



# Injection technique guide

Starting with our creation of the first syringe for insulin delivery in 1924,<sup>1</sup> 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



From the very beginning, we've been there, providing the products and 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.



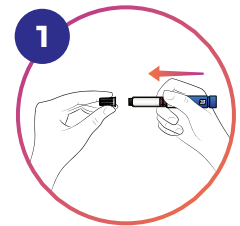
## We're with you at every step

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

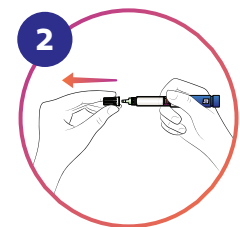
- How to inject insulin ..... 4
  - ...with a pen needle
  - ...with an insulin syringe
- Why use a new needle for each injection? ..... 7
- Injection site rotation ..... 8
- Benefits of a shorter needle ..... 9
- Frequently asked questions (FAQs) ..... 10
- Our products and benefits ..... 11

# How to inject insulin with a pen needle

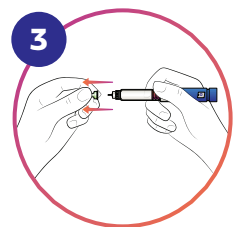
How insulin is injected can be just as important as the medicine itself.<sup>2</sup>



1 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.

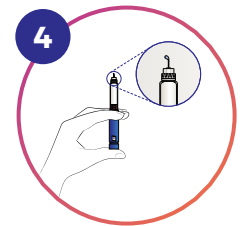


2 Remove outer cover and retain for disposal after injection.

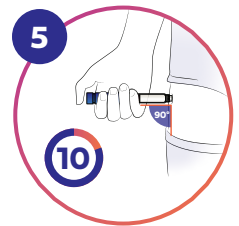


3 Remove inner needle shield and discard.

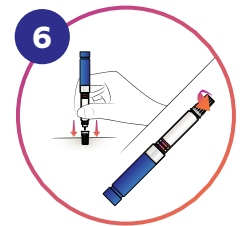
**Warning:** Remove both the outer cover and the inner needle shield before an injection. If both the outer cover and the inner needle shield are not removed before use, the medication or dose may not be injected, which may result in serious injury or death.



4 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.



5 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.



6 Carefully replace the outer cover. Unscrew pen needle off pen.



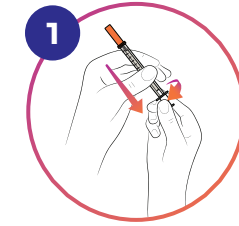
7 Safely dispose of pen needle immediately in appropriate sharps container.

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

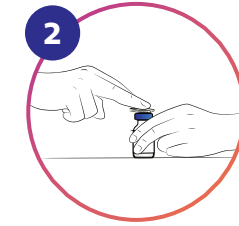
\*Persons using a longer needle (greater than 6mm), ages 2-6, or those who are extremely lean may require a pinch-up. Please ask your care team if this technique is right for you.

# How to inject insulin with a syringe

How insulin is injected can be just as important as the medicine itself.<sup>2</sup>

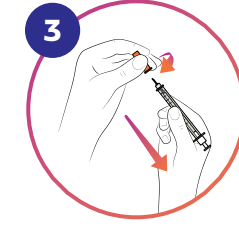


1 Wash hands and gather supplies. To expose plunger, twist white cap then pull off.

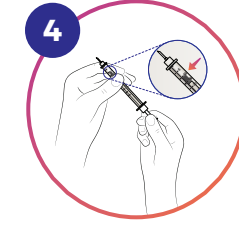


2 Wipe top of insulin bottle with an alcohol swab. To avoid the formation of air bubbles, do not shake the bottle of insulin.

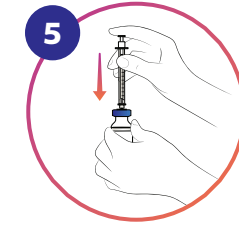
**Note:** If using cloudy insulin, roll the bottle between your hands until it is uniformly cloudy.



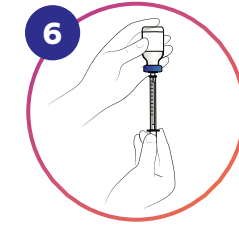
3 To expose the needle, twist the orange shield, then pull straight off, being careful not to bend the needle or let the needle touch anything.



