Insulin Dependent Diabetes - Sequel

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Insulin Dependent Diabetes - Sequel Dedication

Original book was dedicated to the memory of Elliott Proctor Joslin who spent his entire professional life fighting the "gangrene" of diabetes. Sequel is not dedicated to any one individual but to any individual who *has been* or *will be* diagnosed with diabetes either Type 1 or Type 2. May your *'mindset'* be on proper control and management of your disease and with that control and management attain as fantastic a lifespan with diabetes as I have had.

Insulin Dependent Diabetes - Sequel Introduction

In 2004 there was a book published entitled "Insulin Dependent Diabetes - My First Fifty Years". It's an autobiography detailing a very productive life even though the author has struggled with Type 1 diabetes since the age of six. I'm John R Bennett and I'm that author. It's now 2023. Doing some minor math you wonder why I'm writing a sequel when it's not a special anniversary and there's been no miraculous discoveries regarding diabetes treatment. Some inexplicable feeling came over me recently that has prompted me to begin writing again.

Seventy-four, IMHO, is not old, but my age *is* slowing me down. My cardiologist no longer allows me to attempt any of my earlier beloved activities like *cross-country bicycle riding* or hours climbing and cutting trees or *kaying in a snow storm*. Exercise, so important with diabetes, is now limited to mowing grass or taking walks with my *wife Joann*. My sports, once baseball or softball, have been replaced with playing corn-hole or romping with my *great-grandchildren*. However, I praise God that all four of my extremeties are working fine. No neuropathy or tingling of any kind; maladies so prevalent in long term diabetes.

There are numerous differences between this Sequel and it's predecessor. Sequel has no glossary; the original book required waiting months getting permission to even describe what words or phrases meant. Not happening this time. Sequel contains no photos of equipment that might raise copyright issues. If you've read the original book you'll see the other differences yourself. When the original book was published, I didn't know that after five years I'd have to pay fees to keep it in print. Therefore, this Sequel is NOT being published. Advertisement is by word-of-mouth and web-crawler accessible meta tags. There are no chapters per se. Yes, there is indexing as you will see below, but there is only a single URL.

In the dedication, I used the word 'mindset'. Handling the ups and downs of both high and low blood sugars can be exacerbating. A positive approach in controlling your diabetes is an absolute necessity! My Christianity plays an important role in this 'mindset'. I could be asking, "Why has God allowed me to be 'burdened' with diabetes?". Or "God, why haven't you taken away my diabetes when I asked you to?". As you continue reading and see how many people I've touched and been an example to, you'll see why I believe God is *using me* not only to reach out to those with diabetes, but showing my stewardship in His plan for me.

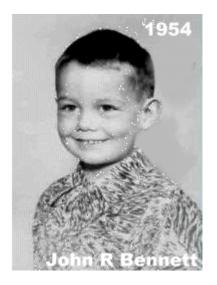
Insulin Dependent Diabetes - Sequel Foreword

From an early age my brother, John, discovered he was a diabetic. Our mother, at first, had to learn how to analyze and adjust the amount of insulin he needed to take. But, as he grew, he had to adjust the amount to inject into his body. We all expect our doctor to give us whatever injections as needed. That is not the case with insulin. It had to be calculated each day, with each shot, by analyzing the blood to discover how much was needed to keep in balance. If not enough his blood sugar would go dangerously high and if he took too much he could go into insulin shock. Each summer John went to Camp Joslin, in Massachusetts, where they worked with diabetic kids. By learning to detect the symptoms and what to do, more or less insulin, he could remain healthy. Those details, and how to respond to them, kept him alert to the need of correction. For a young boy, he had a big responsibility to analyze, for himself, his own adjustments, in order to maintain the balance from his own analyzation. Those details have always been in his mind and his responsibility.

Rev. James Gordon Bennett

Insulin Dependent Diabetes - Sequel N

My Diabetes History



At six years of age I was already taking daily injections of 4 units U40 *NPH* and 2 units U40 *Regular* insulin. Mom and I spent six weeks training at The Joslin Clinic, New England Deaconess Hospital, Boston, Ma. She became a licensed dietitian and when I came of age, so did I. My diet at the time was 1200 calories a day. My diet, my insulin, my exercise all increased after I went home. U40 translates to 40 units per milliliter. Througout the years this changed to U80 then to U100 then to U100 synthetically made insulin, Humilin. Now I understand there's even a U500 being distributed, although I've never seen it let alone used it.

