

BD Announces First Pharma-Sponsored Clinical Trial Using BD Libertas™ Wearable Injector Technology for Biologic Drugs

FRANKLIN LAKES, N.J., July 23, 2025 /PRNewswire/ – BD (Becton, Dickinson and Company) (NYSE: BDX), a leading global medical technology company, announces the first pharma-sponsored combination product clinical trial using the BD Libertas™ Wearable Injector for subcutaneous delivery of complex biologics.



The selection of BD Libertas™ Wearable Injector for this pharma-sponsored trial follows successful outcomes from more than 50 BD-conducted pre-clinical and clinical studies, including a device clinical study demonstrating excellent performance with 100% of study participants stating they would likely use the BD Libertas™ Wearable Injector if prescribed^{i,ii}.

The pharma-sponsored combination product clinical trial represents a significant advancement in accelerating innovation in drug-device combination products that provide greater flexibility for patients, including potential conversion from infused medications that require patients to travel to a hospital or clinic to more convenient patient care in various settings, including self-injection at home.

"This trial demonstrates BD's commitment to helping pharma companies by advancing large-volume injection science, ensuring therapies are accessible and patient friendly by offering more efficient and convenient options for biologics," said Patrick Jeukenne, worldwide president of BD Pharmaceutical Systems. "BD's enhanced testing capabilities acquired through ZebraSci and the proven capabilities of the BD Libertas™ Wearable Injector technology further position BD as an innovative leader in drug delivery."

The BD Libertas™ Wearable Injector is an innovative, prefilled, patient ready-to-use drug delivery systemⁱⁱⁱ designed to enable delivery of complex biologics via subcutaneous injection. The biologics market is expected to grow to more than \$670 billion^{iv} by 2030 and for pharmaceutical companies developing these complex drugs, the BD Libertas™ Wearable Injector offers a customizable, patient-centric solution. The BD Libertas™ Wearable Injector:

- Supports delivery of high-viscosity biologics (up to 50 centipoise), enabling a wide range of subcutaneous therapies
- Is offered in 2 to 5 mL and 5 to 10 mL configurations providing flexibility for diverse therapeutic requirements
- Features a fully mechanical, patient ready-to-use design with a simple “peel, stick and click” mechanism, requiring no end-user filling or assemblyⁱⁱⁱ

BD’s ongoing validations of fill-finish and final assembly processes with multiple Contract Manufacturing Organizations (CMOs) enable the company to support pharmaceutical partners from development through commercial-scale production. For more information about how BD Libertas™ Wearable Injector is enabling biologic therapy delivery, visit www.bd.com/libertas.

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About BD Libertas™ Wearable Injector

BD Libertas™ Wearable Injector is a product in development; some statements are forward looking and are subject to a variety of risks and uncertainties. BD Libertas™ Wearable Injector is a device component intended for drug-device combination products and not subject to FDA 510(k) clearance or separate EU CE mark certification.

About BD

BD is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. The company supports the heroes on the frontlines of health care by developing innovative technology, services and solutions that help advance both clinical therapy for patients and clinical process for health care providers. BD and its more than 70,000 employees have a passion and commitment to help enhance the safety and efficiency of clinicians' care delivery process, enable laboratory scientists to accurately detect disease and advance researchers' capabilities to develop the next generation of diagnostics and therapeutics. BD has a presence in virtually every country and partners with organizations around the world to address some of the most challenging global health issues. By working in close collaboration with customers, BD can help enhance outcomes, lower costs, increase efficiencies, improve safety and expand access to health care. For more information on BD, please visit bd.com or connect with us on LinkedIn at www.linkedin.com/company/bd1/, X (formerly Twitter) [@BDandCo](https://twitter.com/BDandCo) or Instagram [@becton_dickinson](https://www.instagram.com/becton_dickinson).

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ⁱ Early feasibility clinical study of investigational BD Libertas™ Wearable Injector (WI) evaluated 5ml, non-Newtonian ~8cP subcutaneous placebo injections in 52 healthy adult subjects for functionality, tissue effects, subject tolerability (100mm Visual Analog Scale (VAS)) and acceptability (questionnaires with 5-point Likert or yes /no responses). Tissue effects were measured from WI removal post-injection through 24 hours with calipers (wheals) or graded on a 5-point scale (erythema, bleeding) from 0-none to 4-severe, significant, respectively. Where tissue effects were observed, the majority (>50%) were resolved within 60 minutes and all within 24 hours. Subject pain (100mm VAS) peaked mid-injection (mean 9.1mm, SD 13.4) and rapidly resolved within 30 minutes (mean 0.4mm, SD 2.6). Subjects found acceptable (Likert agree + strongly agree or yes responses) their peak pain (≥90.2%), injection site appearance (≥92.2%).

ⁱⁱ Woodley, W. D. et al. Clinical Evaluation of an Investigational 5ml Wearable Injector in Healthy Human Subjects. Clin Transl Sci. 2021 May;14(3):859-869. doi.org/10.1111/cts.12946.

ⁱⁱⁱ Pharma filled and assembled

^{iv} Mordor Intelligence (2025). Biologics Market Size - Industry Report on Share, Growth Trends & Forecasts Analysis (2025 - 2030). <https://www.mordorintelligence.com/industry-reports/biologics-market>