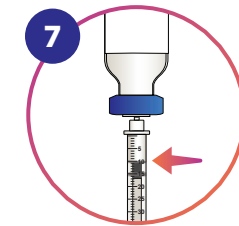
4 Pull the syringe plunger down to the desired number of units. You need air in the syringe equal to the amount of insulin you will take.



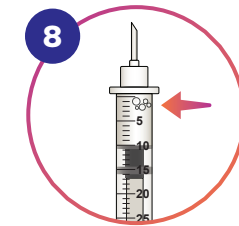
5 Push the needle through the center of rubber top of insulin bottle and push plunger down completely.



6 Leave the needle in the insulin bottle. Carefully turn the bottle and syringe upside down, so the bottle is on top.



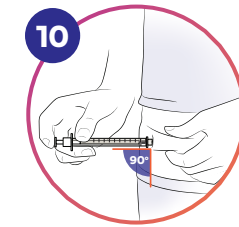
7 Pull the plunger down slowly, aligning the thin black line of the plunger with the desired number of units on the syringe.



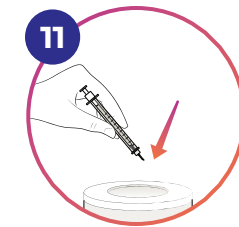
8 If air bubbles appear in syringe, push the plunger up, injecting insulin back into bottle and redraw insulin to desired number of units. Pull the syringe out of the bottle.



9 Confirm the dose is correct and then clean a small area of skin. Ensure the skin surface is completely dry before injecting.



10 Hold the syringe like a pencil. Pinch up your skin and push the needle quickly through the skin at 90° (straight in) to the skin surface. Push the insulin in with the plunger. Pull the needle out of your skin. Release the skin pinch.



11 Do not recap used needles. Use the needle once and dispose of it properly.

For additional tips and “how-to” tutorials, please visit the embecta YouTube channel.



## Proper injection technique can help you reach your treatment goals<sup>3\*</sup>

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.<sup>3\*</sup>

\*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% [ $\pm$  1.4-1.9%]).

