Note About Content: This is a small sample from a 60-page FAQ about diabetes for an ebook. The client planned on publishing the ebook under his own name and preferred this structure. I completed the research for the answers for each question. The client got sick and the book remained unfinished and unpublished, as a result.

I was diagnosed with type 2 diabetes, am I going to have to go on insulin? What are my other options?

The short answer is no, not everyone with type 2 diabetes has to take insulin injections. Only around 27 percent of individuals with diabetes are treated through insulin - or insulin combined with oral medication - the rest are treated through various other methods, which will be discussed a little later. People with type 2 diabetes can still make insulin, though insulin production does decrease over time. Contrary to popular belief, type 2 is caused by insulin resistance, which causes the body to become less responsive to the hormone. It does not result from an inability for the body to produce insulin. Some individuals actually have higher-than-normal insulin levels at the beginning of the illness' course.

Determining whether an individual needs insulin injections involves looking at a wide range of factors. One such factor is the time that they are diagnosed. If you were diagnosed with type 2 relatively early on, then early treatment and control of blood sugar levels is enough for you to avoid taking insulin since the pancreas is more likely to produce it on its own. However, if you have lived with type 2 for several years, it is unlikely the pancreas will produce enough insulin, meaning injections are necessary. Insulin may also be needed if other medications and treatment methods have not worked. Regardless of how disciplined you are with dieting, exercising, and taking other medications, your body could still be having a problem producing insulin on its own, and injections may, again, be necessary.

If you do have to go on insulin, it does mean you have failed. Although insulin used to be used as a last resort, it rarely is now. Your doctor may prescribe insulin injections early on if they feel it is the best option for you, not because you have already run out of options or are doing poorly with your management plan. Type 2 diabetes is a progressive illness, meaning that over time, you may have to change how you are managing it. This may involve just switching medications, or it may mean going on insulin injections. Fortunately, if you do go on insulin, that does not mean you will always have to take it. Many individuals only need insulin temporarily. This commonly is needed for individuals who are pregnant, are undergoing surgery, battling cancer, or have broken a bone. Exercise or weight reduction may allow you to stop taking insulin, but it is not guaranteed.

Sometimes, insulin is a permanent requirement for managing your diabetes. This often occurs as individuals get older. Chronic emotional stress or weight gain also cause insulin resistance, meaning insulin injections become a more permanent treatment requirement. However, there are several benefits to taking insulin, if it is a requirement for you. It helps you avoid such health problems as amputations, heart attack, and stroke, and will help you feel better

if previous treatment options were not properly controlling your diabetes. Additionally, taking insulin does not always mean your life will be continually disrupted. With new advances in the field, it is becoming easier for individuals to tailor their insulin regimen by changing the times they take it, choosing between fast-, medium-, and long-acting forms, and choosing a delivery method.

Further, there are several types of insulin that work in different ways. Rapid-acting insulin includes aspart, lispro, and glulisine. These types are often used for covering insulin needs for meals that are taken at the same time as you receive the injection. These are often used along with longer-action insulin and typically work within 15 minutes. Lispro has an onset time between 15 and 30 minutes, and a peak time between 30 and 90 minutes. Lispro insulin lasts for around 3-5 hours. Glulisine, meanwhile, takes between 20 and 30 minutes to start working. It has the same peak time at around 30 minutes, and lasts for one to two-and-a-half hours. Finally, aspart begins working within 10 and 20 minutes, peaks at 40 to 50 minutes, and lasts 3-5 hours.

Short-acting insulin types cover insulin needs for meals that you eat within 30 minutes to an hour of receiving the injection. This type includes velosulin and novolin. Novolin takes between 30 minutes and one hour to begin taking action, and it peaks after around two hours. It's duration is much longer than that of the rapid-acting insulin, lasting between 5 and 8 hours. Velosulin has the same onset time and a similar peak time to novolin, but it only lasts for around 2 to 3 hours.

