

UNDERSTANDING DIABETES: A CHRONIC DISEASE TROUBLING MILLIONS OF PEOPLE IN THE WORLD IN THE 21ST CENTURY (1)

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ABSTRACT

The primary focus of this article is the understanding diabetes as a chronic disease, which is troubling millions of people in the world currently. The study examines the origin, the spread, and management strategies for the diabetes. Health professionals agree that the disease is chronic, therefore not curable in most cases. Again, they agree that it is a family disease, meaning that it runs through the family history. They also say that it is a lifestyle disease. The Seventh-day Adventist Church generally is health-conscious organization, and is concerned about the negative impact of diseases, which ravages humanity nowadays. The disease has other related diseases that go with it, such as high blood pressure, blindness, stroke, kidney failure to mention just a few. Such and other diabetic complications will be discussed in this article. For this reason, such illnesses will also be looked at in order to comprehensively preserve lives and encourage the health consciousness of the people living today. This study focuses on the following subtopics: Understanding diabetes, history of diabetes, types of diabetes, blood glucose, diabetic symptoms, diagnosis, and preventing and reversing diabetes, etc.

Purpose: *The purpose of the study is to make a significant contribution in the better or full understanding of diabetes as well as how to prevent, treat it or manage it successfully. Developing relevant strategies, which would prolong life with a disease for all who live with it and their immediate families.*

Findings: *It must be noted that the history of diabetes traces its origin from 1550s BC. How and why, it was initially named diabetes mellitus. The very first physician who discovered diabetes, and its symptoms will be mentioned. Among many attempts to prevent, treat or reverse diabetes, three main methodologies would be revealed, such as diet, exercise, and medication.*

KEYWORDS: *Diabetes, High Blood Pressure, Diabetic Complications.*

INTRODUCTION:

Documented articles, and relevant literature shall be examined to ascertain the depth, and the danger diabetes pose to human beings in this day and age. User-friendly methodologies, such as NEW START shall form part of this study. Fear of dying prematurely, suffering complications related to diabetes consist of the bulk of information with regards to the disease. Albeit the history of the disease will also play a role in this study. The aim is to better or accurately

understand the illness and play safe around it. Prolong life despite the prevalence of diabetes is critical. Hypothetically, readers would gain valuable knowledge as they read this article.

Understanding diabetes

“All your body cells need energy. Their primary source is glucose, which needs the hormone insulin in order to enter the cells. In diabetes, there is a lack of insulin or insulin cannot do its job properly, which causes various symptoms and health problems.”¹

Understanding diabetes includes knowing this piece of information depicted by Walker. Here, the critical point is that cells do not get enough energy and the hormone insulin when affected by a disease of diabetes caliber. The body is devoid of its natural energy and succumb to the adverse impact of the disease. As a result, a variety of symptoms and health problems are inevitable. At this stage the body is actually unhealthy. A diseased body needs treatment and unfortunately, chronic diseases demand taking medication for life. Pills, and insulin injection are not pleasant, thus, some diabetics default treatment. This default poses danger because the situation gets worse instead of getting better. It should be noted that insulin failure may lead to death prematurely. Nonetheless, following health professional instructions would assist in getting diabetes under control. The correct action plan for diabetics is first to admit that they are sick, and that their sickness can be kept under control if their lifestyle changes and they are health conscious.

According to Jain, “There are three main factors affecting the blood glucose level:

1. Food
2. Insulin
3. Exercise

After eating, when the blood glucose level starts to rise, insulin (which is stored in the pancreas) is released into blood which regulates the blood glucose level. When the blood glucose level falls, it inhibits the release of insulin. In diabetes, the function of this system become faulty.”² This is why diabetes is dangerous, it is so because, food is essential, and every living being or animal needs food. However, in the context of diabetes, there problem of glucose level starts right after eating. Probably the type of food could trigger blood level and make it shoot high. Obviously, certain foods are not necessarily a problem, but instead they benefit the diseased body. Weakened insulin could not do its proper job as was argued by Walker. Now that Jain also mentions it as one of the main factors responsible for raising blood glucose levels, it suggests that it has to be looked after. This article later will look at food that is diabetic-friendly recommend it to that diabetes may not escalate after eating.

