

EAT WELL, LIVE WELL WITH ACQUIRED BRAIN INJURY:

Optimizing Brain Function Through Better Nutrition

By: Deanna Pelino, Nutritionist and brain injury survivor
and Kylie James, Nutritionist and Director at Koru nutrition inc.

The importance of a healthy diet is widely accepted as true. But can we also use nutrition as a way to aid in the recovery process after an injury? The answer, according to ongoing and extensive research, is a definite yes.

Here are some of the benefits of improved nutrition for ABI:

- Enhances the natural healing potential
- Fulfills higher needs for nutrients
- Balances hormones and moods
- Increases energy
- Enhances concentration and memory
- Replenishes nutrients depleted by medication
- Promotes good sleep
- Helps by increasing a sense of control and independence

The brain has very specific nutrient requirements in order for it to work efficiently. Unfortunately, the Standard (North) American Diet appropriately abbreviated to “SAD” supplies us with a great deal of what we don’t need and not so much of what our brains do need. Every year the average person will consume: 15 pounds of salt, 10 pounds of additives, 152 pounds of sugar and 133 pounds of refined wheat and grains. This is not good for anyone let alone someone with a brain injury.

Below are some tips on how to boost your brain power and optimise overall brain health.

Change #1: A HEALTHY GUT

Your gut contains over 100 million nerve cells and is often referred to as your “second brain”. The gut and the brain communicate with each other constantly and as a result the gastro-intestinal system can have a direct impact on brain chemistry. Bad bacteria residing in the gut can release toxins into the body that can affect mood and behaviour. It is important to ensure that you don’t consume a lot of sugar and refined carbohydrates such as white bread, muffins and pastries that help feed these bad bacteria. In its place you want to be consuming fermented

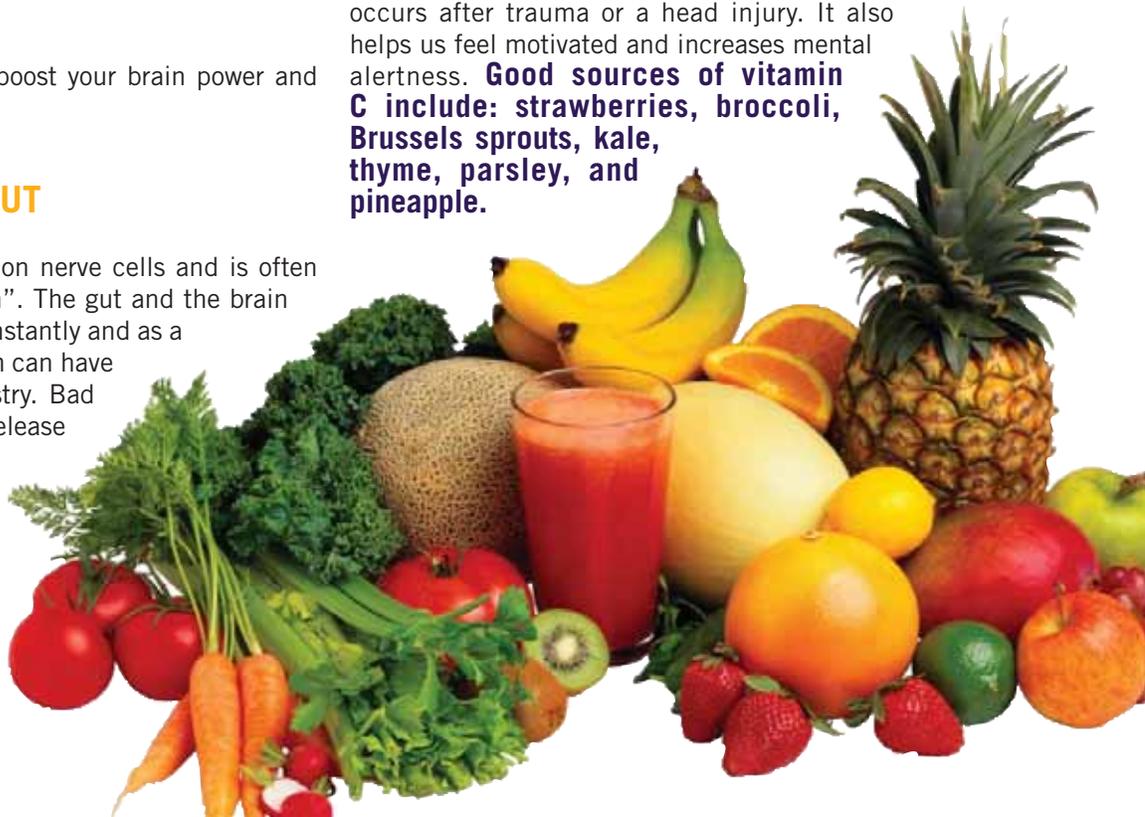
foods with good bacteria such as yoghurt, sauerkraut, kefir and miso. Maximising digestion and absorption is one way to help ensure your brain has access to the various and specific nutrients it needs.

