

insuJet™

Needle-free insulin injection technology



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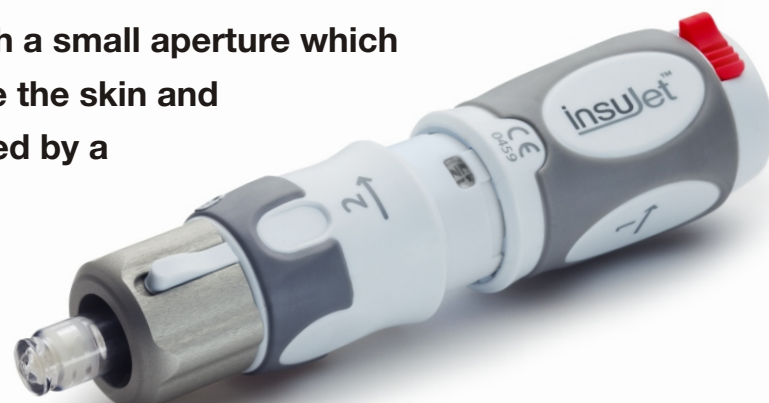
InsuJet™ is a device that can be used to administer insulin without a needle. The insulin is fired at high pressure through a small aperture which creates a high speed jet that can penetrate the skin and underlying tissue. The pressure is generated by a powerful spring which is optimised for subcutaneous insulin delivery.

The injection technique used is just as important for glucose control of patients as is the type and dose of insulin delivered¹⁻⁵. Precise insulin dosage is an essential part of daily self-management of diabetes and there is always a risk of inappropriate administration technique.

- 40% of patients dispose of used needles inappropriately⁶.
- 32% of patients re-use needles more than 6 times potentially causing damage to both the needle and their skin⁶.
- Inappropriate needle-length selection and poor skinfold technique can increase the possibility of intramuscular injections³.

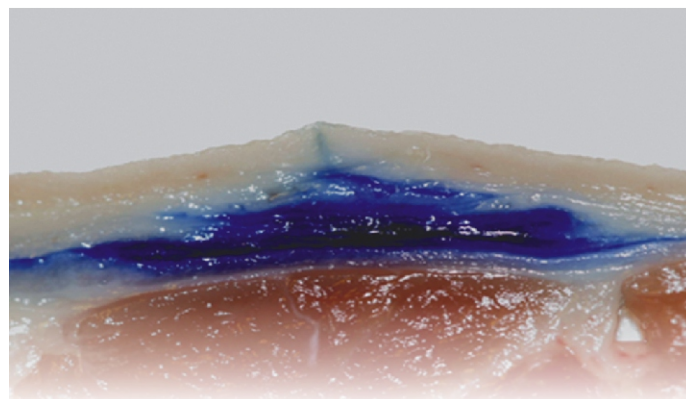
InsuJet vs Injection

- Consistent fast delivery of insulin to subcutaneous layer
- Suitable for needle-phobic patients
- Predictable absorption of insulin
- Reduced pain
- No safety issues regarding disposal of needles
- No premature withdrawal of needle
- Safe, reusable consumables



Increased Absorption

InsuJet™ disperses insulin in the subcutaneous tissue. With needle injections, insulin is simply pushed through the skin and is more concentrated in a droplet. With InsuJet, the insulin spreads through the subcutaneous tissue in a cone-like formation, maximising insulin absorption into the circulation.



This image shows a slice of pig skin where the jet stream (dyed blue) has penetrated the skin and deposited subcutaneously

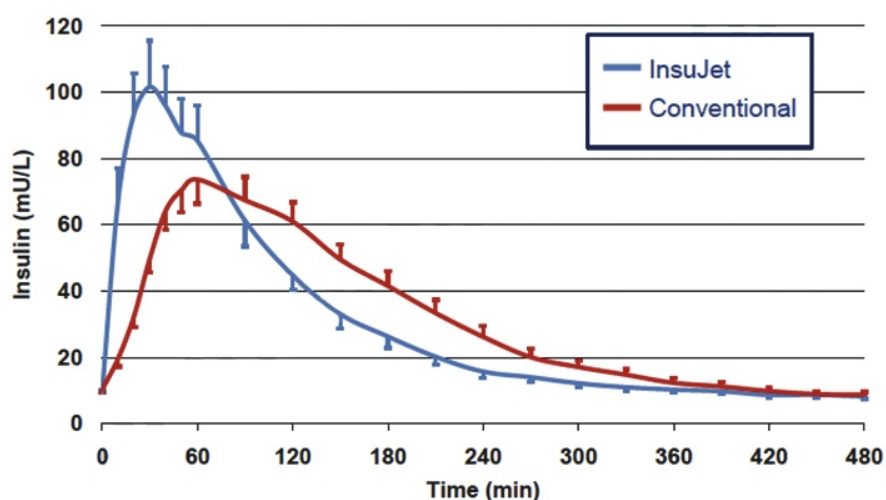
InsuJet™ results in a more rapid uptake of insulin compared to administration by conventional injection methods. The pharmacological profile of insulin delivered by jet injection more closely resembles the profile of endogenous insulin secretion⁸.

Accelerated Uptake

Rapid-acting insulin analogues can still take up to 30 minutes before they start working. Insulin administered by Insujet shows activity after just 15 minutes - twice as fast. As this effect mimics the endogenous insulin profile (faster uptake, higher Cmax and faster drop off)⁸, there is a strong indication using Insujet™ may help reduce HbA1C levels. A long term study is planned to compare HbA1C in patients using a needle with patients using Insujet™.

In a glucose clamp study, rapid-acting insulin analogues administered by InsuJet™ resulted in a faster onset of action and higher insulin peak values than insulin injected by a conventional insulin pen. The peak concentration of insulin administered by InsuJet™ was reached after just 27 minutes compared to the peak of the pen-injected insulin which was reached after 54 minutes (<0.0001)⁸.

Insulin profile



Mean glucose infusion rate after administration of rapid-acting insulin by the jet injector (blue line) or the conventional insulin pen (red line) during the euglycemic glucose clamp⁽⁸⁾.

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insuJet™

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* Includes 1 InsuJet pen, 1 nozzle cap, 1 nozzle & piston, 1 vial (10ml) adaptor, 1 cartridge (3ml) adaptor, 1 cartridge cap removal key



InsuJet Nozzle Pack
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InsuJet 3ml Cartridge Adaptor Pack - 15pcs
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