



Did you know?

Insulin is the Essential Key to Managing Type 1 Diabetes.

Although the majority of adolescents with type 1 diabetes adapt well to the difficult challenges of puberty, it must be recognized that their health care and emotional needs are distinctly different from those of younger children or older adults. Adolescence involves many changes and challenges to become independent adults and may result in failures and mistakes, as well as success. Taking this time to review injection technique will ensure that they are doing all they can do to preserve the integrity of their injection sites and receive the best possible diabetes outcomes.

Meet Adam



14 year old ♀

Living with Type 1 Diabetes
since the age of 5

- Injects insulin three times a day using an 8mm syringe.
- Last two A1c's 10.5% and 11.2%.
- Forgot his logbook at last appointment but said his blood sugars were "good".
- Missed last 2 clinic appointments.

- Admitted to hospital for 2 episodes of diabetic ketoacidosis (DKA) in the past year.
- Supportive parents.
- Currently in grade 9 and not doing well.
- Adam stops by the diabetes education centre and asks for help. He admits to skipping his injections (says they are painful) and blood glucose monitoring (says that his numbers are always high and his parents just don't understand)

Challenges



Adam wants to manage his diabetes on his own but is obviously having problems making the appropriate decisions to do so.

Many adolescents find diabetes quite frustrating and challenging, as do Health Care Providers.



Did you know?



- Develop a consistent trusting and motivating relationship.
- Explain that adolescence may be associated with deterioration in metabolic control and their poor glucose control is not all their fault.
- Provide educational opportunities involving open-ended discussion, problem solving, customized targets and use of modern technology.

- Explain "resistance" to insulin and the need to monitor blood sugars in order to adjust insulin accordingly.
- Introduce pen therapy and the use of smaller needles to help reduce discomfort with injections.
- Review injection technique to ensure the best absorption of insulin.
- Review current insulin therapy and discuss other options and/or schedules to individualize therapy.

- Help to identify priorities and set achievable goals.
- Enable the adolescent to learn from mistakes without judgment.
- Provide adolescents the opportunity to see members of the health care team alone.
- Avoid scare tactics which have little value.
- Review Tips4Teens to ensure best practices in insulin techniques.

Did you know?



Explain that adolescence may be associated with deterioration in metabolic control and their poor glucose control is not all their fault.



Review injection techniques, pen therapy and the use of the smaller needles to reduce painful injections.



Review "Tips4Teens" tool to ensure best practices in insulin techniques.

1. Court JM, Cameron FJ, Berg-Kelly K, Swift PGF: Diabetes in Adolescence. ISPAD Clinical Practice Consensus Guidelines 2009 Compendium. Pediatric Diabetes 2009;10 (Suppl.12): 185-194
2. Daneman D and Frank M: The adolescent with diabetes mellitus. In Management of Diabetes Mellitus: Perspective of Care Across the Life Span, 2nd ed. Haire-Joshu, D, ed. St Louis, Mo., 1996
3. Lo Presti D, et al. Skin and subcutaneous thickness at injecting site in children with diabetes: ultrasound findings and recommendations for giving injections. Pediatric Diabetes 2012
4. Berard L, et al. FIT Forum for Injection Technique Canada. Recommendations for Best Practice in Injection Technique. October 2011.





FIT Technique Plus*

TIPS₄Teens

*Educational tools based on FIT Canada Recommendations for Injection Technique, updated February 11th, 2020



Take all your insulin every day in a timely manner

Insulin is an essential key in managing diabetes. When omitted or not given properly, it may lead to severe low or high blood sugars.



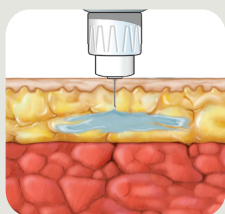
Technique is important for comfort and effectiveness

Prime your pen needle before each injection. Hold the needle under the skin for 10 seconds before removing.



Inject in the proper place

Inject into the fatty layer (subcutaneous tissue) just below the skin and not into the muscle.



Education about insulin storage

For a more comfortable injection, insulin in use should be kept at room temperature. Insulin is stable for 28 days after opening (42 days for detemir)*. Extra insulin supply should be stored in the refrigerator and used before the expiry date.

*Or, as per manufacturer's instructions.

approx
20°C

Pens are the preferred injection device

Pens deliver a more precise dose. They can either be reusable or disposable. To use a pen, you need to attach a new pen needle every time you inject.



Evaluate and re-evaluate

There are many reasons why blood sugars fluctuate. "Insulin resistance" is common during this time of your life and may require more insulin. Check your blood sugars regularly and attend your scheduled appointments with your diabetes care team.



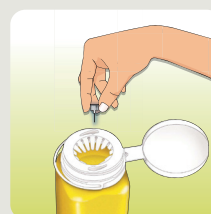
Site rotation and inspection prevents lipohypertrophy

Lipohypertrophy (lumps under the skin) can affect how well the insulin is absorbed. Proper site rotation and using a new needle with every injection helps.



Never reuse your needles

Using a new needle every time reduces the risk of clogging of the needle and inaccurate dosing. Reusing needles can also cause pain, lipohypertrophy, needle bending and breakage.



4 mm needles are recommended

For a less painful injection, use a 4mm pen needle and insert at a 90 degree angle. If you are extremely lean, you may need to "pinch" or perform a skin lift before you inject.



Support from others is extremely important

Diabetes is a full time job. At times, you may feel all alone. This is normal. Draw strength from your friends, family and diabetes care team. They are there to work with you in helping to manage the challenging times of life with diabetes.