My first syringe had a 26g (gauge) needle with a cobalt blue plunger; the higher the gauge, the smaller the needle. I believe most needles today are 31g. Even today, my diabetes kit contains numerous syringes used for emergencies or simply to calibrate my pump. As pumps have progressed, this calibration is needed less and less.

My diabetes regime began with urine testing to help determine blood glucose levels; urine is body waste, so this method was an approximation only. In 1970, with the start of glucose monitors, I began testing blood sugars with blood from my finger tips. Today, I only require my meter occasionally. Now I use a CGM, Continuous Glucose Monitor, worn on the

back of my upper arm. The CGM transmits a signal to some receiver every 30 seconds which in turn shows on a receiver. Today's receiver can now be set up with an App to show results on a Smart Phone.

I'll talk about pros and cons of the App later. I've worn an insulin pump now for over 25 years. Two years ago I switched pumps because the new pump allowed itself to also be my CGM receiver. Again, more later.

Mindset! After 24¹/₂ years with diabetes, I thought my disease was all but conquered. Then while raking leaves around some bushes, a twig snapped in my eye and lacerated my cornea. Calling the doctor, a GP (General Practitioner), he said come right in. After his examination, he treated my eye with a salve, and then blew my mind. "How long have you had diabetes? You have second stage diabetic retinopathy. I'll call an optometrist to set up an appointment." He talked directly to the optometrist and not just a receptionist. "I just had an appointment with a patient cancelled. If John can be here in 15 minutes, I'll see him".

Twenty minutes later, my eyes dilated, I was being examined. "I'm calling an opthalmologist, you need laser treatments". In my presence the optometrist called the opthalmologist directly. "I just had an appointment with a patient cancelled. If John can be here in 30 minutes, I'll see him".

An hour later, after the examination, I was told that the next day, the day scheduled for laser surgery, I had an appointment. That day and the following six months, to me, are simply miracles. For six months I was legally blind. No bandages or visible signs of treatment; I just couldn't see. Yet I never missed a day's work. A friend who worked in the same department that I did, came and picked me up every morning and brought me home every night. Today I have counted 17 laser treatments; for retinopathy, 8 treatments on my left eye, 7 treatments on my right eye. Later 2 treatments (both eyes) for cataracts. 9 treatments were completed within 6 months of diagnosis; the rest span the next 26 years. Today, I go for an eye examination every 6 months. The last 11 years have seen no

further proliferations in either eye. However, I have been diagnosed with *macular degeneration*. You can see me wearing 3 different pair of glasses; I hate bifocals/trifocals (reading, normal, distance). I can no longer drive after dark or during a heavy rain. You can say that this is entirely due to the aging process, but experience has shown me that nothing is exempt from Type-1 diabetes.

My emotions sometimes go absolutely haywire. Seemingly calm, cool, and collected, in a moment I can start shouting and go beserk. Moments later, I can again be calm, cool, and collected. Looking at my CGM, I'll see my blood glucose readings are climbing over 200 mg/dl, optimal range is 100 to 120, and some stupid little thing has triggered my breakdown. Again, nothing is exempt from Type-1 diabetes.

I can't count the number of insulin reactions (blood glucose level below 80 mg/dl) I've had. Once, I was working under a riding lawn mower and my daughter came to remind me it was dinner time. When she touched my leg to get my attention I literally lifted the mower one handed and threw it away. I had low blood sugar and my body was feeding on adrenaline. It took six men to hold me down and force me to drink a glass of orange juice. I had no memory of the incident from the time I started working on the mower until I once again gained consciousness. Even again, nothing is exempt from Type-1 diabetes.

When I was twenty-one I decided I wanted to become a diabetologist, a person specializing in the treatment of diabetes. To say I was naive is putting it mildly. Exclusively working with young people with diabetes is a great ambition, but you are first required to be in the medical field. My asperations were not eight years of college to become an M.D. and then add more training to become a diabetologist. I already had fourteen years training in diabetes management with my own diabetes; that should be enough. STOP - NOT SO!

Here's some information I never knew before. The first insulin was secreted from a dog. Few people know that. We remember insulin starting from beef then pork then a mixture of both. But dogs? We normally remember *Banting and Best* as the discoverers of insulin in 1922. Yet few people know that *Collip & Macleod* were also on that team.

The discovery of insulin referred to above is the process of obtaining the hormone insulin from some source other than the human body, purifying it as best as humanly possible, then injecting that purified insulin back into a living body, not always a human. Insulin in the human body was studied as early as 1869.