Digestion can be enhanced and nutrients will be more easily absorbed by:

- Eating slowly and chewing your food well
- Eating in a relaxed state
- Drinking water with freshly squeezed lemon juice before each meal to help stimulate digestive enzymes and stomach acid
- Eating plenty of fresh fruits and vegetables
- Eating at the same time each day so your digestive system can establish a schedule

Change #2: KEY VITAMINS

Your body requires certain key nutrients to help it function properly. This includes vitamin C and the B vitamins. Did you know that your brain contains the highest amount of Vitamin C in your body? This is because the main role is to help protect your brain from free radical damage, such as what occurs after trauma or a head injury. It also helps us feel motivated and increases mental alertness. **Good sources of vitamin C include: strawberries, broccoli, Brussels sprouts, kale, thyme, parsley, and pineapple.**



The **B Vitamins** help feed and regulated the brain and nervous system, they help improve cognitive functioning, emotions and behaviour and have an important role to play with memory. There has also been numerous studies that show that certain B vitamins can help prevent brain shrinkage as we age. **Good sources of B vitamins include: red meats, lentils, legumes, avocados (and more).**

Change #3: GOOD FATS

Essential fats are “essential” because your body can not make them and therefore we have to obtain them from the diet. They have many beneficial roles in the body but also for the brain as well this includes:

- Increase communication and connection between nerve cells
- Reduce inflammation and pain
- Balance blood sugars
- Carry fat soluble vitamins A, D, E and K
- Reduce carbohydrate cravings and overeating
- Improve cognitive functioning
- Boost mood

The best kinds of fats for your brain are **Omega 3 (EPA and DHA)** which can be found in salmon, mackerel, herring, sardines, anchovies, flax seeds, and/or by taking a fish oil supplement

Omega 6 is also important and can be found in sunflower seeds, pumpkin seeds, sesame seeds, walnuts (raw and unsalted) and vegetable oil. It is not recommended that you supplement with omega 6 as we tend to get too much of this from our diet.

While aiming to get more good fats into a brain healthy diet, there are also some bad fats to definitely avoid. **Trans fats** (hydrogenated or partially hydrogenated fats) are artificially created fats that are commonly found in cakes, cookies, crackers, packaged foods, salad dressings, sauces and fast food. They have been shown to replace the good fats in our brain, cause inflammation and should be avoided at all times

Change #4: STABILIZE BLOOD SUGARS

The brain needs 80% of the body’s total glucose for energy. Complex carbohydrate rich food such as vegetables, whole grains and legumes allow blood sugar (glucose) to be released slowly in to the bloodstream while refined carbohydrates such as white rice, bread, bagels, cookies and cakes cause blood sugar to rise rapidly which creates a sugar high followed by a rapid drop in blood sugar levels. The problem with unstable blood sugars is that it can exacerbate many common brain injury related issues. Here’s an example of the comparison between common brain injury symptoms and what happens when blood sugars drop.

BRAIN INJURY SYMPTOMS	UNSTABLE BLOOD SUGAR SYMPTOMS
Irritability	Irritability
Anxiety	Anxiety
Aggression	Aggression
Blurred vision	Blurred vision
Poor concentration	Poor concentration
Mood swings	Mood swings
Insomnia	Insomnia
Fatigue	Fatigue
Dizziness	Dizziness

So this is what you need to do to help keep your blood sugars balanced:

1. **Increase consumption of complex carbohydrates,** this includes foods such as:
 - Vegetables
 - Legumes (chick peas, black beans, kidney beans, etc.)
 - Lentils
 - Quinoa
 - Wild or brown rice
 - Low sugar fruits (apples, pears, peaches, oranges, grapefruit, berries and cherries)
2. **Limit refined carbohydrates and processed foods:**
 - White bread, bagels, pasta, pizza and rice
 - White and brown sugar, honey and high fructose corn syrup (HFCS)
 - High sugar fruits such as grapes, watermelon, mangoes, pineapple and dried fruits
 - Fruit juices
 - Cakes, candy, cookies, ice cream
3. **Avoid Stimulants** such as coffee, caffeine, pop and energy drinks.
4. **Eat one hour upon rising and have 3 small meals and 2-3 small snacks a day.**

You may be surprised that by making these small changes in your diet you may experience improvements in energy, mood, mental focus and sleep. ♦♦