

Quality time for better care



PHARMACEUTICAL



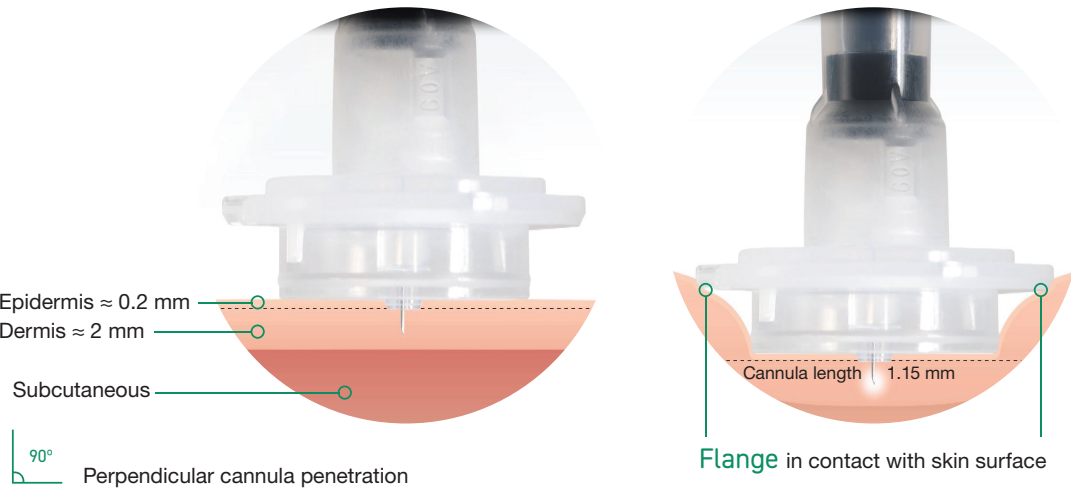
Immucise[™]

Terumo Immucise[™]
Intradermal Injection System

Terumo Immucise™ Intradermal Injection System

A new intradermal injection system designed to deliver approved drugs such as vaccines, to the dermal layer of the skin.

Immucise is a vertical puncture type intradermal (ID) injection device that delivers injections to the dermal layer. Designed to retain the needle tip in the dermal layer of the skin, Immucise performs successful ID injection (wheal formation and no leakage presence) at a high rateⁱ. The Immucise Intradermal Injection System is indicated for intradermal injections of FDA approved drugs. The system is to be used in the deltoid region for infants aged two months (excluding low birth weight and/or preterm birth) to adults.



Please always consult the product label and instructions for use (IFU) for a complete overview of the instructions for use, warnings, cautions and precautions prior to actual use.

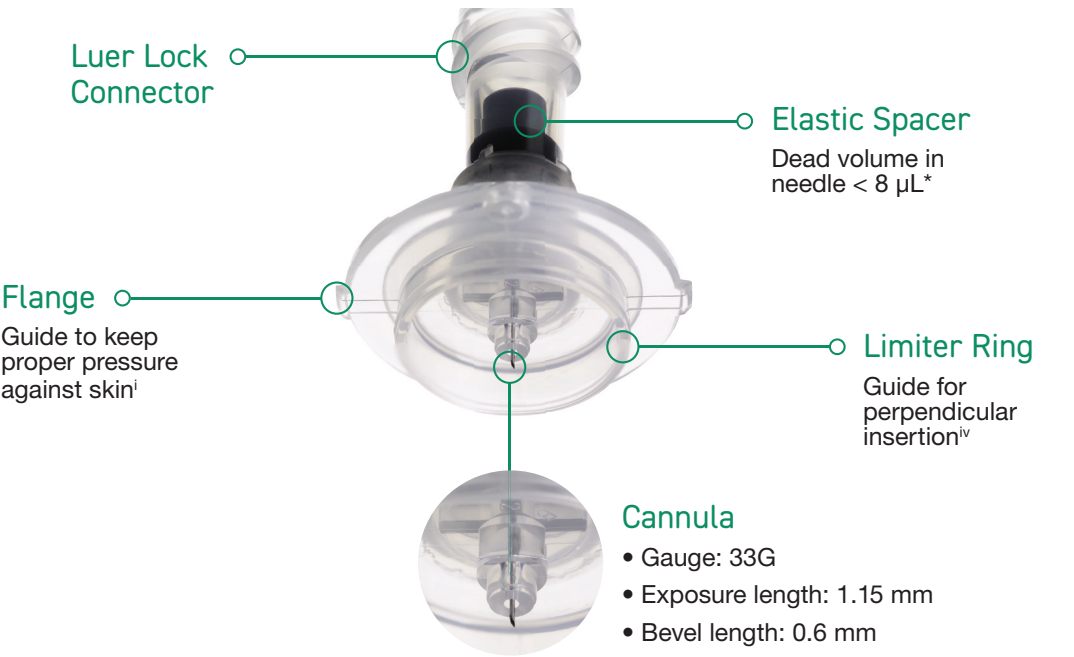
Key Immucise Intradermal Injection System Benefits