At the Joslin Clinic when I was first diagnosed, I learned that insulin is secreted by the pancreas in the islets of Langerhans. Much later in my personal studies of diabetes did I learn that the islets of Langerhans have multiple cells each secreting separate substances, two of which are insulin and glucagon. Diabetes occurs when the insulin islets malfuntion and insulin is no longer secreted. Glucagon increases your blood sugar level and prevents it from dropping too low, whereas insulin, decreases blood sugar levels. Glucose is the main sugar found in your blood. You get glucose from carbohydrates in the food you eat. This sugar is an important source of energy and provides nutrients to your body's organs, muscles and nervous system. Glucose is very important because it's the primary source of energy for your brain. Your body normally has a complex system to make sure your blood sugar is at optimum levels. If you have too much or too little glucose in your blood, it can cause all sorts of complications. Glucagon triggers your liver to convert stored glucose (glycogen) into a usable form and then release it into your bloodstream. Have I bored you enough yet?

Back to the islets of Langerhans; they are named for the German physician *Paul Langerhans*, who, in 1868 first described them. Enough already.



Growing up I was never self-conscious about my diabetes. I loved talking to anyone who wanted to listen. "Why are you pricking your finger?", "What's that thing that's showing '127'?", "Why are you injecting that needle into your stomach?" were questions I heard all the time. In the middle of a ball game with me coming to bat and we heard my mother ring the cow bell, everyone knew why I would drop everything and go home to eat. I can honestly say I've never used my diabetes as an excuse for not doing something. However, I also found I did need consistency.

One of my first jobs required my working 'Dupont' shifts which meant working 4PM to midnight for a week, have two days off, work midnight to 8AM for a week, have two days off, then work 8AM to 4PM for a week and have three days off. My doctor made me quit because I was losing weight and my *A1C* was climbing over 7. My next job was working for the Department of Energy (DOE) testing computer software and I loved it.

My shift was 4AM to noon and the mainframe computer I was using for the tests had to be back up and running by 8AM when, in my office, I would test my blood glucose, take my insulin, and go to the cafeteria for breakfast. I never thought it necessary to close my office door until one day a female co-worker walked into the office while I was injecting my insulin and she fainted on the floor. Sorry!

Going to the cafeteria was always a great experience. By the time I got into the building there was always a line waiting for breakfast. I became good friends with the female short-order cook whose husband had previously died from diabetes complications. When she found out I had Type-1 diabetes and had recently taken my insulin, she called me to the head of the line, handed me my breakfast and made me eat even before I paid for it. That job lasted for over 10 years.

Insulin Dependent Diabetes - Sequel Joslin Camp

I mentioned The Joslin Clinic aka The Joslin Diabetes Center earlier. But, it was *Camp Joslin*, a camp for boys with diabetes, in Charlton, Ma., where I spent great portions of 18 summers, that I have my fondest memories. First as a camper, next as a counselor, then as part of the paid maintenance staff, lastly as a volunteer. Until 2010, while we vacationed in New England, we would go to the "Oldtimers Day" (in 2007 politically renamed "Alumni Day") and revisit those memories.

We, the campers, had a great time during our period(s) at the camp without realizing we were being trained regarding our diabetes management. Camp is the greatest place for *'mindset'*. You find you're NOT the only person with diabetes and you share both the likenesses and uniqueness of personal training and experiences. In 1955, which was my first year at camp, the summer was divided into 3 - 3 week sessions. I was homesick the first night, but was too busy with activities after that and was too tired at night to do anything but sleep. There was never any homesickness again. In 2016 there were 9 - 1 week sessions. There were still active and inactive times during the day, but most of the inactive times were taken up with more intense training sessions.

Today, the costs of a camp experience would have prohibited my parents from allowing me to attend. Not only that but I would be remiss, now, if I didn't relate my reservations about Camp Joslin currently. In 2010, the Joslin Diabetes Center chose to sell the Joslin boys camp to the Barton Center for Diabetes Education Inc. which runs Clara Barton Camp in North Oxford, Ma., a camp for girls with diabetes. Please understand that I'm not trying to downplay the role of the Clara Barton Camp. The same types of excellent diabetes training exist at both camps. It's just strange no longer seeing a unique website for Camp Joslin, instead seeing it as a Clara Barton Camp add-on. The last time my wife and I visited Camp Joslin we

were asked to leave. Our visit was unannounced, camp was in session, Barton campers were onsite and no staff members were available to show us around. My name engraved on the Joslin Spirit Award in the office made no difference nor did my tenure at the camp. I reluctantly agreed to leave, but our visit represents the last time I'll ever see Camp Joslin.

