How to get the WILLPOWER you need

to trump sugar's POWER

Using Biology not Psychology

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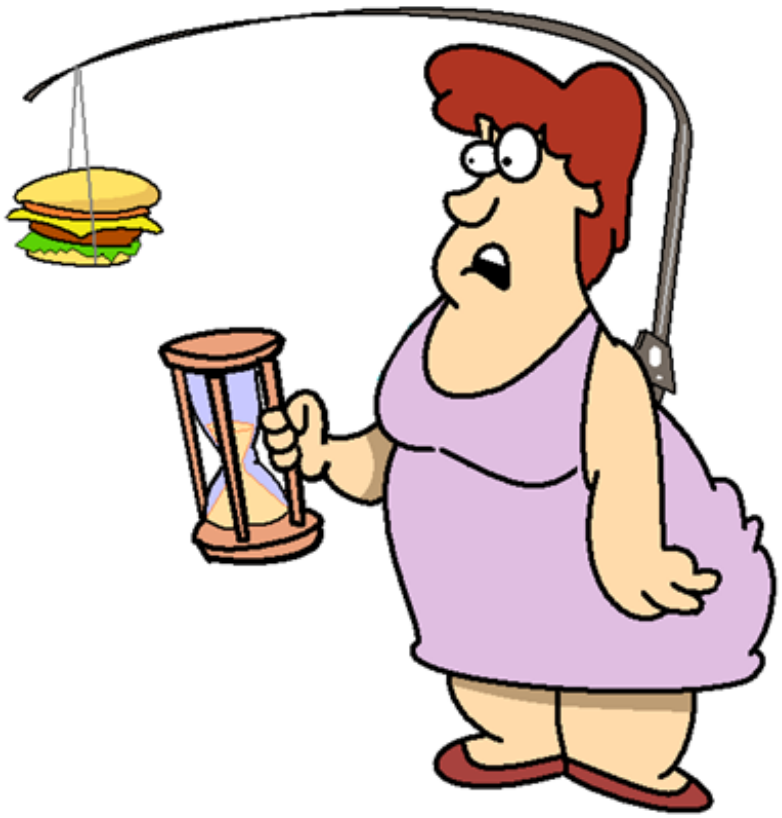
Do you have a SUGAR GREMLIN ?



Does your will power never seem to trump food's power ?

What would your life be like, if tomorrow morning, miraculously you woke up and your sugar gremlin was gone, what would your life be like ?

How would it make you feel ?

Taming your sugar gremlin is not that difficult.

The secret, you can't tame it using psychology alone; you have to tame it using biology.

To beat your sugar gremlin, you need to understand it's modus operandi.

Join me as we uncover how this little beast torments the vast majority of us, causing us to eat one more piece of pie or the whole box of chocolates in one sitting...

The sugar gremlin is REAL

You need to keep your body fuelled up. Both fat and carbohydrate can be used as a fuel source for the body as a whole. But since the brain is primarily made of fat, Mother Nature opted to limit the kind of fuel that brains could run on, to carbohydrate.

It was a smart move, forcing the brain to use sugar, as its primary source, ensures the brain does not accidently eat itself. Something which could easily happen, when fuel supplies are low, because the brain needs a huge amount of resources to fire up.

As a consequence of "THE FUEL RULE", the brain likes a steady supply of sugar, to function at its best.

BRAIN NEEDS
A STEADY SUPPLY OF SUGAR

Keeping tabs on the sugar level

This sugar requirement necessitates a very sophisticated SUGAR MONITORING SYSTEM.

If the sugar levels start to drop, the whole system fires up, because this poses a potential crisis for your brain.

How does the system fire up ?

You get ALL the "I AM STARVING SIGNALS", these include

- Feeling really, really hungry
- Feeling as flat as a pancake i.e. your get up and go, has got up and left
- Becoming moody and aggressive, snapping at friends and foe alike
- Being hungry for nice things i.e. YOU CRAVE sugar

