

## Life(style) & Happiness

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As Christmas and New Year are often considered a time for reflection and change, I thought it fitting to discuss the physiology of behaviour, so we can start to understand, a little better, why you do what you do... and why changing that can be so difficult!

The brain can be compared to a computer that runs a series of pre-set programs. If we perform a specific series of actions (behaviour) and it feels good (reward) the brain creates a behavioural program by releasing a hormone called Dopamine.

Dopamine increases desire, in an anticipatory way, and therefore drives the perception of motivation towards the reward. Dopamine is also linked with fluidity of movement and focus (low levels being linked to Parkinson's disease and ADHD).

So Dopamine is the **'teaching signal'** to the brain responsible for acquiring new behaviour and actually the driving force behind the perception of **discipline** and **will power**.

Dopamine will only be produced, therefore creating a new behavioural program, if you are actually looking forward to what you are doing. If there is **no anticipation** of enjoyment, you're brain is just not interested and will try to run your old reward-seeking programs.

**Note:** *Dopamine levels increase more dramatically when the reward is unexpected!  
This is why gambling can be so addictive – no such thing as a 'sure thing!'*

Now on the other end of the scale we have Serotonin, which is often termed the 'happy' hormone and is linked with relaxation and satisfaction (low levels being linked with anxiety and depression).

Serotonin is produced once the reward is obtained, giving you the perception of contentment and happiness.

If we look at the cycle (of life) some follow, we can often get drawn into the pursuit of a material future and forego the pleasures of the present (sunsets, walks in the park, spending 'quality' time with the family, making love etc.).



This is called 'Gratification Postponement' and suggests that expectation (and therefore the Dopamine response) is the driving force behind 'goal-directed' behaviour, leaving us a little short on contentment and happiness (Serotonin).

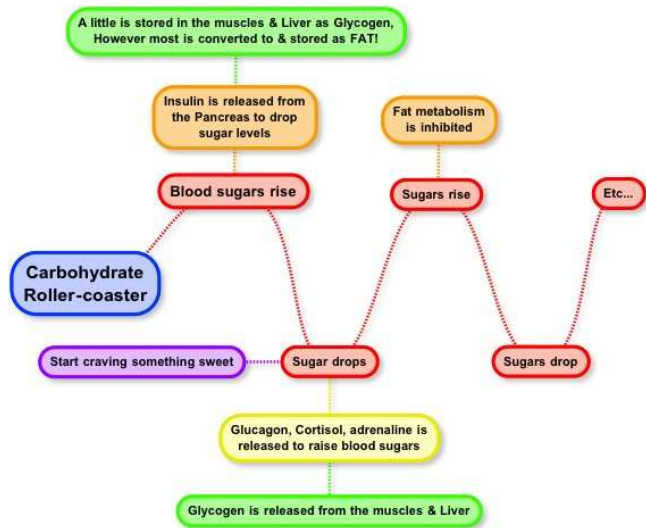
*E.g. we forego immediate pleasure to:*

- Get good grades at school, so we can... Get into a good university, so we can...
- Get a high paid job, so we can... Give our children everything we didn't have ... and...
- End up in an expensive retirement home! 😊

In other words... **we can get addicted to the pursuit of a future that we will never enjoy!**

Interestingly, back to food, consuming sugars will temporarily increase Serotonin levels, giving us a short-lived feeling of euphoria, which has the knock-on effect of dropping Dopamine levels thus reducing our drive and motivation.

Once the sugars have been dumped into whatever cells insulin can find (mostly the fat cells) we experience a sugar low, which deprives the brain of energy and prevents us from producing Serotonin - leaving us feeling unhappy! Dopamine and other stress hormones are now released to increase the drive (along with a little stress and anxiety) to eat more sugar - because it feels good (reward)!



This is how we can become addicted to sugar, just like any other recreational drug, hitting a sugar fix to satisfy our Serotonin (and Dopamine) deficit.

This behavioural program, which has often been established over years, is very difficult to override, leaving us feeling unhappy (low serotonin), fat (around the middle), demotivated and clumsy (low dopamine).

**Note:** *On the subject of addiction...*

*Even after many years of being drug-free, Dopamine levels soar if you are presented with an environment that is associated with your addiction.  
E.g. having a drink or going to the pub makes you crave a cigarette etc.*

*This is referred to as ‘Context-dependant Relapse’.  
The drive towards the ‘remembered’ reward is learnt and always present in the brain.*

***There is no such thing as an ‘Ex-addict’ only an addict that avoids context triggers!***

So what I'm trying to say is...

That our happiness and motivation are chemical in nature and directly linked to our lifestyles and behaviour.

So if you are embarking on a lifestyle change in the New Year here are a few tips for long-lasting lifestyle success:

## To increase Dopamine (*to keep you motivated*):

- **Do something you love!** Try to get your chemical 'highs' from experiences – research has proven that people who invest in experiences like holidays, theatre, watching a sunset, walking the dog, reading a book etc. perceive greater levels of happiness.
- **Exercise for fun!** If you love exercising you will remain motivated and the results will come. If you hate it, your dwindling Dopamine levels will only get you through to February!

## To increase Serotonin (*to keep you happy*):

- **Lift weights!** Weight training is one of the best ways to control your blood sugar by making you more sensitive to your insulin (so you release less and lose more bodyfat).
- **Eat More!** – base your food intake around frequent meals of good protein sources and plenty of colourful vegetables to keep your sugar levels consistent.
- **Take time to enjoy NOW!** – riding the dopamine wave is great for achieving goals, but you will need to acknowledge when you have achieved success – so you can celebrate it!

## To combat addictions:

- **Avoidance is key!** Don't even go down the confectionary aisle (unless it's a treat day) we are programmed to resist anything but temptation (and reward).

**Take solace in that our behaviour (even mood) is neither good or bad... it is merely chemical!**

Be in control of your life and lifestyle decisions by being in control of your hormones.

Happy New Year!

A handwritten signature in black ink, appearing to read 'Jason'.