Anecdote - The camp is named for Elliott Proctor Joslin (June 6, 1869 - January 28, 1962) who was the first medical doctor in the United States to specialize in diabetes and was the founder of today's Joslin Diabetes Center. Joslin was involved for seven decades in most aspects of diabetes investigation and treatment, save for the fact that he did not discover insulin. In 1954 my memories of Dr. Joslin are few. But, while at the Joslin Clinic in Boston, I met Dr. Joslin, Dr. Howard Root (in 1922 administered the first injection of insulin to a diabetes patient in this clinic), Dr. Priscilla White (co-founder of the Joslin Clinic and a pioneer in the treatment of diabetes during pregnancy) and Dr. Leo Krall (co-founder of the Joslin Clinic and renowned clinician and researcher).

During the summer of 1961 a beautiful big black car came into camp. Among its several passengers was Elliott Proctor Joslin. Now during his senior years he was bent over and required a cane to slowly amble where he was trying to go. That day it was one of my tasks to set up for our cabin's meals at the Mess Hall. Dr. Joslin was sitting by himself on the steps and as I passed by he asked me to join him. I'll never forget his question, "How was your day?". I realize he couldn't have remembered me among the thousands of patients he had seen, but his simple question gave me a sense that someone cared.

The camp gave awards for each of the activities we 'excelled' at. After receiving a certain amount of awards, you also received a 'Little-J' patch, After several more you might receive the '*Capital-J' patch*.

Before my camper days were over I had received both. But neither compare to my being awarded the 'Joslin Spirit' award. There's a plaque in the camp office with the few names of those who have been given that award, mine being one of them.

It has been my privilege in my adult life addressing anyone who would listen to my experiences with Type-1 diabetes. Among my listeners were campers with diabetes in several camps along the eastern seaboard. And I always open with a question. "How was your day?".

Attending camp in 1962, I was at the cemetery in Oxford, Ma. at a special memorial service celebrating the life of Elliott Proctor Joslin who had passed away in January of that year. As a challenge to whomever reads this; remember that people are special and need to know that others care. Don't forget to ask "How was your day?".

Every summer at Camp Joslin included 'Old-Timer's Day', now referred to by its more politically correct name 'Alumni Day'. I've always preferred 'Old-Timer's Day'. When I was eleven, Billy Talbert, a former top-seeded tennis player who had diabetes came to give us a clinic. After hitting tennis balls back and forth for several minutes, he came to me, put his arm over my shoulder and said, "Son, you better choose another sport, this one isn't yours." Later on I attended camp as one of the old-timers. I'm now even a moderately-proficient (?) tennis player.

It would be remiss of me not to give you a snapshot of Billy Talbert. Born in 1918, he was diagnosed with Type-1 diabetes in 1928, a mere 6 years after insulin was discovered. His prognosis was dim. Initially forbidden to exercise, he only *dreamed* of becoming a professional baseball player. Instead, his father bought him a tennis racket and started a love-affair that was never diminished by his diabetes. There was no such

thing as testing blood sugar or even a knowledge of diets or even the value of balancing diet, insulin, and exercise. But Talbert beat the odds. Realizing he needed sugar during a match he brought pitchers of orange juice along with him. Between 1941 and 1954, he was ranked 13 times among the U.S. top 10 players. He won nine Grand Slam doubles titles and won 9 of 10 matches in the Davis Cup. He also would always be available to talk about diabetes.

Insulin Dependent Diabetes - Sequel My CGM

It is extremely difficult to separate 'My CGM' 'My Pump', 'My Control-IQ', and 'My Iphone App' because they all work together. I'm still going to try. There are multiple Continuous Glucose Monitors (CGM) on the market and they're always being improved. My first experience with a CGM was the Freestlye Libre and I liked it very much. Why am I not still using it? Read on.

Currently I'm wearing the Dexcom G6 which consists of three parts, a sensor, a transmitter, and a receiver. When purchased, the CGM arrives with a dedicated receiver that would be attached, in my case, to my belt. I have never found it necessary to unbox this receiver. Around this time I was also contemplating replacing my now outdated pump to a newer model. My endocrinologist pointed me toward the Tandem t:slim X2, which is the only pump on the market that can be used as a CGM receiver. Reviews of the Tandem pump were excellent, yet the *deciding* factor for me choosing the t:slim is that it reduced the number of devices on my belt. Under 'My Pump' I'll expand on the pros and cons of the t:slim.