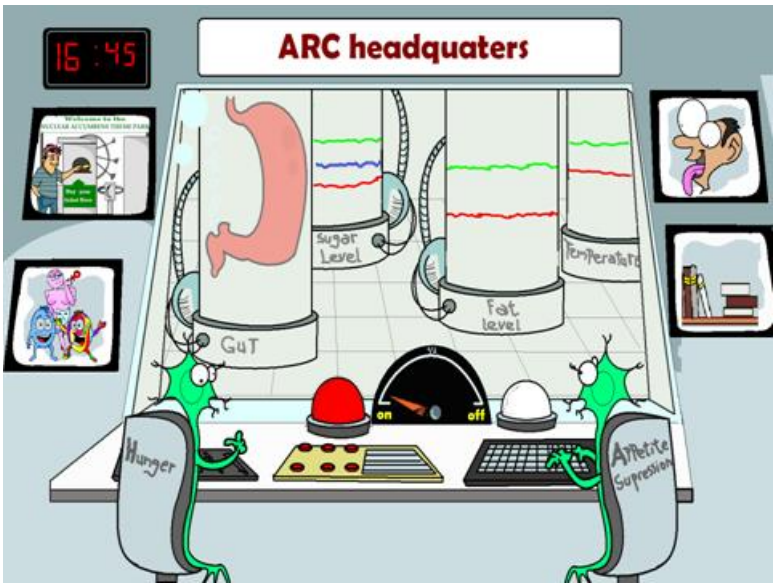
A sugar gremlin moment !

Blame your sugar gremlin.....

Inside your brain

To really understand what is going on, we have to pop into the brain, to the area of the brain known as the articulate nucleus – ARC for short.

This is the area of your brain responsible for monitoring the energy levels within the whole body. Like any control room, input is received from a variety of sources....



The control room primarily monitors your body's

- Sugar levels
- Fat levels
- Temperature
- Gut activities

But it also gets input from the body's

- master clock
- the nucleus accumbens i.e. the reward centre
- your senses i.e. eyes, taste buds and smell
- your play books i.e. your habits and patterns of behaviour that you've programmed in over the years
- and the levels of a variety of other chemicals including sex hormones, stress hormones and various neurotransmitters

Two sets of neurons are in charge of the control room, but they can be overridden by will power.

The first player is "the hunger neuron" – when the hunger neuron reads signals, that suggest you are low on energy, it fires up your appetite. The other player is the "satiety neuron", which is the neuron which is responsible for suppressing your appetite - it triggers when YOU ARE FULL.

Appetite gets turned on

Sugar gremlin moments happen.....

when the hunger neuron responds to the energy crisis, by making you HUNGRY.

One of the tools it uses, to get you to hunt for food, is to release a hormone in your stomach called ghrelin. This hunger hormone causes you stomach to have that all together unsettling, empty feeling and provokes you to look for food.

Because, the quickest way to boost energy levels is to eat carbohydrate, ghrelin makes you hungry "FOR NICE THINGS". Nice things are typically FULL of sugar.

Nice things ? ? ? ?

- Chocolate
- Cookies
- Sweets
- Anything that has sugar in it, because your brain needs "sugar".

NOTE : If you're not fond of sweet things, your sugar gremlin could be going after foods with hidden sugar, such as bread, pasta and potato chips.

So the sugar gremlin IS REAL.

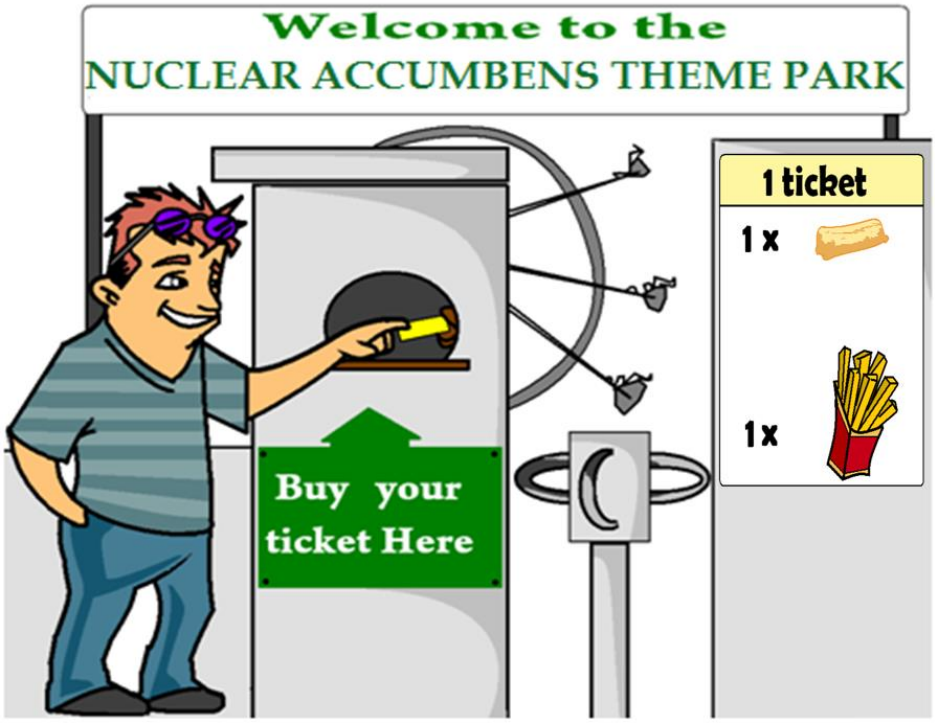
And all sugar gremlins really want is to have FUN !

