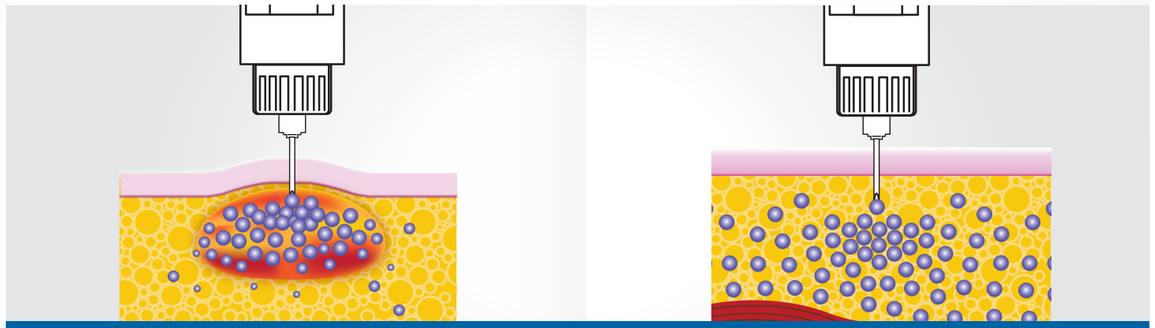
Lack of injection site rotation is the primary risk factor in the development of lipohypertrophy (LH), which negatively impacts glycemic control[3]

64% of insulin users experience LH. It is one of the most common complications of SC insulin injections.[4]

- **98%** of patients with LH were shown to either not rotate or rotate incorrectly.



Injection into tissue with LH | Injection into healthy tissue (good injection site rotation)

INJECTING INTO LIPOHYPERTROPHIC TISSUE REDUCES INSULIN ABSORPTION AND INCREASES INSULIN UPTAKE VARIABILITY.[4,5]

LH CAN HAVE AN IMPORTANT IMPACT ON GLYCEMIC CONTROL

Documented effects on glycemic control in individuals with LH compared to those without:

- 0.55% higher mean **HbA_{1c}** level[5]
- 6X more frequent unexplained **hypoglycemia** (39.1% vs. 5.9%; $p<0.01$)[4]
- 7X more **glucose variability** (49.1% vs. 6.5%; $p<0.01$)[4]
- 37% increase in mean **insulin TTD** (56 IU/day vs. 41 IU/day; $p<0.001$)[4]

SC: subcutaneous; HbA_{1c}: glycated hemoglobin; TTD: total daily dose; IU: international unit

A simple system that is clinically proven to **improve injection site rotation**

In a Canadian, multicentre, randomized, controlled trial of 203 adults, established insulin users, the site**smart**™ pen needle system demonstrated significant improvement in injection site rotation habits (without further counselling and compared to conventional pen needles).[1]

135%*
increase in the likelihood of **improving injection site rotation** ($p=0.005$).[6]

Improvement
in the percentage of patients making **single use of pen needles** ($p=0.05$).[1]

70%
of site**smart**™ users “strongly agree” or “agree” that site**smart**™ makes it **easier to remember to rotate their injection sites.**[1]

2 out of 3
site**smart**™ users were either “very satisfied” or “satisfied” with using their novel pen needle system **compared** to their usual pen needles.[1]

*Calculated benefit.

WHAT DO DIABETES EDUCATORS THINK OF site**smart**™?

In an independent survey of 414 certified diabetes educators, 87% of respondents perceived the site**smart**™ pen needle system’s value (enabling injection site rotation) as “much more valuable” or “more valuable” compared to any potential improvements in the technical attributes of the pen needle itself (size, length, gauge, base, bevel, etc.).[7]