Food, insulin, and exercise as the main factors affecting the blood glucose level, something must be done urgently, in order to combat problems of high glucose levels. One thing stands out clear regarding diabetes, which is even if at some point, blood glucose levels may be good, the next meal may cause havoc and evoke high sugar in the bloodstream. One therefore suggests that only heathy foods must be served not only for diabetics, but for a family as a whole. Exercise is a must for diabetics if they which to live healthy and longer, unfortunately, lack of discipline, and determination result is poor exercise or no exercise at all. Busy schedules as people are working long hours also deprive humankind today of the value of exercise. Understanding quarter of this paper is assumed to be helpful, while more valuable information is yet to come. The researcher is delighted to say that God created humankind with the ability to think and to do. Therefore, now

is the time for all humankind to eat for living strong and healthy, and not just to fill up the stomachs, to the neglect of good health.

Eating must not be determined by taste or appetite, but must be selected carefully, so that diabetes may be properly managed. While Jain mentions three factors under review, there are other important factors, which needs to be considered too. It will be stated when we discuss NEW START later in this article. Mardlin claims, “In a nutshell, ‘stopping diabetes’ simply means getting our bodies to function optimally and as close as possible to someone without diabetes...by understanding the mind-body connection, it is possible to ‘stopping diabetes’ as far as we wish. That can mean anything from dramatically improving it physically, complete emotional freedom, avoiding and halting complications, right through to reversing diabetes altogether. Ultimately, this is our choice as individuals. Success lies in how we think about our goals, our deep belief system, ambitions, and intended outcomes.”³

This bold and beautiful statement seems like beating the odds. The purpose of understanding diabetes is to stop it or reverse altogether. The writer states it as if it is a simple thing to do so. However, no matter how true this claim is, the fact of the matter is first, that it is and individual's choice according to the wishes we have to be diabetic free. Getting our bodies to function optimally is a goal seemingly for all. Sickness is bad. We need to enjoy a clean bill of health, but the brunt is that diabetes shows its ugly head as we live here on earth. Second, that success lies in how we think our goals, our ambitions and our belief system. However, some family has a very strong diabetic gins, such that members with it, suffer complications and die young. This may be because of poor choices probably or not. One is encouraged to share with readers Mardlin's thoughts of stopping diabetes, and also reversing it. Further concept of understanding diabetes is knowing diabetes types. Up next is the subheading on how many types and how do they differ from each other.

Three types of diabetes

Health professionals and scholars mention two main types of diabetes, and others namely:

1. Type 1 diabetes
2. Type 2 diabetes
3. Gestational diabetes

Briefly, the study defines all three this way: Walker for instance says, “Although diabetes is often referred to as if it is a single condition, there are actually different types. The main ones are type 1 and type 2 but there are also other types, such as gestational diabetes and maturity onset diabetes of the young, or MODY.”⁴ This concept furthermore assist all of us who are health conscious to have the awareness of what diabetes is all about. And each type is defined thus:

Type 1

In this type of diabetes, your pancreas does not produce any insulin. As a result, your body cells cannot absorb glucose, your blood glucose level rises unchecked, and your cells are deprived of their primary energy source, leading to symptoms such as fatigue, passing large amounts of urine, and weight loss.”⁵

Type 2

“In type 2 diabetes-the most common form of the condition- your pancreas produces some insulin, but in insufficient amounts and/or your body cells are resistant to its action. As a result, your cells receive too little glucose, and your blood glucose level rises too high.”⁶

Gestational

“Diabetes that first appear in pregnancy is known as gestational diabetes...It first appears during pregnancy, at around 24-28 weeks, and disappears when the baby is born. Women who develop these types of diabetes are at high risk of getting gestational diabetes again in future pregnancies and also of developing pregnant type diabetes within a few years.”⁷

Chronological analysis of these three types of diabetes shows that they differ from each other. Type one the pancreas produces no insulin at all, cause fatigue and loss of cells energy. Whereas, type 2 produces some insulin, but insufficient, or there is an insulin resistance. The gestational diabetes obviously is gender based-in that it only affects women during their pregnancy. Such are at risk of developing pregnancy type 2 and also gestational each pregnancy period. Part of understanding diabetes is knowing the history of diabetes. Next this subheading is discussed.