Sugar gremlins just want to have FUN !

In addition to the centre of the brain which keeps tabs on the energy requirements of the body, there is another area of your brain, which makes sure you're having FUN.

The Nuclear Accumbens is your body's own Theme Park – packed with a variety of FUN rides and activities, ALL of which are enjoyable. You need to buy tickets to get into your theme park, but it is pretty easy to enjoy the rides, because ALL of the things YOU enjoy, can be used to buy tickets.

- Crossing off an item on your to-do-list
- A soak in a hot bath, filled with bubbles
- A long chat with an old friend or a cuddle with a ball of fur
- And FOOD, GLORIOUS FOOD



Again, a smart move on the part of Mother Nature.

In by gone eras, gathering food was hard work, you actually had to get out there and hunt and/or gather your dinner, which required a lot more effort than hunting for your favourite brand in the supermarket. Mother Nature therefore provided a pay off for the effort, the pay off comes in the form of a FABULOUS FEELING, when eating food loaded with calories, essential to power up our body with energy.

So which foods are high in calories ?

Foods with high fat and high carb content.

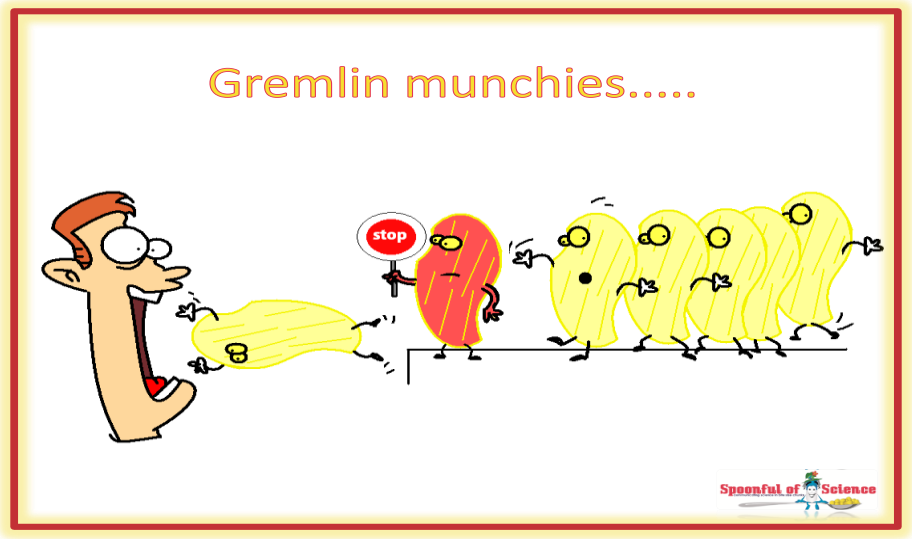
Our brain's definition of good food i.e. palatable food – includes potato and butter.

Mother Nature tends not to pack these items together, too often. If I served a plateful of potato, you would eat what you needed to keep your body supplied with energy, and then stop. A stick of butter on its own, would also have limited appeal. But, potato and butter is a whole different story – think baked potato or mashed potato made with lots of milk and butter. Mmmmmmmmm.

The combination is a lot more appealing.

Food manufacturers know this – in fact, they combine all the elements which our brain's like

CARBOHYDRATE + FAT + SALT + CRUNCH



The explosive combination, sees them making lots of money and our Gremlin being super sized, because

"Sugar Gremlins" just want to have FUN !

