Tips for Subcutaneous Injection

Injecting under the skin

Good injection technique with a needle of the right length will help deliver medications to the correct place in the body.^{1,2} Many medications need to be injected into the layer of fat just in between the skin and muscles known as the subcutaneous (suhb-kyoo-tey-nee-uhs) tissue.^{1,2}

Here are a few tips for successful injection into the subcutaneous tissue.

To inject into the subcutaneous tissue, you should use a needle that is 4-12.7 mm long.^{1,3} Needles 6 mm or less are recommended in most cases.²



Needles with a length of 6 mm or less are safe for most people and help to minimize pain.² These needles can safely be used, even in patients with a higher body weight or BMI (more than 30 kg/m^2).^{1,2}

Needles 4-5 mm



Needles 4-5 mm can be used to inject medication straight into the skin at a 90° angle.^{1,2}

Needles 6 mm



For injecting into the limbs or slim abdomens, consider using a skin fold or inject at a 45° angle to limit the risk of injecting medication too deeply.^{1,2}

Needles 8 mm or More



For injecting with a needle that is 8 mm or more, a skin fold and/or a 45° angle should be used to limit the risk of injecting medication too deeply.^{1,3}

How to Perform a Skin Fold



- Gently use the thumb and forefinger to lift the skin and subcutaneous tissue²
- 2. Avoid pinching too hard²

Choosing an injection site is another important thing to think about when injecting medication. Here are a few tips for choosing an injection site:

- Use clean hands and make sure to inject into clean skin²
- The abdomen, thigh, and back of the upper arm are commonly recommended body parts for injection^{1,2}
 - The back of the upper arm can also be used, but this may require the assistance of another individual^{1.2}
- If injecting into the same body part, injection sites should be rotated; try to pick a spot at least 1 cm away from the last injection spot²
- If there is any bruising, scarring, hardness, tenderness, or other damage in the area, pick a different body part to inject the medication^{1,2}

Images for illustrative purposes only. Needle dimensions depicted above may vary from actual needles according to document/screen size or aspect ratio. BMI = body mass index.

References

1. Frid A, Gaspar R, Hicks D, et al. New injection recommendations for patients with diabetes. *Diabetes Metab.* 2010;36(suppl 2):S3-S18. 2. Frid AH, Kreugel G, Grassi G, et al. New insulin delivery recommendations. *Mayo Clin Proc.* 2016;91(9):1231-1255. 3. Usach I, Martinez R, Festini T, Peris JE. Subcutaneous injection of drugs: literature review of factors influencing pain sensation at the injection site. *Adv Ther.* 2019;36(11):2986-2996.