- Faster and higher immune response for seasonal influenza vaccine in comparison to subcutaneous (SC) vaccinationⁱ in clinical studiesⁱⁱ
- Higher success rate, in clinical trial, of wheal/bump formation at delivery site without any leakageⁱ
- Minimizes use errors on critical tasks confirmed through human factors studies and Usability Engineering Study Reportⁱⁱⁱ

For those working to improve the consistency and efficiency of intradermal vaccine administration.

Immucise™ - Intradermal Injection System

Limiter ring guides perpendicular needle insertion into the skin^{iv} and the wide flange guide keeps proper pressure against the skinⁱ. The 33G stainless steel needle has an exposed needle length of 1.15 mm. Studies have also demonstrated an absence of leakage from the injection siteⁱⁱ.



Take a closer look

Needle Gauge	Exposed Needle Length	Bevel Length	Needle Dead Volume	Connector
33G	1.15 mm	0.6 mm	< 8 µL*	Luer Lock

* Company internal data

Regulatory Status

- CE Marking (EU)
- 510(k) Clearance and Device Listing (United States)
- PMDA Registration (Japan)

Advantages of Intradermal Injections

The human skin's dermis and epidermis are rich in antigen presenting cells. The dermis hosts a concentration of various resident and recruited types of dendritic cells. These critical cells play a role in the human immune response by capturing antigens. Vaccinations administered by intradermal injection deposit the vaccine locally in the dermal layer where they can potentially produce qualitatively and quantitatively superior immune responses, when compared to intramuscular or subcutaneous injections^v. Intradermal injections are deemed to be equally safe and efficacious as intramuscular injections by the World Health Organization (WHO) for several vaccines^{vi}. Intradermal tissues are also rich in lymphatic capillaries, that possess unique characteristics allowing the preferential uptake of 10-100 nanometer particles into the lymphatics leading to efficient accumulation in the lymph nodes. This can improve vaccine efficiency and enable antibody delivery to lymph nodes, potentially boosting PD-L1 antibody efficacy and suppressing tumor growth^{vii}.

Contact a Terumo Pharmaceutical Solutions Expert today to find out more about the Immucise™ Intradermal Injection System and how it could help you

Disclaimers:

This intradermal injection system is manufactured for clinical trials and/or studies of specific pharmaceutical and/or medicinal products only. Its specifications and/or images may be changed without notice, even if the device has been approved and/or registered in specific countries and/or regions. Notwithstanding any existing approval or registration, this device may not be available in all geographic regions. For further detail please refer to instruction for use or check with contact person in Terumo Corporation.

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Terumo Corporation
Pharmaceutical Solutions Division
Medical Care Solutions Company

- ⁱ Shimizu, Sakiko et al. "Performance and usability evaluation of novel intradermal injection device Immucise™ and reanalysis of intradermal administration trials of influenza vaccine for the elderly." Vaccine vol. 40,6 (2022): 873-879
- ⁱⁱ Arakane, Ryo et al. "Immunogenicity and safety of the new intradermal influenza vaccine in adults and elderly: A randomized phase 1/2 clinical trial." Vaccine vol. 33,46 (2015): 6340-50. doi:10.1016/j.vaccine.2015.09.010
- ⁱⁱⁱ Immucise Intradermal Injection System Human Factors and Usability Engineering Study Report
- ^{iv} Traditional 510(k) – Immucise Intradermal Injection System Section 11: Device Description
- ^v Intradermal Delivery of Vaccines A review of the literature and the potential for development for use in low- and middle income countries August 27, 2009
- ^{vi} WHO recommends the intradermal route for rabies post-exposure prophylaxis
<https://www.who.int/teams/control-of-neglected-tropical-diseases/rabies>
- ^{vii} Tanaka, Ryo et al. "Efficient drug delivery to lymph nodes by intradermal administration and enhancement of anti-tumor effects of immune checkpoint inhibitors." Cancer treatment and research communications vol. 36 (2023): 100740.