Buying tickets for FUN TIMES

Gremlin munchies, get us in the door of the theme park, and then the fun really begins – so we keep eating more and more. Each bite pays out another reward, and another.

So what actually happens ?

The first bite gets you in the game. You're powered up feel powerful and able, you win the game and receive a prize. Winning prizes FEELS FABULOUS. And winning is a little addictive i.e. you want to play again and win again, you don't want to go home. So you keep playing and keep winning and you FEEL FABULOUS.

It doesn't take long and the packet of gremlin munchies is finished.

No more tickets. No more games – it's time to go home.

But leaving a theme park is never easy. Tempted to carry on with the FUN, you "MAKE A PLAN".

You volunteer to be part of the game, hoping you will defy the odds and WIN.

But of course, you don't WIN, you lose BIG TIME. Losing makes you feel AWFUL, REALLY AWFUL.

You wish you had never come.

This is addiction.....

You feel good when you do and bad when you don't

So you spend your days IN THE THEME PARK

Drugs like cocaine and heroin, work the same way as food. The only difference, drugs of addiction buy more tickets than a bar of chocolate. But stopping munching on highly addictive processed food, is nearly as hard, as battling a drug addiction.

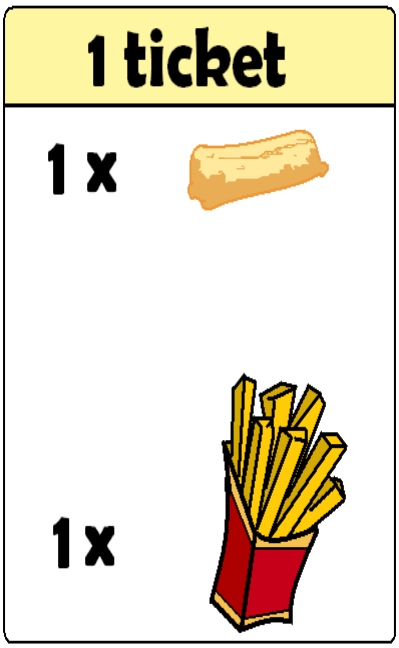
Processed food is how gremlins get HIGH

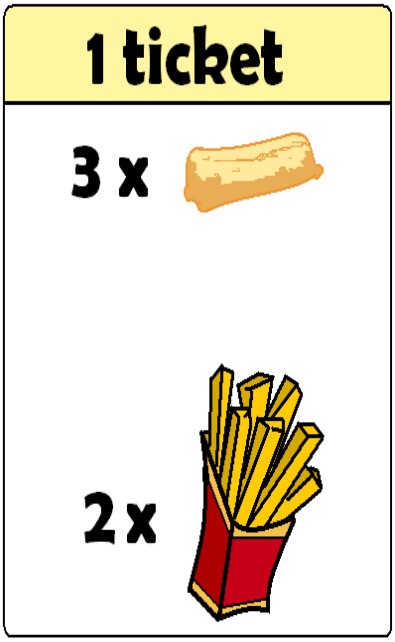
Sugar gremlins cause prices to just keeping going up.

Inflation means your money doesn't go quite as far as it once did, it also means the bite you take, no longer gets you into the Nuclear Accumbens Theme Park.

The price of fun is subject to inflation

Initially, one Twinkie™ or one packet of chips, is a rewarding experience, but over time, because of the activities of the sugar gremlin, you need 3 Twinkies™ or 2 packets of chips, just to get in the door.





So what is happening, why does it take more sugar, to get the job done ?

The chemical spiral...

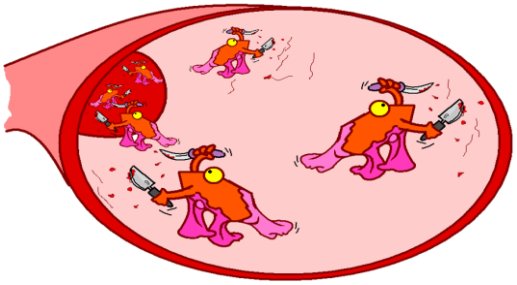
Inflation is driven by the fundamentals....

It all starts with a sugar dip, the sugar dip causes the hunger neuron to trigger, because low sugar levels pose a potentially life threatening crisis for the brain.

