

Pharmaceutical Cold Chain Logistics



An increasing number of innovative prescription medicines require special handling and transportation — from the moment they leave a manufacturer’s facility, to storage in a state-of-the-art distribution center, and ultimately, when they reach a healthcare provider at the point of dispensation or administration for patients.

Distributors’ Cold Chain Infrastructure

Pharmaceutical distributors leverage their expertise with cold chain storage and transportation when handling temperature-sensitive products such as vaccines and other specialty medicines.

Distributors consider several factors when determining the shipping environment for cold chain products:



Shipping and handling requirements for each drug



Type of transportation carrier to be used



Expected transit duration



Current and projected weather conditions while in transit

Cold chain innovation has enabled distributors to continually improve temperature compliance. Distributors use a variety of tools:



Refrigerated transportation



Ice and gel packs



Temperature monitoring devices



Dry ice



FDA-approved insulated boxes

COLD CHAIN

Most cold chain products require storage and transportation at **2 to 8 degrees Celsius**, while frozen products need to be kept below minus 10 degrees Celsius.

ULTRA-COLD CHAIN

Some approved COVID-19 vaccines are classified as “ultra-cold chain” and need to be held at temperatures below **minus 70 degrees Celsius**.



Distributors’ logistics expertise with cold chain products and other specialty treatments are playing a critical role in the distribution of vaccines, biologics and other innovative therapies. With investments in cutting-edge, temperature-controlled supply chain protocols, distributors stand ready to ensure the integrity of these products.

Learn more about the future of the U.S. pharmaceutical cold chain in the HDA Research Foundation’s report: [The Future of U.S. Pharmaceutical Cold Chain Distribution](#).

