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**100% Effective Natural Hormone Treatment**  
**Menopause, Andropause And Other Hormone Imbalances**  
**Impair Healthy Healing In People Over The Age Of 30!**

## Getting To Know Your Insulin Pump

By Scott Michaels

Some health care providers prefer the insulin pump because its slow release of insulin mimics how a normally working pancreas would release insulin. Studies vary on whether the pump provides better blood glucose control than multiple daily injections. Another advantage of the insulin pump is that it frees you from having to measure insulin into a syringe.

An insulin pump is a medical device continuously delivering insulin under the skin through a catheter. It's usually connects somewhere in the waist area. There's a new generation of insulin pumps, called a patch pump. Currently patch pumps are only available from OmniPod. Patch pumps adhere directly to the skin with no catheter tubing showing. It then infuses insulin directly under the skin.

Either pump delivers insulin at an hourly rate. For instance, the rate might be 1.1 units an hour. However, the pump delivers different rates at different times of day depending on the patient's insulin infusion (or basal) rates that are programmed into the pump.

The amount of insulin delivered depends on two things. First by the amount of carbohydrate a patient eats using an insulin to carbohydrate ratio, and then by the correction factor, or the ratio of the number of milligrams per deciliter (mg/dl) a patient's blood sugar will be lowered by one insulin unit. If a patient eats 60 grams carbohydrate at meals and has an insulin-carbohydrate ratio of one insulin unit to 15 grams carbohydrate, the patient's insulin injection at that meal would 4 units.

However, if a patient has a correction factor of one unit to 50 points of blood sugar, the pump should give an additional injection of 2.5 units to lower his blood sugar from 245 mg/dl to a needed level of 120 mg/dl.

To use an insulin pump a patient must be able to manage it. This involves knowledge at several levels. First, patients must understand how to insert the catheter when using the pump, or how to attach the newer patch pump to their abdomen. They must also be able to push the right buttons on the pump to deliver proper insulin doses and adjust the basal rates.

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Then the patient needs to be skilled in carbohydrate counting so they are able to deliver correct insulin doses at mealtimes. And they should be willing to check their blood glucose levels at least four to six times a day. This assures that they detect a pump failure and prevent hyperglycemia and diabetic ketoacidosis (DKA, in type 1 patients).

Patient attention is important because no long-acting insulin is used in type 1 patients who use pumps and they need to correct high- or low-blood sugars before they are clinically observable and symptomatic.

Insulin pump therapy is almost never needed to maintain life because insulin can be easily injected under the skin. Most insurers will cover insulin pump therapy in situations where insulin pump therapy will significantly improve the level of diabetes care and control over and above multidose insulin (MDI) therapy. This includes cases where:

The glucose control in multidose insulin therapy is not optimal with glycated hemoglobin (HbA<sub>1c</sub>) than

the ADA (American Diabetes Association) recommended goal of 7%. An endocrinologist, who will be able to help the patient learn how to use and the pump and adjust basal and correction doses, prescribes the pump.

The patient has type 1 diabetes. However, in many situations patients with type 2 diabetes will benefit from the pump as well. Presence of hypoglycemia despite adjustments in insulin doses and utilizing carbohydrate counting to help decide pre-meal insulin doses in patients who are using MDI therapy.

Presence of hyperglycemia—especially as revealed by high morning readings (Dawn phenomenon) where increasing basal rates of insulin in the early morning hours would help to better control blood sugar levels.

Insurers require medical charts from the prescribing doctor as well as blood sugar logs from the patient to prove that there is real medical necessity.

Become a insulin pump expert.

<http://www.insulinpumps.diabetic-source.com>

## **Tips On How To Choose The Best Pond Pump**

### **By Grange Aquatics**

It often comes as a surprise to the budding pond enthusiast but the simple fact about owning a pond is that pond maintenance is not as simple as many people at first imagine it to be. Below we take a closer look at how to make sure that you get the best pump for your pond.

There are a lot of pond pumps on the market. So, how do you know which pump is the best for your

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pond? Follow our step by step guide for the answers:

**Pond Pump Size** Before you even visit your local pond specialist or look at pond pumps on the internet, the first thing you need to do is to accurately measure the size of your pond as this will determine how big a pump you will need. Many pond owners prefer to have a larger pump than is necessary and this is something which you should discuss with the pond specialist shop when you tell them the size of your pond.

**Pond Features** Another aspect of choosing the correct pond pump will revolve around the amount of pond features such as waterfalls and fountains that your pond has. The higher number of features the higher power pond pump your pond will require. If you have several pond features your pond specialist may even suggest having a separate smaller pond pump for each feature. This will have the advantage of working as a back-up system should any of the pumps fail.

**Pond Pump Features** When it comes to buying the actual pump, make sure that the pump has the recommended amount of biological filtration and that the pump will turn the water over a minimum of twice per 24 hours. Discuss the advantages and disadvantages of each pond pump with the pond specialist before agreeing to purchase the product.

**Pond Pump Maintenance** In order to get the best out of your pond pump you will need to ensure that it is being correctly maintained and care for. You need to check that the pump is working 24 hours a day and clean the pre-filters regularly. The cables attached to the pond pump should also be regularly maintained to ensure that they are not damaged and are performing correctly.

Grange Aquatics have been in business for over 20 years and have a dedicated team of staff on hand to share their expertise. Visit their website

<http://www.grangeaquatics.com>

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