www.perinatalweb.org/index.php?option=content&amp;task=view&amp;id=86">http://www.perinatalweb.org/index.php?option=content&amp;task=view&amp;id=86</a>	No charge
Beck Depression Inventory (BDI): <i>Fast Screen for Medical Patients</i> (for adolescents and adults)	Psychological Corporation Harcourt Assessment P.O. Box 839954 San Antonio, TX 78283-3954 (800) 211-8378 <a href="http://www.psychcorp.com">http://www.psychcorp.com</a> (type "Beck Depression Inventory" into search box)	Complete kit (including manual and 25 record forms), \$110
HANDS® Harvard National Depression Screening Day Scale	Harvard Department of Psychiatry National Depression Screening Day Scale One Washington Street, Suite 304 Wellesley Hills, MA 02481-1706 (781) 239-0071 or (781) 431-7447 <a href="http://www.nmisp.org">http://www.nmisp.org</a>	Contact them by phone or email for additional information.
Postpartum Depression Screening Scale by Cheryl Beck at the University of Connecticut	Western Psychological Services 12031 Wilshire Boulevard Los Angeles, CA 90025-1251 (310) 478-2061 <a href="http://www.wpspublish.com">http://www.wpspublish.com</a> (type "Postpartum depression screening scale" into search box)	Complete kit (including 25 auto-score test forms and manual), \$79.75

Note: These are only a few of the many depression screening tools available.

# Treatment for Depression

Treatment of depression in diabetes should be directed toward improving both psychological and medical outcomes. Improvement or resolution of depressive symptoms is the major psychological objective. The desired physical outcomes include improving glycemic control and reducing the risk for short-term and long-term complications and premature mortality.

Effective treatments for depression include: medication, psychotherapy, or a combination of medication and psychotherapy. Results are relatively good and are comparable to those for people who have depression without diabetes. As researchers continue to test various interventions, a treatment plan that includes both medication and psychotherapy is recommended, along with a good self-care program.

Scientific evidence indicates that several forms of short-term psychotherapy (cognitive, interpersonal, or behavioral) are effective in treating most cases of mild and moderate depression. Cognitive-Behavioral Therapy (CBT) operates on an assumption that negative and destructive beliefs lead to depressive and anxious symptoms. Altering that type of thinking in psychotherapy can be part of an effective treatment for depression and other psychological disorders. Interpersonal Psychotherapy focuses on the interpersonal components of the dysfunctional behavior. Events, conflicts, and interactions that are related to the situation are specifically addressed in the context of psychotherapy. Although there is no singular definition of Behavioral Therapy, it is generally recognized as a treatment approach that focuses on identifying and changing negative and destructive behaviors through the use of various psychological techniques.

Regular physical activity (i.e., 150 minutes over at least 3 days) can be an effective treatment for people with mild to moderate depression (Dunn, Madhukar, Trivedi, Kamper, Clark, & Chambliss, 2005). Relaxation exercises, deep breathing practices, hot baths, positive self-talk, mindfulness, and meditation can also be beneficial for some symptoms of depression such as difficulty sleeping or excessive worrying.

There are many different kinds of medications used to treat depression. The primary medications used to treat depression include selective serotonin-reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitor (Effexor, Pristiq, Cymbalta), tricyclic antidepressants (TCAs), and monoamine oxidase inhibitors (MAOIs). Atypical antipsychotic medications – aripiprazole (Abilify) and ziprasidone (Geodon) – do not tend to have adverse metabolic effects. Others such as clozapine (Clozaril) and olanzapine (Zyprexa) are very likely to have metabolic adverse effects (e.g., weight gain, diabetes risk, dyslipidemia) and compromise glycemic control due to a potential side effect of weight gain (American Diabetes Association, et al. 2004). The choice of treatment is based on the history and nature of the disorder and the severity of the depressive episode. A new antipsychotic medication – Invega (Paliperidone palmitate) – is being used and currently lists hyperglycemia as a metabolic side effect.

Treatment should be delivered collaboratively between diabetes and behavioral health providers or by providers trained to treat both diabetes and depression (Van Voorhees et al., 2003). Behavioral health professionals, particularly those familiar with diabetes, can offer appropriate education, support, and treatment for depression. In fact, there is evidence that increased understanding of depression and its treatment modalities directly correlates with an increased adherence to provider recommendations. Behavioral health professionals are also skilled at assessing people with depression for suicide risk by direct questioning about suicidal thinking, impulses, and personal history of suicide attempts.

