COVER STORY
It's Worth It!

LIVING WITH DIABETES
- Reaching for my personal Summit
- How far we have come! My 57 Years with Type 1 Diabetes
- The Story of Life
- A fond farewell to a member of our ‘Dream Team’
- Xerostomia and Diabetes
- Fungal Nail Infections
- Mountains and Plateaus - Insulin therapy for those with type 1 diabetes
- A Balanced View of BANTING!
- Pick n Pay Recipes
- A healthy shopping list for people with diabetes

Diabetes best care – made impossible!

Paul’s side of the fence - Managing hypos well

Did you know?

Issue 1: 2015

The Official Community Journal of the CDE - Your Partner in Diabetes
Distributed free via selected pharmacies and medical aid schemes
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News flash - Flo Simba, the ‘Demolition Man’ is back!

Former IBO World Youth Heavyweight Title Holder, Flo Simba, who featured on our first Cover of 2014, marked his return to the professional boxing arena on Monday 13th April. He scored his first win in three years forcing Big Ben Molumba from the DRC to quit in the fourth round. Following the fight, Flo said, ‘I feel humbled and blessed to go through this journey. I have learnt a lot on and off the sports field, and have met great individuals that have taken the initiative to help me get to this point. I was a little shy about stating my condition publicly as a person with diabetes, but know that I have seen and experienced the family at the CDE. I am more proud than anything else, as I can see what my efforts are doing to the younger generation, not only to the ones with diabetes, but also to the ones with other medical conditions. Win or lose, we have taken a step in the right direction to better ourselves, regardless of the outcome’. Prof Larry Distiller, Managing Director of the CDE, proudly remarked that Flo should be regarded as an icon for anyone with type 1 diabetes who has a dream. Never should it be said ‘it can’t be done!’
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The local South African diabetes care guidelines also emphasize the importance of the services provided by DNE's, in driving better health outcomes for people with diabetes.

Sadly, the reality in South Africa is that this best care approach is made practically impossible to implement on a broad scale. We know that within the CDE, the role of the DNE is hugely important, integral to our patient care. What we also know is that outside of the CDE many barriers exist, which inhibit the provision of this invaluable service.

The challenge illustrated in numbers

- Approximately 5 Million people in South Africa with diabetes
- Approximately 120 nurses recognised as true DNE's

The really important question: Why are there so few DNE's when diabetes is such a big problem?

To put it simply, nurses can usually obtain additional qualifications in various areas of health. For example, a nurse can get further training and obtain registration as a midwife. The South African Nursing Council (SANC) manages this qualification and ongoing accreditation in the specialty. Importantly, this enables the nurse to be able to claim for midwifery services, be paid more, and effectively carve a career as a specialist midwife.

Amazingly, the SANC does not recognise the concept of a Diabetes Nurse Educator. In effect, this means that DNE’s experience many barriers – they find it difficult to claim from medical aid schemes because no specific claiming codes exist for them to use. Nurses who practice as a DNE are also not able to negotiate better salaries for their area of specialisation.

Thus, a big disincentive exists for any nurse to consider diabetes as a career path and area of specialisation.

A volunteer, non-statutory, non-profit professional representative organisation called DESSA (The Diabetes Education Society of South Africa), which is not part of the South African Nurses Council, does fantastic work to support the efforts of DNE’s. They have taken it upon themselves to create standards for ‘accreditation’ of nurses as a DNE. Their efforts are commendable.

However, until the SA Nursing Council changes their moratorium on new additional qualifications and consequently their view on DNE’s, diabetes management in South Africa will always be sub-optimal.

The decision not to recognise diabetes as a speciality area for nurses is like saying we do not need doctors trained as surgeons to perform your heart bypass. Crazy indeed...
Diabetes affects 387 million people worldwide. According to the ‘rule of halves’, only half of them have been diagnosed and only about half of those diagnosed receive professional care. Of the people receiving care, only about half achieve their treatment targets and of those, only about half live a life free from diabetes-related complications.

Through our Changing Diabetes® partnerships and programmes, we are working with communities around the world to break this rule by increasing diabetes awareness and improving access to care and treatment options.

Learn more about how we are changing diabetes at www.novonordisk.com


let us start changing diabetes today
For the first 24 years of my life, I never once thought how eating without abandon may affect my health, although my grandparents had all experienced type 2 diabetes. It is common in the Indian community, for the elderly to develop type 2 diabetes - so common in fact, that it’s surprising when you hear of a member of the older generation that does not have diabetes...

In the weeks preceding my diagnosis, I displayed clear symptoms of having diabetes - excessive thirst, lethargy and a listlessness which I quickly attributed to the stress which accompanied being a wife, mother and full-time student. I had never been overweight and was relatively active. The thought of diabetes did not cross my mind. After persistent nagging from my family, I eventually tested my blood sugar levels using my father’s blood glucose meter. The shock of the result immediately led me to question the working condition of the device. Surely, a blood glucose reading of 28mmol/L was an error...

The days that followed were a daze, filled with mixed emotions and a plethora of information, most of which went over my head. I was hospitalised to ‘stabilise’ my blood glucose levels and after being diagnosed with type 1 diabetes, I was referred to the Centre for Diabetes and Endocrinology (CDE) in Houghton by Dr Faizel Nanabhay. He assured me that CDE would provide the best all-round regimen for my condition.

The quality and level of care provided at CDE was simply outstanding. I received the best, in terms of medical treatment and perhaps more importantly, the emotional support and inspirational advice. My blood glucose control in the early stages was problematic as would be expected. As I recall, after a few weeks of intense therapy and treatment,
I just needed a holiday, which I duly took. Surprisingly, I returned pregnant. This was unplanned, as I had just been diagnosed a few months earlier. The outrage I had expected to face from my doctor, Dr Landau, at my next appointment did not materialise. Instead, I was shown resolute, unwavering support throughout my pregnancy.

My HbA1c levels during my pregnancy, being the best ever in my ten years with diabetes, attest to that fact. Dr Landau visited baby Maseehah, and I in hospital on the very day that she was born.

The extra weight gain and stresses of being a new mum again set my blood glucose levels into a spin. The laziness led to complacency. I also began working not too long after the birth, which further encroached on the time and dedication I needed to control my diabetes. Now that I look back and reflect on this, I have to admit that it was inexcusable to have slipped into such a rut.

I began efforts to lose weight and be more active by signing up at the gym. This is how I came to realise that the traditional elliptical training is not one I could endure. To be honest, even though it kick-started my journey, I lacked motivation to perform these mundane, tedious exercises.

My impatience and the absence of immediate results also led to further discouragement. But, I knew that some form of exercise was the key to my wellbeing. I had read up enough about type 1 diabetes to understand that the fears associated with exercise were unfounded.

Post exercise hypoglycaemic episodes could certainly be overcome. I then joined a group class in the hopes that the interaction with others might spur that much-needed incentive. I was wrong, again. The repetitive motions and drills of those exercises just couldn’t cut it for me. Despondent, deflated and agonised, I decided to quit that class...

While juggling all my exercise options, my brother had encouraged my husband and myself to take a crack at cycling with him and his wife. Initially it was merely a casual form of fun exercise, which I partook in occasionally. It offered an alternative to the banal activities of the gym. Now I’m completely hooked. My husband got me a top-end carbon-framed bike, which led me to cycle frequently and participate in many of the wonderful races across the country. The most recent of my achievements was...
participating in a particularly special 2015 Cape Town Cycle Tour (Argus). This year’s route was shorter due to the devastating fires in the Cape Peninsula, but the sense of solidarity in the race was immense and heart-warming.

A few months after I started cycling, I came across a friend who had suggested I join her in a boxing class as it would complement my cycling. The very next day, a Mr Brendon Katz messaged me to ask if I would be interested in a boxing class. I duly agreed to try out a free class. Voila!!!

I had finally found the ingredient missing in the journey to controlling my condition. Every minute of my full contact boxing classes are thrilling, exciting, heart-racing... pure joy!

Brendon took a personal interest in my health and diet, researching, consulting specialists and problem solving any of my unique issues. His keen pursuit to have me performing optimally, led to a disappearance of my night-time lows and a drastic reduction in the amount of insulin I require daily. I found in cycling and boxing, coupled with an avid, supportive coach, the answer to all my exercise woes.

To excel in these sports, which are now very much a part of my life, I needed to tackle another major issue - my eating habits. I don’t call it a ‘diet’ because I am not dieting; I am simply making healthy choices. I was deeply accustomed to eating in a traditional manner. That meant many curries with roti, exquisite rice dishes, accompanied by deep fried potatoes and mouth-watering, rich, creamy sweetmeats and desserts.
Learning to accept more wholesome and healthy meals was not a simple task. It is one I continue to battle with, given the fact that all aspects of my life included a feast. I had to learn to include healthier options and healthier cooking methods for our traditional meals. I must confess, the support from my family was paramount to this change in eating habits.

One of the toughest aspects I have great difficulty dealing with is our Ramadhan customs. Ramadhan is a month in the Islamic calendar dedicated to abstinence. The abstinence of food during the daytime alongside controlling one’s desires is a form of moral discipline, which encourages deep reflection and channelling that same sense of joy, unity, love, high spirituality, and compassion throughout the year. Having been brought up with unwavering emphasis on these practices, I had observed the Ramadhan fasts since the age of six, even though it was only obligatory after puberty. It was an act that I thoroughly enjoyed and anticipated. Learning that I was unable to observe the fast as a person with type 1 diabetes was a massive blow. I resigned myself to the fact that I would not be able to observe the fast and instead directed my energies to ensure, among my family and friends, the smooth practice of the rituals in this blessed month.

Having diabetes for ten years, without any deterioration in my health, has led me to a few conclusions. ‘Lifestyle Change’ for the person with diabetes is not merely a catch phrase. It is undeniably a matter of ‘life and death’ and ‘happy and sad’.

Abandon self-pity and take control of what life has to offer. Find a fun exercise programme and go with it. Eat healthy, wholesome, real foods. Be grateful for all the support from family; they are truly your lifeline. My experience has shown that an increase in physical activity and a change to more wholesome foods has resulted in improved HbA1c readings and better health. I cannot picture myself without cycling, attending boxing classes or eating healthily. I end with only one piece of advice: Take the first step to making that change, “IT’S WORTH IT”.

I pray every day that Allah gives me strength to keep steadfast in this path and I request everyone to keep me in his or her prayers.
Currently, we are witnessing an alarming increase in diabetes in South Africa, both in the young and in adults, regardless of background, ethnicity or age.

Many people with diabetes are not aware of the best approach for their diabetes care.

www.cdecentre.co.za
Helping you to live well with diabetes

What is the CDE Diabetes Management Programme (DMP)?
The DMP is a multi-specialist approach to the management of diabetes. The CDE, in partnership with many medical aid schemes, provides a comprehensive and holistic approach to the care of the person with diabetes, according to internationally accepted standards of care. The CDE also trains, mentors and accredits many healthcare professionals in the principles of good diabetes care.