The History of Diabetes

“Diabetes: It’s beginning the first known mention of diabetes symptoms was in 1552 B.C., when Hesy-Ra, an Egyptian physician, documented frequent urination as a symptom of mysterious disease that also caused emaciation. Also, around this time, ancient healers noted that ants seemed to be attracted to the urine of people who had this disease.”⁸ In 150 AD, the Greek physician Arateus described what we now call diabetes as ‘the melting down of flesh and limbs into urine.’ From then on, physicians began to gain a better understanding about diabetes.”⁹

Well, no argument, diabetes is not a new disease, although, the writer does not tell us about its prevalence back, but it is certainly established that it is an old human condition. However, today, it really prevalent. Millions of people live with diabetes illness. It is clear that at its early stages, it was not known as diabetes, but later, it was given this name. For Africans, it is good to observe or learn that the physician who discovered diabetic symptoms, in 1550s was from Egypt, an African country. Whereas way before him a Greek physician discovered it but did not yet knew what it was. It is also interesting to know that urine symptom is still one of the modern ones today. Ants as noted by ancient healers were attracted to urine of the people living with diabetes. This history assists us better understand how a disease could be traced back in ancient days.

Moreover, “To acknowledge this feature, in 1676 the word ‘mellitus,’ meaning honey, was added to the name ‘diabetes,’ meaning siphon. It was until the 1800s that scientists developed chemical tests to detect the presence of sugar in the urine.”¹⁰ Such scientific discoveries are highly appreciated, even in modern days, in that “As physicians learned more about diabetes, they began to understand how it could be managed. The first diabetes exercise, often horseback riding, which was thought to release excessive urination.” Again, it is encouraging to have the diabetes awareness, such that it could be managed. There is hope for the world suffering from diabetes today. Only if good and wise choices are made. Furthermore, Krishna, states, In the 1700s and 1800s, physicians began to realize that dietary changes could help manage diabetes, and they advised their patients to do things like eat only fat and meat of animals or consume large amounts of sugar. During the Franco-Prussian War physician Apollinaire Bouchardat noted that his diabetic patients’ symptoms improved due to war-related food rationing, and he

developed individualized diet as diabetes treatment. This led to the fad diets of the early 1900s, which included the ‘oat-cure,’ ‘potato therapy,’ and the starvation diet.”¹¹

The history of diabetes is interesting in many ways than one. One feels like this is an eye-opener, in that the disease is better known due to knowing this brief history about it. Of course, some of the methodologies may not be as relevant today as probably they were back in a day. Such claim that eating fat, meat and sugar treats diabetes is not on. Today, we better off without all three types of food. However, dietary change is still very much relevant and in fact is a must if we wish to manage diabetes. As physicians better understood diabetes they developed some therapy, which means that even today, they need to keep researching and discovering new light and gain latest insight so that they can advise their patients accordingly. One sees the light at the end of the tunnel if our medical doctors and all health professionals would embark more on civil education, as well as sampling with certain number of patients, who are determined to change diet, drink enough water, exercise and the like. The history of diabetes is not the end of the narratives, symptoms also help a great deal in understanding the disease, and therefore the following discussion is on the symptoms of diabetes.

Diabetes Symptoms

At Mayo Clinic, in South Africa, diabetes symptoms are defined as follows: “The main cause of diabetes varies by type. But no matter what type of diabetes you have, it can lead to excess sugar in the blood. Too much sugar in the blood can lead to serious health problems.” Mayo Clinic <https://www.mayoclinic.org/disease-condition>. This Clinic does a great job in treating diseases related to diabetes and diabetes itself. It is correct to say that symptoms vary from one type to the other, in that prediabetes and gestational are easily reversible, while type 1 and 2 are not that easily reversible, yet reversible over time if lifestyle change is constant.

Some of the symptoms of type 1 and type 2 diabetes are:

- “Feeling more thirsty than usual.
- Urinating often.
- Losing weight without trying.
- Presence of ketones in the urine. Ketones are a byproduct of the breakdown of muscle and fat that happens when there’s not enough available insulin.
- Feeling tired and weak.
- Feeling irritable or having other mood changes.
- Having blurry vision.
- Having slow-healing sores.
- Getting a lot of infections, such as gum, skin and vaginal infections.”¹²

These are some of the proven symptoms by which diabetes is identified. Knowing them also assist patients realize that they need to see a doctor or visit clinics and hospitals for checkups.

Diabetes Diagnosis.