### Encouraging Self-Help

Depression can make even the simplest parts of daily living very difficult and can leave a person feeling hopeless, helpless, and worthless. It is important for those who suffer from depression to recognize that their negative thinking is a function of their depression and that it will fade with appropriate treatment.

Providers can ask questions to assess underlying issues, acknowledge that the person is not feeling well, and encourage discussion about what is causing them to feel poorly. Encouraging self-help opportunities, positive coping strategies, and recommending psychotherapy may provide assistance.

Self-help tips for people who feel depressed include:

- Avoid being alone; seek support from friends and family
- Participate in activities (e.g., social gatherings) that are enjoyable
- Avoid alcohol, drugs, or excessive food
- Delay making major life decisions; take life “one day at a time”
- Create a daily routine to help with organization and planning each day
- Be positive
- Engage in physical activity
- Avoid blame and self-judgment, as depression can happen to anyone
- Be patient; even the smallest tasks can seem impossible

### Other Psychological Disorders

People with diabetes can also experience a variety of psychological disorders including:

- Anxiety (e.g., generalized anxiety disorder, obsessive compulsive disorder)
- Stress and stress-related disorders (e.g., adjustment disorder, eating disorder)
- Other mental disorders (e.g., personality disorders, schizophrenia, and other psychoses)

Emotional, physiological, and behavioral reactions to stress can lead to a deterioration of glycemic control. When stress hormones are released, the liver produces more glucose, blood pressure elevates, heart rate elevates, cortisol increases, and the immune system is compromised. Increased education in diabetes self-management, as well as training in problem-solving, coping skills, and relaxation/meditation can help people with diabetes reduce stress. Severe cases may require treatment such as psychotherapy or medications.

Special attention is needed to differentiate psychological problems from diabetes-related symptoms. Symptoms of psychological disorders can frequently mimic symptoms of diabetes or typical diabetes care (e.g., hyperglycemia symptoms can be similar to symptoms of depression or anxiety disorders, a focus on eating can be either healthy attentive self-care or an early sign of an eating disorder).

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### Anxiety

Clinical anxiety is another problem common to people with diabetes that can interfere with effective diabetes management. Symptoms of clinical anxiety include restlessness, feeling on edge, fatigue, difficulty concentrating, excessive worrying, irritability, muscle tension, and sleep disturbance. People experiencing anxiety may also describe an intense fear of hypoglycemia, or may not take the required amount of medication or insulin to adequately control blood sugar levels. People may have exaggerated fears about complications. Other fears or anxieties may focus on injections and testing blood glucose levels. Anxiety can compromise glycemic control. Severe cases may require treatment such as psychotherapy or medications.

### Stress

People with diabetes must deal with the challenges of diabetes in addition to the stresses that are a part of everyday life in our culture (Surwitt et al., 2002). Because of the 24/7 nature of diabetes self-care, feelings of frustration are common. In addition, newly diagnosed individuals can be fearful or concerned about the impact of the disease on an already difficult job or family situation.

Dealing with stress effectively is particularly important for people with diabetes because it can have such a profound effect on blood glucose control. Learning stress reduction techniques is an important part of a diabetes self-management plan. Stress directly and indirectly affects glucose levels. The direct effect of stress raises blood glucose levels because it causes the body to produce stress hormones, thus increasing blood sugar levels. The indirect effect of stress is that people with diabetes are less likely to take good care of themselves when they are stressed. In general, people tend to be less disciplined and more self-indulgent when under a lot of stress. Common indirect effects include:

- Poor sleep habits or disruptions in usual sleep patterns can decrease energy levels
- More alcohol or less exercise—both of which can affect blood glucose levels
- Poorer food choices—less time and energy to prepare healthy meals
- Overeating and or skipping meals
- Missing medication or paying less attention to matching insulin doses to meals or activity

### Eating Disorders/Disordered Eating Patterns

The daily management of diabetes in addition to the focus on eating and nutrition has the potential to trigger disordered eating habits. Anorexia nervosa, bulimia nervosa, and binge eating disorder can affect people with diabetes (American Diabetes Association, 2011). In the United States, approximately 25% of all females with insulin-dependent diabetes may have a diagnosable eating disorder. Eating disorders appear most frequently in young women with type 1 diabetes.

