

## **Temperature Monitor, [Storing Vaccines](#), [Medicine Temperatures](#)**

### **Using home-style refrigerator/freezers [to store vaccines](#).**

Many laboratories and doctor's offices, in an effort to save money, use home-style refrigerator/freezers instead of commercial laboratory freezers. They generally keep only a small amount of vaccines on hand and don't need the storage capacity of large laboratory freezers. Laboratory style refrigerators and freezers tend to be quite large, and have back-up systems as well as monitoring systems. All of this fancy hardware drives the price of the units up so many smaller laboratories; nursing stations and doctors offices use, instead, home style refrigerators and freezers to store their small amount of medicines, vaccines, etc... This works well except for the fact that they also need to protect the materials stored in these units. Not only is it important from a safety standpoint but many certifying agencies are now requiring it and it has become a 'best practices' issue by professional associations.

### **How to protect a [home-style freezer/refrigerator](#)?**

The potential draw back to using home-style refrigerator/freezers is that they may not maintain a constant temperature and could fail. If this occurs during a time when no one is in the office thousands of dollars of vaccines could be ruined and need to be replaced. It is very important that these units be monitored so that if they do fail and the temperature begins to rise you can be notified before it is too late. Several devices have been developed that can monitor, document and, most importantly, notify you if the internal temperature rises into the 'unsafe' zone.

Only particularly intriguing device that is designed as an add-on device to monitor, document and alarm the home-style refrigerator/freezer is the [ThermaViewer](#), manufactured by 2di. It is a stand-alone device that uses two remote probes to sample temperature every 10 minutes and draw an electronic chart on its display. It is stuck on the side of the refrigerator/freezer and the probes placed inside the two cold compartments. It stores over ten months of temperature history for each probe and can be downloaded into a computer to generate a paper copy of the graph or an archived copy. Because its chart is constantly being updated and always displayed each employee is aware of the temperature. A relay in the device is attached to a dialer

so that if the refrigerator/freezer begins to get to warm the office manger gets a phone call, so the problem can be addressed.