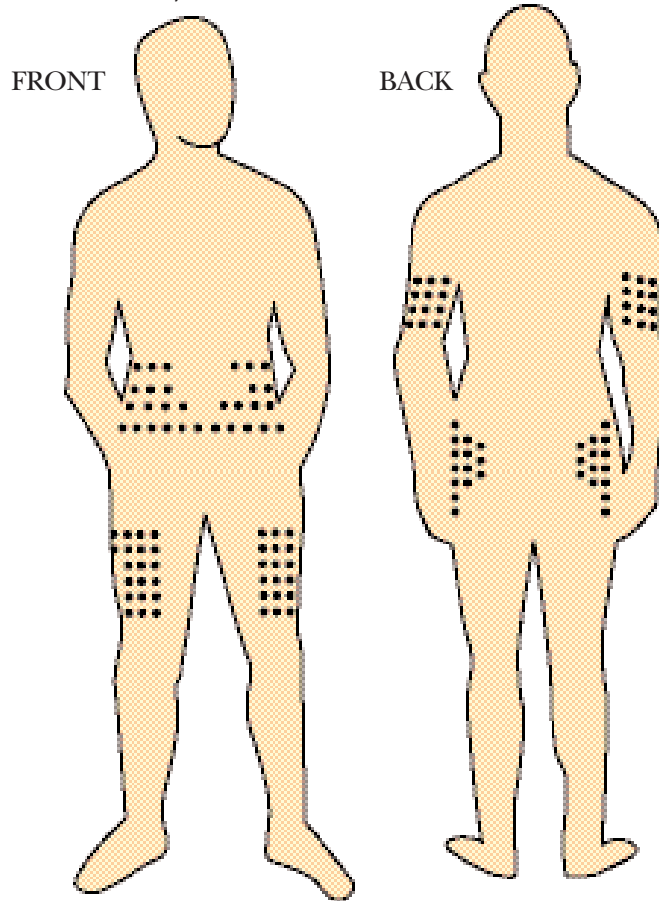

INSULIN INJECTION SITES

Self-administered insulin is injected or infused into the fatty tissue just under the skin. The body areas used most commonly for insulin injections are the abdomen, buttocks, and thighs. The backs of the upper arms may be used as well. To avoid skin problems, inject at least a finger's width away from your last injection. To avoid absorption problems, don't inject near moles, scars, or your navel.



TYPES OF INSULINS

TYPE OF INSULIN	BRAND NAME	ONSET OF ACTION	PEAK ACTION	DURATION OF ACTION	APPEAR-ANCE	CAN BE MIXED WITH:
RAPID-ACTING (BOLUS/MEALTIME) INSULINS						
Insulin aspart	NovoLog	5–10 minutes	1–3 hours	3–5 hours	clear	NPH, but only on the advice of a doctor. If mixed, aspart should be drawn into the syringe first, and the mixture injected immediately
Insulin glulisine	Apidra	15 minutes	30 minutes to 1H hours	3–5 hours	clear	NPH
Insulin lispro	Humalog	15 minutes	30 minutes to 1H hours	4–5 hours	clear	NPH, Ultralente, but only on the advice of a doctor. If mixed, lispro should be drawn into the syringe first, and the mixture injected immediately.
SHORT-ACTING (BOLUS/MEALTIME) INSULIN						
Regular	Humulin R Novolin R	30 minutes to 1 hour	2–4 hours	5–7 hours	clear	NPH, Lente, Ultralente
INTERMEDIATE-ACTING (BASAL/BACKGROUND) INSULINS						
Lente	Humulin L*	1–3 hours	6–14 hours	24+ hours	cloudy	Regular
NPH	Humulin N Novolin N	1–2 hours	6–14 hours	24+ hours	cloudy	Regular
LONG-ACTING (BASAL/BACKGROUND) INSULINS						
Insulin detemir	Levemir	1H hours	“peakless” action	up to 24 hours	clear	Do not mix with other insulins.
Insulin glargine	Lantus	1H hours	“peakless” action	24 hours	clear	Do not mix with other insulins.
Ultralente	Humulin U*	6 hours	18–24 hours	36+ hours	cloudy	Regular
PREMIXED INSULINS						
Insulin aspart protamine suspension/ aspart	NovoLog Mix 70/30	10–20 minutes	1–3H hours	up to 24 hours	cloudy	Do not mix with other insulins.
Insulin lispro protamine suspension/ lispro	Humalog Mix 75/25	15–30 minutes	30 minutes to 2H hours	14–24 hours	cloudy	Do not mix with other insulins.
NPH suspension/Regular	Humulin 50/50	30 minutes to 1 hour	2–5H hours	14–24 hours	cloudy	Do not mix with other insulins.
NPH suspension/Regular	Humulin 70/30 Novolin 70/30	30–60 minutes	2–6 hours	14–24 hours	cloudy	Do not mix with other insulins.

The insulins and insulin mixtures listed in this table are currently approved for marketing in the United States. All are stable at room temperature for 28 days in the original vial. For insulin pens and similar delivery devices, see the package insert for the amount of time the pen or device may be stored at room temperature. All of the action times shown are estimates: The onset, peak, and duration of action may vary considerably from the times listed due to individual variations.

* Humulin L and Humulin U were discontinued in July 2005; existing supplies were expected to last through December 2005.