

# Insulin Storage and Expiration



## How can you tell if insulin has gone bad?

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- If your insulin looks cloudy, discolored, clumpy, separated, or like it has little strings in it, it is probably not safe to use.
  - **EXCEPTION:** intermediate-acting insulins such as Humulin N and Novolin N appear cloudy under normal circumstances
- Insulin that has gone bad may also be less effective and result in unexplained high blood sugars despite using your insulin as directed. This could happen if it is past the expiration date and/or has been stored improperly.

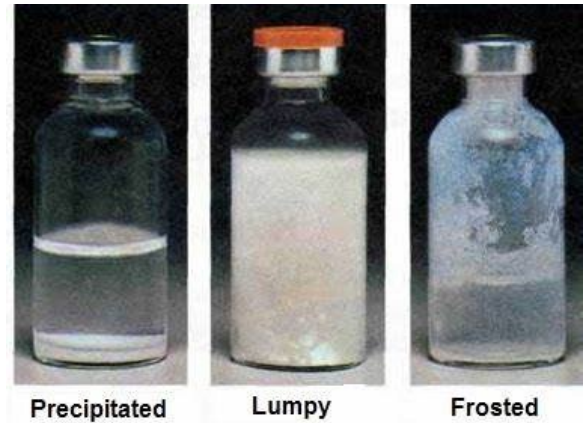


Image source: bing.com

## Proper Storage: Insulin for Injection

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- When refrigerated (36°-46°F), unopened insulin products maintain potency until the expiration date on the package.
- **Most insulin vials, pens, and cartridges can be out of the refrigerator for up to 28 days**, stored at room temperature (59-86°F), unopened or opened, and continue to be effective. Some are good for a different number of days. See product-specific expiration dates on next page.
- If an insulin product has been altered for the purpose of dilution or by removal from the manufacturer's original vial, it should be discarded within 2 weeks.
- Insulin loses effectiveness when exposed to extreme temperatures, but in emergency situations might still need to be used if stored above 86°F. Insulin should be kept away from direct heat and out of direct sunlight.
- **Do not use insulin that has been frozen.**

## Proper Storage: Insulin Pumps

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- Insulin contained in the infusion set of a pump device (e.g., reservoir, tubing catheters) should be discarded after 48 hours.
- Insulin contained in the infusion set of a pump device that has been exposed to temperature exceeding 98.6°F should be discarded.

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## Manufacturers' contact numbers and product-specific expiration dates

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All discard dates below are from when the vial or pen is opened and/or stored outside of the refrigerator:

- **Eli Lilly: 1-800-545-5979** [Current Medicines](#) | [Medicines](#) | [Eli Lilly and Company](#)
  - Insulin Glargine (Basaglar®): Throw away pen/vials after 28 days.
  - Insulin Lispro (Humalog®): Throw away pen/vials after 28 days.
  - Insulin Lispro (Lyumjev®): Throw away pen/vials after 28 days.
  - Humulin R: Throw away vials after 31 days of use. If pen, throw away after 28 days.
  - Humulin N: Throw away vials after 31 days of use. If pen, throw away after 14 days.
  - Humulin 70/30: Throw away vials after 31 days of use. If pen, throw away after 10 days, even if it still has insulin left in it.
- **Sanofi: 1-800-633-1610** [A Leading Immunology Healthcare Company](#) | [Sanofi](#)
  - Insulin lispro injection (Admelog®): Pen and vial, throw away after 28 days
  - Insulin glulisine injection (Apidra®): 28 days
  - Insulin glargine injection (Lantus®): 28 days
  - Insulin glargine injection (Toujeo®): 28 days
- **Novo Nordisk: 1-800-727-6500**  
[Our medicines](#) | [Diabetes medications](#) | [Obesity medication \(novonordisk.com\)](#)
  - Insulin aspart (Fiasp®, Novolog®, NovoRapid®): Pen and vial, throw away after 28 days.
  - Insulin degludec injection (Tresiba®): Pen and vial, throw away after 56 days.
  - Insulin detemir injection (Levemir®): Pen and vial, throw away after 42 days.
  - Isophane insulin human suspension (Novolin® N NPH): Vial – 42 days; pen – 28 days.
  - Insulin human injection (Novolin® R): Vial – 42 days; pen – 28 days.
  - 70% human insulin isophane suspension and 30% human insulin injection (Novolin® 70/30): Vial – 42 days; pen – 28 days.
  - Novolin NPH and R also represent the ReliOn® brand available at Wal-Mart.

### Resources:

1. [ddrc-storing-insulin-2018.pdf \(diabetes.org\)](#)
2. [Information Regarding Insulin Storage and Switching Between Products in an Emergency | FDA](#)
3. [Does Insulin Expire? Storage, Safety, and How to Tell If Your Insulin Has Gone Bad - Diabetes Strong](#)