Injection technique guide

Starting with our creation of the first syringe for insulin delivery in 1924,[1] we've provided the innovation and resources that help you inject your insulin correctly. When you worry less about injecting properly, you can focus your attention on the rest of your diabetes management.

We've been by your side for 100 years

100 YEARS OF COMMITMENT TO THE DIABETES COMMUNITY

From the very beginning, we've been there, providing the products andt support you need to thrive. Our mission is to help you live a life that's unlimited—we've been here for the past 100 years, and we'll be by your side for the next hundred.

Join the conversation

Follow us on social media for advice, tips, and more.

We're with you at every step

With a 100-year legacy, we're committed to advancing diabetes care by helping you enhance your injection experience.

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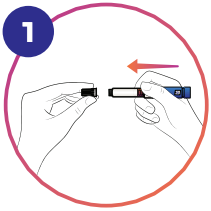
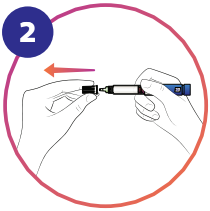
How to inject insulin with a pen needle

How insulin is injected can be just as important as the medicine itself.[2]

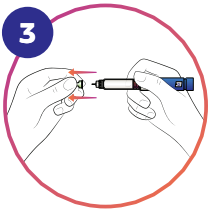


Wash hands. Remove peel tab and push the new needle straight onto the pen. Do not put the needle on at an angle. Screw on tight.



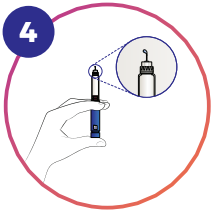
Remove outer cover and retain for disposal after injection.

Remove inner needle shield and discard.



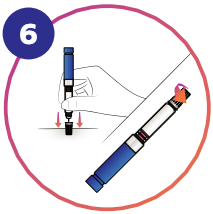
Warning: Remove both the outer cover and the inner needle shield before an injection. If both the outer cover and the inner needle shield are not removed before use, the medication or dose may not be injected, which may result in serious injury or death.

* Persons using a longer needle (greater than 6mm), ages 2-6, or those who are extremely lean may require a pinch-up. Please ask your care team if this technique is right for you.



Check the flow of medication by dialing 2 units and injecting into the air until you see a drop. Repeat if no drops are seen. Dial dose.

Inject straight in.* Push thumb button and count for 10 seconds before removing straight out from skin to help ensure an accurate dose. Refer to your insulin Instructions for Use for specific hold times.



Carefully replace the outer cover. Unscrew pen needle from pen.

Safely dispose of pen needle immediately in appropriate sharps container.

Remember to check the type and expiration date of your insulin before injection.

Proper injection technique can help you reach your treatment goals[3]*

People with diabetes who received training on how to inject correctly, including using a new needle for every injection, rotating injection sites, and moving to a shorter 4mm or 5mm needle, experienced a 1% average reduction in A1C after 6 months.[3]*

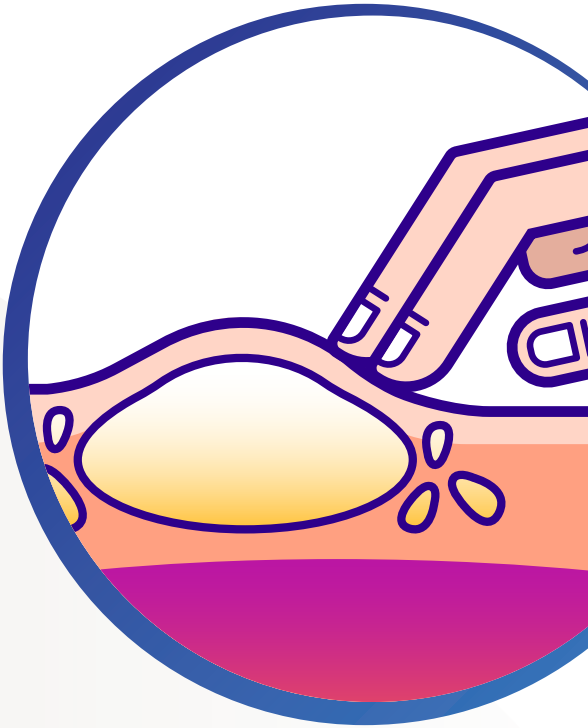
*116 patients with diabetes on insulin were randomized to 3 intervention groups to assess the change from baseline in A1C at 6 months following structured injection technique training and changing to a shorter needle length (4mm or 5mm pen needle). Baseline A1C for all groups was similar (mean: 8.5-8.8% [± 1.4-1.9%]).

