



# INSULIN INJECTION KNOW-HOW



## Understanding Insulin

Welcome to the ranks of nearly 26 million Americans diagnosed with diabetes. By now you've probably been given enough information about diabetes to make your head spin. But two important facts should stand out:



**DIABETES CAN BE CONTROLLED, AND IT IS VERY IMPORTANT TO DO SO.**

No doubt, you and your healthcare team will develop a plan for managing your diabetes. The plan may include some changes to the way you eat, the way you move, and the medications you take. Even if insulin injections are not currently part of the plan, it is important that you familiarize yourself with the concept of taking insulin. Here's why.

### **DIABETES IS EVER-CHANGING**

Insulin is a hormone produced by the pancreas. Insulin's job is to shuttle glucose (sugar) out of the bloodstream and into the body's cells (the tiny components of all parts of our bodies). This helps to nourish the body's cells and keep the blood sugar level from climbing too high.

All people with type 1 diabetes require insulin—not just to control blood sugar levels, but simply to stay alive. The human body cannot survive without insulin, and people with type 1 diabetes produce little or no insulin of their own. Upon diagnosis, some people with type 1 diabetes still make a small amount of insulin. This is called a “honeymoon” phase. However, no honeymoon lasts forever. After a period of weeks or months, insulin injections almost always become necessary.

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## understanding insulin

More than 90% of people with diabetes have type 2 diabetes. Type 2 is very different from type 1 in that the pancreas continues to produce insulin. The problem is that the body's cells don't utilize the insulin very well. This is called insulin resistance, and may be the root cause of type 2 diabetes. Insulin resistance develops as a result of faulty genes (our heredity) and an unhealthy lifestyle. Excess body fat is perhaps the greatest contributor to insulin resistance. The aging process plays a role as well.

When insulin resistance is present, the pancreas needs to produce more insulin than usual to keep blood sugar levels within a normal range, kind of like an air conditioner that has to work extra hard to keep the house cool on a hot summer day. Over time the pancreas, like an overworked air conditioner, begins to break down. It starts losing the ability to produce insulin. Although very few people with type 2 diabetes require insulin when they are first diagnosed, nearly one in three will eventually require insulin to control their diabetes.



### A FEW FACTS ABOUT TAKING INSULIN

Fear of the unknown is common in our society. Remember the first time you tried a strange, new type of food? Chances are that once you gave it a try, you found it wasn't so bad. It might have even become a personal favorite. How about the first time you were introduced to a computer? What seemed intimidating at first has probably become an important part of your daily life.

We all have preconceived (and often incorrect) notions of what it means to take an insulin injection. Here are a few common assumptions, and the honest facts:

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## ASSUMPTION

**Going on insulin means I've failed at taking care of my diabetes.**

**Taking insulin puts me one step closer to the grave.**

**Insulin injections hurt like the dickens.**

**Insulin will make me gain weight.**

**Once I start taking insulin, I'll be on it forever.**

**I'll never be able to give myself a shot.**

**Insulin can make my blood sugar go too low.**

## FACT

As described above, it is perfectly natural for many people with diabetes to eventually need insulin-especially those who have had diabetes for quite some time.

Just the opposite! What puts people with diabetes at risk of serious health problems and death is uncontrolled blood sugar. By improving blood sugar control, insulin reduces these risks.

Insulin is injected into the fat below the skin, where there are no nerve endings. Today's insulin syringes and pen needles are so small and thin that most people feel no discomfort at all when giving their injections.

Eating more calories than you burn is what makes you gain weight. if you get more exercise and eat less, you can lose weight even when taking insulin.

Many people with type 2 diabetes are able to reduce or eliminate their need for insulin by adopting healthy lifestyle habits, losing weight, and using other newly-developed diabetes medications.

Just about anyone, from age four to 104, can be taught to take an injection. There are special adaptive devices for those with poor dexterity, limited vision, or fear of sharp objects.

While anyone who takes insulin can experience occasional bouts of low blood sugar, the chances are extremely small - especially with the new long-acting insulin products.