The CDE, your medical aid and your doctor brings you the CDE DMP to provide and ensure the following personal benefits:

• *Individualised care* focused on helping you to maintain optimum wellness and to prevent or delay diabetes related complications.
• You will consult the *right people* for your diabetes care.
• Your diabetes and related health risks will be monitored and your *personal treatment plan* adjusted as required to maintain control of your diabetes.
• You will receive the *most appropriate* therapies for your diabetes care.
• You will have *emergency support*. All persons on the CDE DMP have access to a 24-hour ‘Hotline’ facility to assist our members and their families in the event of a diabetes-related emergency.

With all these benefits and support and your active participation, you should never require hospital admission for an acute complication of uncontrolled diabetes (E.g. hypoglycaemia, diabetic ketoacidosis). Our results demonstrate that we achieve this.

This comprehensive Programme is provided at no added cost to you, as long as you are a member of one of our contracted medical aid scheme partners.

To find out more, or for the location of your nearest CDE-contracted Doctor, please contact the DMP Membership Department on 011 053-4400 or e-mail members@cedcentre.co.za
Some years ago, I decided that, when the time came, I wanted to celebrate 50 years of living with diabetes by doing something extraordinary. Having already climbed a great mountain - the challenge of living with the condition for half a century - I set my sights on climbing Mount Kilimanjaro, the highest peak in Africa.

When I was diagnosed with type 1 diabetes at the age of 13, this would have been unimaginable. At the time, doctors advised my parents that, although my condition was treatable, I would have a shortened lifespan and I would be limited in terms of what I could do.

My mother decided to give me the best chance possible of leading a long and full life, and even sent away to the United States for a copy of a book about managing diabetes, as these weren’t freely available at the time.

I soon came to understand that I could do anything I wanted to do, but also that this meant being well organised and managing my diabetes carefully. The simple three-step approach of using insulin therapy, eating a healthy diet and staying active is what has enabled me to reach my 50-year milestone.

Growing up in Swaziland, and later Lesotho, I was lucky enough to have had a very active lifestyle. Together with insulin treatment and a well-managed diet, I was able to do everything my peers were able to do. My Dad was a keen sportsman and encouraged me and my brothers to participate in a range of sporting activities. I also developed a passion for road running, which I still do today.
So, as I began to plan my ‘Kili’ climb, I looked into finding sponsors that would make my dream a reality. I was fortunate enough that Novo Nordisk enthusiastically partnered with me on this journey.

It took months to prepare, and the preparation process included daily walks of between 10 and 20 kilometres. This was not very easy at times, but I kept going with the support of Novo Nordisk’s Marketing Director, David Broomfield, and my long-time doctor, Bruce Ilsey, who also accompanied me on the climb.

22 February
Fear of the unknown

We reached the town of Moshi. It’s hard to describe how I felt as I faced the challenge of climbing the great Kilimanjaro. When you’re that close to the mountain, you realise that it dominates everything. For me, it was almost as if it was daring me to take on the climb...

I was very restless on that first night and woke early with a sense of both excitement and trepidation. David, Bruce and I had something to eat, and Bruce checked my blood glucose levels. Then, armed with our climbing gear, a range of energy-giving snacks and a full supply of insulin, we set out with two Sherpa guides.

As the climb became a reality, I found myself experiencing a very real fear of the unknown. To manage my diabetes successfully over the years, I have led a very structured life. I suddenly realised that on the mountain, without that structure, anything could happen.

Reaching for my personal Summit

Neil Rae tells his story of climbing Mount Kilimanjaro

By Neil Rae - Email: neil@flower.org.za
My fears did, however, begin to melt away as we walked along steep paths that really tested our stamina. By mid-morning, we stopped for a break and I was able to have a snack. Bruce measured my blood glucose and, to my relief, everything was okay.

As a youngster, I was determined to defeat the stigma associated with diabetes at that time. Fifty years later, I wanted to show that it was not only possible to manage the condition successfully, but also to take on challenges that no-one would have thought possible all those years ago.
We climbed steadily for three days, moving above the cloud line and feeling the temperature drop dramatically as we did. Our night-time camps seemed perilously perched on small level outcrops, but experiencing the sunrise above the clouds made up for all the discomfort of living on the mountain’s slopes.

26 February

By the evening of 26 February, we had reached the last overnight campsite and set about preparing for the very long 9-hour summit climb early the next morning. We only had 6 hours to rest before waking up at midnight. We left at 1 am, beginning the 5 km climb from an altitude of 4600 m to the summit at 5895 m. The air temperature was -5 °C. At that altitude, and on such a steep incline, it was very exhausting. I found it difficult to breath and I started to become disorientated. Bruce noticed that I was walking very slowly. At 3 am, we stopped to allow him to examine me. While my blood glucose level was still fine, I was suffering from altitude sickness.

“I’m taking a executive decision, Neil,” he said. “I’m sorry, but I can’t allow you to continue.”

Of course, I was devastated, as I had set out with the goal of reaching the summit, but I accepted that the risk of carrying on was too great. I was suffering from severe altitude sickness. Nevertheless, with the help of our Sherpa guides, I made it down the mountain under my own steam, which is more than can be said for many climbers affected by this common ascent hazard.

Looking back, I don’t feel the same sense of disappointment that I felt when I first realised we had to turn back. I had set out to demonstrate that the sky is the limit for people living with diabetes, and I feel I achieved that personal summit. After all, it wasn’t my diabetes that prevented me from going all the way; it was altitude sickness, which affects many climbers of all ages and fitness levels.

Would I do it again? Definitely! It was a wonderful challenge and I wouldn’t hesitate to do it again. Perhaps I’ll celebrate 55 years of living with diabetes by doing another climb. Next time around, I’ll ascend at a slower pace, which minimises the risk of altitude sickness - and hopefully I’ll be able to reach the summit of this iconic mountain...
How far we have come!
My 57 Years with Type 1 Diabetes

By Adele Jossel

Adele was one of the recipients of a Bronze CDE ‘Diabetes Milestone Award’ in recognition of her living for over 50 years with diabetes. She kindly shares her experience of a large part of the modern history of diabetes with us. Just three more years Adele, and you will be collecting your Silver Award!

It was 1958 and I was 8 years old and suffering with the classic symptoms of undiagnosed or uncontrolled diabetes - frequent, voluminous urination, a raging thirst, and dramatic weight loss. In his wisdom, our family GP was treating me for a bladder infection. After a few weeks of getting worse, I was taken to a paediatrician who immediately diagnosed me with type 1 diabetes. I was totally ignorant about what this diagnosis was or what it entailed, as no immediate member of my family had this condition.

I spent the next 3 weeks in the children’s hospital being ‘stabilized’ and ‘controlled’ (totally unnecessary nowadays – Editor), but no one at any stage actually explained to me what was wrong with me or why I had been so ill. I was shocked to learn from one of the other children in the ward that I was practicing injecting oranges because I would have to inject myself for the rest of my life!

It was very difficult in those days to have diabetes as a child. There was no education or holistic care for people with diabetes as we have today. Very few choices of sugar-free sweets, jams, cold drinks, jellies, biscuits or healthier ‘treats’ that one takes so for granted today were available. I either had to ‘cheat’ or go without, and I did both.

My biggest treat was an annual bottle of sugar-free orange squash which a friend of my parents brought from England every December when he come to Johannesburg to visit his parents. For the rest of the year, it was water...
or ghastly lemon-barley water which my Mom
made for me so that I could take something with
me to birthday parties. She also made jelly by
straining orange juice and adding gelatine. How
fortunate children are today, with such a choice
of sugar-free goodies and the insights offered by
‘carb-counting’ and functional insulin
replacement therapy.

Finger prick blood glucose testing wasn’t available - the only way to get an indication of the glucose
level was to do a urine test which was an
unreliable proxy measurement. I had to do this by
placing my urine in a glass test tube, together with
a few drops of chemical, and boiling the mixture
over a Bunsen burner. This resulted in a change of
colour, which indicated how much glucose was in
the urine. A few years later, a tablet was
introduced which replaced the liquid chemical in
the test tube, and eliminated the need for the
Bunsen burner. It bubbled and gave a colour
indication of the glucose level. Finally, things
became sophisticated with the introduction of a
stick test!

Urine testing results were hit and miss, depending
on whether or not you had previously emptied
your bladder. There were no HbA1c tests, and
diabetes control was difficult to achieve because
you only had the urine tests to go by.

There were no disposable syringes or injection
tabs. In those days, we had glass syringes with
removable stainless steel needles - not thin ones
as you get today - these were like arrows! They
had to be boiled to sterilize them, and then
stored in methylated spirits (methyls). Before
injecting, you placed the syringe and needles in a
cup of boiling water to remove the methyls. There
were two needles, one long one for drawing up
the insulin and a smaller one for injecting... Not
an easy procedure when you are rushing off to
school in the morning...

Food wise, you could eat anything except carbs
or food containing sugar. Fruit was very limited
and fat was allowed in any amount. One filled
up on salads, fish, chicken
or meat, Snacking
between meals was
essential to counter
the hypoglycaemic
side effects of the
non-physiological
insulin regimens
we had to use, but hypos were
still a daily occurrence.

I must have done
something right,
because I stayed
alive and even got
married. In 1972, when I
was 22 years old, we decided to
start a family. All went very well until my 7th month
of pregnancy, when I became very ill. It was
discovered that I had had a bleed into my pituitary
gland (they called it Pituitary Apoplexy). This was
unrelated to my diabetes. The damage to the
pituitary affected my endocrine system, which has
resulted in me being on cortisone replacement tablets
for the rest of my life. Because cortisone tends to
make the blood glucose levels higher, my control was
that much more difficult to achieve. Miraculously,
both my baby son and I survived this very serious and
difficult time - today he is a man of 41, with his own
family. 7 years later, we adopted a baby girl, and I am
a proud granny to 5 grandchildren.

A few years ago, I attended the DINE course with
Michelle Daniels and Vanessa Brown at the CDE in
Houghton, which was the best thing that I have ever
done, diabetes-wise. I learned about carbs and insulin
ratios, how to read food labels and everything a
person living with diabetes needs to know to live a
good and healthy life. The training gave me the
ability to be in charge of my condition and it gave me
the knowledge to be empowered to lead a productive
LIVING WITH DIABETES

and busy life. I work 6 days a week as a beautician in my own beauty salon, and laugh when people tell me that I don’t look like a ‘diabetic’. I have yet to learn what a person with diabetes looks like!

I could not have done as well as I have without the constant love and support of my husband, Anthony. We have been married for 45 years. From day 1, he supported me and has been my Partner in Diabetes. He has learned through me what I have learned and is interested in my daily well-being.

