



Diabetes Care

GOOD TO KNOW
TIPS AND TRICKS
FOR SAFE INSULIN INJECTION

What is important for a smooth ins

Multiple times a day, you have to inject yourself with insulin to manage your diabetes. A needle that suits your needs and the right technique make that easier.

There is always a choice. Make yours.

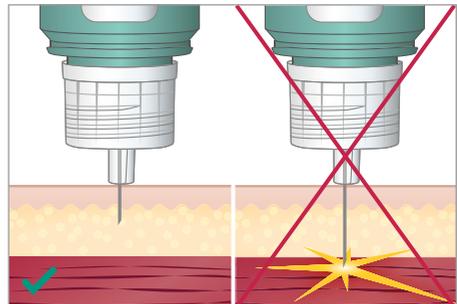


Just hit the fatty tissue

Every human being has a skin thickness of about 2 mm with a fatty tissue right beneath it. ⁽³⁾ The main factor in avoiding pain is to inject straight into this tissue. Its dimensions vary depending on age, gender, BMI, and the body site. Skinny people and children are more likely than others to hit the muscle below, especially with longer needles. ⁽³⁾

Injecting into the muscle impacts the absorption negatively. Insulin acts much faster here, wears off more quickly and becomes unpredictable. ^(1,2)

Even more importantly: Injecting into the muscle hurts. ^(1,2)



ulin injection?

TO SUM UP

- ✓ Inject into the fatty tissue – every time.
- ✓ Avoid intramuscular injection or the insulin will be absorbed irregularly.
- ✓ Choose a good quality needle, such as Omnican® fine.



The shorter the pen needle, the lesser the pain and the lower the risk to hit muscles. ⁽⁴⁾

No matter how deep

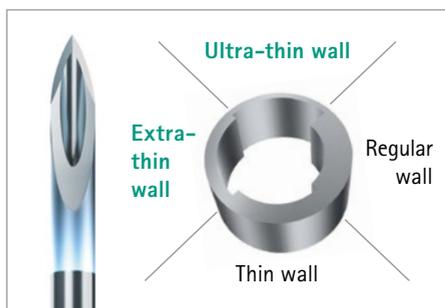
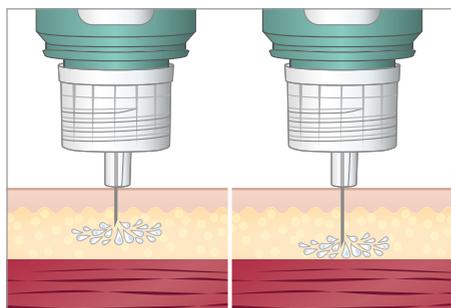
For the regular absorption of insulin, it makes no difference whether it's injected deep into the fatty tissue with a longer needle or superficially with a shorter one.

Short needles work best to reach the fatty tissue and administer insulin correctly – without hitting the muscle. ⁽¹⁴⁾

Use a quality pen needle

The goal is to make injections as pain free and as comfortable as possible.

With Omnican® fine, you achieve smooth penetration and receive the right dose of insulin: All thanks to a precise three-facet grinding, a special silicone finish, as well as the ultra- and extra-thin-wall technology which allow for a larger inner diameter and a better insulin flow.



What is the right pen needle length

Nowadays, you can decide between different pen needle lengths. How you actually inject yourself depends on you and your needle choice. Confusing? Here are more details.

Just always remember to include your diabetes team in your decision.



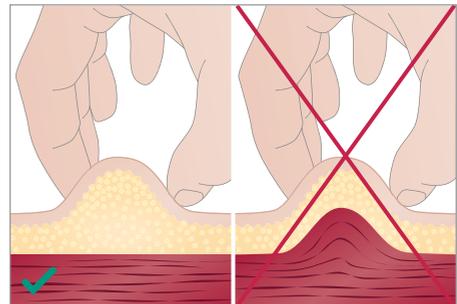
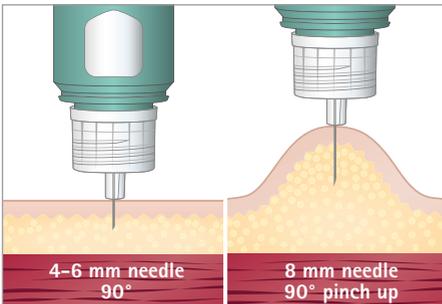
Less pain, same efficacy

