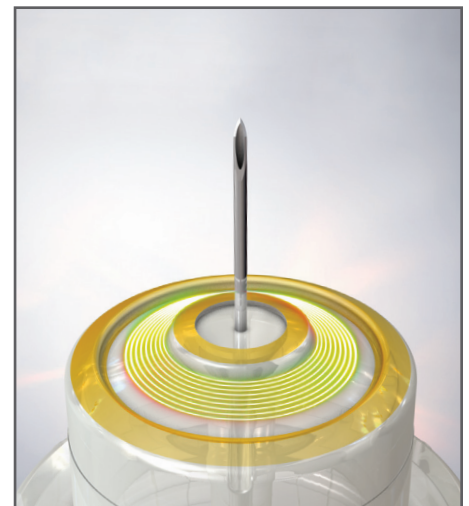
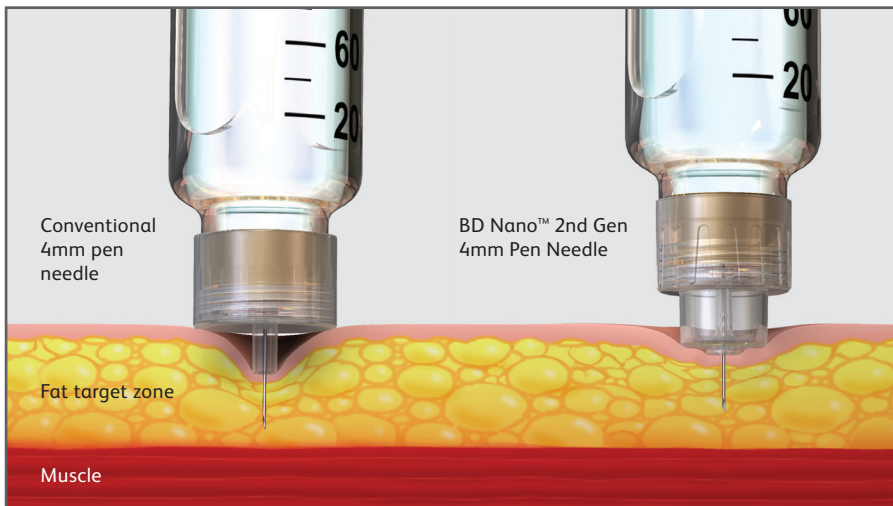




Every patient injects differently

How is it affecting their glycemic control?



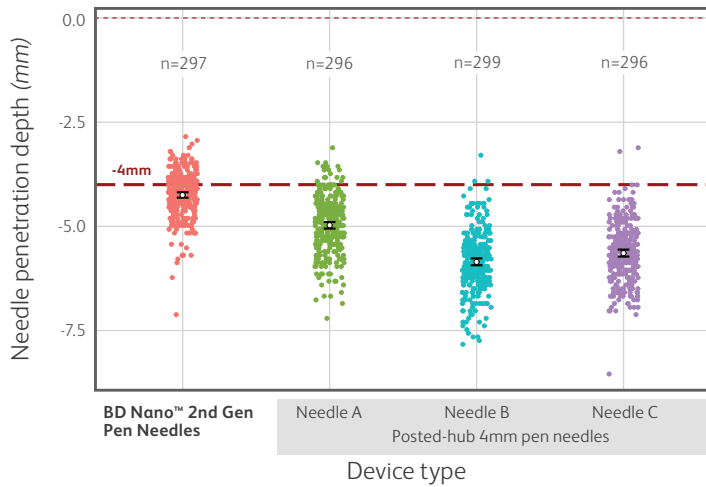
Some 4mm pen needles have been shown to frequently inject deeper than 4mm—even beyond 6mm—depending on the amount of pressure used to inject.^{1*}

BD Nano™ 2nd Gen Pen Needles are estimated to reduce intramuscular (IM) injection risk by 2-8x, compared to other 4mm pen needles.^{1†}

The BD Nano™ 2nd Gen contoured needle base helps compensate for injection force variability, supporting more reliable subcutaneous injections.^{1†}

How much force are your patients using to inject?

BD Nano™ 2nd Gen Pen Needles enable a significantly more reliable target 4 mm injection depth across a range of injection forces.^{1S}



- Intramuscular injection is associated with greater risk of unpredictable insulin absorption, unexplained hypoglycemia and glycemic variability²
- According to other studies, more reliable subcutaneous injections may reduce glycemic variability.^{3,4}



Not all 4mm pen needles are created equal

BD Nano™ 2nd Gen Pen Needles



4mm x 32G



Patented features include:^{1,5}

Wider outer cover –
easier to attach to pen device¹



Larger, green, inner needle shield –
easier to grip and remove before an injection¹



Contoured needle base – provides greater comfort⁵⁺⁺
and helps compensate for injection force variability,
supporting more reliable subcutaneous injections.^{1‡}

Existing proven benefits of PentaPoint™ Comfort and EasyFlow™ Technology^{7,8##**}

Compatible with widely used pen injection devices⁹

Recommend BD Nano™ 2nd Gen Pen Needles to your patients. Indicate *Dispense As Written*.