Why use a new needle for each injection?

Needle reuse has been linked to a buildup of fat below the surface of the skin where you inject, presenting as lumps over time. These lumps, known as lipohypertrophy (or lipo for short), can make it harder for your body to properly absorb insulin and can lead to variation in blood sugar.[4] You may not be able to see these lumps, but you might be able to feel a soft or hard lump under the skin when you press on it.

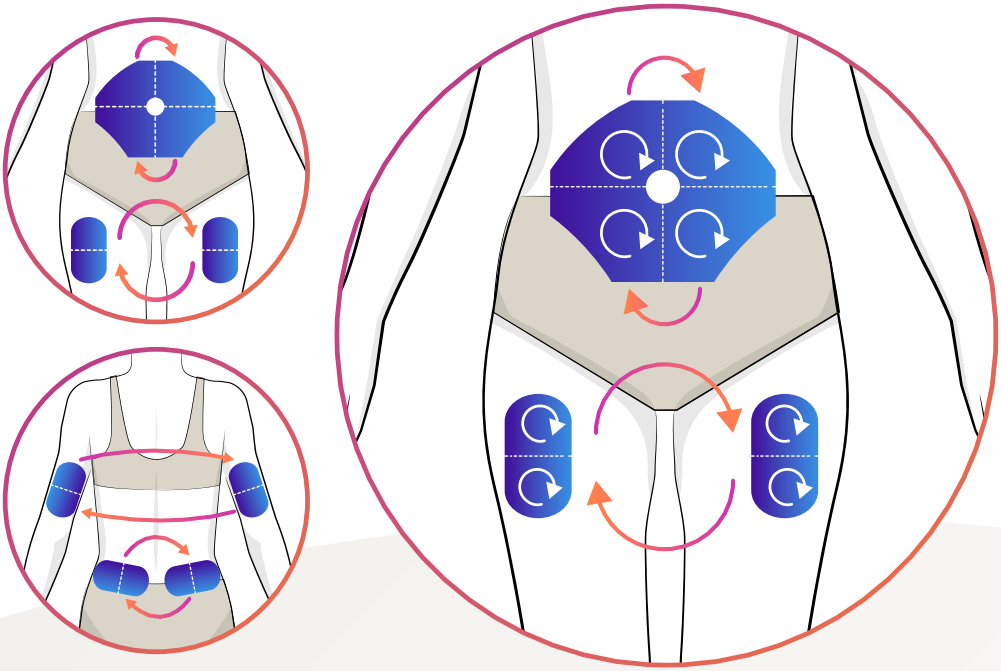
Using a new needle with each injection can help you avoid painful injections and can help reduce the risk of lumps developing under your skin.[2,4]

Don't run out of needles. Make sure to check your needle supply every time you refill your insulin.



Injection site rotation

The recommended areas for injecting insulin are the abdomen, thighs, upper arms, and buttocks. Once an injection site is chosen, it can be divided into four sections, or halves when using the thighs or buttock. Use one section per week and rotate injection sites within that section. Be sure to inject at least one finger width away from the last injection.[2]



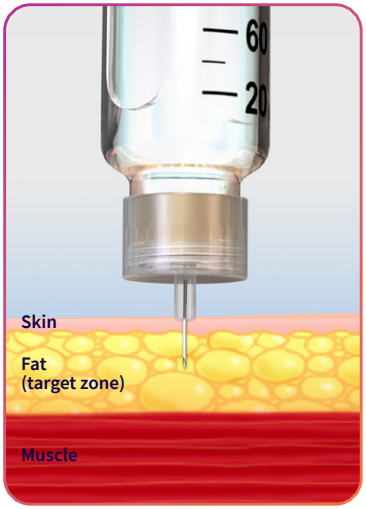
Rotating injection sites can help reduce the risk of developing lipohypertrophy.[5]
Please see page 7.

Benefits of a shorter needle

Insulin is meant to be injected into the fat layer just below the skin where it works best. That's why you need a needle long enough to get through the skin but short enough to avoid the muscle.[2]

Longer needles can increase the chance of injecting insulin into the muscle. Injecting into the muscle can lead to pain or cause blood sugars to get too low.[2,6]

Clinical recommendations state that a 4mm pen needle or a 6mm insulin syringe is the recommended needle length for all patients and for all injection sites as it is safe, effective, and less painful than longer needles.[2]*



* Talk to your care team about whether this size is right for you.