Keep in mind that short needles are suitable for everyone.⁽³⁾ They are proven to be just as efficient as longer ones (and reduce the pain). You decide which length feels most comfortable for you.^(4,10)

If you need a pinch up, follow these tips:

- Use thumb, index finger and possibly the middle finger.
- Pull skin and fatty tissue carefully away from the muscle.
- Do not squeeze too hard.
- Hold it as long as you keep the needle in.

Your choice of needle and the site which you inject into define the injection angle and whether to use a pinch up.^(3,4)



for me?



TO SUM UP

- ✓ Everyone can use 4 mm pen needles.
- ✓ Always pinch up when using needles longer than 6 mm.
- ✓ In general, pen needles are inserted at a 90 degree angle.



4 mm pen needles are considered to be the safest – for both adults and children.⁽³⁾

Size does matter

Omnican® fine pen needles are available in different lengths. In general, every adult can use an Omnican® fine 4 mm. Children and very thin persons should pinch up for the injection.⁽¹⁰⁾

If you prefer a longer pen needle nevertheless, you can opt for the Omnican® fine 6 or 8 mm.

Choose your combination

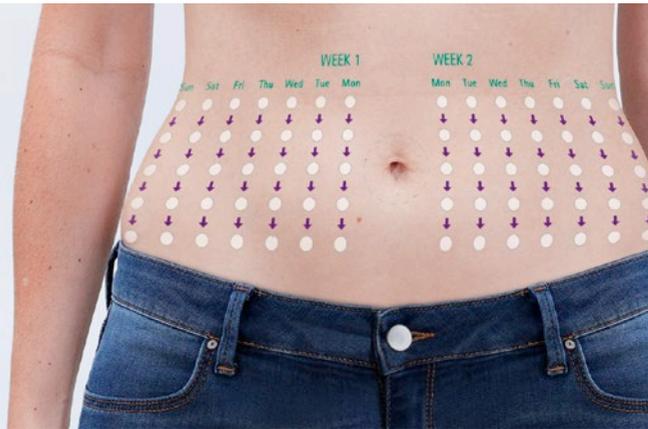
The quick finder below shows you which technique is recommended for which needle.^(10, 11, 12, 13)

SIZE	Children/very thin persons			Adults	
	4 mm	6 mm	8 mm	4 to 6 mm	8 to 12 mm
ABDOMEN	with PU 90°	with PU 90° or without PU 45°	with PU 45°	without PU 90°	with PU 90°
THIGHS		with PU 90°			
BUTTOCKS		with PU 90°			

Why should I rotate injection sites

You have to inject yourself several times a day. Therefore, it is important to go easy on your skin so you can keep it healthy during your insulin therapy.

Find out what this means exactly and what your options are.

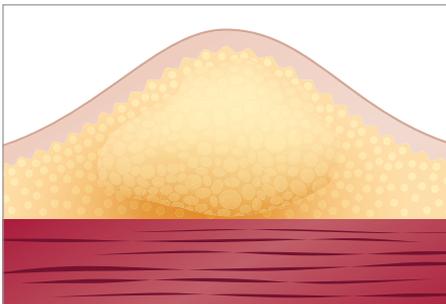


Protect your skin from lipos

There is one thing which you want to prevent: Lipohypertrophies. These hardened lumps beneath the skin feel scarlike and bumpy. Furthermore, lipos cause an erratic insulin absorption. ⁽³⁾

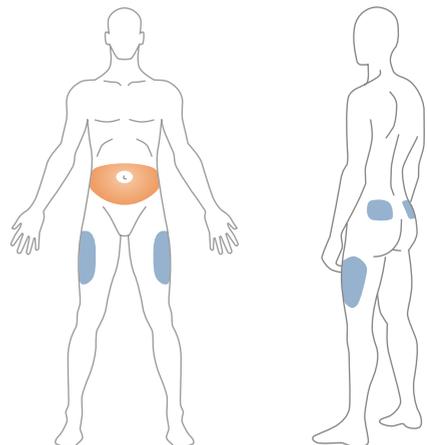
The body reacts this way if you:

- Repeatedly inject into the same spot.
- Reuse needles, since the tip becomes blunt and causes worse injuries. ^(5,6)



Making absorption predictable

There are various places into which you may inject insulin – some are easier in handling than others. Think of the different absorption rates and matching types of insulin when choosing your injection area: You want to know when the insulin takes effect.