I have always believed that if it was my fate to be inflicted with a serious health condition, my preference would be diabetes, as it is something over which I have control and something that I can live well with. I am in charge... I am the boss of it...

My sincere gratitude and thanks goes to Prof. Distiller and all who look after me at the CDE. How fortunate I am to have this facility!

I have now lived with diabetes for 57 years, and I can honestly say that for the first 20 years, I survived by chance. In the following years I not only survived, but thrived by being informed, well-educated and by following the rules.

On World Diabetes Day (November 14) each year, CDE recognises those people who have lived with diabetes for many years with ‘Diabetes Milestone Awards’. The Awards take the form of 57 mm bronze, silver and gold medals, which are awarded to any South African who has lived with diabetes for 50, 60 or 75 years respectively. These citizens serve as an inspiration to all people affected by diabetes, for learning how to manage their condition and adapting to the ever-changing technology of diabetes care throughout their diabetes journey. With this gesture, we recognize their remarkable achievement. Award recipients may be asked to take part in publicity events, and their stories and photographic likenesses may be used for activities associated with raising diabetes awareness in South Africa. If you qualify for a medal, please e-mail Shelley Harris, the Public Relations Officer for the CDE (ShelleyH@cedecentre.co.za) and she will send to you the Application Form.
DIABION IS THE MOST FREQUENTLY PRESCRIBED SUPPLEMENT FOR PEOPLE WITH DIABETES IN SOUTH AFRICA

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- DOES NOT CONTAIN COPPER OR IRON, AS THESE MAY BE INVOLVED IN THE PROGRESSION OF DIABETIC COMPLICATIONS

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Sometimes people come into your life and you know right away that they were meant to be there, to serve some sort of purpose, to teach you a lesson, or to help you figure out whom you are or who you want to become. You never know who these people may be - possibly your neighbour, a co-worker, a long lost friend, a lover, or even a complete stranger. But, when you meet them, you know at that very moment they will affect your life in some profound way.

And sometimes things happen to you that may seem horrible, painful, and unfair at first. But, in reflection, you find that without overcoming those obstacles, you would have never realized your potential and current strength, willpower, or heart.

Diabetes is this ‘something’ for you and your children. I hope that through your diabetes Journey you can overcome the physical and emotional obstacles to lead you to the place of realised potential, and the strength of heart to cope with diabetes.

Everything happens for a reason...

Nothing happens by chance or by means of good luck. Happiness is by choice, not by chance...

So, although no part of the diagnosis you have received brings entirely happy news for you and your child due to the challenges, how you choose to manage and approach diabetes is your choice.

Illness, injury, love, lost moments of true greatness, and sheer stupidity all occur to test the limits of your soul. Without these small tests, whatever they may be, life would be like a smoothly paved, straight, flat road to nowhere. It would be safe and comfortable, but dull and utterly pointless.

The people you meet who affect your life, and the success and downfalls you experience, help to create who you are and who you become. Even the bad experiences can be learned from. In fact, they are probably the most poignant and important ones.

So, without an alternate choice, embrace diabetes and learn from it. Your child and you have challenges ahead, but your child is here, in full body, mind and spirit. Diabetes is not a physical disability; it does not limit capability or potential. If your child’s diabetes is well controlled, he or she should not have a shorter lifespan or an ominous prognosis. They are just unique in their own way.
If someone hurts you, betrays you, or breaks your heart, forgive them, for they have helped you learn about trust and the importance of being cautious when you open your heart.

If someone loves you, love them back unconditionally, not only because they love you, but also because in a way, they are teaching you to love and teaching you how to open your heart and eyes to things.

Your child will always love you, unconditionally; he or she does not blame you for their diabetes - do not feel guilty about the diagnosis, it is not your fault, nor is it theirs. Most children have an overwhelming acceptance of their diabetes - it's usually their parents who fear and who do not accept diabetes well. They then pour that same negative energy into their child's perception and acceptance of diabetes and thus their child does not cope. Your children look to you for strength and acceptance of this condition - create a positive light about diabetes and then all your children will relax and accept the diagnosis with a bit more ease. Your child with diabetes will then be able to learn self-care, in a supportive family environment, which will lead to a better outcome for their diabetes.

Make every day count. Appreciate every moment and take from those moments everything that you possibly can, for you may never be able to experience it again.

Remember that your child is first and foremost a person and then he or she has diabetes. Don’t make their diabetes all that they are. Don’t let “What was your sugar today? or “Why is your sugar so high?”, “What did you eat?“ be the first question you ask after school or when you get home from work. Rather ask, “How was your day at school?“ or “how was your cricket / soccer / hockey / netball match - did you have fun?“ Make your children important by nature rather than by a demanding need because of their condition.

Talk to people that you have never talked to before, and actually listen.

Surround yourself with the people that teach and support you in the right way about diabetes

Hold your head up because you have every right to. Tell yourself you are a great individual and believe in yourself, for if you don't believe in yourself, it will be hard for others to believe in you.

As a mom and a dad with a child who has diabetes, you take on a huge role. Each one of you is doing an excellent job - pat yourself on the back, be proud and keep doing what you do. Well done you're all very special people.

You can make of your life anything you wish.

Your children need to know this - they are not limited by their diabetes, so don’t let them be limited because of your fear. The more times that you encounter situations where people learn to handle and manage diabetes, the more empowered you and your child will become. Don’t let them NOT sleep out, don’t let them NOT go on camps. Teach them, yourself and others to manage the situation.

Create your own life, then go out, and live it with absolutely no regret, learning a lesson each day that you live. Most importantly, if you LOVE someone tell him or her, for you never know what tomorrow may have in store.

And, that's The Story of Life - I hope that you have found something about coping with diabetes in your family...
I first met Bev 10 years ago, a petite, young Biokinetic Intern only 23 years old, who was always peeping into my office and asking about the YWD Youth camps. She never gave up her interest and she kept asking if she could be involved... “I will pay for my own camp fees, but please may I come with...?”

Since then, I never looked back. We took Bev in under our wings at CDE and she turned out to be one of the best educators in South Africa. Nothing was ever too much or too hard for her – because of her competitive nature she will take any challenge on. She finished an Advanced Postgraduate Diploma through Cardiff University with flying colours. Many might not know this, but Bev completed two IRONMAN’s, the Unogwaja Challenge, three Comrades marathons, the Salomon Sky run and the Extreme Dodo trail Challenge. As Endocrinologist Dr David Segal said, we know she’s running, we just never thought she will run so far from us... 😊

Recently, Bev and her husband experienced a very traumatic, armed home invasion and robbery at their house. Thinking about the love and fear her husband went through when they took Bev upstairs and kept him below at gunpoint helps us understand his instant decision to leave South Africa and start their new journey together abroad.

I am sad to say goodbye to Bev - she made such a huge difference in the lives of so many people, of all ages, living with diabetes. I will miss her compassion and her love. So many times she phoned me in tears when telling me about another child who been diagnosed with diabetes. She felt the families’ pain, and shock, and with tears in her eyes, she always talked about them with so much admiration. Even though she could be a ‘tough cookie’ at times she never stopped loving, caring and wanting the best for her patients like all the BEST EDUCATORS. Bev dreamed with me... new ideas and new plans to create a happier place for children with diabetes. Although I know she will be far, far away, in Calgary in Canada, we will still share these dreams...
Youth With Diabetes (YWD) is a registered non-profit organisation created specifically to help children and adolescents living with diabetes across South Africa.

Our main project is Weekend Camps. YWD Youth Leaders facilitate our camps under the guidance of diabetes doctors and nurses. Our leaders are trained in all aspects of diabetes management, as well as counselling, leadership and peer-to-peer coaching skills.

To participate in one of our camps, please contact us at info@youthwithdiabetes.com or download the camp forms from www.youthwithdiabetes.com.

On camp your child will:

- Make life-long friends
- Learn how to handle challenging choices
- Be creative with our art and rhythm workshops
- Interact with other children who share the same experiences
- Learn to be independent regarding their diabetes management
- Try activities like swimming, archery, wall climbing, obstacle courses and more

**LIFE CAN BE SWEET**

<table>
<thead>
<tr>
<th>Region</th>
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<th>Age</th>
<th>Confirmed</th>
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<td>All</td>
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</tr>
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<td>✓</td>
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<td>15-17 May</td>
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<td>25-27 September</td>
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<tr>
<td>World Diabetes Day</td>
<td>14 November</td>
<td>All</td>
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</tr>
</tbody>
</table>

*Healthcare professionals
People with either type 1 or type 2 diabetes mellitus are at risk of having elevated blood glucose levels (hyperglycaemia). Prolonged hyperglycaemia can lead to the person experiencing number of consequent medical conditions, some of which lead to alterations in oral health.

Periodontal disease is the most common and important oral condition, it might be considered the sixth complication of diabetes. However, other alterations in mouth health may also be observed, such as the abnormal functioning of the salivary glands, halitosis and gingivitis.

Abnormal operation of the salivary glands

In people with diabetes, the parotid salivary glands in the mouth are often larger than those in people without diabetes are. We call this alteration in the size of the glands sialosis. It is generally not painful but it is followed by a decrease in the flow of saliva from the glands, resulting in ‘Dry Mouth’ (hyposalivation) or xerostomia. Xerostomia is not a disease in itself, but rather a symptom of many other diseases and conditions.
Typical signs and symptoms of Dry Mouth

These include a loss of moisture and glisten of the oral mucosa, dryness and irritation of the corners of the mouth (cheilitis), gingivitis (inflammation of the gum tissue), mucositis (inflammation and ulceration of the mucous membranes lining the mouth), mouth sores, thrush infection (candidiasis) especially on the tongue and palate, and an increase in dental cavities, especially in sites generally not susceptible to decay.

Functions of saliva

Saliva is vital for the maintenance of normal oral health. It is colourless and on average, we should produce between 1.5 and 1.8 litres per day. At night, our production of saliva is less. Saliva moistens and lubricates both hard and soft oral tissues, making it possible to speak and aiding digestion by making it possible to chew, taste and swallow food. It cleanses the mouth by neutralizing acids produced by dental plaque that might cause caries in the teeth and it washes away the dead skin cells that accumulate on the gums, tongue and cheeks. It forms the tooth pellicle (a protein film on the surface of the tooth) and provides minerals for repairing enamel. It also delivers antimicrobial agents, immunoglobulins and enzymes.

Dry Mouth affects many people. A major problem is that people don’t recognize the symptoms and therefore diagnosis and treatment are delayed. Patients also try to relieve symptoms incorrectly with negative consequences.

A decrease in saliva production results in:
• Difficulties in speech, chewing and swallowing
• Changes in taste
• New and recurring dental caries
• Impaired use of removable prostheses such as bridges and false teeth
• Infections of the mouth
• Unpleasant breath
• Deterioration of soft tissue in the mouth

Practically, these physiological changes lead to the hampering of daily activities and a compromised quality of life. Eating different types of food becomes limited, as too the amount of food one can chew and swallow. It becomes necessary to sip liquids to swallow dry food. It also becomes awkward to speak to people and changes in taste (disgeusia) lead to reduced enjoyment of food. The perception of too little saliva in the mouth is also most uncomfortable.

