

## Vaccines for Children Thermometer Requirements and Guide

All Vaccines for Children (VFC) providers in Oklahoma are required to use thermometers with a Certificate of Traceability and Calibration in all refrigerators and freezers used for storage of VFC vaccines. This policy came into effect January 1, 2012. Correct vaccine storage temperatures are a high priority for the VFC program to ensure that the vaccines are effective when they are administered to patients and to prevent the unnecessary loss of expensive vaccines. To ensure temperatures are correct, accurate thermometers must be used.

This guide explains how VFC providers can meet federal and Oklahoma requirements for vaccine storage unit thermometers. The Oklahoma VFC program cannot endorse specific products; however, we can assist you in your research. Below you will find examples of thermometers that meet these requirements.

### Thermometer Requirements

Clinics storing VFC-supplied vaccine must:

- Use a calibrated thermometer with a current Certificate of Traceability and Calibration in each refrigerator and freezer compartment.
- A Certificate of Traceability and Calibration guarantees that the thermometer's accuracy has been measured against a National Institute of Standards and Technology (NIST) or another internationally recognized standards agency.
  - The National Institute of Standards and Technology (NIST) is an agency of the U.S. Department of Commerce
- Use the calibrated thermometer to read and record refrigerator and freezer temperatures at least twice each workday – in the morning and before the end of the workday.
- Keep the current Certificate of Traceability and Calibration on file with the temperature logs for a period of at least three years.
- Follow the manufacturer's recommendations for recalibration of the thermometers or replace outdated thermometers with new units that meet the requirements.
- Clinics must have at least one back-up thermometer (i.e. a thermometer not being used to monitor any other vaccine storage unit) with a current, valid certificate of calibration.

### Thermometer Recommendations

- **The Immunization Service strongly recommends the use of thermometers with the following characteristics:**
  - **Provide continuous monitoring information with an active display**
  - **Be a digital thermometer with a probe in a glycol-filled bottle**
  - **Include an alarm for out-of-range temperatures**
  - **Have a reset button if using a data logger with a min/max display**
  - **Be capable of showing current temperature as well as minimum and maximum temperatures**
  - **Be within +/- .5°C accuracy (+/-1°F)**
  - **Have a low battery indicator**

## Remember

- Ask your vendor if the thermometer comes with a certificate of traceability and calibration.
- Look for a vendor that provides good customer service.
- Contact the Immunization Service if you have questions about which thermometer brands and models meet the requirements.

## What is a Certificate of Traceability and Calibration?

A certificate of traceability and calibration guarantees that the thermometer is accurate as measured against a National Institute of Standards and Technology (NIST) or American Society for Testing and Materials standard. When you buy a thermometer, the certificate will ensure the accuracy of the thermometer for a certain period of time. After that time, the thermometer will need to be recalibrated or replaced. Some vendors charge for a certificate of traceability and calibration and most charge for recalibration.

## What is Recalibration?

Recalibration refers to testing and adjustment of the instrument to maintain accuracy after purchase. Most manufacturers recommend recalibration every one to two years. All Instruments lose accuracy over time due to normal usage and the environmental conditions to which they are exposed. Periodic NIST certified calibrations maintain the accuracy of your instrument throughout its life. There are cases where it may be more cost effective to buy a new thermometer rather than pay for a recalibration.

## Vaccine Storage Thermometer Types and Examples

The following list is provided for your information. All thermometers on this list correctly record vaccine storage unit temperatures and meet the requirements for storing VFC vaccines. The list includes the names and web pages of manufacturers and products to show the range of types, options, and prices. You can purchase other thermometers not on this list, as long as the thermometer has a certificate of traceability and calibration.

Most manufacturers offer a variety of thermometers over a wide price range. We do not endorse specific products or manufacturers. **Continuous reading thermometers are the most effective tool to track the refrigerator/freezer temperature over time and are strongly recommended by CDC and the Immunization Service.**

## Manufacturer/Vendor Websites:

Control Company Thermometers available from Novatech USA

<http://www.novatech-usa.com/Products/Digital-Traceable-Thermometers>

VWR <https://us.vwr.com/store/catalog/product>

Delta TRAK Inc. [www.deltatrak.com/](http://www.deltatrak.com/)

Control Solutions, Inc. [www.vfcdataloggers.com](http://www.vfcdataloggers.com)

Control Solutions, Inc. [www.vfcdataloggers.com](http://www.vfcdataloggers.com)

Dickson Co. <http://www.dicksondata.com/products/VFC320>

\*\*\* Pricing is subject to change. Please contact the supplier for actual cost.