The CGM, in it's most basic mode and using a very simplistic description, reports to the receiver every few minutes and creates graphs showing patterns of both high and low blood sugar levels. These graphs are invaluable to me when I'm calculating my insulin dosages. Settings allow the receiver, my pump, to alarm on both high and low readings. There have been numerous occasions when alarms have woken me up late at night with audible alarms warning me that my blood glucose levels had dropped below 80 mg/dl.

Dexcom, the manufacturer of the CGM, is NOT a distibutor. Instead, I had to find a distributor who would accept Medicare payments. Solora had been my distributor until this last January when they were no longer Medicare accepted. Switching to CCS Medical was a royal pain in the butt.

It took several months to get everything the way they wanted before my first order arrived. Yesterday, I ran out of CGM sensors and had to revert to finger sticking test strip monitoring. Grrrrrrr!

I found that CCS does NOT send automated updates like Solara did; I continually have to reorder. This means that ordering too soon, Medicare could cancel my order. Ordering too late means I run out again. Somewhere there has to be a *simple happy* medium. This morning's call to CCS was put on hold for an estimated 16 minutes. Once I talked to a physical human being I was put on hold waiting for the proper representative. The wait time was supposedly under 2 minutes. Someone on their end hung up after about 15 seconds. Too frustrated to call again. I've contacted another possible supplier, Aptiva. I'll see what happens and update this when I find out.

Persons with diabetes can very easily begin to count on things that are out of their control. Using a CGM is one of the niceties of managing my diabetes that I really don't want to live without. There is a newer version, the G7, but as of this writing it not yet compatible with my current pump, the Tandem t:slim X2. I'm not concerned with the physical size of a CGM but the G7 is more compact. However, the G7 only takes 30 minutes to warm up whereas the G6 takes 3 hours.

Like I said, I'm spoiled. During the day I'm generally busy and it doesn't bother me as much not reading blood sugars for 3 hours, but at night, when I have a tendency to have unexplainable drops in blood sugar levels, the lack of readings really causes me a headache. And yes, my endocrinologist and I are still trying to understand and combat the unexpected lows. As a temporary band-aid, I'm no longer taking any basal insulin between 11PM and 4AM.

When I wrote the original book I was using a Medtronic Minimed Pump in combination with a One Touch glucose monitor. I still have the glucose monitor, but I only use it as a backup to my Dexcom Continuous Glucose Monitor (CGM) G6. Yes, Medicare & I purchased the *Tandem t:slim X2* and for the most part I love it. It's battery operated and requires charging like most other devices. Taking my daughter's suggestion, I purchased a battery pack (don't laugh, but this device also has to be recharged) that charges my pump without taking the pump off my person. The battery pack is lightweight and has a carrying case that makes it very portable. It will recharge my pump from 40% charge to 100% charge in less than an hour and will charge the pump 4 times before the battery pack itself requires charging.

The pump uses only fast-acting short-term insulin; I'm currently using U-100 Humalog. Every pump user *has to know* facts about *his/her* diabetes. What is your target blood glucose level? Mine is 110mg/dl. How many carbs will 1 unit of insulin take care of? Mine is 1 unit per 7 carb. In a correction bolus how many points will 1 unit of insulin bring down your blood glucose level? Mine is 50. During a 24 hour period, what's your hourly basal rate? You can have up to seven. I use 6; the highest being 1.0 an hour between breakfast and lunch, less during the afternoon when I'm most active, and 0.0 an hour on and off during the night. Sound complicated? It really isn't if you know your diabetes. Not only that, but being a dietitian helps because I know carbs as well as exchanges. But even better than that, I have a *GREAT* endocrinology team.

Going out to a restaurant to eat, at the beginning, can be daunting. But, most restaurants have carb counts for their meals online. Yes, even including McDonald's. Persons with diabetes should at least learn exchanges. An example: a small white potato is 60 carb and can be exchanged for a slice and a half of white bread or a half cup of angel hair

spaghetti. But there's also another way to determine what you need to bolus to compensate for that meal. Eat nearly the same things each time you go out and log how much insulin required. Learn your own diabetes.

I've had Type-1 diabetes and taken insulin by injection or a pump for over 69 years. I've worn a pump for over 25 of those 69 years. Last week I talked to a Dexcom CGM representative about diabetes and in our conversation he asked me where I was wearing my pump infusion set. When I told him my inner thigh, he was taken aback. He actually reprimanded me for not using my abdomen. But I've been taught the pinchan-inch theory. If you can pinch an inch you can inject. Anyway, my abdomen has been so over used in the last 69 years that I've found that insulin absorbtion slows down and can finally stop after 2 ¹/₂ days. On those days I infuse in my abdomen I reduce the amount of insulin I load into the pump so that the pump runs out of insulin before the absorbtion rate slows down. The only drawback doing this is that sooner or later you have to purchase additional infusion sets that Medicare won't cover.