When rapid-acting insulins stop working, medium-acting insulins cover blood glucose elevations. This type can be combined with short-acting insulin and it is typically taken two times a day. NPH is the most common medium-acting insulin, and it reaches its onset within 1 to 2 hours. The peak for NPH is between 4 to 12 hours, while the duration of the insulin is anywhere from 18 hours to one day.

Finally, long-acting insulin covers insulin needs for an entire day. When necessary, doctors prescribe long-acting insulin in combination with rapid- and short-acting insulin. Insulin glargine has an onset time of around an hour to an hour-and-a half with no peak level. It is delivered to the bloodstream at a steady pace throughout its duration, which lasts from 20 to 24 hours. Insulin detemir, on the other hand, has an onset time between 1 and 2 hours, followed by a peak at around 6 to 8 hours. It lasts up to 24 hours.

It is also possible that your doctor prescribes premixed insulin, which combines specific amounts of short- and medium-acting insulin in a single pen or bottle. Most often these products are taken before meals two or three times a day. Depending on how they are mixed, they have an onset time anywhere from 10 to 30 minutes, a peak time between 30 minutes and 12 hours, and a duration between 14 and 24 hours.

There are several other treatments and medications that manage your diabetes other than insulin. Typically, the first line of treatment involves diet and exercise. A good diabetes diet sticks to 1,800 calories a day, with carbohydrate intake spaced out throughout the day. Focus largely on eating fruits, vegetables, and whole grains - along with low-fat food - while avoiding too many animal products. For exercise, get at least 150 minutes of exercise each week, or 30

minutes a day for five days. A combination of aerobic exercise and resistance training is the most effective at controlling blood sugar levels.

Diet and exercise was the standard treatment for early type 2 diabetes, but now the American Diabetes Association recommends that doctors prescribe metformin as part of early treatment. Metformin decreases how much sugar is produced by the liver, while increasing how sensitive the body is to insulin. When starting on metformin, your doctor may prescribe the medication only one or two times a day, and then gradually increase the dosage. The combined treatment of diet, exercise, and metformin is used for around three months, and if A1C is still over seven percent, then other medications may be added.

If metformin, diet, and exercise aren't working, there are several medications that are added to your treatment plan before insulin is prescribed. Sulfonylureas increase insulin production within the body. These drugs have been around since the 1950s and are not used as an early treatment because they may cause weight gain or decreases in blood sugar. Some medications that fall into this class include glipizide and glimepiride.

Another option are meglitinides. These are short-acting diabetes medications that stimulate the release for more insulin from pancreatic cells. They must be taken three times a day, but they are less likely to cause hypoglycemia. Normally, meglitinides lower A1C by up to one percent. Some examples include nateglinide and repaglinide.

Thiazolidinediones lower insulin resistance and do not cause hypoglycemia. They lower A1C by up to 1.5 percent, but there is some evidence that they increase the risk of heart failure. Due to this, any individual using thiazolidinediones should have their heart regularly monitored for problems; and individuals with congestive heart failure should not take these drugs. A few examples of this medication are pioglitazone and rosiglitazone.

GLP-1 receptor agonists, such as exenatide, and DPP-4 inhibitors, like saxagliptin and sitagliptin, are both incretin agents. These types of medication decrease the rate of digestion while increasing insulin secretion. DPP-4 inhibitors modestly reduce blood sugar levels without causing much, if any, weight gain. GLP-1 receptor agonists, meanwhile, reduce blood sugar levels more mildly than sulfonylureas, and they are not typically used on their own.

SGLT2 inhibitors, such as dapagliflozin and canagliflozin, are some of the newer diabetes drugs on the market. These medications prevent the reabsorption of sugar into the kidneys, instead forcing the sugar out through the urine.

All of these medications are taken orally as pills, but there are some injectable drugs that are not insulin. Exenatide, for instance, is injectable and increases how much insulin is secreted in the body. This medication may cause nausea and is available in an extended-release version. Another non-insulin injectable drug is liraglutide, which is injected once a day. This medication may help with weight loss and increases insulin production. However, there are some reports that link the drug to thyroid cancers.