TO SUM UP

- ✓ Rotate injection sites and injection areas to avoid lipohypertrophies.
- ✓ Keep an eye on the absorption rate.
- ✓ Always inject into normal, healthy skin.



A regular check for lipohypertrophies is sensible. If you detect any anomalies, contact your physician.

Off limits

Remember to always inject into healthy fatty tissue. Absolutely avoid:

- Lipos and scars
- Moles and skin blemishes
- Broken blood vessels ⁽³⁾

Find your rotation scheme

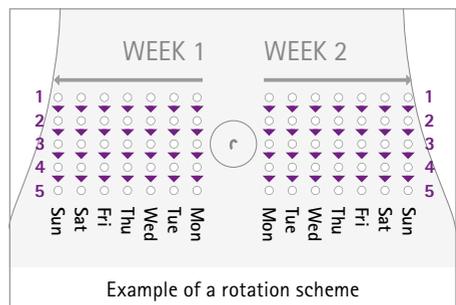
To keep your skin healthy, follow a recommended pattern or a scheme you have developed yourself. When rotating, remember to:

- Never use the same injection spot more than once in a row.
- Place the injections 1-2 cm apart.
- Never inject close to your belly button.

Preferred areas and their absorption rates

- Abdomen: Fast
Preferred for short-acting insulin ^(8,9)
- Thighs & buttocks: Slow
Preferred for long- and intermediate acting insulin ⁽⁷⁾

The upper arm is not recommended, since you would need a second person for the pinch up.



Why should I use a new pen needle

Pen needles are designed to deliver your insulin dose just once. Like all needles, they are single-use products for good reason.

Don't take any risks!
Read why it is important to use a pen needle only once.



Single use only

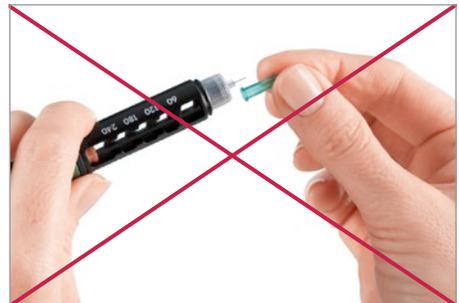
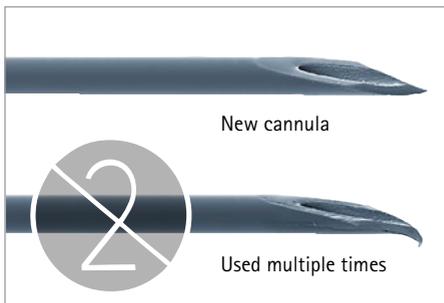
Pen needles are sterile, very precise medical devices – for the first injection. Afterwards, a needle is no longer sterile, the fine silicone finish has been rubbed off and the tip becomes blunt.

The consequences:

- More pain when reinjecting
- Higher risk of lipohypertrophies
- Greater possibility of the needle bending or even breaking off⁽³⁾

Don't do the recap

People tend to put the needle shield back on as protection. This is, however, a faulty assumption: The needle is no longer sterile and you are actually more likely to damage it or injure yourself as the shield is rather narrow.



each time I inject?

TO SUM UP

- ✓ Use a new pen needle for every injection.
- ✓ Multiple use damages the needle and makes injecting more painful.
- ✓ The insulin dose can be distorted because of a blockage or air in the cartridge.



Put the new needle onto the pen just before you inject yourself.
When you have finished, dispose of the needle right away.

Risk of wrong insulin dose

Leaving the needle on the pen and injecting yourself again leads to a higher risk of incorrect dosing.