Earlier, I mentioned I'd give you my pros and cons about my insulin pump. I haven't gone into a lot of detail about the workings of a pump. That's just repeating what's in my original book. 'Introduction' in this Sequel shows the url of the original book. Go read it, or better yet, go online and read the manufacturer's data.

Pros: With CGM, finger-pricking is almost non-existent. Pump allows faster acting time for meal bolusing. No longer any need for slow-acting longer-lasting insulins. Only need injections for backup purposes.

Cons: I've only got one con and it's strictly for my personal pump. My eyesight isn't what it used to be. My pump isn't very large. After loading the provided syringe with insulin, I need to get that insulin into a cartridge that is then inserted into the pump. The *white fill port* is so small I have trouble positioning the needle of the syringe into the center of that fill port.

Replacing a cartridge that is already installed in the pump is simple. The infusion set comes with a little key that fits into a slot in the cartridge. The cartridge is a pressure fit and when removed you'll hear a little click when the cartridge is released. The key is something I never use. I've just used a syringe to fill the new cartridge with insulin. The back end of the syringe has two prongs that fit the slot in the cartridge just like the key. One less device I have to worry about.

Insulin Dependent Diabetes - Sequel My Control-IQ

Control-IQ (Intelligence Quotient) is a piece of software installed into the insulin pump. I'm going to give you yet another acronymn; AID or Automated Insulin Delivery. The Tandem t:slim X2 pump with Control-IQ software is considered an AID. In my original book I talked about diabetes future and the 'closed loop' system of insulin delivery where technology would replicate the bodies normal handling of sugars in the blood stream. Many consider this as an 'Artificial Pancreas'.

Tandem has created what they call the Advanced Hybrid Closed-Loop System. Hybrid means the system uses software to watch rises and falls in blood sugar levels while at the same time allowing the pump user to set and modify his/her pump's basal and bolus settings by hand. It's "Advanced" because Control-IQ uses algorithms that *predict* these rises and falls and actually resets either a basal rate or a bolus value for maximum efficiency. The Tandem web site has some great graphs that explain Control-IQ a lot better than I can. Please refer to them.

I have mixed emotions about Control-IQ. The theory behind it is great. The implementation of the software is great. But I find it to be slower in making adjustments than I would like and it creates bad habits. I've actually allowed myself to finish a snack without manually adding a bolus to my pump. "Control-IQ will handle it". Not a good scenario. You're the only one who has *daily control* of your diabetes. Use it.

Insulin Dependent Diabetes - Sequel My Iphone App

If you own a Smart-Phone you can 'get/install' the *"t:connect" App* which is another means of viewing CGM graphs and making entries into your pump. I wear both my iphone and my pump on my belt. Because I use my iphone so much I don't use the lock feature. It's simply too much aggravation having to enter a code into the phone before I can use it. Granted it's not secure, but other than when sleeping, my iphone is always on my person. Others may love using t:connect. I don't.

Experimenting with it, I found because it uses the Cloud, time on the pump and on the app were not within the few second range of discrepancy and the app would require my changing the time on one or the other to remove that discrepancy. Plus, the app requires the iphone to be locked or it will not start. Seeing my pump is always on my belt, I find the iphone app isn't needed.

So why do I still use the App? Over the years my hearing has declined and I don't always hear my pump alarms even when I set maximum volume. However, I most always hear the alarms on my Iphone, even to the point of waking me up in the middle of the night.

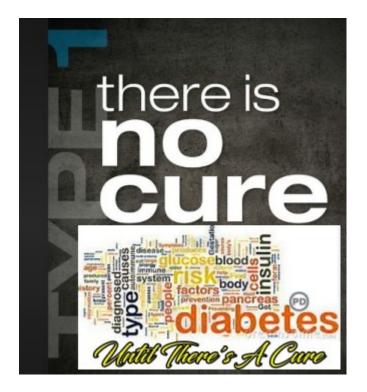
Insulin Dependent Diabetes - Sequel Winding Up

In 'Introduction' I said that some *inexplicable feeling* prompted me to begin writing again. But that's not altogether true. A month or so ago, my primary care physician scared my wife and I. He said I needed to go see a nephrologist (kidney specialist). Going to my health portal it states I have 'stage 3 chronic kidney disease'. During my appointment I was relieved when the nephrologist showed me <u>GFR</u> results from 2 years ago and the tests he had just concluded. My levels were better today. He prescribed an increase in medication for high blood pressure, a new prescription for water pills, and told me he'd see me again in 2 years. What a relief.

