**The Problem With Sugar**

**Why Children from Trauma develop Sugar Dependency**

Jane Mitchell 2019



Sugar and sweets – why do children from trauma seem to crave sweets or sweet things to such an extent? Parents report children stealing and binge eating sugars – and they also report that excess sugar can send their children into complete overdrive, unable to manage the sugar rush that floods their system, seeming to disengage any ability to impulse control, use executive function or even listen. Some studies have suggested similarities between brains that have developed to ensure survival by foraging and seeking food in the animal kingdom and the systems that cause addiction. If we consider that very many children who have suffered neglect are in effect starved or have intermittent meals (which are often cheap, processed and have a high sugar content) or have to forage themselves for whatever they can find to ease the hunger pains then we can make a link here – we know that the cortex develops in order to allow the baby or small child to survive in the environment they are born in to. The child that is fed infrequently or starved will develop neural connections which will drive them to eat food while it is available and hoard food against future shortages. This is a compulsion – hard wired into their neurological circuits at a pre-verbal stage it is extremely hard to rationalise the impulse – it will take years of reinforcement, parental support and narrative to do this.

Secondly, it seems that sugars also act like addictive drugs in changing dopamine and opioid uptake – therefore the effect of sugar causes neurochemical changes inducing a feeling of extreme wellbeing. If the sugar is only available intermittently this produces craving and then when the sugar is available, bingeing behaviour. This is exactly what we see in our children. Food deprivation produces symptoms which are similar to withdrawal, and again we see this in the intense anxiety demonstrated by our children when they are hungry. The NHS (<https://www.nhs.uk/live-well/healthy-body/addiction-what-is-it/>) state that “*There are lots of reasons why addictions begin. In the case of drugs, alcohol and nicotine, these substances affect the way you feel, both physically and mentally. These feelings can be enjoyable and create a powerful urge to use the substances again.”*

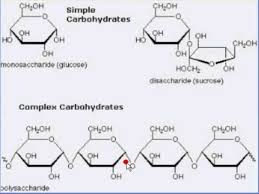
What this tells us is that there is strong activation of the reward centres of the brain which then will seek to re-create the experience, just as in the case of any other addiction. Cassie Bjork, founder of Healthy Simple Life states that

“*Research shows that sugar can be even more addicting than cocaine,” “Sugar activates the opiate receptors in our brain and affects the reward centre, which leads to compulsive behaviour, despite the negative consequences like weight gain, headaches, hormone imbalances, and more.”*

For children from trauma, this is further complicated because sometimes food has been used as a substitute for adult input, care and love, so that children fail to seek regulation and comfort from adults (who may be seen as untrustworthy, harmful or downright dangerous by the child that has suffered abuse) and instead turn to sugar to ease their psychological pain. I call this Hungry Heart.

BUT glucose is an essential to cellular respiration and therefore energy and is used to drive all the essential functions of the body through a series of complex metabolic cycles. Our bodies require access to glucose to maintain all aspects of life, hence food is a basic survival need. Because of this we have systems whereby our bodies can store excess sugars as fats in the body in case of food shortage.

All sugars are classed as carbohydrates. The simplest molecule is the mono saccharide (one sugar molecule) eg glucose. The simplest sugar occurring naturally is sucrose – disaccharide (two sugar molecules). More complex carbohydrates are called polysaccharides (many sugar molecules) which as you can see is a chain of glucose molecules.



Complex carbohydrates are contained in fruit, vegetables, cereals and wholemeal bread and rice. These have natural buffers and are broken down slowly in the gut giving sustained energy release over time.

When simple sugars occur in food it is because they have been processed and refined. For instance white granulated sugar is a processed form which will have originated from a source high in naturally occurring sugars such as sugar cane or sugar beets which are boiled to extract the sugar and then further refined to produce white sugar. They are absorbed quickly and produce fast peaks of energy. Examples of this are sweets, fizzy drinks, white bread, cakes, pastries etc.



Because of the above, although sugars have an addictive quality, it is not appropriate to say that we can stop all sugars; additionally we have to avoid the bodily crisis that may occur if we do this. We need to support the child and to give a narrative that explains what we are doing. Therefore, it may be appropriate to give the child their breakfast, explaining to them that this will give them energy through the day, but also allow them to have for example a small square of chocolate letting them know that we understand that it makes them feel very wobbly to be denied this altogether but that it is best to just have a very little bit. This may be repeated at times of day that are stressful for example coming out of school – at these times a biscuit or flapjack may give a sugar “bump” without creating a massive energy spike and inability to regulate.

How can we help?

* Maintain a healthy, regular diet with regular snacks
* Stick to mealtimes rigidly. Predictability builds brains
* Provide snacks after school or after exercise
* Remind children that you WILL feed them – have a timetable so that they can see when meal times and snack times are.
* Do NOT cut out all sugars – better to give a small piece of chocolate or sugar treat at regular intervals. Make sure that there is fresh fruit available.
* DO NOT allow fizzy drinks! By the way, the aspartame in diet drinks is equally as harmful…
* DO NOT expect the child to self-regulate. They will steal sugary snacks, so keep stores to a minimum.
* DO allow children to have a healthy snack box in their room so that they know they can always have food when they need it. Have a combination of items including savoury, sweet and fruit.

Websites and sources:

<https://www.addictionhelper.com/addiction/sugar/>

<https://www.healthline.com/health/food-nutrition/experts-is-sugar-addictive-drug#2>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2235907/>

<https://www.nhs.uk> /live-well/healthy-body/addiction-what-is-it/

<http://library.open.oregonstate.edu/aandp/chapter/24-2-carbohydrate-metabolism/>