The hunger neuron compels you to look for something to eat, preferably something loaded with carbs, because this is the quick burning fuel the brain runs on. Motivated by your sugar gremlin, you tuck into something sweet or starchy.

But, something sweet or starchy, quickly raises blood sugar levels.

Low levels are a crisis for the brain, but high levels are toxic for your pipes (blood vessels).



So when sugar levels start to rise, in healthy people, the pancreas immediately responds by releasing insulin. The insulin quickly gets to work.

So what does insulin do ?

One of the major job descriptions for this very busy hormone, is to distribute and store the "goodies" that you've just eaten.

Insulin opens sugar gates in various tissues, allowing the sugar to move from the pipes, into individual cells. The individual cells can either burn the fuel directly, or they can store it for later.

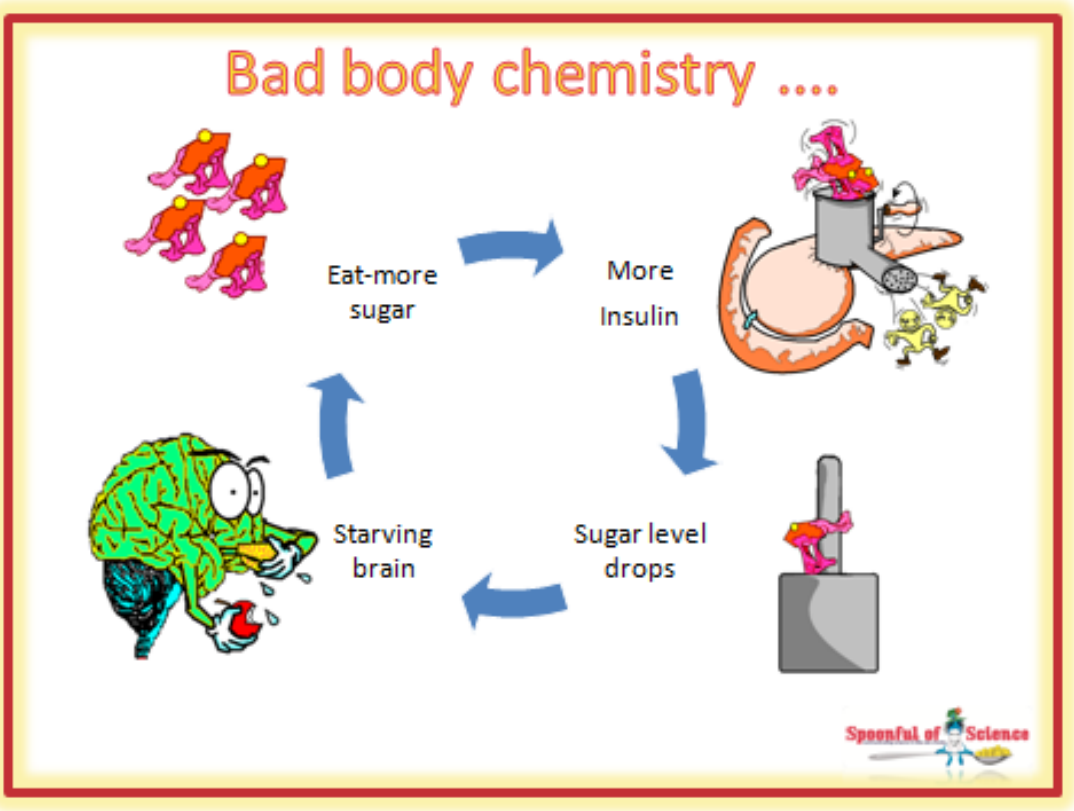
A sugar gremlin upsets the timing

The system works hard to keep the sugar levels in a tight range – a range which keeps the brain satisfied, while protecting the blood vessels.

But a sugar gremlin can drop a huge load of sugar into the blood stream in a flash. The big load, causes the pancreas to over react, a little. When the pancreas over reacts it produces more insulin that is required to mop up the sugar.

