

# **ADOLESCENT WOMEN, DIABETES, OBESITY, AND PHYSICAL ACTIVITY**



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### *Diabetes and Adolescent Women*

The primary form of diabetes among adolescent women is type 1 diabetes. However, due to the increase in obesity and sedentary lifestyles of children and youth, type 2 diabetes is emerging as a major chronic disease condition. The publication *Diabetes and Women's Health Across the Life Stages* states that 1.7/1000 children and youth ages 0-19 have type 1 diabetes. The incidence and prevalence rates among genders are similar. At the present time, there is very little documentation on the incidence and prevalence of type 2 diabetes among children and adolescents. Anecdotal comments from pediatricians and family practitioners report that for every youth diagnosed with type 1 diabetes another youth is diagnosed with type 2 diabetes.

Adolescent women are in one of the most rapid and complex transitions of their lives sexually, physically, and physiologically. They are transitioning into self-discovery, independence, and psychological maturation.

Role models, self-efficacy, and policy and environmental changes can have either a positive or negative impact on health behaviors.

Adolescent women with diabetes are challenged with disease management and responsible decision-making. Challenges include controlling their diabetes to prevent future complications and exploring their sexuality. Pregnancy prevention and preconception counseling are crucial. Adolescent women with type 1 diabetes with uncontrolled blood glucose levels are at risk for having complicated pregnancies and infants with possible congenital abnormalities. Eating disorders and smoking are two other risk factors for adolescent women who have diabetes. Carefully assessment and counseling are recommended.



### *The National Public Health Initiative on Diabetes and Women's Health recommends the following public health actions:*

*Structure and deliver educational messages* to encourage female adolescents with and at risk for diabetes to engage in regular physical activity, make good nutritional choices, and avoid or stop smoking.

- Raise awareness and knowledge about the importance of regular physical activity among adolescent women.
- Increase awareness of the benefits of making healthy food choices, the existence of simple methods for preparing healthy foods, and the negative effects of regularly eating fast food and snacks and drinking soda instead of water or milk.
- Encourage positive messages about self-care and self-respect.
- Raise awareness about the co-morbidity of diabetes and depression.

*Create positive, rewarding forums* that promote healthy eating and physical activity among adolescent females at risk for type 2 diabetes.

- Conduct focus groups and other forms of qualitative research with adolescent women to help design the structure, content, and delivery channels of forums.
- Involve youth representatives in the planning and design stages.
- Partner with nonprofit organizations, government agencies, universities, businesses, and media outlets to deliver forums.
- Develop incentive-based systems to attract and retain participants in forums.

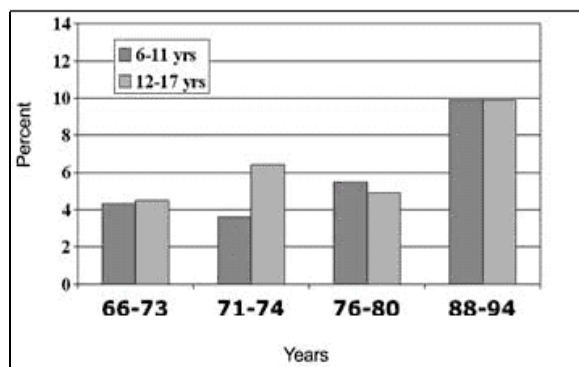
*Identify the most appropriate messages for teens at risk for diabetes—particularly teens with a genetic history of diabetes and who are sedentary, overweight or obese.* Educate on preparing healthy foods, and the negative

effects of regularly eating fast food and snacks and drinking soda instead of water or milk. To increase physical activity make events fun, safe, exciting and/or rewarding.

### Overweight, obesity and physical activity among adolescent women

The national Youth Behavioral Risk Factor Survey reflects that 15.3% adolescent women are at risk of being overweight and that 9.4% are overweight. Also less than 55% of female teens are enrolled in physical education and of this group 75% exercise a minimum of 20 minutes in the physical education class.

### Trends in Obesity Prevalence among Girls in the United States, 1966-1994

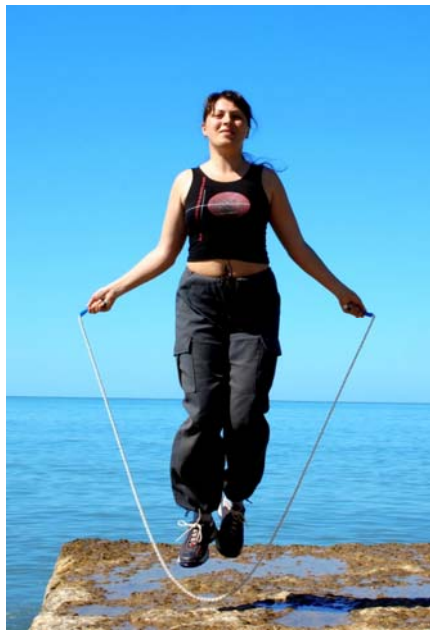


### General results from studies imply the following recommendations for public health practice

- To promote physical activity establish school health policies and environments to provide space, equipment, and supervision for before and after school, lunch, and recess.
- To promote long term leisure time activities across the lifespan provide appropriate resources and more emphasis on mastery of fundamental skills.
- Physical activity programs should be inclusive of all children and should be introduced in both intramural and extramural activities.
- Family opportunities and participation should be encouraged.
- Special attention should be given to community organizations that meet the needs of preadolescent and adolescent girls.
- To develop capacity and infrastructure there is a need for increased training opportunities for teachers at the college-preparation stage.
- Utilize the *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* that includes ten recommendations to foster physical activity through policy, environment, physical education classes, health education curricula, parental involvement, and community programs.
- Link resources and community organizations that provide physical activity opportunities as approximately 80% of physical activity occurs outside of school physical education programs.
- Foster physical activity to meet periods of increased levels: levels are associated with seasonal variation with highest levels in the summer and lowest in winter.

## **Success Story of an Adolescent with Type 1 Diabetes**

Linda is a 14 year old athlete who enjoys playing tennis with her siblings and is on the varsity team at school. Like most teenagers with diabetes, Linda has type 1 diabetes. She was diagnosed with diabetes when she was 14 months old. Being diagnosed at such a young age meant that Linda's parents, who did not have a family history of diabetes prior to Linda's diagnosis, had to learn quickly what diabetes is and how to keep it under control. Linda's mom admits that initially it was hard to know what to do for a 14 month old with diabetes. But with a lot of guidance, education, and support from health care professionals, Linda's parents learned how to prepare healthy foods and to teach Linda about her diabetes as she got older. Aside from her insulin pump, Linda is now your average teenage girl. Linda says that as long as she stays physically active, watches what she eats, and maintains good control of her blood sugar, she can live a normal life.



This is a product of the National Association of Chronic Disease Directors, Women's Health Council and the Women, Physical Activity,

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