

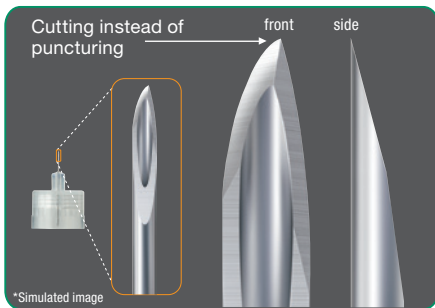
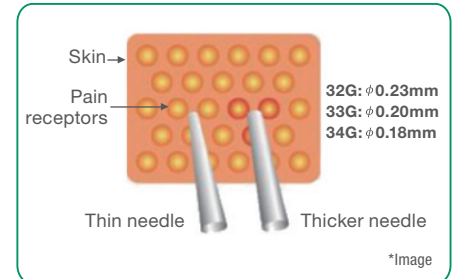
## The world's thinnest double tapered pen needle<sup>\*1</sup> with asymmetric bevel<sup>\*2</sup>

### The world's thinnest double tapered pen needle 34G<sup>\*1</sup>

Injections are uncomfortable even for adults, and to minimize the risk of contact with pain receptors, the pen needle should be thinner. Thanks to its slim double tapered shape<sup>\*1</sup>, Terumo's ultra-thin pen needle reduces the insulin injection force significantly<sup>\*2</sup>, which usually increases as the diameter of the needle becomes smaller. Using its advanced technology, Terumo has achieved the world's top-class thin pen needle design.

<sup>\*1</sup> Patented technology

<sup>\*2</sup> T. Asakura T., Seino H., 2013, Jpn J Med Pharm Sci 69(1):137-146. & Asakura T., 2013, Jpn J Med Pharm Sci 69(1):147-155.



### Asymmetric bevel<sup>\*1</sup>

Terumo has developed a unique asymmetric bevel<sup>\*1</sup> that cuts the skin instead of puncturing it. This effectively decreases penetration resistance<sup>\*2</sup>.

<sup>\*1</sup> Patented technology

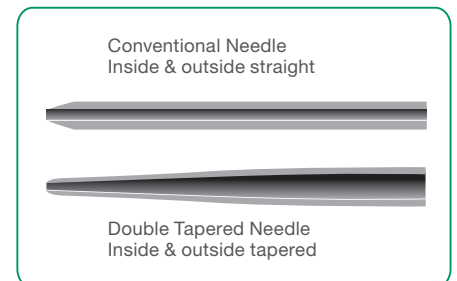
<sup>\*2</sup> T. Asakura, 2013, Jpn J Med Pharm Sci 69(1):147-155.

### Slim double tapered shape<sup>\*1</sup>

The slim double tapered shape<sup>\*1</sup> reduces the pain during stinging and bleeding, while holding down the insulin injection force significantly<sup>\*2</sup>, which usually increases as the diameter of the needle becomes smaller. Thanks to the slim shape up to the base of the needle and the gentle taper angle, the force applied to the needle is dispersed and the strength is more easily achieved.

<sup>\*1</sup> Patented technology

<sup>\*2</sup> T. Asakura, 2013, Jpn J Med Pharm Sci 69(1):147-155.



### Advanced technology for mass production

Terumo can manufacture this needle with fine precision in large quantities while maintaining its high quality by applying advanced production technology and stringent quality control.



Combining your strengths with ours to create new value



For more details, <https://diabetes.terumo.com>