Frequently asked questions

Everyone has a different experience while managing diabetes.
Here are some helpful tips to help you along your diabetes journey.

Insulin on the skin after injection?

Make sure the needle is inserted into your skin before pressing down on the pen button to deliver the dose. Count to 10 after the plunger is fully depressed before removing the needle from the skin.[2]

Pain or discomfort?

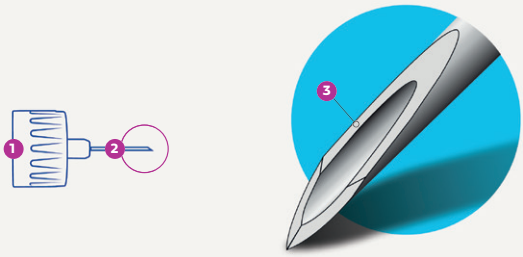
There is an association between needle reuse and injection pain or bleeding, so make sure you use a new needle with every injection.[2,4*]

Research has shown that using a 4mm pen needle can make injections significantly more comfortable compared to thicker and longer needles.[7†]

Be careful to avoid injecting into the muscle, which can lead to a greater risk of bleeding, bruising, and pain.[2] If problems persist, talk to your care team.

* Injection pain and unpleasantness have not been clearly associated with limited needle reuse.
† Patients were aware of the pen needle they were using.

Our products and benefits



1 Compatibility

Viva™ pen needles are compatible with widely used pens[12].

2 Thin Wall Technology

Viva™ pen needles incorporate thin wall technology. The needles retain their fine external dimensions but have a wider, increased inner diameter compared to the same gauge needles.[13]

3 Triple bevel geometry

A triple bevel design to puncture the skin.

Learn more
at **embecta.com**

References

1. Kesavadev J, Saboo B, Krishna MB, Krishnan G. Evolution of Insulin Delivery Devices: From Syringes, Pens, and Pumps to DIY Artificial Pancreas. Diabetes Ther. 2020;11(6):1251-1269. doi:10.1007/s13300-020-00831-z.
2. Frid AH, Kreugal G, Grassi G, et al. New insulin delivery recommendations. Mayo Clin Proc. 2016;01(9):1231-1255.
3. Misnikova IV, Gubkina VA, Lakeeva TS, Dreval AV. A randomized controlled trial to assess the impact of proper insulin injection technique training on glycemic control. Diabetes Ther. 2017;8(6):1309-1318.
4. Frid AH, Hirsch LJ, Menchior AR, et al. Worldwide injection technique questionnaire study: injecting complications and the role of the professional. Mayo Clin Proc. 2016;91(9):1224-1230.
5. Blanco M, Hernández MT, Strauss KW, Amaya M. Prevalence and risk factors of lipohypertrophy in insulin-injecting patients with diabetes. Diabetes Metab. 2013;39(5):445-453.
6. Gibney MA, Arce CH, Byron KJ, Hirsch LJ. Skin and subcutaneous adipose layer thickness in adults with diabetes at sites used for insulin injections: implications for needle length recommendations. Curr Med Res Opin. 2010;26(6):1519-1530.
7. Hirsch LJ, Gibney MA, Albanese J, et al. Comparative glycemic control, safety and patient ratings for a new 4mm x 32G insulin pen needle in adults with diabetes. Curr Med Res Opin. 2010;26(6):1531-1541.
8. Bari B, Corbeil MA, Farooqui H, et al. Insulin injection practices in a population of Canadians with diabetes: an observational study. Diabetes Ther. 2020;11(11):2595-2609.
9. Rini C, Roberts BC, Morel D, et al. Evaluating the impact of human factors and pen needle design on insulin pen injection. J Diabetes Sci Technol. 2019;13(3):533-545.
10. Aronson R, Gibney MA, Oza K, et al. Insulin pen needles: effects of extra-thin wall needle technology on preference, confidence, and other patient ratings. Clin Ther. 2013;35(7):923-933.
11. Hirsch L, Gibney M, Berube J, Manocchio J. Impact of a modified needle tip geometry on penetration force as well as acceptability, preference, and perceived pain in subjects with diabetes. J Diabetes Sci Technol. 2012;6(2):328-335.
12. Pen Needle Compatibility Status Summary with Diabetes Care & Non-Diabetes Drug Delivery Devices - Document Number: 149OTH-0004-20 Rev Y – 2025-11-18.
13. Siegmund T et al. Diab.Tech.&Ther. 2009;11(8):523-528.

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