

Newsletter 28th March 2019

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We meet in the Diabetes Centre St. Richards Hospital Chichester for 7.30pm. Easy access for wheelchairs. All welcome.

Chichester & District DIABETES UK Group

Know Diabetes Fight Diabetes

Charity Number 215199

Patron Her Majesty the Queen

We had a delightful interactive meeting with Chris whose career as an ex Officer in the Royal Navy gave him the experience the theory and understanding of the following. His talk was about 'how to make the technology work for us. He made his presentation interesting – productive – very enlightening in a subject many of us were not familiar with.

DIY Looping:

Over to Chris: He told us “ I am not a medical professional and you should always consult your medical team before making any decisions that would affect your treatment”.

“DIY Looping is not approved by the NHS”.

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For those of us who had 3G or 4G on the phone Chris gave us a web site that he used as part of his demonstration.

This was used as part of the demonstration as the meeting progressed. We watched Chris's real-time blood glucose direct to our screens.

What is **LOOPING** you may ask?

Open and closed loop.

Open loop systems apply to fixed INPUT to a system to achieve a set OUTPUT.

Closed loop system apply to a variable INPUT to a system, based upon a measurement within the system, which automatically corrects the **OUTPUT** if it differs from what is required.

Still confused? So was I when I first read this in an electrical journal in 1982.

OPEN LOOP

Imagine that you want a cup of Tea – NOT YET! I bet one of you is thinking about a biscuit now.

Imagine one of the old style whistling Kettles – you fill it with water, put it on the stove, apply heat and wait.

After a period of time it boils and the steam makes it whistle – but... it doesn't stop whistling until **YOU take away the heat.**

CLOSED LOOP Imagine that you are having a coffee morning with friends – OK so now you are thinking of cake! – Your friends start to arrive, so you put the kettle on.

Now we are using a modern Kettle – you fill it up with water, put it on its base and click the switch. - After a period of time it comes to the boil and **switches itself off** – there is no whistle, because it does not need to alert you that it is boiling.

So what is the difference? In the **OPEN loop** example, **YOU** had to change the **INPUT (turn the gas off)**

In the **CLOSED loop** example the “system” measured the **OUTPUT** and changed the **INPUT for you.**

What was the **INPUT?** –

ELECTRICITY for the kettle

What was the **OUTPUT** –

Hot water

What was being measured? –

the Temperature of the **Water** in the kettle.

CLOSED LOOP SYSTEMS IN DIABETES.

So what are we trying to achieve with our Diabetes system?

When you speak to most T1 Diabetics about the things that they struggle with the most, it usually comes down to these:

.. The constant battle between Carbs and Insulin.

.. Fear of Hypo's especially at night time when they are asleep

(lack of sleep due to worrying about BG levels is a BIG problem) Constantly having to think about what you are doing, what you are GOING to be doing and how it will affect your diabetes when you do it.

..EATING – EXERCISE – STRESS...LIFE!

Most people, especially young people, resent the extra effort that having diabetes brings.

What is the manual “PROCESS” for T1D?

MEASURE GLUCOSE – Blood Glucose test.

CALCULATE – carb counting Carb Ratio – How many carbs you can eat for 1 unit of insulin?

INSULIN SENSITIVITY – How many mmol's will drop per unit of insulin?

CARBS ABSORPTION RATIO – How quickly do YOU absorb carbs?

TAKE INSULIN – EAT FOOD

...

OPEN LOOP

Measure Bg – Bg meter FGM and CGM

INPUT Insulin Pen – Insulin Pump **INPUT** – Food

CALCULATE – THE MISSING COMPONENT

The calculations are still done by **YOU**

OPEN LOOP System calculations done by you

CLOSED LOOP system

The Calculations are performed by an algorithm in an APP on your smart phone.

HYBRID LOOP SYSTEM LOOP KIT what do I need?

Measure – CGM

DEXCOM – G6 Not NHS £159 per month.

Medtronic – guardian 3 Part of the Pump kit MiniMed 670G

Diary Dates
25th April
**

23rd May
This is a first.
Bariatric Consultant
**

27th June
Admitted into hospital ward?
Specialist DSN will visit you.
**

No Meetings July & August

*Our meeting on the **25th April** will be the first time we have had the opportunity for a great many years to hear from a professional about this part of diabetes.
Many people have great difficulty in coping with diabetes, not just the physical illness of diabetes but the illness as a whole.
Diabetes is for life, it never takes a holiday; it is with you 24/7 whatever you do where ever you go diabetes is with you.*

FreeStyle Libre + MiaoMiao Transmitter.
Libre on NHS or £120 a month self-funded
MiaoMiao £160 one off purchase (+£40 for holder)

This was a fascinating demonstration of this system, that with a techie mind could be put together yourself. The internet has many interesting sites on the subject with details on how to turn your FreeStyle into a devise that will allow other people i.e. parents of a child to monitor their blood glucose while sleeping without having to disturb them. It will also alarm if the Bgs drop or rise when help can be given. The readings can not only be set up on one phone but can be set up on a number of computers. Chris has difficulty in being able to tell when his Bgs are dropping. But now he has it in real time not only on his works

computer but on other staff computers too and they can warn him when he is going low. The results of this have been dramatic in his diabetes health. His numbers are now much better and his physical wellbeing improved dramatically.

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We welcomed 20 people to our AGM which we kept very short as we were eager to hear from Chris. Chris and Nilesh have joined our very small committee our sincere thanks to them for agreeing. We would like to thank Gwen our treasurer for many many years for her excellent work in keeping our books in order and continuing to do so. Our thanks also to the drivers who pick up and bring people from the Wittering's and to the people who hand deliver our newsletter. If you do have an email address

please may we send it by email as the postage is once again going up?
A big thank you to Ros for looking after our refreshments. Everyone has been most helpful in helping with the raffle and you our supporters have done a brilliant job of providing the raffle prizes. Thank you all so very much.
Without the Diabetes Centre allowing us to use the building we would not be able to afford to pay for a room and therefore probably close our group. Ruth and her husband have been a great help with Ruth working in the centre she was able to suggest many things i.e. speakers, quiz etc. Ruth has finally retired from work. Join me in wishing her an exciting retirement. Our thanks to Dave for taking care of the raffle. I would like to thank everyone for their kind thoughts and wishes during my many absences due to NHL. Now in remission.

Chichester & District Voluntary Group of Diabetes UK Statement of Accounts
Year Ending December 2018

2017	Income	2018	2017	Expenditure	2018
£13.50	Donations	£23.00		Postage	£84.00
£35.00	Secretarial	£35.00	£35.00	Secretarial Expenses	£35.00
			£1,000.00	Research Donation	
£139.50	Newsletter/Subs	£125.00			
£36.08	Refreshments	£32.88			
£164.00	Raffle	£115.00			
£540.00	In Mem Mr Dove				
£928.08		£330.88	£1,035.00		£119.00
£2,609.36	Opening Balance	£2,502.44	£2,502.44	Closing Balance	£2,714.32
£3,537.44		£2,833.32	£3,537.44		£2,833.32