Stress-free shipping for “keep cold” clinical samples

To support her research study on the effects of a nutritional supplement on exercise recovery, Dr. Gretchen Casazza, director of sports medicine research for a major California academic medical center, needed a cost-effective, reliable way to ensure that blood samples drawn from the participants remained refrigerated during the journey from her clinic to a lab in Kentucky.

The solution: the cold shipping package provided by FedEx, part of the FedEx Temp-Assure® portfolio that supports temperature-controlled shipments. The lightweight package maintains a constant 2–8°C environment for up to 96 hours using a cooling engine that continuously evaporates small quantities of water at low pressure and adjusts to varying ambient temperatures. The technology helps to ensure that the samples are protected from external temperature fluctuations — including freezing — for the duration of the shipping process.

Once the blood samples are ready for shipping, Casazza simply presses the actuator button on the cold shipping package cooling engine and waits about 20 seconds for the indicator to turn blue — confirming that the cooling action has begun. Then, she packs the vials inside the payload compartment and seals the package. FedEx Express picks up the packages at her clinic in Sacramento, Calif., and delivers them across the country to the lab for testing the following morning at her required temperature.

While ice and gel packs make it difficult to validate if clinical samples are kept refrigerated for the duration of a shipment’s journey, the lab can easily confirm that the payload areas of the cold shipping packages are still refrigerated upon receipt.

For added efficiencies, the lab ships the empty cold shipping packages back to Casazza, who inserts a new one-time-use replacement cooling engine for each subsequent shipment inside the recycled outer packaging.

“The cold shipping package is perfect for this use and couldn’t have worked out better,” said Casazza. “It’s so easy and efficient. I’m really pleased with the performance.”