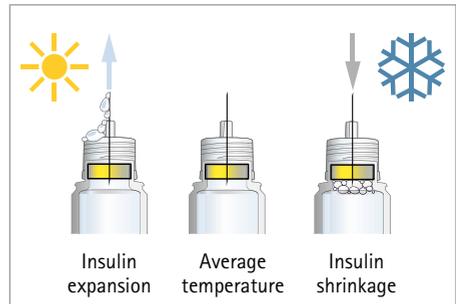
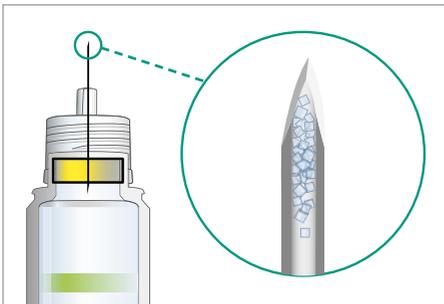
Reason one: Blockages

Tissue residues or crystallized insulin from the previous injection may block the needle. Thus, a correct insulin dose cannot be guaranteed anymore.

Reason two: Air in the cartridge

Liquids are generally temperature sensitive: They expand when warmed and shrink when cooled down.

When the liquid in the cartridge shrinks, air is drawn inside and administered along with the insulin. As a result, you will not receive the full dose.



How should I dispose of my used n

Every time you inject, you have to dispose of the used needle afterwards. Are you unsure about how to dispose of your pen needle without putting you or others at risk?

Keep everyone from harm. You've got two good options.



Getting rid of used needles

When you have completed your injection, dispose of the used needle straight away. However, improper disposal puts everyone at risk as an uncapped needle in the trash is a safety hazard.

Putting the used needles into bottles or cans does not reduce the risk either. They may break or can be punctured.

Method 1: Use the needle container

Put the outer protective container, in which the pen needle was initially stored, back on the needle. Then unscrew the container from the pen, with the needle inside. Discard it according to local regulations, e.g. in trash bin if allowed.



TO SUM UP

- ✓ Never throw an uncapped needle into the garbage.
- ✓ Use the protective needle container to remove the needle from the pen.
- ✓ It is best to use a medical sharps collector to dispose of needles safely.



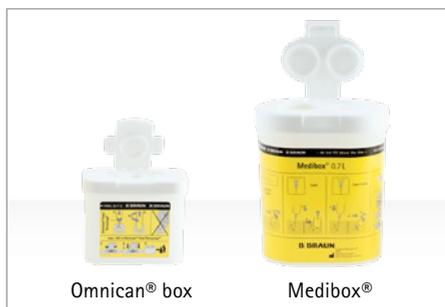
Always check with local regulations for used needle disposal.

Method 2: Use a medical sharps collector

You just insert the pen with the used needle into the screw-off mechanism of the sharps collector and turn the pen. Using this recommended method prevents you from needle stick injuries; and post disposal, the pen cannulas do not pose any risk of injury for anybody else.

Do it properly – protect everyone

Using the Omnican® box or Medibox® puts you on the safe side: It is impact and puncture resistant and the needles inside pose no further danger to anybody. The final lock mechanism prevents access to the used needles.



Omnican® box

Medibox®

What is causing my problem?

Problem: Painful injection

POSSIBLE SOURCES OF ERROR

Multiple use of pen needle.
Result: Micro damage on the pen needle and worn-off silicone finish. Furthermore, the needle is no longer sterile.

Needle length is not suitable for user or injection site.
Injection into muscle because needle length and injection technique are not suitable for user or injection site.

RECOMMENDATION

Use a new pen needle for each injection.

Pinch up your skin if you use a pen needle of more than 6 mm (adults). See also table on page 5.
Follow your physician's recommendations regarding needle length.

Problem: Insulin leakage (insulin flowing back to skin surface)

POSSIBLE SOURCES OF ERROR

Pen needle was removed too quickly after injecting (incomplete insulin delivery).

Pen needle was not fully inserted into skin.

RECOMMENDATION

Inject insulin slowly. Wait 10 seconds before you remove pen needle from skin.

Insert needle into skin up to hub.