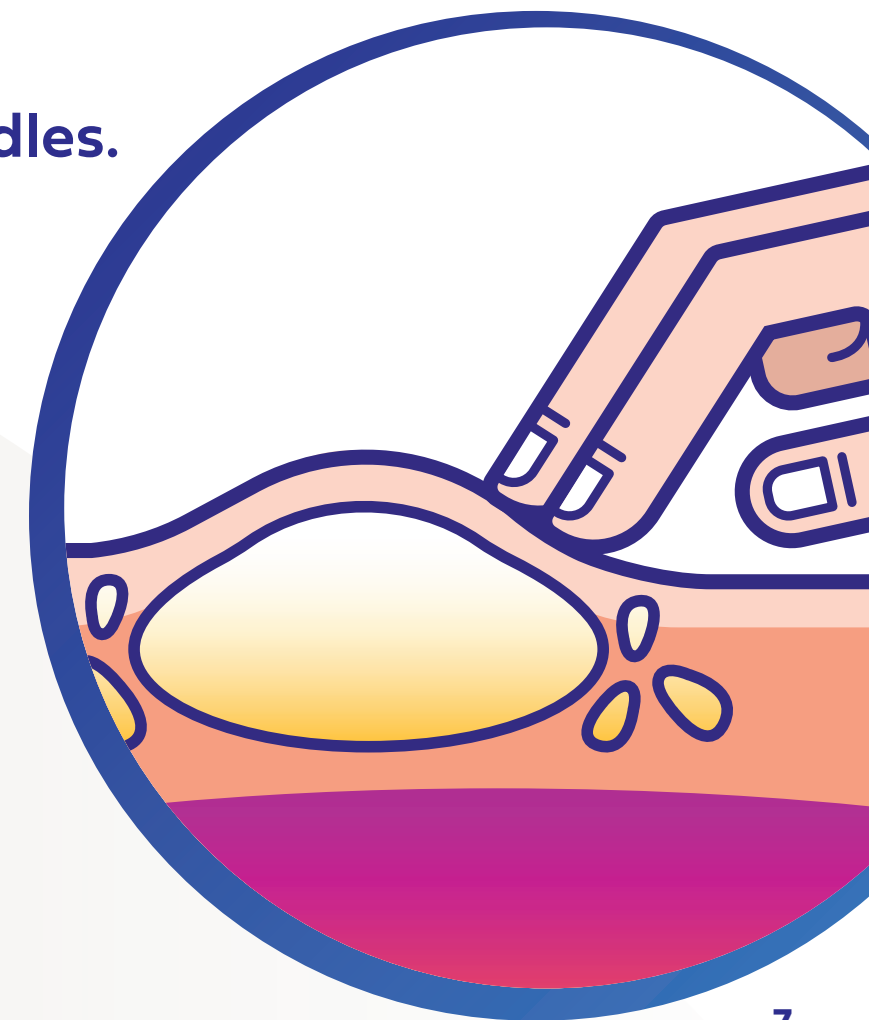


## Why use a new needle for each injection?

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.<sup>4</sup> 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.

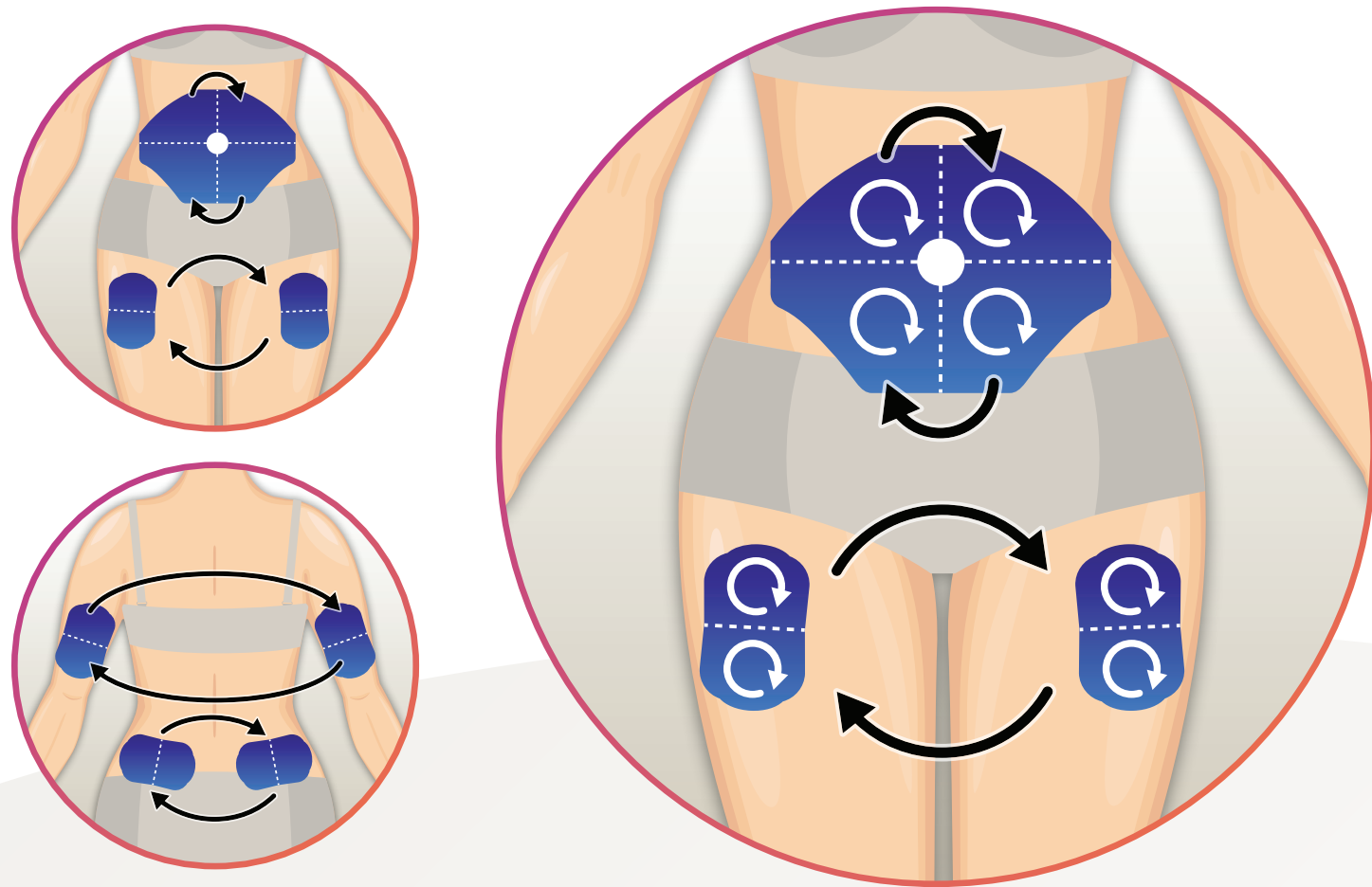
Using a new needle with each injection can help you avoid painful injections and can help reduce the risk of lumps developing under your skin.<sup>2,4</sup>