Since that appointment I've been doing a lot of reading; mostly about life expectancy living with Type-1 diabetes. I don't mean to close this book in a maudlin fashion, but want readers who are experiencing complications with long term diabetes to know the unglossed-over realities of their disease. It will not go away. But being in control makes a world of difference. I am the first of 3 generations living with Type-1 diabetes. Both my daughter and granddaughter have Type-1 diabetes. Their maintaining good control is an *upgoing* prayer for them.

A little boy came up to me and seeing the CGM on the back of my upper arm he showed me his and asked quite blatantly "How old are you"? Not taking offence, I answered and began a great conversation with him. Shortly after, his parents joined us and explained his recent diabetes diagnosis didn't go well, hence his attitude. A month or so later I again saw the boy's mother. "Jim is doing great. He said if you could live over 69 years with diabetes, so can he".

Only Heaven will reveal how many people I've touched like this.



Insulin Dependent Diabetes - Sequel Addendum March 2024

Pump technology is advancing faster than I ever imagined it could. Late last year I received two emails; one from Dexcom, the manufacturer of my G6 CGM, and one from Tandem, the manufacturer of my t:slim X2 pump. Dexcom advertised a new CGM, the G7, that would soon be the latest and greatest from Dexcom. Tandem stipulated that prior to using the G7, because I was using my pump as my CGM receiver, I would be required to upgrade my t:slim X2 pump.

Until this email I wasn't even aware that my pump could be updated. Taking advantage of online support, I was able to complete the upgrade within a matter of three hours. Now my pump gives me the option of using either the G6 or the G7. The G7 no longer uses a separate sensor and transmitter, but is now a single unit. Because I would be using my insulin pump as my receiver I wouldn't need to purchase a Dexcom receiver. Medicare proved a non-issue because the G6 & G7 were equally priced.

Stopping CCS, my G6 CGM supplier, from auto-shipping my next supply of CGMs and getting the G7 instead, became a nightmare. Stopping auto delivery was simple via an online option. However, it precipitated my weekly receiving emails and phone calls from CCS stating that my supplies MUST be running low and I should reorder. Phone calls were always prerecorded and I would never be talking to a human being. Contacting a physical person from CCS ALWAYS takes at least thirty minutes and heaven only knows if that person even knows what I'm talking about. Finally getting someone to tell me I need a new prescription, I contacted my endocrinologist requesting one be faxed to CCS.

Several weeks went by. Calling CCS again, I was told they were still awaiting a new prescription. Calling my endocrinologist affirmed that they had faxed the prescription. Another call to CCS: yes they had gotten the prescription, but there was a 72 hour waiting period before it would be

processed. Three days later, calling CCS again, I'm told they were still awaiting the prescription. It's now two months later. I found a different supplier. However, the CCS phone calls and emails have not stopped even after twice advising them to do so. Today, Mar. 20th, I blocked their calls and added their email to my SPAM folder.

Out of supplies, my new supplier was my pharmacy at Centerwell Humana. Even being warned that the G7s were more expensive than obtaining them from a supplier, I bought them anyway.

After receiving my 1st supplies of G7 CGMs, I inserted one only to find it wasn't accepted by my pump. Contacting Dexcom, I was reminded of something that I had been told about by my Tandem phone support, but I'd forgotten about. Their are two different G7 models; one with an underlined LBL number; one without.

<u>484-mm</u> 484-mm

The underline represents the useability of the Tandem T-slim X2 as a CGM receiver. Dexcom exchanged the two G7 without an underline and I appraised my supplier that my G7 devices must have the underlined LBL number.

I found the 1st two G7 CGM had to be calibrated to get accurate tests. Although my pump still says that a new G7 takes 3 hours to warm up (I believe this is an error in the upgrade), it actually only takes the advertised 15 minutes. I'm not sure of this next statement, but I perceive the CONTROL-IQ is slower making adjustments now more than before the pump upgrade. I'm also finding the G7 is going "out-of-range" more often than the G6. Contacting DEXCOM I was informed that my pump, my CGM receiver, should be worn on the same side of my body as the G7 CGM. This is impractical for me while wearing multiple devices on my belt. I would have to reposition both my Iphone and my insulin pump every 2½ days. Not going to happen. When "out-of-range" appears, I slip my pump into my pants pocket on the same side as my CGM and within 5 minutes I again have an accurate reading. It's a pain, but it works.