Xerostomia and Diabetes

By Dr. Julian Meyer
BDS (Rand), Dentist - Craighall Dental Centre

Most of us don’t realize that the health of our mouth affects our diabetes control, and that our diabetes control affects our oral (mouth) health. We should avoid thinking and talking about ‘dental health’. Instead, we should focus on ‘oral health’, because of the two-way relationship between systemic and oral health. This is the first in a series of articles on oral health and diabetes.
Dry Mouth can be treated in several ways, depending on the cause of the disorder

Often, Dry Mouth is related to side effects of medications. Over 500 prescription and non-prescription medications may cause dry mouth. These include some of the medications for high blood pressure or other heart problems commonly prescribed for people with diabetes. Other drug groups that cause dry mouth are those used for depression, anxiety and allergies, as well as diuretics, anti-psychotics, muscle relaxants, sedatives and anti-inflammatory medications. If you suspect that a particular medication may be causing symptoms of Dry Mouth, please speak to your doctor to see if an alternative is available - never just stop a medication without this consultation. Caffeinated beverages such as coffee, tea and energy drinks also cause Dry Mouth, and these should be limited.

When symptoms of Dry Mouth are related to uncontrolled diabetes, first prize is the prevention of hyperglycaemia. Talk to your diabetes care team about how to keep your blood glucose values within your target range, most of the time. This may entail changing or increasing your diabetes medications, watching what you eat more carefully, increasing your daily exercise and activity, or a combination of all three strategies.

Of vital importance, is to see your dentist and oral hygienist for an oral examination and cleaning at least every six months to minimize or prevent the development of oral health problems. Optimal oral health will improve your diabetes control and your quality of life, and better diabetes control will improve your oral health. Stopping smoking, drinking less tea and coffee and more fresh water and good oral hygiene (brushing your teeth and tongue at least two to four times daily and flossing every day) will also be of great help.

Traditionally, specific treatments for Dry Mouth have employed chewing gum, sugar-free lozenges, saliva substitutes, toothpastes and drugs (cholinergic agonists) that stimulate saliva production. However, each technique has its drawbacks.

Recently, the use of oral moisturizers, which increase the flow of saliva, have proved a useful strategy for reducing xerostomia complaints in a wide variety of patients with Dry Mouth. A combination of three natural substances, olive oil, betaine and xylitol form the therapeutic basis for a locally available range of products with this in mind.

- Olive oil has lubricating, anti-bacterial, anti-inflammatory and anti-caries properties. It can also help control bad breath.
- Betaine is a by-product from beet sugar extraction and has been found at different concentrations in all living organisms. It is an amino acid and a wetting agent.
- Xylitol is a natural carbohydrate sweetener, which stimulates saliva flow. It has antibacterial properties and protects against dental caries.

In a crossover clinical investigation, Ship et al found that the daily use of products formulated using olive oil, betaine and xylitol, significantly increased unstimulated whole saliva flow of the people in the research group. Their thirst decreased and mouth and tongue dryness improved significantly, improving perceived quality of life. An important issue too is the safety of these products and this study found them to be safe as well as effective.

We hope that this information will help those with xerostomia to recognise this often ignored and misunderstood, but highly treatable condition. You are not alone – take the first step and speak to someone about it today!

XEROSTOM .....is a new oral hygiene range especially formulated for people suffering with dry mouth or xerostomia.

Products available from dentists and selected pharmacies

Contact: Prime Dental
local distributors — for further information
011 880 4807 / 011 788 9799
Email: primatedental@gmail.com • www.primedental.co.za

Mouth spray
Mouthwash
Pastilles
Saliva substitute gel
Toothpaste

The combined use of Xerostom products for a week has been proven to:
• increase salivary flow up to 200%
• relieve pain associated with Xerostomia.
• improve dryness of mouth and throat.
• reduce constant thirst due to lack of saliva.

Improves taste and flavours.
What does a fungal nail infection look like?

Nails that are infected appear thick, brittle and discoloured, often with a yellowish brown colour. These thickened, deformed nails can be very painful and make walking difficult. In some cases, the nail plate may separate from the nail bed and there may be tenderness and redness of the skin around the nail. If this is combined with peripheral neuropathy (numbness in the feet), it can lead to secondary infections because the irritation from the deformed, thickened nail is not felt.

Apart from spreading to other nails, the fungal infection may also spread to the skin resulting in ‘athlete’s foot’. This in turn causes splitting and cracking of the soles of the feet and in between the toes. These breaks in the skin may also provide a route for the entry of bacteria and skin infections.

It’s therefore very important that if you suspect a fungal nail infection, you visit your podiatrist so that it can be accurately diagnosed and treated. Prompt, effective treatment decreases the risk of more serious complications developing.

How is a fungal infection diagnosed?

Although many abnormal-appearing nails can be mistaken as having a fungal infection, fungal infections are confirmed in more than half of all abnormal appearing nails. Generally, the diagnosis is based on the clinical appearance of the nail together with confirmatory laboratory tests on a sample of the nail.

Treating a fungal nail infection

The treatment of onychomycosis in people with diabetes is the same as in people without diabetes. Several modalities can be used: topical therapy (applied to the nail), systemic or oral therapy, combination therapies, nail removal and most recently laser therapy. The options available depend mainly on the number of nails affected and the severity of the infection.

Currently the most common treatments include antifungal medicines, such as tablets and nail paints. Both approaches require a long duration of treatment and can be costly, so laser therapy has been introduced as an option.

Antifungal tablets

Taking antifungal medication in the form of tablets means that the treatment reaches your nail through your bloodstream. These tablets can be very effective; however, you may have to take them for several months to ensure that the infection has completely cleared up. If you stop taking the medication too early, the infection may return.

An advantage of using antifungal tablets is that they clear up any associated fungal skin infections,
such as athlete’s foot, at the same time. They can however have some unpleasant side effects, which need consideration before being prescribed.

Antifungal nail paint
If the infection is not too severe or if oral medication is contraindicated, you may have antifungal nail paint or lacquer prescribed instead.

This type of preparation is applied directly onto the infected nails, and depending on the product, it may be applied daily or weekly. The severity of the infection will dictate the length of time such products are used. A toenail infection may require up to 12 months of treatment.

Often, oral and topical antifungal agents are used in combination with one another, as this increases the likelihood of a cure.

Surgical nail removal
Surgery to remove the infected nail may be recommended and used in combination with other treatments but is not common as the sole therapy.

Fungal Nail Infections

By Rae Bernstein
Registered Podiatrist, CDE, Houghton

Fungal infections of the nail (onychomycosis) account for more than 50% of nail problems and are more common in people with diabetes. Approximately one in three people with diabetes are troubled with nail fungus at some time in their lives. Onychomycosis is much more than a cosmetic nuisance if you have diabetes. The outcome of not treating it can be far more serious as it increases your risk for other foot disorders and serious complications such as amputation.
This treatment is rarely used for people who have diabetes because of their increased risk of infection, gangrene and poor wound healing.

In severe or stubborn cases, or when oral medication is ineffective or contraindicated, surgical nail removal may be the only option. A new nail should eventually grow back in the place of that removed - this will take approximately a year to complete.

**Laser treatment**

Of course, lasers offer a very impressive, modern, technologically advanced approach to the treatment of a variety of human diseases. Medical lasers are expensive devices, so treatment with these machines generally requires quite high fees.

Laser treatment is an option if you have a particularly stubborn nail infection. The laser emits high doses of light energy, which are used to destroy the fungus. Research shows that it is a safe and effective procedure. But, there is currently little evidence to show that laser treatment provides a long-term cure, and its effectiveness remains to be proven especially when compared to other accepted treatment modalities.

**Foot care during treatment**

During your treatment, you should start to see new, healthy nail start to grow from the base of the nail bed. This is a sign that the treatment is working. The old infected nail should begin to grow out and can be clipped away over the course of a few months.

Onychomycosis can cause serious problems for people with diabetes, increasing the risk of limb amputation and secondary infections. Because it is more common in people with diabetes, vigilance is needed to identify, diagnose and treat it completely, to prevent relapses and complications. Proper and regular foot examination and risk assessment is therefore vital.

If you suspect that you have a fungal infection, visit your podiatrist immediately!
Assists with the Clearing of Fungal Nail Infections\(^{(1)}\).

- **Repair** thickened, brittle and discolored nails
- **Strengthens** nails
- **Comfortable** applicator and easy to apply
- Nails are **dry within seconds** of application
- **Penetrates** the nail bed for **effective** treatment
- No filing

30 years of suffering...

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Insulin therapy for those with type 1 diabetes

By Prof. Larry Distiller Managing Director, CDE

It is not a normal human activity to stick a needle into oneself repeatedly. Many individuals with type 1 diabetes do not really understand why we recommend that this be done up to 4 times a day. To understand this fully, we need to look at what we are trying to achieve.

- People with type 1 diabetes have complete, or near complete, destruction of the insulin-producing beta cells of an organ in their abdomen called the pancreas. Thus, they are unable to make insulin and need to self-administer exogenous (externally derived, manufactured) insulin for survival.

- In people without diabetes, insulin is produced throughout the 24 hours of each day. This insulin production is of two types (See Figure 1) to fulfil two different purposes:

  - There is relatively flat, low-level, background or ‘basal’ secretion of insulin, which occurs continuously whether or not the person eats. Its main function is to regulate glucose production by the liver. This glucose production is especially important in the fasting (non-fed or between meal) state, to maintain blood glucose levels in a range sufficient to ensure healthy function of the body, especially the brain.

  - In addition, whenever food is eaten, insulin is produced. This causes the uptake of glucose (absorbed into the bloodstream from digested carbohydrates in the food) into the cells of the body where it is metabolised (processed to make energy). This allows people without diabetes to maintain their blood glucose in a very narrow ‘normal’ and healthy range (See Figure 2). Other hormones produced by the pancreas and the gut also play a role in this, but for the sake of this discussion, we will only consider insulin.

- In general, about half the insulin produced is as ‘basal’ insulin and the other half is produced in response to food, the so called ‘bolus’ insulin secretion. This obviously depends on how much one is eating – the more food, and particularly carbohydrate, one eats, the more bolus insulin will be produced.

