Stability of Common Insulins in Vials and Pens[1,2]

Insulin Vials	Stability Unopened and Stored in the Refrigerator	Opened at room or Refrigerator Temperature (days)[1]	Unopened at Room Temperature (days)[1]	Image
Rapid-acting Insulin				
Novolog (Lispro)	The expiration date on the label	28	28	
Humalog (Aspart)	The expiration date on the label	28	28	
Apidra (glulisin)	The expiration date on the label	28	28	
Short-acting Insulin				
Humulin R (Regular)	The expiration date on the label	28	28	
Novolin R (Regular)	The expiration date on the label	42	42	
Intermediate-acting Insulin (NPH)				
Humulin N	The expiration date on the label	28	28	
Novolin N	The expiration date on the label	42	42	
Pre-mixed insulin				
Humulin 70/30	The expiration date on the label	28	28	
Novolin 70/30	The expiration date on the label	42	42	
Humalog 75/25	The expiration date on the label	28	28	
Humalog 50/50	The expiration date on the label	28	28	
Novolog 70/30	The expiration date on the label	28	28	
Long-acting Insulin				
Lantus (glargine)	The expiration date on the label	28	28	
Levemir (detemir)	The expiration date on the label	42	42	

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Stability of Common Insulins in Vials and Pens [1,2]

Insulin Pens	Stability Unopened and Stored in the Refrigerator	In-use (opened) pens at Room only (days)[1]	Unopened at Room Temperature (days)[1]	Image
Rapid- acting Insulins				
Humalog KwikPen (Lispro)	The expiration date on the label	28. Do NOT refrigerate.	28	
Novolog FlexPen (aspart)	The expiration date on the label	28. Do NOT refrigerate.	28	
NovoPen Echo (aspart)	The expiration date on the label	28. Do NOT refrigerate.	28	
Apidra Solostar (glulisine)	The expiration date on the label	28. Do NOT refrigerate.	28	
Apidra OptiClik (glulisine)	The expiration date on the label	28. Do NOT refrigerate.	28	
Intermediate-acting Insulin (NPH)				
Humulin N pen	The expiration date on the label	14. Do NOT refrigerate.	14	
Novolin N pen	The expiration date on the label	14. Do NOT refrigerate.	14	
Long-acting Insulin				
Lantus SoloStar	The expiration date on the label	28. Do NOT refrigerate.	28	
Lantus OptiClik	The expiration date on the label	28. Do NOT refrigerate.	28	
Levemir FlexPen	The expiration date on the label	42. Do NOT refrigerate.	42	
Novolog Mix 70/30 Flexpen	The expiration date on the label	14. Do NOT refrigerate.	14	
Tresiba FlexTouch pen (deglude)	The expiration date on the label	56. Do NOT refrigerate.	56	
Toujeo (glargine)	The expiration date on the label	42. Do NOT refrigerate.	42	
Basaglar (glargine)	The expiration date on the label	28. Do NOT refrigerate	28	
Pre-mixed Insulin				
Humalog Mix KwikPen 50/50	The expiration date on the label	10. Do NOT refrigerate.	10	
Humalog Mix 75/25 KwikPen	The expiration date on the label	10. Do NOT refrigerate.	10	
Humulin 70/30 Pen	The expiration date on the label	10. Do NOT refrigerate.	10	
Ryzodeg 70/30	The expiration date on the label	28. Do NOT	28	

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Stability of Common Insulins in Vials and Pens [1,2]

		refrigerate.		

Miscellaneous Non-Insulin Agents Incretin Mimetic				
Byetta (exenatide)	The expiration date on the label	30	30	
Bydureon (exenatide ER)	The expiration date on the label	28	28	
Victoza (liraglutide)	The expiration date on the label	30	30	
Tanzeum (albiglutide)	The expiration date on the label	28	28	
Trulicity (dulaglutide)	The expiration date on the label	14	14	
Amylin analogs				
Symlin (pramlintide)	The expiration date on the label	30	30	
Symlin pen (pramlintide)	The expiration date on the label	30	30	

1. Room temperature considered 15-30ºC (59-86ºF)

Tablets adapted from Dipro and Pharmacist letter

References:

1. Triplitt CL, Reasner CA, Isley W. Diabetes Mellitus. In: DiPiro JT, Talbert RL, Yee GC, eds. Pharmacotherapy: A Pathophysiologic Approach, 7th ed. New York, NY: McGraw-Hill;2008:1205-41.
2. Comparison of Insulins and Injectable Diabetes Meds. Pharmacist's Letter/ Prescribers Letter. Stockton, CA. March 2010;26(260304):1-10.
3. Drugs for Type 2 Diabetes. Pharmacist's Letter/ Prescribers Letter. Stockton, CA. June 2015.

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