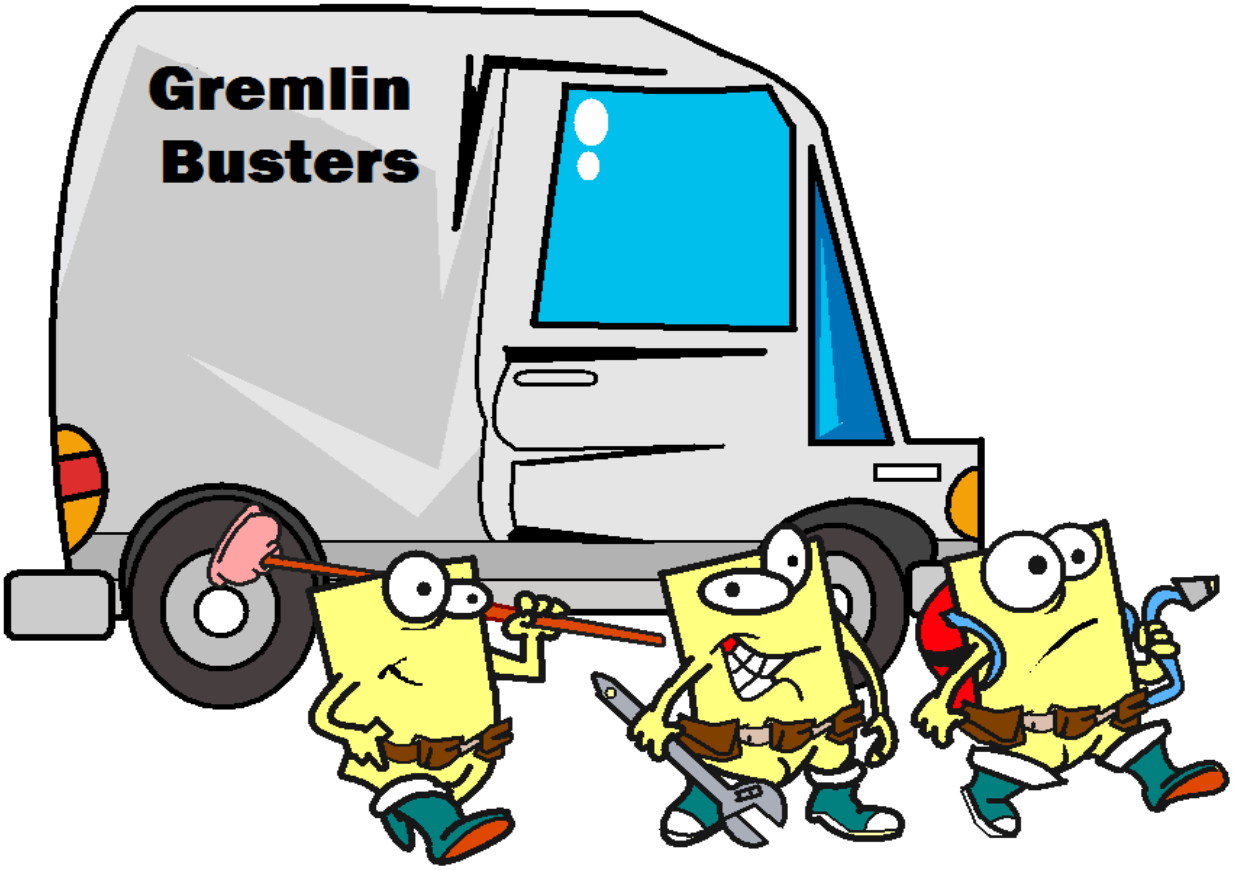
But if you mop up ALL the sugar – you put the brain into panic mode again.

And a brain which is short of sugar, will trigger the hunger neurons to send you on a "SUGAR HUNT".



Your SUGAR GREMLIN in action !

Who you gonna call ?



Believe it or not, your sugar gremlin is a gift Mother Nature has bestowed on you, to make sure you always have enough fuel to run the show.

You're not going to obliterate your sugar gremlin – it is hardwired into your brain.

This is why willpower is NEVER enough !

Silencing this mischievous sprite, that resides deep within the recesses of your brain, needs both biology and psychology.

GREMLIN BUSTING.....

Is about.....fixing the biology and then using a little psychology.

A fully equipped team of sugar gremlin busters, can quickly tie your gremlin down, silencing his annoying cries..... using their secret weapon, a piece of CANDY FLOSS™.

Flossing out your sugar gremlin with a little...

CANDY FLOSS™

The CANDY FLOSS SYSTEM™, outsmarts your sugar gremlin, by providing you with strategies and techniques, designed to defeat your sugar gremlin.