Figure 1: An Idealised pattern of the normal daily range of endogenous (internally manufactured by the β-cells of the pancreas) insulin secretion (light grey fill) for a person without diabetes in response to life and three standard meals. Overlaid on this usual pattern, are the idealised profiles of exogenous bolus insulin doses taken at breakfast (B), lunch (L), and supper (S) and a basal bedtime (BT) dose of insulin. In a person with diabetes, this treatment pattern is given in an attempt to mimic normal physiology. Adapted from Bethel MA and Feinglos MN. Basal Insulin Therapy in Type 2 Diabetes. Journal of the American Board of Family Medicine. 2005 Vol. 18 No. 3: 200.
So does someone with type 1 diabetes really need to inject insulin 4 or more times a day? The honest answer is, of course, ‘NO’. For many years, people with type 1 diabetes were treated with two injections per day, consisting of short and longer acting insulins mixed in one syringe and given before breakfast and before supper. However, with the advent of insulin pens, home glucose monitoring and with a better understanding of human physiology and of what is required to mimic it, the move to 4 injections a day has become universal over the past two decades. The reason for this should be obvious. Taking what is needed when it is needed provides more flexibility in lifestyle, better control of the blood glucose and an overall better quality of life. The normal insulin secretion pattern can be more accurately matched as shown in Figure 1.

To get the best out of this approach, one should also understand the effect of different foods, and particularly carbohydrate, on the blood glucose (so-called ‘carb’ counting”), so that before each meal, the correct amount of bolus, or rapid/short-acting, insulin can be given. Long-acting insulin is then given once or twice daily to provide cover for the missing the basal insulin secretion. If this is done correctly, the patient can theoretically eat whatever and whenever they like as long as they can assess how much insulin to give and give it before eating while maintaining acceptable blood glucose levels and a healthy body weight. This is why the multiple injection regimens are said to provide flexibility. Within the confines of healthy eating, there is no need to restrict food, and eating times can be variable as well. In other words, four injections per day allows for giving insulin when and as much as needed.

If one takes insulin only twice daily, this is usually done these days by using a fixed ratio of short and longer-acting insulin in one pen. Because the insulin dose is usually fixed, one has to eat regularly and on time to avoid the blood glucose dropping too low because the insulin is already in the body. Furthermore, since the insulin is a set dose, the meals should be fairly fixed and standard as there is no ability for the insulin levels to be adjusted for a larger-than-normal meal. So, using this type of insulin replacement regimen, what one is really doing is having to eat for the insulin, rather than injecting for the food. The result, if one is looking for good control of the blood glucose, is a very regimented and fixed eating plan.

Both ways of giving insulin can work, and it is really the patient’s choice. But, with most things in life, you get what you pay for. If you ‘pay’ 4 daily injections, you ‘buy’ your blood glucose control together with flexibility and a better quality of life. If you are only prepared to ‘pay’ 2 injections per day, you can also ‘buy’ blood glucose control, but with a more regimented and restricted lifestyle.

As the saying goes, “there are many ways to skin a cat”, and many different insulin regimens are used based largely on the principles discussed above. It depends on what suits any one individual’s lifestyle. Some will elect to inject three times a day, with a premixed insulin in the morning to avoid the need for a lunchtime shot, and then take a short-acting before bed and a basal at bedtime. Others may prefer to take the basal before breakfast. As long as the peak and duration of action of the insulins used are understood, and the consequences in terms of matching the eating plan to the insulin (or matching insulin to the food intake) are appreciated, any combination of insulins is possible and can be used successfully. It is up to the individual to decide with the guidance of their diabetes team. However, in general terms, it is widely accepted and recommended that ideally, insulin be given 4 times a day, before meals and before bedtime, the so-called ‘basal-bolus’ regimen.
Move over Paleo! The Banting Diet appears to have taken over in South Africa! With its origins from the 1860’s, more than 150 years ago, one has to wonder why ‘Banting’ didn’t nip the weight woes of the world in the bud straight away. If it is so good, why didn’t it stick back then?

What is Banting like today? It has changed since the 1860’s and the original Mr Banting would be rolling in his grave - after all, he was an undertaker and coffin maker it seems.

Here we will attempt to give you the low down on the Banting Diet:

Of what does Banting comprise?

The Banting diet, also known as the ‘low carb high fat’ or LCHF diet, means no bread, potatoes, rice, pasta, grains and cereals, sugar and baked products. It consists of low carbohydrate vegetables, very limited fruit and little or no dairy. But to most South Africans’ liking, it consists of plenty of meat, chicken, fish, eggs, cheese, and bucket loads of fat, particularly saturated fat, which has always been thought of as the artery clogging type.
This involves lashings of cream, butter and meat fat added to just about everything.

*It has to be said that current dietary recommendations have been unable to control the epidemic of diabetes, obesity, cardiovascular risk or promote general health.*

While the benefits of carbohydrate (CHO) restriction in diabetes are immediate and have been well-documented in the literature, our main concern is that the long-term safety and efficacy of the Banting diet has not yet been well established.

**What is low and how low do we go?**

Currently there is a lack of agreement on the definitions of a low carbohydrate diet. Some suggest going as low as 20-50 g/day. Just to put this in perspective, this would be the equivalent of 1-2 slices of bread and 1 fruit per day. In contrast, the American Diabetes Association advises no less than 130 g of carbohydrate per day.

There are other recommendations such as having 26-45 % of total energy (i.e. total calories or kilojoules) as carbohydrates. However, this would make the overall amount of carbohydrates dependent on the energy requirements needed to sustain normal metabolic function.

For example:

<table>
<thead>
<tr>
<th>Mrs Smith</th>
<th>Mr Smith</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total energy requirements:</td>
<td>Total energy requirements:</td>
</tr>
<tr>
<td>5,500 kJ / 1,309 kcal per day</td>
<td>10,500 kJ / 2,500 kcal per day</td>
</tr>
<tr>
<td>50 % of energy as carbohydrates</td>
<td>40 % of energy as carbohydrate</td>
</tr>
<tr>
<td>= <strong>164 g</strong> per day</td>
<td>= <strong>238 g</strong> per day.</td>
</tr>
</tbody>
</table>

Based on the above recommendations, 26-45 % would be **85-147 g** CHO for Mrs Smith and **162-281 g** for Mr Smith.

N.B. Referring to the above examples, individual requirements differ depending on gender, age and activity levels. They also illustrate why there is so much debate and lack of consensus on the agreed definition of this topic - a lower percentage of carbohydrate does not necessarily equate to a lower CHO value, as the amount depends on the energy requirements of the person. Thus, the recommendations are broad and vague, again highlighting the need to individualise nutritional therapy approaches.
What does this look like?

<table>
<thead>
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<th>Mrs Smith (5,500 kJ)</th>
<th>Grams of CHO</th>
<th>Mr Smith (10,500 kJ)</th>
<th>Grams of CHO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast:</strong></td>
<td></td>
<td><strong>Breakfast:</strong></td>
<td></td>
</tr>
<tr>
<td>2 Oatbix</td>
<td>28</td>
<td>3 Oatbix</td>
<td>42</td>
</tr>
<tr>
<td>125 ml of skimmed milk</td>
<td>6</td>
<td>250 ml of low fat milk</td>
<td>12</td>
</tr>
<tr>
<td>1 peach</td>
<td>15</td>
<td>1 peach</td>
<td>15</td>
</tr>
<tr>
<td><strong>Snack:</strong></td>
<td>15</td>
<td><strong>Snack:</strong></td>
<td>15</td>
</tr>
<tr>
<td>1 small banana</td>
<td></td>
<td>1 small banana</td>
<td></td>
</tr>
<tr>
<td><strong>Lunch:</strong></td>
<td>30</td>
<td><strong>Lunch:</strong></td>
<td>40</td>
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<tr>
<td>Tuna mayo sandwich</td>
<td></td>
<td>Tuna mayo Roll</td>
<td></td>
</tr>
<tr>
<td>Small fruit yoghurt</td>
<td>10</td>
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<td>Nectarine</td>
<td>15</td>
</tr>
<tr>
<td>30 g of dried fruit &amp; nuts</td>
<td></td>
<td>Cereal bar</td>
<td>21</td>
</tr>
<tr>
<td><strong>Dinner:</strong></td>
<td>30</td>
<td><strong>Dinner:</strong></td>
<td>45</td>
</tr>
<tr>
<td>100 g cooked rice</td>
<td></td>
<td>150 g cooked rice</td>
<td></td>
</tr>
<tr>
<td>200 g chicken curry &amp; veg</td>
<td>10</td>
<td>200 g chicken curry &amp; veg</td>
<td>10</td>
</tr>
<tr>
<td><strong>Extra:</strong></td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>½ cup skimmed milk for drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Global diabetes management guidelines stress the importance of *individualising dietary and lifestyle goals for patients*. It is important to evaluate *individual readiness, reasons and motivation for weight loss*, as well as their preferences, sleeping patterns, psychological factors, culture, social circumstances, and financial status. Assessing previous successes and barriers to other weight loss strategies helps in discussing and choosing better interventions that may be *sustainable* and *match with the their lifestyle and health status*.

**Our observations of patients following the Banting diet:**

**Benefits**
- People have generally become a lot more ‘*carb* aware’ and therefore have omitted a large chunk of calories that they originally consumed in the form of refined carbohydrates e.g. croissants, muffins, buns, biscuits and sugary cold drinks. We know that none of these food items are nutritious and so are better out of the meal plan.
- Banting is *visually appealing* and has provided *motivation to change* for a number of South Africans.
- People are making *more of an effort to prepare home cooked meals*, rather than convenient options like take away or ‘readymade’ meals from supermarkets.
- Due to the limited food groups on the diet, people have *increased their vegetables intake* significantly, which aids satiety and provides variety.
• People generally report feeling more empowered and in control if they have lists of ‘foods to eat’ and ‘foods to avoid’.
• Support groups exist on social media, where people share their success and their struggles, recipe ideas, pose questions to one another (anything to do with Banting!) to encourage one another to persist.

Concerns
• Due to the high cost of most of the food recommended, it is known as a ‘rich man’s diet’.
• There is a potential for weight gain for those people that think they are Banting but after further investigation, they are eating excess calories which leads to weight gain (*see below).
• There is much debate on the long-term safety of high saturated fat intake on cardiovascular disease (CVD) risk.
• The fibre content of our diet is beneficial in reducing risk for cardiovascular disease and bowel cancers - the lack of carbohydrate in the Banting diet results in suboptimal fibre intake that may increase the risk for both of these.
• The balance of the beneficial bacterial in our gut may be affected. Disturbances of the microorganism populations in the human gut show associations with obesity and type 2 diabetes.
• There may be a link between the Banting diet and the increase in gout, uric acid levels and kidney stones due to the higher protein content of the diet.
• Limiting dairy intake is not conducive to healthy bones and teeth.
• We need to question how sustainable this way of eating can be, from an environmental / food production perspective. Additionally, it may not always be that easy to adhere to socially. For example - movies without popcorn, braai without a potato dish or rolls, a birthday party or a wedding without a cake. Individual dietary preferences may not be catered for in most social events.

*When you think you are Banting, but you are not!

