

FIT Forum for Injection Technique Canada

Recommendations for Best Practice in Injection Technique, 2nd Edition

EXECUTIVE SUMMARY

The Board of the FIT Forum for Injection Technique Canada is excited to announce the Recommendations for Best Practice in Injection Technique, 2nd Edition. Three years after the initial launch of these recommendations, this edition provides clarity of previous recommendations in response to feedback received by the board and updates recommendations based on new evidence or best practice learning.

It is our intent to keep these recommendations as current as possible in the future, therefore the entire document will only be available online, at www.fit4diabetes.com. Now interactive with hyperlinks to the FIT Technique Plus educational tools incorporated throughout:



 [Click here to read FIT Technique Plus - Needle length](#)

SECTION UPDATES

Introduction - since 2011 new research has been completed finding significant rates of lipohypertrophy

Blanco M, Hernandez M, Strauss K, et al. Prevalence and risk factors of lipohypertrophy in insulin-injecting patients with diabetes. *Diabetes Metab.* 2013;39:445-453.

Grassi G, Scuntero P, Trepiccioni R, et al. Optimizing insulin injection technique and its effect on blood glucose control. *J Clin Transl Endocrinol.* 2014;1:145-150.

Endorsements - from industry partners in injectable therapy for the management of diabetes have been updated

Section 2.1: Use of syringes - introduction of the 6 mm syringe including injection practices specific to this length of syringe needle

Section 2.3: Use of Pen Needles - new research supporting the use of short needles across a BMI range of 19 – 65 kg/m² and new figure to demonstrates a correct skin lift with a two finger technique

Hirsch L, Byron K, Gibney M. Intramuscular risk at insulin injection sites-measurement of the distance from skin to muscle and rationale for shorter-length needles for subcutaneous insulin therapy. *Diabetes Technol Ther.* October 20, 2014. (Epub ahead of print)

Section 6.2: Factors affecting volume of injection – this section has been rewritten and guidance has been provided by the manufacturers of long acting basal analogues to ensure clear and appropriate instruction has been provided regarding splitting of analogue insulin doses

Section 7.0: Injectable Therapy – GLP-1 Receptor Agonists – new section that highlights the few practical differences when injecting insulin vs. GLP-1 receptor agonist

Section 8.1: Site selection - new evidence includes pediatric skin thickness values

Lo Presti D, Ingegnosi C, Strauss K. Skin and subcutaneous thickness at injecting sites in children with diabetes: ultrasound findings and recommendations for giving injection. *Pediatr Diabetes*. 2012;13:525-533.

Section 9.0: Lipohypertrophy – clarity provided to the mechanism of development of lipohypertrophy as well as clear and concise instructions on the proper assessment of injection sites with reference to infusion sites for CSII users. Integration of new evidence to support avoidance of injection into lipohypertrophic sites, resulting in improved glycemic control, reduced insulin doses and reduced costs to the health care system

Section 10: Site Rotation – updated images and distance between injections have been revised (1-2cm or 1 finger width). Introduction of the terminology for injections: injection area, injection zone, injection site (included in new glossary)

Section 12: Pregnancy - addition of site rotation image for recommended injection sites during the third trimester of pregnancy

Section 14: Pediatrics - updated with results of new evidence on skin and subcutaneous fat thickness in children: "children aged 2 to 6 years may require a skin lift to avoid an intramuscular injection"

Section 15: Institutions - updated to reflect highlights of FIT4Safety recommendations

Best Practice Recommendations – revised to reflect all new changes to the recommendations

Glossary - added to provide clarity on diabetes terminology

Thank you for your commitment to improving injection technique practices in Canada.

We look forward to your feedback – find us on the **FIT Forum**, a place where Canadian healthcare professionals can stay connected and up to date with all that is new in the area of Injection Technique.

Register today: www.fit4diabetes.com

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