So how do you CANDY FLOSS™ ?

Cut the carbs

Add protein/fat/fibre

Nap ALL night

Dine don't graze

Yank & yodel

Fill up on non-edible feel goods

Liquidate

Observe your triggers

Sizzle then slow dance

Sink the saboteurs

Ready to Tame your Sugar Gremlin ?

You know your SUGAR MUNCHING habits are not a recipe for optimum health and you're always FULL of remorse following a SUGAR BINGE. You're not ready to give up sugar TOTALLY. But, you're sick and tired of being a SLAVE to your sugar cravings and long to feel in control of what you're eating.

I don't think you can obliterate your sugar gremlin.....

But you can create "Better Body Chemistry", which puts you back in the driving seat, so that you are able to TAME YOUR SUGAR GREMLIN.

What I've got for you

The Tame your Sugar Gremlin Programme,

is an online sugar gremlin busting course.

The CANDY FLOSS™ programme helps you tackle those sugar cravings, using biology, not just psychology. It takes you deep inside the head of your sugar gremlin, exposing what drives its' irrational, annoying obsession with SUGAR, so you can outwit it and avoid compromising your self-worth and your HEALTH.

Click here to discover 15 ways to Trick or Treat your sugar gremlin.

About the author

For years my eating habits were ruled by

MY SUGAR GREMLIN

I was born with an especially wily sugar gremlin, who surfaced within weeks of my arrival into the world. The milk production machine of my mom, failed to satisfy my incessant hunger, so I was switched to formula. The move did not bring relief, as my mother contended with screams from a colicky baby. Ready to send me back and ask for a refund, she sought help from the local clinic.

The helpful nurse advised adding a little more sugar to the formula mixture, to FIX the baby.

And it did. And so it began.....

My SUGAR GREMLIN ran my world

At every opportunity I had my head in the cookie jar.

The result, I was a podgy toddler, which extended to being an overweight child, then an overweight adolescent and finally an overweight adult. Fortunately, there was a lot of nagging on the home front – so I managed to avoid sliding into the pit of obesity.

But keeping on the straight and narrow took constant effort.

Saying NO to sugar was HARD

It took mega-doses of WILLPOWER. And, when the WILLPOWER failed, it would fail spectacularly – I could polish off a whole slab of chocolate in 15 minutes and my favourite part of the meal was always DESSERT. (If I could've I would have started with DESSERT and then worked backwards).

Battling my SUGAR GREMLIN became a lot harder once I left home. There were many occasions, instead of eating REAL food, I loaded up on gremlin munchies. I felt embarrassed, ashamed. I thought I was just weak willed.

So what changed ?

A health crisis forced me to confront my SUGAR GREMLIN. He had to GO.

As a scientist, I have a PhD in pharmacology, I was well versed in the language of science, so I turned to the scientific literature, to try to uncover my sugar gremlin's modus operandi. As I unpacked the science, it became clear that sugar gremlin troubles are driven by biology, not lack of willpower. And that little things, many of which seem insignificant and innocent, empower it.

You can't change your genes, but you can get better advice, which will help create BETTER BODY CHEMISTRY.

And better body chemistry will mean better health.

At Spoonful of Science, we provide a variety of customized resources, for organizations and individuals seeking to maximize their performance, through better body chemistry.

The information we provide is :

- Scientifically sound
- In plain English, not scientificeese or marketeese
- Funny
- Informative

Small things can have a big impact on overall health.

You can visit our blog at www.betterbodychemistry.com to find out more about our product offerings.

Dr Sandy

Endnotes

Food addiction: true or false? Curr Opin Gastroenterol. (2010)26(2):165-9. Corsica JA, Pelchat ML.

Molecular Mechanisms of Appetite Regulation. Diabetes Metab J (2012) 36:391-398. Ji Hee Yu, Min-Seon Kim.

The mysterious motivational functions of mesolimbic dopamine. Neuron. (2012) 76(3):470-85. Salamone JD, Correa M

Comparison with ancestral diets suggests dense acellular carbohydrates promote an inflammatory microbiota, and may be the primary dietary cause of leptin resistance and obesity. Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy 2012:5 175–189. Spreadbury I.

Nutritional Regulation of Insulin Secretion: Implications for Diabetes. Clin Biochem Rev (2012) 33(1):35-47. Newsholme P and Krause M