

Monitor vaccines, monitor medicines, monitor blood products

## **Temperature Monitors**

All vaccines, medicines and blood products must be stored at precise temperatures to remain potent and viable. They are stored in monitored and alarmed refrigerators and freezers. Many laboratory style refrigerators and freezers come with built in mechanical or electronic devices that not only record a temperature history but also sound an alarm if the temperature fluctuates too much. These work well and are used extensively by large laboratories that store many vaccines or biological samples. However smaller laboratories, doctor's offices and nursing stations only keep small amounts of these items on hand and do not need large laboratory freezers.

## **Saving money.**

Laboratory style refrigerators and freezers can be quite large but have back-up systems as well as monitoring systems. All of this fancy hardware increases the price of the units so smaller laboratories; nursing stations and doctors offices use home style refrigerators and freezers to store their 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?**

There is one after-market device that monitors, documents and alarms the home-style refrigerator/freezer. The [TV2 or Master Thermometer](#), manufactured by 2di, is a stand-alone device that uses remote sensors to sample temperature every 10 minutes and draw an electronic chart on its display. It can be mounted on the side of the refrigerator/freezer and the sensors placed inside the two cold compartments. It stores over 1.5 years of temperature history for each sensor 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 can trigger a dialer so that if the refrigerator/freezer begins to get too warm the office manager gets a phone call.