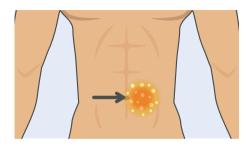
### What is a lipo?

A lipo is a lump or swelling where you repeatedly inject insulin.

#### What causes a lipo?

Lipos are caused by not rotating sites correctly and reusing needles.



## Should I worry about lipos?

Don't worry, lipos can be managed. Speak with your nurse or doctor for advice.

#### How can I prevent lipos?

- Correct rotation of sites
- Use a new needle for each injection
- · Check your injection sites regularly

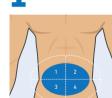
#### What if I suspect I have lipos?

Seek advice from your nurse or doctor as your insulin or GLP-1 medication may need adjusting.

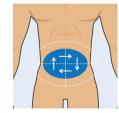
## Avoidance of Lipohypertrophy

It is important to choose the correct site for your injection but equally it is important not to overuse sites as this can cause problems such as lipohypertrophy. It is important to use a simple rotation process to ensure that no one site is overused (see below)

Always rotate within the site making sure each injection is given 1cm away from the last.



Choose site and divide into sections (4 for the abdomen and two each side for arms, buttocks and thighs)



Rotate within each section changing sections on a weekly basis

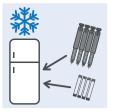
## Injection Needles

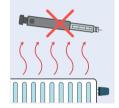
Use pen needles or syringes once only - reuse may lead to injection site complications and cause high or low blood alucose levels.



## Storage

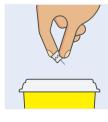
- Always store unopened insulin or GLP-1 medications in a fridge between 2-8 degrees (preferably in the door compartment away from the ice box). Do not allow to freeze.
- In-use insulin can be stored at room temperature for up to 28 days (refer to individual manufacturer's instructions).
- It is important to maintain insulin at the correct temperature for it to be effective. Extremes of temperature may render the insulin ineffective.





## Safe Disposal

Remember you should always place all used needles into an approved sharps bin.





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info@trend-uk.org



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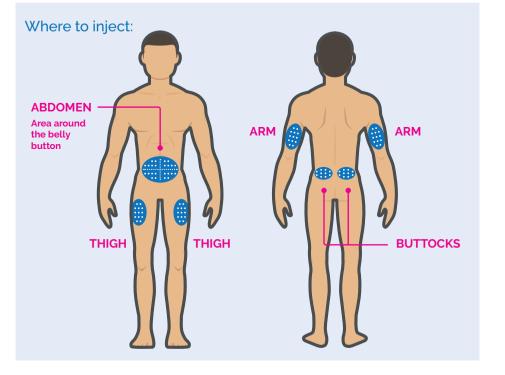
Injection sites:

# Things you need to know about injections

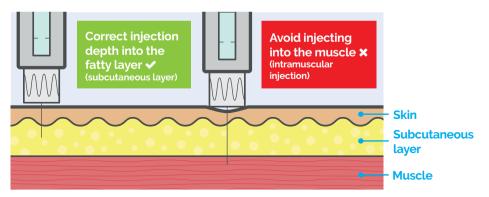
You can see from the picture below the best sites for injecting insuling or GLP-1 medications are

- Back of the upper arms (difficult to use when self-injecting)
- Across the abdomen
- Upper outer area of the buttocks.
- Upper outer area of the thighs

Using these sites mean that your insulin or GLP-1 medication will work correctly. Always inspect the site you have chosen to inject into for any lumpy areas or bruising before you inject. Avoid injecting into bruises or fatty lumps - see Lipohypertrophy section for more information.



## How deep to inject:



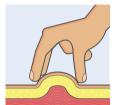
It is important to inject medication into the fatty layer (subcutaneous layer) of the skin for the medication to work correctly.

Use a 4 mm pen needle to minimise risk of injection into muscle. Children, young adults and slim adults may may need to use a lifted skin fold.

## How to perform a correct lifted skin fold

Raise a fold of skin between thumb and fingers





Do not grasp too much tissue to avoid raising the muscle



Try not to pinch the skin too tightly

Insert needle into skin at 90 degree angle and inject

Remove needle while still holding skin fold

Release skin fold once needle withdrawn

## 10 Steps to giving an injection using a pen device:





Firstly wash hands with warm water and soap

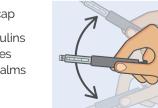
Dry thoroughly



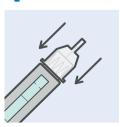


Remove pen cap

For cloudy insulins roll pen 10 times between the palms 3



Next, gently invert the pen 10 times to achieve an even milky appearance 4

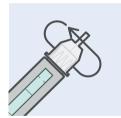


Select a new needle

Peel off paper seal

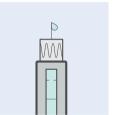
Apply new needle in line with pen

5



Screw on needle
Pull off
protective caps

6



To ensure needle and pen are working correctly select 2 units on dose knob

Hold pen with needle pointing upwards

Fully depress dose knob looking for insulin to appear from needle tip  $% \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left($ 

If not seen, repeat steps until insulin seen at needle tip

7



Dial the required dose

8



Fully insert the needle into the skin at 90 degrees, keeping the pen stable

Press dose knob until dose fully injected 9



Before removing the needle from the skin, count to 10 to ensure the full dose is given 10



Safely remove the needle from the pen

Dispose of the needle into a sharps bin

Try to use these steps every time you inject to ensure that you get the best effect from your insulin or GLP-1 medication