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Author manuscript

*NASN Sch Nurse*. Author manuscript; available in PMC 2015 November 01.

Published in final edited form as:

*NASN Sch Nurse*. 2014 November ; 29(6): 292–294.

## Double Jeopardy:

### Addressing Diabetes and Eating Disorders Among Adolescents in the School Setting

**Michelle Owens-Gary, PhD, MA [Behavioral Scientist]** and  
Centers for Disease Control and Prevention in Atlanta, Georgia

**Laura Shea, MA, RN [Pediatric Nurse Consultant]**  
New York State Department of Health in Albany, New York

## Abstract

Eating disorders are more common in youth with diabetes, especially females, and not only interfere with diabetes management but can increase the risk for diabetes-related complications. School nurses may be the first to recognize eating disorders among students with diabetes. They are an integral part of a multidisciplinary team, connecting students and families to both health care and community resources, ensuring that mental, physical, and social needs are addressed.

## Keywords

diabetes; eating disorders; school nurses

## Eating Disorders and Diabetes

The health of our nation's adolescents is at risk from eating disorders. Teenagers are bombarded with messages about being thin, losing weight, and dieting (Funari, 2013). Teens with diabetes, especially girls, are more likely to develop eating disorders than their peers without diabetes (Colton, Olmsted, & Daneman, 2007; Pinhas-Hamiel & Levy-Shraga, 2013). This is concerning because eating disorders can interfere with diabetes management. For adolescents with diabetes, eating disorders increase the risk for diabetes-related complications and even death (Bernstein, Stockwell, Gallagher, Rosenthal, & Soren, 2013; Funari, 2013).

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**Resources for Diabetes:** National Diabetes Education Program: [www.YourDiabetesInfo.org](http://www.YourDiabetesInfo.org)

Helping the Student With Diabetes Succeed: A Guide for School Personnel: [www.YourDiabetesInfo.org/schoolguide](http://www.YourDiabetesInfo.org/schoolguide)

American Diabetes Association: [www.Diabetes.org](http://www.Diabetes.org)

Juvenile Diabetes Research Foundation: [www.JDRF.org](http://www.JDRF.org)

**Resources for Eating Disorders:** National Eating Disorders Association: <http://www.nationaleatingdisorders.org/>

National Institutes of Mental Health: <http://www.nimh.nih.gov/health/publications/eating-disorders/index.shtml>

WomensHealth.Gov: <http://www.womenshealth.gov/body-image/eating-disorders/>

## Eating Disorders and the Link to Diabetes

Persons with eating disorders become preoccupied with how much food they eat and with their body weight (Funari, 2013). *Anorexia nervosa*, *bulimia nervosa*, and *binge eating disorders* are the most common types of eating disorders (Ismail, 2008; Rodin et al., 2002).

Anorexia nervosa occurs when a person intentionally loses more weight than is healthy. People with anorexia develop an intense, pathological fear of weight gain that they often try to control through excessive dieting and exercise (Funari, 2013).

Bulimia nervosa is the most common eating disorder among teens with type 1 diabetes (Rodin et al., 2002). A person with bulimia binges on large quantities of food and then tries to prevent weight gain by inducing vomiting, abusing laxatives, fasting, or exercising excessively (Pinhas-Hamiel & Levy-Shraga, 2013). People with bulimia often engage in these detrimental practices as a way to control their body image (National Alliance on Mental Illness, 2014).

Binge eating disorder (BED), or compulsive eating, is the most common eating disorder among young women with type 2 diabetes. People with BED often eat compulsively or binge and then feel guilty, sad, and depressed (Funari, 2013).

## Why Eating Disorders Are a Concern for People With Diabetes

Eating disorders place individuals with diabetes at risk for poor glycemic control, diabetes-related complications, psychological issues, and death (Rodin et al., 2002). In a condition known as *diabulimia*, individuals with type 1 diabetes intentionally neglect to take prescribed insulin to lose weight (Pinhas-Hamiel & Levy-Shraga, 2013). Insulin encourages the body to store fat, much of which will be needed as a future energy source. Some individuals with type 1 diabetes manipulate their insulin levels by skipping doses on purpose, in an attempt to prevent weight gain or to lose some weight (Hall, 2012; Hasken, Kresl, Nydegger, & Temme, 2010). Skipping insulin can also increase the risk for eye diseases, kidney disease, diabetic ketoacidosis, and lower-limb amputations (Hall, 2012; Hasken et al., 2010).

