

3M™ Hollow Microstructured Transdermal System

Patient-friendly microneedle technology designed to increase your commercial success.

Differentiate your product with 3M™ Hollow Microstructured Transdermal System (hMTS) for intradermal delivery of biologics. 3M hMTS offers reproducible intradermal delivery, and provides a patient-friendly design based on human factors testing and voice-of-customer research. **Now available for use in clinical trials.***

Trusted expertise

- Proprietary 3M microreplication technology for hollow microneedle array molding and production
- Expertise in meeting delivery needs of challenging drug formulations
- Feasibility, preclinical, clinical capability and expertise for early-phase development
- Experience and capability to support scale up through commercialization
- Trusted drug delivery partner from development through commercialization

Intradermal delivery solution

- Reproducible delivery of liquid formulations into the dermis based on animal model
- Flexibility to deliver a wide range of viscosities and doses from 0.5 mL to 2 mL
- Wear time within minutes depending on the volume and formulation
- 1 cm² array molded out of medical grade polymer
- Needle length – 1500 µm

Created with patients in mind

- Patient-friendly single-use delivery system
- Designed for self-administration
- Textured grip for dexterity-challenged patients
- Capability for non-specific actuation
- Protective safety cap for the microneedle array
- Audible click for added assurance of actuation
- Hands-free dosing for the patient's comfort
- Status indicator window with a progress bar



Learn more at:
go.3M.com/hMTS

EXPERTS AT COMMERCIALIZING INNOVATION



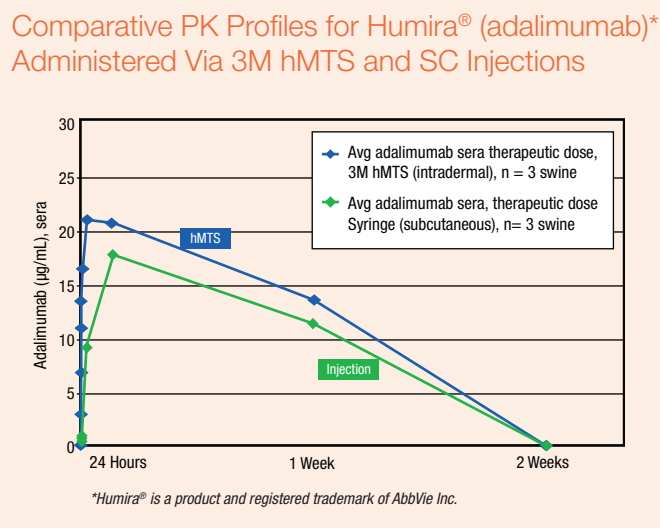
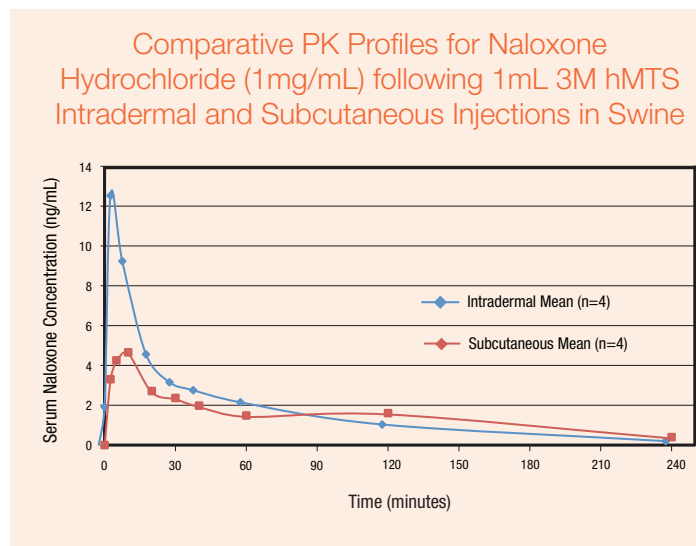
Gain a competitive edge when you partner with the expert in microneedle technology

For over 50 years, 3M has created innovative solutions for the pharmaceutical industry. Our product development and manufacturing specialists will work with you from preclinical studies to completed product, to create a hollow microneedle solution that provides reproducible performance and gives you a competitive edge.

Expand the Range of Deliverable Biologics

While drug PK profiles need to be evaluated on an individual basis, 3M hollow microneedle technology may offer many benefits when compared with conventional injections:

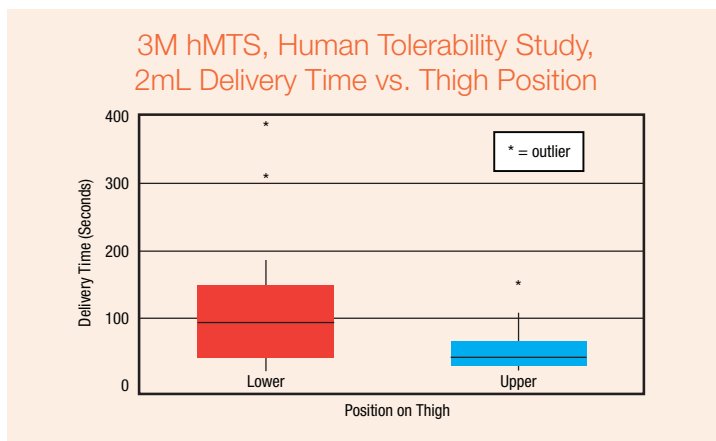
- Faster absorption
- Higher bioavailability of some drugs
- Higher peak blood levels
- Reproducible intradermal delivery
- Intradermal administration of larger volumes



Ready for Clinical Trials*

3M conducted a human tolerability study with the goal of selecting the appropriate microneedle array for use in clinical studies. The outcome of this study found very good delivery times for 2mL (less than 2 minutes). These results provide foundational data in assessing the safety of the device. Clinical supplies are now available for assessment in potential development partners' trials.

*Disclaimer: Initiation of clinical studies may require a submission for regulatory review.



Drug Delivery Systems

3M Center
Building 275-03-E-10
St. Paul, MN
55144-1000 USA
(1) 800-643-8086
Fax (1) 651 737-5265
3M.com/DDS

Drug Delivery Systems

3M House, Morley Street
Loughborough, Leicestershire
LE11 1EP England
(44) 1509 613626
Fax (44) 1509 613099
3M.com/DDS

Drug Delivery Systems

6-7-29, Kita-Shinagawa
Shinagawa-ku, Tokyo
141-8684 Japan
(81) 3 6409 3553
Fax (81) 3 6409 5805
3M.com/ddsjapan

Get Started

Contact us to learn more about 3M hollow microneedle technology and its benefits for difficult to deliver biologics.

Request a demo* now!