



DIABETES AND INSULIN STORAGE

PATIENT/FAMILY INFORMATION SHEET

Why is proper storage of insulin important?

Insulin is a medication that is sensitive to temperature. Storage of insulin at too low or too high a temperature will decrease its potency or strength. A decrease in the strength of insulin will result in poor blood glucose control.

How should insulin be stored?

Unopened vials, pens or cartridges of insulin should be stored in the refrigerator. The inside of the refrigerator door closest to the opening is a good area for storing insulin. Avoid cold spots where insulin might freeze.

Following the first use or puncture of the vial, insulin may be refrigerated or stored at room temperature (e.g., 59 to 86 degrees Fahrenheit). Insulin should not be exposed to high temperatures (e.g., more than 86 degrees F) or prolonged direct sunlight.

How long can insulin be used?

Unopened refrigerated insulin vials, pens and cartridges may be used until the manufacturer's expiration date printed on the label.

In-use **vials** of insulin, whether refrigerated or at room temperature, should be discarded after 28 days.

In-use insulin **pens and cartridges** should be stored at room temperature and should be used within the following time periods:

Pens And Cartridges	Maximum Storage Time
• Insulin suspensions (NPH)	14 days
• Rapid acting insulin (Humalog, Novolog, Apidra):	28 days
• Mixture of insulins (70/30, 75/25, 50/50)	10 days



Additional Recommendations

Before using insulin, always do the following:

- Check the manufacturer’s expiration date; do not use expired insulin.
- Inspect the appearance and consistency of insulin. It should look as follows:

Clear	Cloudy
Rapid acting insulins: *Humalog *Novolog *Apidra	Insulin mixtures: *Humulin 70/30 *Novolin 70/30 *Humalog 75/25 *Novolog mix 70/30
Regular insulin	NPH
Long-acting insulins: *Lantus *Levemir	

- Gently resuspend NPH insulin and insulin mixtures (i.e., “cloudy” insulins) by gently inverting the vial or pen about 20 times.
- Discard insulin immediately (or if unopened, return to the pharmacy) if you see clumping or frosting on the inside of the vial or pen cartridge.

For more Patient Education Fact Sheets, see the Greenwich Hospital web site at www.greenwichhospital.org and click on Patient Education