Since the Banting wave hit South Africa, many people have shown interest in knowing more, but they only apply half the story. They only hear fat is not ‘bad’ any more. Butter, cream, and full cream milk are back on the ‘healthy’ list... **BUT**, what Banting instructs is:
• Butter – without the bread and jam
• Full cream milk – without the teaspoons of sugar in your cereal or coffee
• Sour cream – without the jacket potato

Following this approach of increased fat intake without a proper reduction in carbohydrate (especially those that are ‘hidden’) may lead to weight gain.

Others think they are Banting by stopping refined carbohydrate intake (white bread, cereals, cakes, sweets and sugary cold drinks) but are now just making healthier choices, and are more ‘carb’ aware.

Still others are doing no ‘carbs’ but are actually following Atkins (a higher protein diet) as opposed to Banting because they see it as a license to eat more protein such as red meat. A concern for the general population is that recent results of a 12-year follow up study has revealed that increasing protein at the expense of carbohydrate or fat also increases your risk of developing type 2 diabetes.

Make sure you get your facts right – Banting is a high saturated fat, very low carb diet! The verdict is yet to be confirmed on the role of LCHF in treatment or prevention of diabetes.
How to stay safe

If you prefer to follow this way of eating, please do not be afraid to consult your diabetes management team. Adjustment may need to be made to your medication, either your insulin or your oral medication, or both, to prevent or reduce the risk of hypoglycaemia or severe hypoglycaemia.

Conclusion

We acknowledge that a low carbohydrate way of eating is beneficial for management of better blood glucose levels. But, we cannot promote a no carbohydrate, high fat food intake as a population-based intervention for all with diabetes based on the current evidence.

It is important to support healthy body function with a variety of nutrients rather than focusing on a single nutrient to reduce the risk for obesity, lifestyle diseases, and/or nutrient deficiencies or excess.

Improving the eating pattern of the whole family is vital as doing it together with others leads to better success and adherence.

Research has not shown that Banting is better than any other diet for weight loss or longevity, but we do recognise the benefit of a low carbohydrate diet for management of diabetes and improving glycaemic control.

Remember that ‘diet’ is not the only contributing factor for developing heart (cardiovascular and coronary artery) diseases. Other factors such as smoking, stress, genetics, and sedentary lifestyles also play a significant role.

Be cautious about making your health decisions solely on opinion as opposed to the outcomes of long-term, evidence-based studies.
How to reduce your carbs without Banting

Get the benefits of a lower carbohydrate lifestyle, without incurring any possible unknown risks of Banting

<table>
<thead>
<tr>
<th></th>
<th>Lower carb option</th>
<th>Higher carb option</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td><strong>Homemade:</strong> Cooked Oats (40 g raw) with ½ cup of milk, cinnamon and 1 tbsp of flaked almonds. Total carbs = 30 g.</td>
<td><strong>Homemade:</strong> Cornflakes (30 g portion) with 1 tsp of sugar, ½ cup of milk and a small banana. Total carbs = 54 g.</td>
</tr>
<tr>
<td></td>
<td><strong>Out:</strong> 2 scrambled eggs, with one slice of rye bread and pan-fried baby tomatoes. Total carbs = 20 g</td>
<td><strong>Out:</strong> Muesli with fruit salad, plain yoghurt and honey. Total carbs (depending on restaurant portions) = 50-70 g.</td>
</tr>
<tr>
<td><strong>Lunch</strong></td>
<td><strong>Homemade:</strong> 2 slices seeded bread with mozzarella, tomato and basil pesto. Total carbs = 34 g.</td>
<td><strong>Homemade:</strong> 2 white rolls with ham, cheese and sweet mustard. Total carbs = 55 g.</td>
</tr>
<tr>
<td></td>
<td><strong>Out:</strong> Vitality Meal (Nando’s) - grilled chicken breast with Portuguese salad and a flame-grilled mielie. Total carbs = 36 g.</td>
<td><strong>Out:</strong> Regular burger with medium chips and a regular milkshake. Total carbs = 90 g.</td>
</tr>
<tr>
<td><strong>Supper</strong></td>
<td><strong>Homemade:</strong> 1 cup cooked Spaghetti with mince (add green peppers, grated carrots, tomato, mushrooms to mince) with green salad. Total carbs = 40 g.</td>
<td><strong>Homemade:</strong> Macaroni cheese with no vegetables or salad (2 cups). Total carbs = 70 g.</td>
</tr>
<tr>
<td></td>
<td><strong>Out:</strong> Grilled hake fillets with baby potato wedges (made from 6 baby potatoes) with baby marrow &amp; patty pans. Total carbs = 36 g.</td>
<td><strong>Out:</strong> Crumbed fish (106 g portion) with 1 cup of mash potato and 1 cup of corn &amp; peas. Total carbs = 71 g.</td>
</tr>
<tr>
<td><strong>Snacks</strong></td>
<td>Fresh fruit portion = ± 15 g carbs. Nuts (30 g) = 2 g carbs. Biltong = 0 g carbs. Popcorn (2 cups) = 15 g carbs. Plain Yoghurt 100 ml = 8 g carbs. Regular skinny cappuccino = 11 g carbs.</td>
<td>Cereal bar = 25 g carbs. Crisps = 20 g carbs. Chocolate bar = 20-30 g carbs. Small packet of Jelly sweets (75 g) = 55 g carbs. Dried fruit roll (80 g) = 62 g carbs. Muffin = 30 g carbs.</td>
</tr>
<tr>
<td><strong>Drinks</strong></td>
<td>Herbal tea, regular tea and coffee without sugar. Water with mint and freshly sliced lemon. Both 0 g of carbohydrates.</td>
<td>Herbal / regular tea &amp; coffee with sugar or honey. (1 tsp of sugar or honey = 5 g of carbohydrates). Regular cold drinks (330 ml) = 30-40 g carbs. Energy / sports drinks (500 ml) = 40 g carbs. Flavoured water (500 ml) = 20 g carbs. Ice tea = 30 g carbs.</td>
</tr>
</tbody>
</table>
LifeScan, manufacturers of the OneTouch® brand of Blood Glucose Monitoring Systems, is aware of some of the challenges that people with diabetes and their families face on a daily basis, especially around maintaining motivation for and sticking to a diabetes self-management plan.

The new OneTouch® on-line diabetes education portal, Lamasat (meaning Simple Touches) can help you! It aims to empower people with diabetes. Each of the five stages in the Lamasat Programme allows members to:

- **Know** More – through reading and the provision of enduring educational material
- **Do** Things – with steps and actions that will help build healthy diabetes lifestyle habits
- **Feel** in Control – through attending events and interactions that motivate, inspire and build confidence.

**Lamasat** simplifies diabetes management principles into **healthy lifestyle actions**, which we call the **4 C’s**:

- **Check** your blood glucose levels
- **Control** your blood glucose highs and lows
- **Consume** healthy food
- **Care** for your health and well-being

If you have diabetes, doing these simple things every day will help you to achieve a better, healthier lifestyle. Each Issue of Diabetes Lifestyle in 2015 will feature a summary of one of the **4 C’s**. In this Issue, we focus on **Check**.

**What is Self-Monitoring of Blood Glucose (SMBG)?** This is a method of testing how much glucose is in the blood using a personal blood glucose meter, anywhere, anytime.

**Why testing?** Your body requires a healthy level of glucose in the bloodstream to supply its requirements for energy. The goal of diabetes treatment is to keep blood glucose in a healthy range, not too high to be toxic and not so low that your body cannot obtain energy. Checking blood glucose levels will help you and your family to:

- find out immediately if blood glucose levels are too high or too low.
- understand the relationship between blood glucose levels and exercise, food and medication intake and other lifestyle influences such as travel, stress and illness.
- make day-to-day choices about how to balance these things.
- be alerted to seek the advice of your diabetes healthcare team about adjusting insulin or tablets, meals or physical activity when blood glucose goals are not attained or maintained.
- with your diabetes healthcare team, make changes to lifestyle and medication that will improve blood glucose levels.

**How to test blood glucose?** It’s probably easier than you think. The OneTouch® Select® Blood Glucose Meter uses a simple 3-step test. It only takes five seconds and needs a tiny drop of blood. Your doctor, pharmacist or diabetes educator can help you answer any related questions and help you to set your own risk-related targets for your fasting (waking), pre-meal and post-meal blood glucose values.

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It's quick and easy to register for the free membership to the Lamasat Programme:

1. On the Internet: @www.4cprogramme.com
2. By phone: Contact the toll-free® OneTouch® Customer Care line on 0800 600 345 (weekdays 9 am-5 pm)
3. Or E-mail us @cclifescan@its.ji.com and ask for more info about the Lamasat Programme

*Toll-free via a Telkom landline
“I use OneTouch® every day with my family. Managing diabetes helps us live a happier, healthier life together.”

Get started with 4cprogramme.com

Simple Touches, Better Life

OneTouch®

Call
For more information:
0800 600 345

OneTouch® Customer Care Free of Charge* (weekdays 9am to 5pm)

* from a landline only.

Check Control Consume Care

Johnson & Johnson
Diabetes Solutions Companies

LifeScan, Building 6, Country Club Estate,
21 Woodlands Drive, Woodmead, 2191.
Tel: 011 519 7000

PA2AMET0815/002
SERVES 4

POTATOES
- 400 g (4-5) sweet potatoes, skins on and cut into wedges
- Olive oil
- Salt and milled pepper

SALAD
- 1 can (400 g) salmon
- 1 red onion, sliced
- 1 avocado, diced
- 1 large tomato, chopped
- ½ packet (15 g) rocket leaves

DRESSING
- 3 Tbsp (45 ml) reduced-fat mayonnaise
- 1 Tbsp (15 ml) tomato sauce
- Juice of ½ lemon

Preheat oven to 200°C. Place potato wedges on a baking tray and toss with a little olive oil and seasoning. Bake for 30-40 minutes or until golden and crisp. Toss salad ingredients and arrange on a platter. Top with wedges and season to taste. Mix dressing ingredients together and drizzle over salad.
**Pan-fried fish with chilli herb oil**

SERVES 4

CHILLI HERB OIL

- ¼ cup (60 ml) Italian parsley, finely chopped
- Juice and zest of 1 lemon or 2 limes
- 1 red chilli, deseeded and finely chopped
- 4 tsp (20 ml) olive oil
- 1-2 garlic cloves, crushed
- 4 x 200 g firm fish fillets

Mix chilli, herb and oil together and brush over each fish fillet. **Heat** a non-stick pan and cook fish for about 5 minutes on each side or until cooked through. **Place** remaining herb oil in a pot and heat through. **Drizzle** fish with herb oil and serve with salad or baked baby potatoes.