* Needle penetration depth (NPD), representing in vivo needle tip depth in subcutaneous tissue, following administration of iodinated contrast from four 32 G x 4mm pen needle devices (BD Nano™ 2nd Gen and three commercial posted-hub pen needle devices) was measured by fluoroscopic imaging of the resulting depot. BD Nano™ 2nd Gen more closely achieved the 4 mm target NPD with significantly less variability (P=0.006) across a range of applied injection forces. † The study used in-silico probability model of needle penetration depth for posted-hub 4mm pen needles and average human tissue thickness measurements across a range of injection forces and recommended sites, pooled across gender and BMI. ‡ BD Nano™ 2nd Gen Pen Needles are estimated to reduce intramuscular (IM) injection risk by 2–8x using in-silico probability model of needle penetration depth for pen needles of similar length and gauge and average human tissue thickness measurements across recommended injection sites, pooled across gender and BMI. § 1188 injections administered in swine across a range of injection forces using 20 µl of iodinated contrast delivered with BD Nano™ 2nd Gen vs. three 4mm posted hub pen needles. Measurements were obtained via fluoroscopic imaging. BD Nano™ 2nd Gen more closely achieved the 4 mm target injection depth with less variability (P=0.006). ¶ 226 patients with diabetes on insulin treatment were studied with a 150 mm visual analog scale (mean scores of >0 mm; clinically significant difference of ≥5 mm). BD Nano™ 2nd Gen demonstrated superiority vs. all comparator groups combined for ease of attachment. [(P < 0.05)(Mean +21.8 mm, 95% CI, +16.1 to +27.6 mm)]. †† 226 patients with diabetes on insulin treatment were studied with a 150 mm visual analog scale (mean scores of >0 mm; clinically significant difference of ≥5 mm). BD Nano™ 2nd Gen demonstrated superiority vs. all comparator groups combined for ease of grip and removal of the inner shield. [grip (P < 0.05)(Mean +23.8 mm, 95% CI, +18.1 to +29.4 mm)]; [removal (P < 0.05)(Mean +24.4 mm, 95% CI, +18.9 to +29.9 mm)]. ††† 226 patients with diabetes on insulin treatment were studied with a 150 mm visual analog scale (mean scores of >0 mm; clinically significant difference of ≥5 mm). BD Nano™ 2nd Gen demonstrated superiority vs. all comparator groups combined for comfort against the skin [(P < 0.05)(Mean +16.9 mm, 95% CI, +10.8 to +23.0mm)]. ‡‡ 198 patients with diabetes were used to evaluate differences in flow rate, time to deliver medication, and differences in thumb force between similar size, thin wall and extra-thin wall (XTW) pen needles. XTW pen needles had statistically significant less thumb force, higher flow, and less time to deliver medication for all pens combined and each individual pen brand (P ≤ 0.05). †††† 86 patients with diabetes used to evaluate differences between 5-bevel and 3-bevel pen needle tips across pen needles (PN) of equal length and gauge. The 5-bevel PN would be considered more comfortable if the 95% lower bound for the percentage of insertions was greater than the 95% upper bound. After subjects were informed, the 5-bevel PN was selected more often than the 3-bevel PN for greater comfort (p = 0.01).

1. Rini C, Roberts BC, Morel D, et al. Evaluating the Impact of Human Factors and Pen Needle Design on Insulin Pen Injection. J Diabetes Sci Technol. 2019;13(3):533-545. 2. American Diabetes Association. Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes—2019. Diabetes Care. 2019;42(Suppl 1):S90-S102. 3. Frid A, Gunnarsson R, Güntner P, et al. Effects of accidental intramuscular injection on insulin absorption in IDDM. Diabetes Care. 1988;11(1): 41-45. 4. 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. 2014;16(12):867-873. 5. Whooley S, Briskin T, Gibney MA, Blank LR, Berube J, Pflug BK. Evaluating the User Performance and Experience with a Re-Engineered 4 mm x 32G Pen Needle: A Randomized Trial with Similar Length/Gauge Needles. Diabetes Ther. 2019;10(2):697-712. 6. 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. 2014;16(12):867-873. 7. Aronson R, Gibney M, Oza K, Berube J, Kassler-Taub K, Hirsch L. Insulin pen needles: effects of extra-thin wall needle technology. Clin Ther. 2013;35(7):923-933. 8. Hirsch L, Gibney M, Berube J, Manocchio J. Impact of a modified needle tip geometry on penetration force as well as acceptability, preference, and perceived pain in subjects with diabetes. J Diabetes Sci Technol. 2012;6(2):328-335. 2017. 0000321189 Ver A Dated: July 2017. 9. BD Compatibility Confirmation for Pen Needles and Pen Injector Manufacturers, Document Number: 1490TH-0004-20, Rev 0, Dated 09 December 2019.

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Recommend the BD™ Diabetes Care App for your patients!

Recipes, easy logging, how-to videos & more.



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