Anorexia nervosa is characterized as a severe, self-imposed restriction of food usually coupled with high levels of physical activity. Misuse of laxatives and enemas is also common. For some people with insulin diabetes, insulin omission is used to manipulate weight. Bulimia nervosa is classified as being at a normal or near-normal body weight with periods of food binges usually, but not always, followed by some sort of purging activity (vomiting). Bulimia also frequently involves the use of diuretics and laxatives. Binge eating disorder is defined as eating an excessively large amount of food over a two-hour period without being able to stop. Binge eating disorder is different from bulimia nervosa, as individuals with binge eating disorder usually do not purge. Binge eating commonly occurs in secret. The American Psychiatric Association's DSM-IV currently classifies binge eating disorder as an "eating disorder not otherwise specified." Women with type 2 diabetes

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are more likely to suffer from binge eating disorders than from anorexia or bulimia. In contrast to other eating disorders, where the majority of cases are female, one-third of all patients with binge eating disorder are men (Hudson, Hiripi, Pope, & Kessler, 2007).

Radical dieting, restricting, and bingeing behaviors can occur when a person with diabetes also has an eating disorder. Those who suffer from eating disorders will manipulate their insulin or purposefully not take it in an attempt to lose and control weight. Varied food intake, along with inconsistent insulin use, can increase the risk of poor glycemic control and other complications.

Diagnosis of an eating disorder can be difficult. The dietary concerns of diabetes can easily mask the eating disordered behavior. It is often hard to tell if the behaviors are symptoms of an eating disorder or just careful dietary management of diabetes. People with an eating disorder often claim that they are just practicing dietary control. One warning sign may be an unexplained elevated A1C. Early detection and referral to a specialist for assistance with an eating disorder is essential.

Researchers believe that people who have engaged in frequent fad dieting or who have followed overly restrictive eating plans are more prone to disordered eating patterns. Disordered eating patterns can also arise when people use food to cope with painful situations and feelings, or to relieve stress. This can happen without the person realizing it and can undermine successful diabetes management. Referral to a behavioral health provider can help a person with diabetes develop more appropriate behavior change and coping strategies.

### Sexual Health Concerns

Sexual problems are common and can affect approximately 75% of men and 35% of women with diabetes. Sexual dysfunction for people with diabetes can be due to autonomic neuropathy, cardiovascular disease, endothelial dysfunction, hormone abnormalities, and psychological concerns such as depression, stress, and anxiety, or a combination of these.

The most common sexual problems for men are erectile dysfunction, retrograde ejaculation, and hypogonadism (low testosterone). Also known as impotence, erectile dysfunction is the consistent or recurrent inability of a man to attain and/or maintain a penile erection sufficient for sexual activity. Retrograde ejaculation results from damage to the sympathetic nerves that normally coordinate the closure and relaxation of the internal and external vesicle sphincters. Retrograde ejaculation can be a functional concern for men of reproductive age with diabetes who wish to father children. Hypogonadism or a subnormal level of free testosterone is found in approximately 30% of men with diabetes in general and in approximately 50% of obese diabetic men 45 years of age or older (Dhindsa et al., 2010). “Androgen therapy of hypogonadal men improves insulin sensitivity, fasting glucose, and A1C levels” (Traish, Saad & Guays, 2009, p. 23).

The most common sexual difficulties for a woman with diabetes involve problems with arousal, decreased vaginal lubrication during stimulation, and anorgasmia (i.e., the inability to have an orgasm) despite normal libido. Women can also experience more frequent yeast infections or other vaginal infections with diabetes, which can contribute to sexual difficulties.

It is important for providers to inquire about sexual health concerns for both men and women, offer referrals to medical and psychological specialists for diagnosis and counseling, and review therapeutic options. Although these topics may be uncomfortable to discuss, most people will appreciate the opportunity to address these important quality of life issues.

### Additional Resources

1. An International Awareness Packet from the World Federation for Mental Health. (2010). *Diabetes and Depression: Why Treating Depression and Maintaining Positive Mental Health Matters When You Have Diabetes*. Woodbridge, VA: World Federation for Mental Health.
2. Surwit, R. S. & Bauman, A. (2004). *The Mind Body Diabetes Revolution: A Proven New Program for Better Blood Sugar Control*. New York, NY: Free Press.
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4. National Institute of Mental Health: <http://www.nimh.nih.gov>.
5. American Association of Diabetes Educators. *Take Charge. Talk T. What Men with Diabetes Need to Know about Low Testosterone* [brochure]. 1-800-338-3663.
6. Polonsky, W. H. & Guzman, S. J. (April 15, 2009). *Patients with Diabetes: What Mental Health Experts Need to Know* [PowerPoint Slides]. Retrieved from <http://behavioraldiabetesinstitute.org/resources-diabetes-information-publications-PPT-Patients-With-Diabetes.html>.
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