In order to diagnose the disease, the following tests are required:

- “Fasting plasma glucose test. The fasting plasma glucose (FPG) test measures your blood glucose at a single point in time...
- A 1C test. The A 1C test is blood test that provides your average levels of blood glucose over the last 3months.
- Random plasma glucose test...
- Glucose challenge test...
- Oral glucose test...”¹³

All the above-mentioned diabetes tests are used in checking patients’ diabetic status. And if the person is sick or not is affirmed by tests. In most cases they are reliable and accurate. Guess work has no place in medical profession. This valuable knowledge is vital in understanding diabetes as it spreads throughout the whole world. Diabetes symptoms may be the signs of diabetes. Walker adds, “If you have symptoms that suggest you may have diabetes, you should consult your doctor because a definite diagnosis requires special tests to measure the level of glucose in your blood.”¹⁴ Again, the emphasis is that diagnosis should be done by a health professional, not just an assumption. When a person is living with diabetes, they need to know what to do in order to face it squarely, confidently, and manage it properly.

Living with Diabetes

Diabetics live with a disease. “The first question to ask is what to do when first diagnosed? A diagnosis of diabetes can affect your life in many ways. It may affect you emotionally and will also have practical effects on your everyday life as you learn to manage your condition. You will have various medical checks, meet a range of health professionals, and receive a great deal of advice and information about adjusting to life with diabetes.”¹⁴ One finds joy observing that professional help is available. So, patients are not left alone to fend for themselves. They are informed, and so, they should take advantage of these opportunities and seize the moment. One great change is adjusting from leading normal life before diagnosis and afterwards. From eating to trust in divine power patients should receive some kind of civil education so that they are equipped with the correct information, which helps a great deal in calming people’s nerves, and improve their mood swings.

As we live with diabetes, we need to be psychologically wise, and not allow the disease to control our moods, and emotions. Healing of the damaged emotions may need to be considered for those struggling to accept the reality. In a nutshell, living with diabetes demands awareness as that it is chronic and medication whether Western or African should always be taken accordingly. How to use insulin injections is also important to know how to rotate areas in the belly rather than injecting in one place. Application of New Start is always critical. Another important element of managing diabetes, is regular check-ups. Health professionals’ advice, “If you have type 1 diabetes, you will be advised to check your blood glucose between 4 and 10 times a day. If you have type 2 diabetes, you may not need to check your blood glucose levels, except if you are taking medication that includes an insulin-stimulating drug, such as a sulphonylurea.”¹⁵ Says, Walter. Seemingly, this is the most difficult thing to do, but with personal determination, and family support, it is doable. Diabetics ought to stay motivated so that they can always play their part in managing diabetes.

High Blood Pressure

High blood pressure is dangerous if left uncontrolled, and in most cases, it goes together with diabetes. Now we are looking at what scholastic literature is saying about it. It is known as silent killer. Every third adult in Africa has high blood pressure. These hypertensives are three times more likely to have a heart attack, five times more likely to develop heart failure, and eight times more likely to suffer a stroke than people with normal blood pressure.”¹⁶

A silent killer indeed, diseases, such as heart attack, stroke all result mostly from high blood pressure. The worrying factor is the prevalence in Africa in particular, every third adult person has high blood pressure according to writers. Understanding diabetes includes comprehensive knowledge of the disease and secondary diseases, related to it.

Diabetes Complication

If left uncontrolled, diabetes may lead to some terrible complications. One of them is diabetic foot. Jain elucidates this was. Death of tissues of the feet is a common reason behind hospital admission of diabetic patients. In the long term, people with diabetes are more likely to develop foot trouble and it pays to cultivate some good habits inspecting your feet daily, keeping your toenails properly trimmed and avoiding badly fitting shoes from the very outset.”¹⁷ Moreover, Jain adds.

“Gangrene is the death of tissues in any part of the body. It most commonly occurs in the toes and fingers of the lower extremities. Gangrene also occurs in people without diabetes. It is a well-known fact that people who do not suffer from diabetes are prone to problems of feet which are, for most part, due to carelessness and can be easily avoided.”¹⁸ Other diabetic complications include, blindness, limbs amputation, stroke, etc. Foot problems is one of them as mentioned here by Jain.

NEW START

New start is a synonym of the following: N-nutrition, E-exercise, W-water, S-sunshine, T-temperance, A-air, R-rest, and T- trust in divine power. Following it closely, would truly enhance health in a true sense of the word. Nutrition being part of diabetic solution and the rest of it means that taking one step at a time could be a wise move. Colbert’s notion of eating plan and mindful eating speaks volumes about nutrition. “One of the first thing people think of when they hear the word diet is something they can’t eat...When it comes to food, your body ultimately needs three components of food every day to stay healthy:

1. Carbohydrates (low-glycemic carbohydrates such as vegetables, fruits and grains)
2. Proteins
3. Fats”¹⁹

According to Mitchell, “How long we live and how healthy we are both depend on what we eat, how much exercise we get, the poison we take into our bodies, our frame of mind, and the one we cannot change, our genes...We cannot change the genes we inherit from our parents, but, contrary to popular opinion, apart from certain rare inherited diseases, lifestyle is more important than generic inheritance...A healthy life style can at best prevent or at least postpone degenerative disease...Vitamins, Minerals, and phytochemicals.”²⁰

Diehl & Ludington emphasizes warning against the Western diet, which is “from fresh to processed.” The writers argue that “food can cause diseases.”²¹ Tying together all the writer’s concepts one thing stands out clear, which is nutrition is key to solving degenerative diseases, such as diabetes. Knowing what to eat and what not is essential. The long and the short of the narratives is that processed food is not good as much as fresh from the soil is. It is observable that the writers’ points of view differ with regards to type of food they recommend. Others emphasizes carbohydrase, protein and fats, whereas others emphasize vitamins, minerals and phytochemicals. Further and in-depth study may bring about balance in this matter. For one, the emphasis is on the importance of nutrition as a means of managing diabetes.

As far as Diehl & Ludington, New Start is defined as follows:

Nutrition: The Ultimate Diet

Exercise: Modern Fountain of Youth

Water: The no- Calorie Wonder

Sunlight: Kiss of the Sun

Temperance: The Balanced Life

Air: Don’t Poison Your Home

Rest: How Much is enough?

Trust in Divine Power: The Ultimate Life.

With this brief summary in mind, we can see the importance of applying New Start in life. It provides us all vital ingredients of good healthy life. To prevent diabetes, stop it or reverse it requires that this program is in place. It is believed that all humanity deserves good health and longevity of life that is productive and optimal. Understanding nutrition calls for planning meals, choosing meals that benefit the body, and the mind of all family members. Exercise should not be painful, but enjoyable and adequate. People choose that which appeals to them individually and also that which is enjoyable to them. Drinking enough water definitely assist in diabetic situation because it prevents kidney failure, which is yet another painful and dreadful disease. It is generally good practice to drink enough water daily, since it also benefits both, the brain and the body. It also prevents constipation.

Sunlight is free, we just need not to expose ourselves to it carelessly, simply because it may cause skin cancer, as it may be too hot for our safety. However, before the 11th hour and after 15 hours, it is normally safe to get the kiss of the sun. Vitamin D, which fight diseases, and promote health, as well as strengthening immune system. A balanced life is definitely available to people who practice temperance. It determines what we eat, what not, what too drink or not. All that balances life calls for temperance. Air. What a joy to have it free of charge? It’s natural, and is always there, accept for too hot or too cold weathers. It is safe to sleep in a well-ventilated house at night, keeping windows open in the morning or during the day if safe is highly recommended. No need to inhale poison due to carbon monoxide.

Rest, how much is enough is a question calling for an answer. The answer is simply, get enough rest according to your needs, health and age. To this end God has provided the Sabbath rest for His created beings to rest a while from their labour. Those who do not know anything about Sabbath rest need to be taught to that they may also benefit from it. Work is good, but no one

deserve slavery. Manual labour is a food form of exercise, but rest is still a requirement. Last but not least, New Start ends well with a call to fully trust God, with everything including life and health. Ultimately, life comes from God and only He sustains it, therefore, it is imperative for Christians to wholly trust God.

CONCLUSION

This article on understanding diabetes concludes by re-emphasizing the importance of knowing more or adequately about this dangerous killer disease, together with its complications as well as secondary illnesses resulting from it. The danger of high blood pressure, stroke, heart failure or heart attack were also highlighted in this article. Knowing diabetes types, such as type 1, type 2 and gestational diabetes is vitally important. Diagnosis is very crucial for all people to know as it helps to discover a person health or illness status regarding diabetes.

New Start could be discussed lengthily in the future, but for the limit of this study, suffice is what is summarized above. The history of diabetes surprising as it may be that it dates back in B.C epoch, yet it is worse today. The notion of stopping it, or reversing it was highlighted in this work, and it is a rare experience as millions are still suffering diabetes disease and its aftermath. Living with diabetes is challenging in many ways, including regular check-ups of blood glucose levels. Visiting doctors and taking medication, which is pills and injection form part of living with a chronic disease. Thus, the matter reaches the conclusion with the hope that this brief article has made a significant contribution in helping diabetics understand this chronic illness better. One wishes all of them well as they take it upon their hands to control the disease and live better and longer.

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