Eating disorders often coexist with depression, anxiety disorders, and drug addiction. They may precede and influence the development of another mental illness; in other cases, the converse may be true (Mental Health America, 2014).

## Treatment of Eating Disorders

The good news is that eating disorders and coexisting mental health conditions can be treated. Early recognition and treatment of both eating disorders and other mental illnesses are necessary to reduce poor outcomes. Treatment should be comprehensive and involve a multidisciplinary approach (Mental Health America, 2014).

A challenge to identifying and treating people with eating disorders is that many go to great lengths to conceal their illness (e.g., wearing baggy clothes, avoiding eating in public) and may deny that there is any need for concern. Recognition and acceptance of an eating

disorder requires that family, friends, and school personnel provide support for intervention, treatment, and recovery.

## Eating Disorders: The Role of School Nurses and Other School Personnel

In a culture obsessed with thinness and dieting, it can be difficult to recognize when a young person's thoughts and behaviors related to eating have placed his or her health in danger (Funari, 2013). A school nurse's unique position within the school setting affords opportunities to identify a child showing signs of an eating disorder (Connolly & Corbett-Dick, 1990).

Parents/guardians, school nurses, and other school personnel (teachers, guidance counselors, school psychologists, social workers) may be the first to recognize behavioral signs and symptoms of eating disorders (see Table 1) (National Eating Disorders Association, 2014). They may observe changes in peer interaction, withdrawal during social events, or changes in eating behaviors that could warrant concern. School personnel should first talk with the school nurse about their observations and concerns. As a team, they should then address these concerns with the student. This includes discussing any history of weight issues, intentional weight loss, body image concerns, medications taken for weight loss, and changes in eating patterns (Connolly & Corbett-Dick, 1990). If warranted, the school nurse should work with other school personnel and parents/guardians to get the student with suspected eating disorders into care for evaluation and intervention.

Notifying parents/guardians can be difficult, as school nurses and other school personnel may feel obligated to keep the student's responses confidential. Schools may consider putting policies or protocols in place to determine when confidentiality should be broken. With parental/guardian involvement and support, the school nurse can advise the parents/guardians to take the student to medical practitioners that specialize in eating disorders (Connolly & Corbett-Dick, 1990; National Eating Disorders Association, 2014). The health care team working together helps students learn appropriate ways to manage diabetes and eating disorders and to seek help when these health problems seem overwhelming.

The National Diabetes Education Program (NDEP) has developed a guide entitled *Helping the Student With Diabetes Succeed: A Guide for School Personnel*, which includes sections on effective diabetes management at school, involving parents/guardians in a school health plan, and recognizing emotional issues related to diabetes. The NDEP has also developed tip sheets to help children and teens to manage type 1 and type 2 diabetes, make healthy food choices, maintain a healthy weight, and deal with the emotional aspects of having diabetes. To learn more about these and other resources, visit the NDEP website at <http://www.YourDiabetesInfo.org> or call 1-888-693-NDEP for more information about diabetes prevention and control.

## Conclusion

Early recognition of eating disorders among students with diabetes is crucial to reduce diabetes complications, address psychosocial issues associated with eating disorders, and improve quality of life. Parents/guardians, school nurses, and other personnel play an

important role in connecting students with both diabetes and eating disorders to health care and community resources to ensure that their mental, physical, and social needs are being addressed.

## Acknowledgments

**Disclaimer:** The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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**Table 1**  
**Signs and Symptoms of Eating Disorders**

<b>Anorexia Nervosa</b>	<b>Bulimia Nervosa</b>	<b>Binge Eating Disorder</b>
Skips meals	Binges, usually in secret	Eats excessive amounts of food
Has an excuse for not eating	Eats to the point of pain or discomfort	Eats to the point of pain or discomfort
Loses hair, looks pale or malnourished	Self-induces vomiting	Eats faster during binge episodes
Has a negative or distorted self-image	Uses laxatives or diet pills	Feels that one's eating behavior is out of control
Appears preoccupied with food	Focuses on weight and shape in an unhealthy way	Frequently eats alone
Withdraws from social relationships, events	Has low self-esteem	Feels upset or depressed over the amount of food eaten
Appears thin	Goes to the bathroom after meals or during meals	
Experiences constipation	Has damaged teeth or gums	
Experiences irregular menstrual cycles or loss of cycle	Experiences irregular menstrual cycles or loss of cycle	
Experiences dehydration	Experiences dehydration	

Source: Adapted from Mayo Clinic (2014).

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