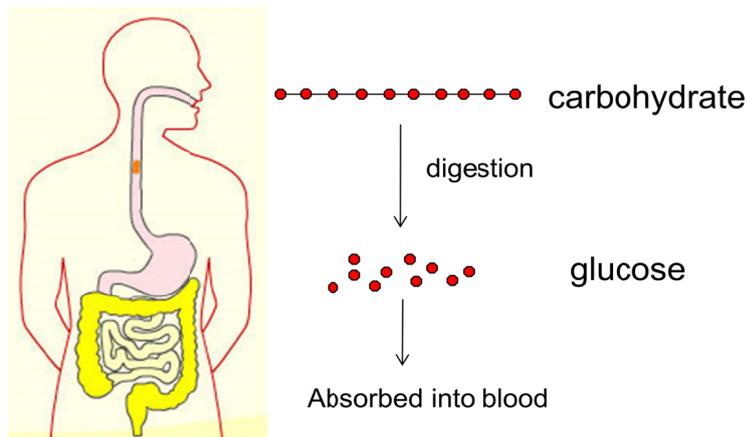


Blood sugar balance and foods that can affect this;

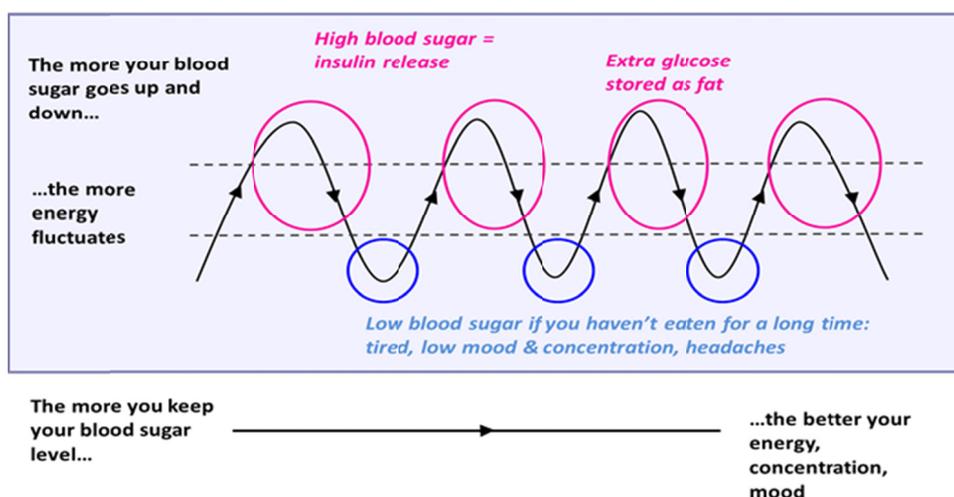
All cells in the body contain glucocorticoid receptors and these steroid hormones have a huge number of effects on physiological systems. As well as many other roles, Cortisol plays a key part in glucose metabolism and blood sugar regulation. Its release from the adrenal glands stimulates the production of glucose in the liver. When Glucose is released from the liver by Cortisol production, blood sugar levels are raised.

Another way that we increase our blood sugar levels is by eating carbohydrate containing foods such as bread, rice, pasta, vegetables, fruit, cakes, sugar. The carbohydrate molecule is broken down to produce a simple sugar called glucose and this enters the blood stream and travels around the body to all the cells to provide energy. This is our fuel and our bodies and brains work best when the fuel is available at a constant level without fluctuations in the fuel supply. Balancing your blood sugar levels and keeping them stable is important for energy, concentration and mood.



If people without CAH or AHC go long periods without food and experience low blood sugar levels, their adrenal glands compensate by producing cortisol to raise blood sugar levels and so regulate the fuel supply. Unfortunately, people with CAH or AHC are not able to do this and so have to wait for their next dose of hydrocortisone to give them the fuel. While waiting for the next dose, they can experience low energy, lack of concentration (glucose being the main fuel for the brain), headaches, low mood and general grumpiness. It is therefore very important to regulate blood sugar levels between hydrocortisone doses by eating the right foods and not going long periods without food.

Balancing your blood sugar is the key.....



The Glycaemic Index (GI) & Glycaemic Load (GL) are scales which 'score' carbohydrate-containing foods according to the amount and rate at which glucose appears in the blood after these foods have been eaten. Carbohydrate foods that have a Low GI or GL release their glucose slowly, give a sustained energy release, keep you feeling fuller for longer and help to balance your blood sugar levels, also reducing the need for your body to produce insulin. These carbohydrates tend to be the unrefined carbohydrates; things like wholemeal bread, brown rice, brown pasta, vegetables and some fruit.

LOW GL	MEDIUM GL	HIGH GL
Oatcakes	Wholewheat Pasta	White bread
Butternut Squash	Weetabix	Rice cakes
Beans/Lentils	Couscous	French fries
Brown Basmati rice	New potatoes	Sweet Breakfast cereals
Olives	Wholegrain bread	Mango
Avocado	Tortilla	White baguette
Carrot (raw)	Baked Potato	Rice noodles
Hummus	Rye bread	Croissant
Nuts/seeds		Bagel
Non-starchy vegetables		Grapes
Berries		Banana
Apples		Crisps
Pears		Water cracker
Citrus Fruit		Sultanas

It is also very important to make sure that blood sugar levels are not too high as this comes with higher risk factors for many diseases including Diabetes, Cardio-Vascular Disease, Cancer, High Blood Pressure among others. The more refined a carbohydrate, the quicker it will release its sugar and the higher that blood sugar peak will be. Refined carbohydrates such as white bread, white rice, crisps, cake and sweets will release their sugar very quickly but not give a sustained supply of fuel to the body. AND it's not just foods that will do this - Sugary, fizzy drinks such as coke, fanta or lemonade have a huge impact on the blood sugar as the body doesn't have to do any 'work' to get the glucose.....it's just there in liquid form. Even fresh fruit juices have a big impact on blood sugar levels so try them diluted with water.

As well as blood sugar balance, it's also very important to eat foods that support your bones as historically CAH and AHC patients have been shown to have a reduced bone density in adulthood. However, I must be pointed out that cortisol replacement is a much more exact science these days and levels are much better replicated but it's always better to err on the side of caution and support bone health. It is not just Calcium that is needed for healthy bones. Vitamin K, Vitamin D, Boron and Magnesium are also essential to bone health. Good sources of calcium that contain co-factors for healthy bones include; green leafy vegetables, almonds, soy beans, sesame seeds, tofu, figs, sardines & salmon, oranges, white beans and dairy.

So to recap....

- Remember to eat at regular intervals – don't go long periods without food
- Stick to wholegrain and avoid refined and sugary foods and crisps
- Avoid fizzy, sweet drinks
- Eat enough calcium containing foods

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