**Chicken curry in a hurry**

SERVES 4

- 3 skinless chicken breasts, deboned and diced
- Salt and milled pepper
- Vegetable oil, for frying
- 1 onion, sliced
- 2 garlic cloves, chopped
- 2 Tbsp (30 ml) chopped ginger
- 1 chilli, chopped
- 2-3 Tbsp (30-45 ml) curry powder
- 1 head (about 4 cups) cauliflower florets
- ½ cup (125 ml) chicken stock
- Juice and zest of 1 lemon
- 1 cup (250 ml) plain low-fat yoghurt
- Brown Basmati rice, to serve
- Coriander (optional), to serve
- ¼ cup (60 ml) toasted desiccated coconut, to serve

**Season** chicken. **Brown** chicken in a little oil, then remove and set aside. **Fry** onion, garlic and ginger until soft. **Add** chilli, curry powder, cauliflower, stock, and lemon juice and zest and simmer until cauliflower is almost tender. **Stir** in chicken and yoghurt and simmer until chicken is cooked through. **Serve** with brown rice, coriander and toasted coconut.

Most curries are lacking in vegetables as well as being high in cream or oil. The chicken curry in a hurry is a leaner version of a curry that also contains a good serving of vegetables.

Most people are not sure how to prepare fish in an interesting way - the pan fried fish with chilli herb oil is a great way to ensure that fish will not be bland but have plenty of flavour and zest.
A healthy shopping list for people with diabetes

I regularly remind my clients that poor eating habits start in the supermarket. Often people purchase food items thinking they will just keep them in stock ‘in case they need them’. But, the reality is that once they are bought they are much more likely to be eaten. Hence, the importance of being guided by a healthy shopping list. This leads to more disciplined shopping with fewer random and unnecessary foods bought. The list below serves as a good guide as to quality of food choices from the various food groups. These are also ‘regular’ healthy choices, which are also applicable to the general population.

One needs to be mindful that portion control is important with diabetes, so even though the list indicates the type of foods, attention still needs to be paid to the overall quantity. This will reduce the risk of higher than usual blood glucose levels as well as weight gain.

People with diabetes often feel that they are no longer allowed to eat ‘regular’ foods, and that their ‘diets’ should primarily be made up of foods that are marketed as ‘Suitable for diabetics’ only. However, this is not necessarily true. People with diabetes are able to consume regular day-to-day foods, provided they make healthy choices when choosing every day food products.

Pick n Pay’s registered dietitian has compiled this handy shopping list of foods to choose from when formulating a meal plan for someone with diabetes.

### CARBOHYDRATE-BASED FOODS

<table>
<thead>
<tr>
<th>Breakfast cereals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole-wheat instant porridges like ProNutro Whole-wheat Original and Apple Bake flavours</td>
</tr>
<tr>
<td>Bran Flakes</td>
</tr>
<tr>
<td>Shredded Bran</td>
</tr>
<tr>
<td>Oat bran</td>
</tr>
<tr>
<td>Rolled oats</td>
</tr>
<tr>
<td>Low fat, Low GI Mueslis like Vital Low Fat Muesli, or Thistlewood Low GI Muesli</td>
</tr>
<tr>
<td>Instant oats, original flavour only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooked starchy fuels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby potatoes</td>
</tr>
<tr>
<td>Sweet potato</td>
</tr>
<tr>
<td>Whole-wheat pasta</td>
</tr>
<tr>
<td>Brown rice</td>
</tr>
<tr>
<td>Barley</td>
</tr>
<tr>
<td>Quinoa</td>
</tr>
<tr>
<td>Mielies / corn - frozen, canned or fresh (whole kernels, not sweet corn)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baked beans in tomato or chilli sauce</td>
</tr>
<tr>
<td>Werda Three-bean Salad</td>
</tr>
<tr>
<td>Werda Lentil and rice salad</td>
</tr>
<tr>
<td>Dried or tinned beans, lentils and chickpeas (rinse off excess brine before use)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breads</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% rye bread</td>
</tr>
<tr>
<td>Seed loaf and whole grain or low GI bread</td>
</tr>
<tr>
<td>Whole-wheat pitas</td>
</tr>
<tr>
<td>Whole-wheat wraps</td>
</tr>
</tbody>
</table>

### PROTEIN-BASED FOODS

<table>
<thead>
<tr>
<th>Dairy products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat-free or low fat 2 % milk (powdered or fresh)</td>
</tr>
<tr>
<td>Fat-free or low fat plain yoghurt</td>
</tr>
<tr>
<td>Low fat evaporated milk and buttermilk</td>
</tr>
<tr>
<td>Fat-free or low fat cottage cheese</td>
</tr>
<tr>
<td>Ricotta cheese</td>
</tr>
<tr>
<td>Low fat cheese wedges</td>
</tr>
<tr>
<td>Low fat mozzarella, cheddar or feta (aim for less than 25 g fat per 100 g)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Meat and Poultry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lean pieces of beef, pork and chicken, trimmed of all fat and skin before cooking</td>
</tr>
<tr>
<td>Low fat and lean cold meats</td>
</tr>
<tr>
<td>Skinless turkey</td>
</tr>
<tr>
<td>Ostrich</td>
</tr>
<tr>
<td>Eggs</td>
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<table>
<thead>
<tr>
<th>Non-oily fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hake, dorado, yellowtail, angelfish, monkfish, snoek and tuna</td>
</tr>
<tr>
<td>Calamari, mussels, oysters</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Omega-3 rich fish (eat 2-3 times per week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilchards and sardines</td>
</tr>
<tr>
<td>Mackerel and herring</td>
</tr>
<tr>
<td>Anchovy spread</td>
</tr>
<tr>
<td>Salmon (smoked, canned and frozen fillets)</td>
</tr>
</tbody>
</table>

### FRUIT

<table>
<thead>
<tr>
<th>All fresh fruit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen mixed berries</td>
</tr>
<tr>
<td>Safari dried fruit bars – not sugar coated</td>
</tr>
<tr>
<td>Dried fruit (in a controlled serving size)</td>
</tr>
<tr>
<td>Fruit tinned in its own juice with juice drained (occasional)</td>
</tr>
</tbody>
</table>

### VEGETABLES

<table>
<thead>
<tr>
<th>All fresh and frozen vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canned tomato, asparagus and mushroom</td>
</tr>
<tr>
<td>Pickles – gherkin, onion, beetroot</td>
</tr>
</tbody>
</table>

### FATS AND OILS

<table>
<thead>
<tr>
<th>Olive, canola or avocado oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olives and olive paste</td>
</tr>
<tr>
<td>Seeds</td>
</tr>
<tr>
<td>Unsalted nuts</td>
</tr>
<tr>
<td>Peanut butter</td>
</tr>
<tr>
<td>Avocado</td>
</tr>
<tr>
<td>Flora tub margarines</td>
</tr>
<tr>
<td>Low oil salad dressings (less than 5 g fat per 100 g)</td>
</tr>
<tr>
<td>Reduced oil salad dressings (less than 20 g fat per 100 g)</td>
</tr>
</tbody>
</table>

### SNACKS

<table>
<thead>
<tr>
<th>Unsalted nuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popcorn kernels (home-prepared with a little oil and salt)</td>
</tr>
<tr>
<td>Lean biltong</td>
</tr>
</tbody>
</table>

### BAKING AND COOKING AIDS

<table>
<thead>
<tr>
<th>Cook-in and tomato-based pasta sauces with less than 3 g fat per 100 g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olive oil Spray ‘n Cook</td>
</tr>
<tr>
<td>Lite coconut milk</td>
</tr>
<tr>
<td>Digestive bran and nutty wheat flour</td>
</tr>
<tr>
<td>Rye and soya flour</td>
</tr>
</tbody>
</table>

### COOLDRINKS

<table>
<thead>
<tr>
<th>Tap water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unflavoured sparkling and still mineral water</td>
</tr>
<tr>
<td>Pure lemon juice</td>
</tr>
<tr>
<td>Tomato juice and cocktail</td>
</tr>
<tr>
<td>All lite concentrates and cordials (max 1 serving per day)</td>
</tr>
<tr>
<td>Sugar and caffeine-free cooldrinks (max 4 per week)</td>
</tr>
</tbody>
</table>

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Pick n Pay is committed to promoting health and wellbeing among South Africans, and employs the services of a registered dietitian to provide food and nutrition-related advice to the public. For your nutrition and health-related queries, contact Leanne via healthhotline@pnp.co.za or toll free on 0800 11 22 88.
Put your mind at ease

Have your Annual Wellness and Diabetes screening check to ensure your heart and body health for 2015 – Cholesterol, Glucose, Blood Pressure and BMI at medical aid or preferential private rates.

Don’t queue for ages

Every visit to a PnP Pharmacy or Clinic means quick and professional service from our friendly, CDE-trained and qualified Pharmacists and Clinic Sisters. You are not just a number to us.

Save valuable time

Drop off your script before you do your grocery shopping and we will have it ready for you when you are done. If that doesn’t suit you, we can deliver your medicine to your office or home for free.

Swipe and earn

Collect smart shopper loyalty points on all dispensing fees and clinic services.

Terms and conditions apply.

AVAILABLE AT THESE PICK N PAY PHARMACIES
I still remember my first major hypoglycaemic episode (or hypo for short) after being diagnosed with type 1 diabetes.

The symptoms are the typical symptoms I remember reading about in a pamphlet that I picked up in the hospital only days earlier. I am shaking; I am sweating. I have already treated the hypo and now am 30 seconds into the 15 minute wait before I re-test and potentially re-treat the hypo. It is half an hour since I took my evening meal’s bolus and I must have got something wrong. I try working out what went wrong when suddenly things are much worse. The shakes and sweating seem 5 times worse; the walls seem to be closing in and I am struggling to keep my train of thought together. 14 minutes and 20 seconds to go. I don’t know how I am going to make it...

Hypoglycaemia or a hypo occurs when your blood glucose is lower than it should be. If you have diabetes and are using insulin, then this can occur if you have given yourself more insulin than you need to balance the requirements of your body.

Well I didn’t exactly come to my senses, but rather panicked at the thought of rapidly falling into a state of unconsciousness. Breaking the advice I had been given to treat hypos, I started eating and drinking large quantities of quick-acting carbohydrates. I didn’t stop until I started feeling more normal. At the time, it was the right move...

What a scary introduction to the not-so-pleasant side of diabetes management! There is more to this story. Just as hypos can be scary, the fear of hypos can be deadly. Fear of hypo’s leads to poorer diabetes management as insulin or other medications may be reduced or even missed. Fearing hypos may also cause you to over-treat a hypo, and when in doubt you tend to err on the side of high blood glucose. Just to compound the issue, both frequent hypos and poor diabetes control (frequent ‘hypers’) lead to reduced hypo awareness, and the even scarier hypo unawareness, albeit via different mechanisms. In other words, if you have diabetes and take insulin, you are going to have to deal with hypos. It is best if you can do this without fear.

Is this even possible? I think so. The key is in the understanding of when a hypo may be severe and therefore when to ‘over-treat’ and when not to. What you need is a better plan for treating hypos. I recommend that you devise one for yourself. Here are three things that you should consider when treating a hypo.

