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Youth-Onset Type 2 Diabetes: Early Treatment to Prevent Complications

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Youth-onset type 2 diabetes (T2D) leads to rapid progression of diabetes complications and requires early recognition and aggressive treatment from the time of diagnosis, as well as regular multidisciplinary follow-up, and monitoring for development of complications.

The recognition of youth-onset T2D parallels the rise in obesity among children.^{1,2} Youth-onset T2D has distinct features from both type 1 diabetes in youth and T2D in adults.^{3,4} Clinicians should consider screening patients with diabetes symptoms and those with high-risk features, such as obesity, T2D in a first- or second-degree relative, racial and ethnic minorities, or clinical features of insulin resistance. Eighty percent of youth-onset T2D patients are racial and ethnic minorities.⁴

Recommendations for Follow-up Care

- Follow blood pressure, A1C, weight/BMI, and psychosocial/social determinants of health (SDOH) via quarterly visits, at a minimum.⁴
- Referral to a pediatric endocrinologist is encouraged for all youth with T2D, particularly if A1C is above 7.5% despite escalation of treatment.

Complication Rates

Half of adolescents develop at least one microvascular complication within 10 years of diagnosis; over a quarter will have at least two microvascular complications.⁵ Complications may already be present at the time of diagnosis, and rates of complications may be more frequent in racial and ethnic minorities.⁵ Cardiovascular events may develop even in the third or fourth decade of life.⁵

For more information, access Cardi-OH's expanded resource on **Youth-Onset Type 2 Diabetes**.

References

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Three-Pronged Approach to Treatment

Lifestyle



Avoid

sugar-sweetened beverages, processed foods, and calorie-dense foods



Add

aerobic exercise 60 minutes per day, strength training three days per week

Pharmacological



Metformin



Glucagon-like peptide 1 agonists (GLP1a)



Sodium-glucose co-transporter 2 inhibitors (SGLT2i)



Insulin

(Reserved for HbA1c > 8-8.5%)

Psychosocial/SDOH



Screen for distress and assess mental health



Assess access to food, transportation, housing, and employment

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