Problem: Insulin does not have the desired effect

POSSIBLE SOURCES OF ERROR

Inappropriate injection site:
The insulin was injected into an existing lipohypertrophy, into scar tissue or similar hardened skin.

Pen needle was removed too fast after injecting (incomplete insulin delivery).

Pen needle was blocked.

Pen needle was not removed from pen after injection. A temperature change caused air to enter cartridge, which was then injected along with the insulin. Too little insulin was administered.

RECOMMENDATION

Check injection site for possible hardenings before injecting. Don't inject insulin into such spots.

Inject insulin slowly. Wait 10 seconds before you remove pen needle from skin.

Use a new pen needle every time.

After injection, discard needle straight away to prevent air from entering the cartridge. However, if this has already happened, you need to remove the air during the functionality test prior to injecting.

How do I use a pen needle?



Remove peel paper.



Place needle onto injection device. Keep straight.



Screw needle onto injection device. Ensure a tight fit.



Remove needle container and set aside for removing pen needle from pen later.



Pull needle shield off without tilting it.



Check functionality according to instructions for use of injection device.



Dial and inject according to instructions for use of injection device. After the injection, leave the needle in the fatty tissue for about 10 seconds. This prevents leakage.



Carefully put needle container back on needle. Unscrew it with container from pen and discard according to local regulations.



Recommended method of disposal: Use of medical sharps collector such as the Omnican® box or Medibox®.



Always inject directly into skin! Never inject yourself through clothes. Apart from causing more pain (the silicone finish rubs off and the delicate tip gets bent), shreds of clothing might also enter your skin.

Why Omnican® fine?

Pick a pen needle from the expert

Choosing Omnican® fine from B. Braun means selecting a pen needle that is based on more than 20 years of expertise in the field of diabetes. And just as important: We have been developing cannulas for more than 50 years.

Make your insulin therapy as comfortable as possible

Every single part of this pen needle has been designed and manufactured for maximum precision and comfort. A small device with many features – that together makes a big difference in injection comfort.

Needle shield



Needle container



Needle hub



You can also get your favorite pen needle in a kit with the convenient medical sharps collector Omnican® box.

4 mm
32G

6 mm
32G

Ultra-thin-wall technology

4 mm
31G

6 mm
31G

8 mm
31G

Extra-thin-wall technology

Virtually pain-free penetration

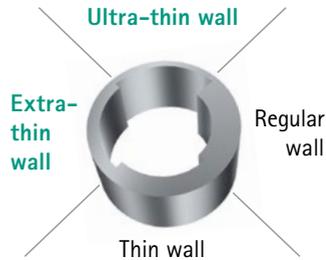
The extremely fine three-facet grinding minimizes tissue trauma.

Every needle receives a special silicone finish for smooth gliding and virtually pain-free penetration of skin and tissue.



Optimized insulin flow

The ultra- and extra-thin-wall technology allow for a larger inner diameter and an optimized insulin flow. Less force is required, and injection time is reduced.



Firm and secure fit

You achieve a firm and secure fit with just two twists of the hub. Thanks to its flexible material, Omnican® fine fits with all major pen devices available on the market.

COMPATIBILITY WITH PENS ACCORDING TO ISO 11608-2

Berlin-Chemie	BerliPen® areo 2, BerliPen® Junior, BerliPen® Precision
BMS AstraZeneca	Byetta® (BMS = Bristol-Myers Squibb)
Lilly	HumaPen® Luxura, HumaPen® Luxura HD, HumaPen® Memoir, HumaPen® Savvio, KwikPen™
Novo Nordisk	FlexPen®, FlexTouch®, NovoPen® 4, NovoPen® 5, NovoPen Echo®, NovoPen® Junior, Victoza®
Owen Mumford	Autopen® 24, Autopen® Classic 1, Autopen® Classic 2
Sanofi	ClikStar®, Lyxumia®, SoloStar®, TactiPen®
Ypsomed	ServoPen®, Ypsopen®



The above listed brands are the property of the named companies. For further information, please visit www.bbraun.com/diabetes-pencompatibility.



Sources

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This leaflet is meant as guidance. If you need further information, please visit our website www.bbraun.com/diabetes. Always consult your healthcare provider before making any medical decisions.