1. Active Insulin

We can get many things wrong in our self-management of diabetes that can cause a mismatch between our insulin dose and life (food, exercise, stress etc) and a resultant hypo. It is the role of your diabetes educator to help guide you through this. For example, it could be timing and amount of insulin vs. amount of food; the glycaemic index (GI) of the food vs. the action profile of the insulin taken; exercise intensity, duration and frequency; stress levels; bolus vs. basal insulin etc… It is complex. However, a severe hypo is most likely to occur when the insulin levels in your body are highest relative to your needs. This is related to remaining active insulin. I.e. if you feel the onset of a hypo, think back to how long ago you last took insulin and how much. If it was a large amount of insulin and you are within the active time of your insulin, then you need to take treating the hypo more seriously. Don’t delay.
Do you have DIABETES?
Are you experiencing HYPOS?

Over the past 30 days, have you experienced any of the following symptoms of low blood glucose (hypoglycaemia)?

- Anxiety
- Confusion
- Blurred vision
- Dizziness
- Trembling
- Sweating
- Tiredness

Early warnings (mild hypoglycaemia)
- Hunger
- Sweating
- Rapid/fast heartbeat
- Feeling shaky
- Nervousness or anxiety

Late problems (Severe Hypoglycaemia)
- Irritability or impatience
- Tingling or numbness in the lips or tongue
- Feeling lightheaded or dizzy
- Weakness or fatigue
- Anger, stubbornness, sadness or personality change
- Headaches
- Blurred/impaired vision
- Feeling sleepy

Because you are still aware, help yourself to restore normal blood glucose by immediately taking 15 g of sugar/glucose (e.g. 4-5 glucose sweets) followed by a starch & protein snack (e.g. sandwich and milk).

This is a medical emergency! You are not in full control of your mind and body and your safety is at risk. You will usually need someone else to recognise your signs and symptoms and to treat your hypoglycaemia by feeding you (only if still conscious) or by administering a glucagon injection (if unconscious).

- In all cases of hypoglycaemia, it is vital to find the cause.
- Always contact your diabetes team to discuss what led to the ‘hypo’ and what steps will be needed to prevent a reoccurrence.
- In some cases, your therapy may need to be reduced or changed.

Speak to your Healthcare Professional if you have experienced any of these problems!

Brought to you by Novartis in the interests of better diabetes management.
2. Blood glucose level

Test your blood glucose while treating a hypo. A lower blood glucose reading requires more quick acting carbohydrates. You can adjust the amount of carbs based on your blood glucose test result.

3. How fast is your blood glucose dropping?

Unfortunately, your test kit cannot tell you this unless you perform serial measurements. This is important because if your blood glucose is dropping quickly then you will need additional quick acting carbohydrates to stop it dropping. This is in addition to the amount you need to correct your blood glucose.

I would like to share my personal hypo treatment plan with you. It works for me as I try to balance the physiological demands of a sedentary desk job and a highly active lifestyle, which includes competitive cycling. This approach may not work for you, but is presented to provoke personal reflection and consultation with your diabetes team.

1. I test immediately. If my blood glucose is below 3.0 mmol/l then I double the treating carbs. I do this for two reasons. Firstly because the lower blood glucose requires more carbs to treat, and second because if I am already below 3.0 mmol/l then my blood glucose is probably dropping quickly. I always use a quick acting carb. This unfortunately means no chocolate. :-(

2. I will try to wait at least 2 minutes. If I suddenly start feeling worse, or if I test again and find that my blood glucose is significantly lower than my first test; then I will treat again by repeating step 1. The reason for re-treating is because I am concerned that my blood glucose is getting worse quickly. Please note that I do not expect my blood glucose to be normal yet but I am just checking to see if my blood glucose is getting worse or not.

3. If I am still not correct 15 minutes after the last time that I ate carbs, then I will treat again by going back to step 1.

The reason why I like this method of treating a hypo is that it scales quickly. If I have a normal hypo then the treatment is normal; however if the hypo is severe, then within 2 minutes I will have consumed 4 times the normal amount of rescue carbohydrate. Hypos that are treated quickly and effectively without risk of over treating are a lot less scary.

There is a lot more you can do to fine-tune the amount of carbs you take to treat a hypo. Everybody is a bit different and will need a different approach. Additionally, even the best plans may need to be changed with time. Devise your own plan in the light of your experience and in consultation with your diabetes educator, dietitian and doctor. You should regularly check your plan by testing 2 hours after a hypo (and its treatment) to make sure that you have not over corrected. This will give you vital feedback on the personal applicability of your plan – act on this and adjust your plan if necessary. Take back control!

Figure 1: The time-action profiles of various types of insulin. Insulin concentration in your plasma rises and falls after each dose. Understanding what kind of insulin’s you take, and the action profile of each, helps you to determine how risky a particular hypo is with respect to the last insulin dose. Rapid and short-acting insulin are usually used in a ‘bolus’ role before each meal and intermediate and long-acting insulins are used in a ‘basal’ role unrelated to meals. Please see the preceding article by Prof Larry Distiller for a greater insight into these roles and explore and discuss your personal therapy with your diabetes team.
Youth With Diabetes does:
Chalk Talk on Diabetes & a day @ SCHOOL.

Treatment of Hypos:
15 grams of carbs

The 15-15 Rule

1. Hypos occur when your blood glucose is under target, usually below 4 mmol/l
2. Hypers occur when your blood glucose is above target, usually above 10 mmol/l

Symptoms:
- Hypos: Hunger, Blurry Vision, Sweating, Dizziness, Shakiness, Fast Heartbeat
- Hypers: Irritable, Stomach ache, Nausea, Anxiety, Tearful, Headache

*How to be SMART*
Educate friends, classmates and teachers on diabetes
Never leave school/sports bag in the sun, it may damage your insulin and test strips
Make good choices on what and how much you eat during break time
Keep carb-free snacks for those ‘hungry’ days
Remember to test before and after exercise
Know that you are SUPER brave and courageous
Report bullying, Don’t be afraid of your diabetes!

*Life can be sweet!*

http://www.medicalert.org

Diabetes Identity Card

NAME: ___________________________
D.O.B: ___________________________
I HAVE DIABETES

MEDICATION / INSULIN: ___________________________

IN CASE OF EMERGENCY, CONTACT: ___________________________

https://www.youtube.com/watch?v=YWEMx2c0ZUU

FOLLOW THIS LINK FOR TREATING SEVERE HYPOS
Bonitas Medical Fund has recently extended its contract with the CDE to include ALL scheme options (except BonCap). This is great news for those Bonitas members who previously couldn’t, but who now can, access best practice diabetes care!

Peter Black, Chief Executive Officer, CDE

The CDE in Houghton offers an exciting experiential learning course for people with type 1 diabetes called DINE (Diabetes, Insulin and Normal Eating). The course follows the very successful DAFNE (Dose Adjustment for Normal Eating) course curriculum, offered in the United Kingdom for the last 15 years.

DINE is a structured education programme presented over 5 days, to groups of 6-7 people with type 1 diabetes. DINE teaches you how to estimate your carbohydrate intake and take matching insulin doses on a meal-by-meal basis. The extensive range of topics covered provides a wealth of experience and learning and includes ‘sick day’ management, hypoglycaemia, exercise and principles of eating out.

We also offer DINE in a 5-week, 1 day per week format as an alternative option. Please contact Michelle on 011 712-6000 or Michelle@cdecentre.co.za for dates and details.

Michelle Daniels, Registered Dietitian, CDE, Houghton

It remains important to keep blood glucose levels controlled in pregnancy. A recent UK study showed that mom’s need to try keep their HbA1c below 6.5 %, with the ideal being less than 6.0 %, during the first trimester when vital structures are developing and during the second and third trimester when blood glucose levels tend to rise, to reduce the risk of large babies and other preventable complications of pregnancy. But, this recommendation must always be balanced against the risk of treatment induced hypoglycaemia, and consequent blood glucose swings, and the individual ability of the woman to achieve these very tight levels of control.

Another study looked at the longer-term outcomes of the use of a first-line and commonly used oral insulin sensitizing medication, during pregnancy, in those who have gestational or type 2 diabetes. Whilst insulin therapy, has historically been the mainstay of therapy for blood glucose control in pregnancy, this medication has been shown to be safe in selected patients. It drops blood glucose levels without increasing the risk of hypoglycaemia, it does not cause weight gain and it appears to be safe for the developing foetus.

Prof. Larry Distiller, Endocrinologist, CDE, Houghton
Sleep restriction increases insulin resistance and decreases insulin secretion in all age groups, young or old. A study done by Prof. Orfeu M. Buxton from Harvard Medical School found that blood glucose levels following a morning meal were much higher in people who were sleep deprived, and that those high levels lasted for several hours afterwards. The pancreas secreted far less insulin when sleep was disrupted than when subjects were well rested. They termed it a ‘jet-lagged pancreas’. Night workers and rotating night shift workers with type 2 diabetes have disrupted sleep patterns and extreme difficulties getting the amount of sleep they would have at night when they try to sleep in the day. Before this study, researchers thought that the different lifestyle with more unhealthy food and less exercise resulted in these people having higher blood glucose levels and gaining weight, which put them at higher risk if they had type 2 diabetes. Prof. Buxton said “sleep restriction and circadian (sleep cycle) disruption both increase diabetes risk. However, the difference is that sleep restriction does so by reducing insulin sensitivity without any change in insulin response, whereas circadian disruption does so by greatly decreasing the insulin response”. Chronic sleep deprivation could be a factor contributing to the obesity epidemic.

*Sound, sufficient sleep is thus as important as healthy eating and regular exercise in people with type 2 diabetes.*

Prof. Barry Joffe, Endocrinologist, CDE, Houghton

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You can now connect with CDE - Your Partner in Diabetes on Facebook and Twitter.

Social media is all about building relationships, and at CDE - Your Partner in Diabetes, we are striving to MAKE OUR CIRCLE BIGGER and bring the good news of better diabetes care to more people.

With our Social Media pages, we want you to have access to fresh, valuable and credible information about diabetes that you can share.

We invite you to Like and Share our Facebook page. By liking our page, you will receive frequent updates and the opportunity to interact with diabetes health care professionals and your peers.

Twitter uses ‘hashtags’ (a word or phrase preceded by a hash character (#), within a message to identify a keyword or topic of interest and to facilitate a search for it. So, whenever a user adds a hashtag to their post, it is immediately indexed by the social network and can be searched for by other users. When someone clicks on that hashtag, they’ll be brought to a page that aggregates all of the posts with the same hashtagged keyword in real-time. When a keyword picks up enough momentum, it’s said to ‘trend’. This enables likeminded people to read a meaningful post and share or ‘retweet’ it. We thought it would be relevant to use #PartnerInDiabetes for now, but keep an eye open on any other streams to follow.

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