- > **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.<sup>2</sup>



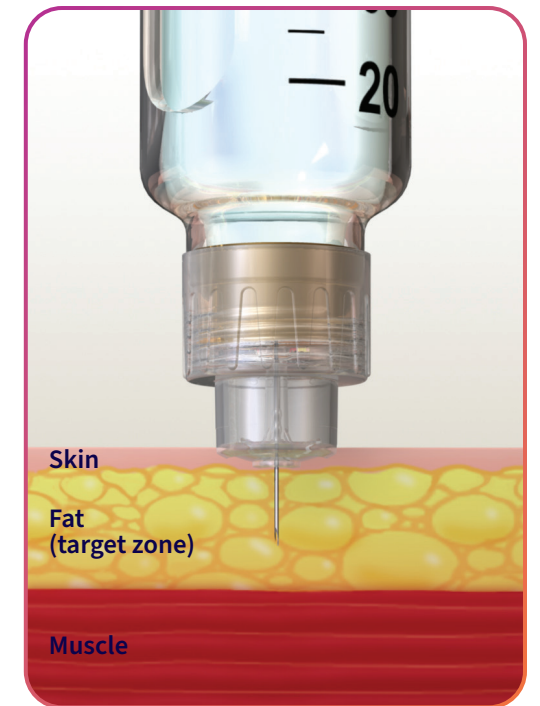
- Rotating injection sites can help reduce the risk of developing lipohypertrophy.<sup>5</sup>  
Please see page 7.

## 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.<sup>2</sup>

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.<sup>2,6</sup>

- 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.<sup>2\*</sup>



\*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.<sup>2</sup>

## 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.<sup>2</sup>

Research has shown that using a 4mm pen needle can make injections significantly more comfortable compared to thicker and longer needles.<sup>7</sup>

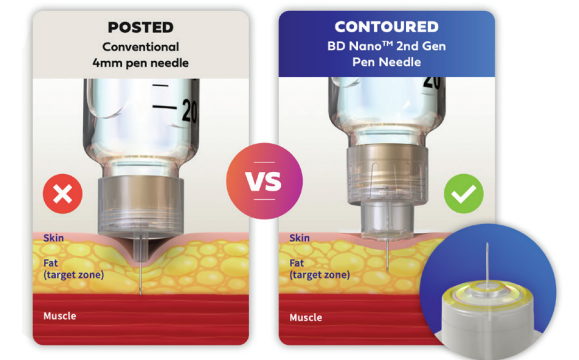
Be careful to avoid injecting into the muscle, which can lead to a greater risk of bleeding, bruising, and pain.<sup>2</sup> If problems persist, talk to your care team.

# Our products

For 100 years, we've been accelerating the journey to better diabetes care. With our creation of the first insulin delivery device<sup>1</sup>, we delivered an innovation that moved the management and treatment of diabetes forward. Today, we touch the lives of more than 30 million people in over 100 countries.

## BD Nano™ 2nd Gen Pen Needles

With a unique contoured base, BD Nano™ 2nd Gen Pen Needles help compensate for too much force, a common problem for patients injecting insulin.<sup>8\*</sup> BD Nano™ 2nd Gen Pen Needles are estimated to reduce the risk of injecting into the muscle by 2-8 times vs. 4mm posted base pen needles.<sup>9†</sup> Injecting into the muscle has been shown to lead to increased pain and greater risk of low blood sugar.<sup>2</sup>



\* Results from a patient survey  
† Based on mathematical calculations and not clinical study data compared to other 4mm pen needles.

## embassador™ Companion 24/7

Our app puts support in the palm of your hand. Manage your diabetes 24/7 with tracking tools, diabetes-friendly recipes, personalized articles, and lifestyle management advice.



# Connect with us on social media

We're here to support you with education on proper injection technique, diabetes management tips, healthy recipes, and more.

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[embecta.com](https://www.embecta.com)



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