

In Module 2, you learned that insulin types are divided into four broad categories: **Rapid-Acting, Short-Acting, Intermediate-Acting, and Long-Acting**. You also learned that the four categories of insulin differ mainly in terms of their **Action Times** or when they are working to lower a person’s blood sugar.

You and your delegating RN can use the table and example below as a resource to help you understand insulin categories and action times and *your client’s* insulin(s), specifically.

Insulin Table: Categories and Action Times

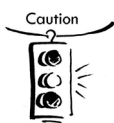
Insulin Category	Onset of Action (How soon it starts to work)	Peak of Action (When it is working the hardest)	Duration of Action (How long before it stops working)
Rapid-Acting	15 min.	30-90 min.	3-4 hrs.
Short-Acting	30-60 min.	2-3 hrs.	3-6 hrs.
Intermediate-Acting	2-4 hrs.	4-10 hrs.	10-18 hrs.
Long-Acting*	1-2 hrs.	2-12 hrs.	24 hrs.

*Glargine or Lantus is a brand of Long-Acting insulin with no peak; its action is steady for 24 hrs. after a 1 hr. onset.

Let’s use the Insulin Table to consider an example. If your client gets an injection of Short-Acting insulin at noon, then you know the insulin will:

- Start to lower your client’s blood sugar between 12:30-1pm.
- Be working its hardest to lower blood sugar between 2-3pm.
- Stop lowering your client’s blood sugar between 3-6pm.

In this example, you know your client’s insulin will be working between 12:30-6pm and to observe for symptoms of insulin-related low blood sugar during this time. You also know that your client is at **greatest risk** for insulin-related low blood sugar between 2-3pm. Now you can be sure to observe most carefully for symptoms of low blood sugar during this time.



Knowing the category and action time of the insulin(s) you use is a basic safety step that will help you to recognize and respond to low blood sugar before it becomes a medical emergency.

Note: Some types of insulin come as a mixture of more than one category-type and are not listed in this table. Your delegating RN will teach you about pre-mixed insulin if it is used by your client.