I'm having yet another perceived problem. Can it be that my pump is no longer holding a charge? It seems that I'm charging the pump almost every day. A 100% charge at 11PM is down to 60% by 10AM the next day. Contacted Tandem. After a minor delay waiting for a technician I was answered by a very knowledgeable lady who took me step by step through a trouble-shooting procedure. We found that my iphone app, t:connect, had been automatically updated, but needed to be paired with my pump. Without being paired, I was informed that the iphone app was actually depleting my pump battery. We first did an unpair, then a pair. Once my pump is fully charged again, I need to verify that the pump battery depletion is not an issue before coming back here and adding my findings.

04/04/2024 - Pump battery depletion is no longer an issue. I'm again finding a full charge is lasting 3 full 24 hours. Have contacted both Dexcom and Tandem asking that if and when Iphone App is updated, I be informed.

04/05/2024 - I think I'm in trouble AGAIN. I'm getting low on pump supplies (infusion sets & reservoirs). These supplies were being furnished by Edgepark. Edgepark does NOT do auto-refills so I have to contact them to schedule getting my refills. Edgepark informed me that Medicare had taken them off the DME (Durable Medical Equipment) provider list. Why, is something I haven't been able to ascertain. Anyway, calling Humana, I was given two company names acceptable by Humana for furnishing these supplies. Maybe a little more info is needed here for you to understand my dilemma.

There are a multitude of Medicare plans you can choose from and your choice is determined by what they will, or will not, provide. I've chosen 'Humana Gold Plus Diabetes and Heart (HMO CSNP)'. Humana then has a list of DME's that they accept. Edgepark had been on this list until recently. The DME then has a list of companies they allow to be equipment suppliers.

Humana sent me two DME names for pump infusion set and reservoirs, AdaptHealth and CCS (yes the same company I earlier was so discouraged by). I called AdaptHealth thinking it would be easy to get my supplies only

to be told that AdaptHealth is not contracted with Tandem, my pump supplier. Other pump suppliers, yes, but not Tandem. Calling Tandem, I was told they would look into it, but that inquiries would take time. They are sending me a list of DMEs that Humana will recognize, but it was up to me to verify everything. I have 20 days before my supplies are gone. Under duress, I called CCS. They still have me on hold for the G7 CGM, supposedly awaiting an insurance OK. Now I'm under their 72 hour processing wait for possibly getting my pump supplies. Frustration is a very kind word for what I'm feeling right now.

04/05/2024 - Moments ago I received an email from Tandem containing a list of DMEs that furnish the Tandem infusion sets and reservoirs. After all my recent phone calls regarding getting supplies, I was flabbergasted to see Edgepark was on the list. More calls, more headaches. Finally found that Tandem was referring to a previous Medicare insurance provider for me. Corrected this info by sending them copies of both sides of my Humana card. I was told that I needed to wait a couple of days for the changes to be updated on the internet before again trying to get my supplies from Edgepark.

04/10/2024 - Email from Edgepark reiterated they were no longer under the Humana umbrella. They are no longer in my contacts list as a DME provider.

I may actually have to change my 'mindest' regarding CCS. After getting a "Spam" folder email today (remember I had shut them down) regarding my outstanding order for G6 CGMs, I decided to "push" getting this order revoked. Believe it or not, it only took me 5 minutes to begin talking to a human being. Her name is Sheri, she was sympathetic to what I was trying to do, and knowledgeable in how to get it done. No surprise to me, but she found 2 customer IDs for me; one from several years ago; one starting in January of last year. Removing the old account info, she was able to get me through re-registering my current ID so that my portal (internet)

information was up-to-date. It's nice to see correct information when I login. This is not to say ALL my problems are solved. However, Sheri was also able to update my previous CGM G7 order. It is now "Ready to Authorize" with an estimated shipping date of 04/24/2024. My previously purchasing CGM G7s from my pharmacy is now causing a problem with Humana. Sheri, is also trying to figure out how to stipulate the order to only contain G7s that have an underline in the label. Because the devices don't have a separate ID#, this may cause a problem. Additionally, CCS will not authorize a new supply until my in-house current supply is gone. Headway? Who knows! Sheri also put a rush order on my insulin pump supplies. She had to fax my endocrinologist for a new prescription so the order, although having an estimated shipping date of 04/09/2024, is 'Documentation in Process'. Again, more to follow.