



Hypoglycemic Health Association of Australia

working to prevent diabetes

HYPONEWS

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The Newsletter of the Hypoglycemic Health Association of Australia is distributed to members of the association and to health professionals with an interest in **nutritional medicine and clinical ecology**. Past newsletters are also available on the website.

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Our next Public Meeting and AGM will be at
12.30pm on Saturday 22 August 2015

at Kogarah Library
O'Keefes Lane, Kogarah

Our guest speaker will be Pharmacist Alan Malouf who will be speaking about:

**"Vitamins & Prescription Drugs –
Do They Mix?"**

plus

**"Nutrients & Health Tips That Will
Extend Your Life"**

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- Susan Ridge

- *Can you please **RSVP to Kerrie on 9553 0084** to assist with the organisation of the catering. If anybody could assist with afternoon tea in any way, please advise at the time of your RSVP.*
- ***As we are not yet able to finalise meeting date for the next meeting, can you please keep the Saturdays for 28 November and 5 December 2015 free – date, speaker and topic to be announced in the next newsletter.***

DISCLAIMER: The articles in this newsletter are not intended to replace a one-to-one relationship with a qualified health professional and they are not intended as medical advice. They are intended as a sharing of knowledge and information from research and experience in the scientific literature. The Association encourages you to make your own health care decisions based upon research and in partnership.

Alan Malouf

(Pharmacist, Compounding Chemist, Research and Development)

Alan, whose keen interest in compounding has led him to design and produce new and innovative formulae to treat a wide range of disease states. This is often done in conjunction with medical practitioners. Alan uses his wealth of pharmacy experience to educate customers. He places a strong emphasis on treatment of bio-identical hormone replacement for women and men, treatment of cardiovascular disease, anti-ageing, ADHD and autism.

Treasurers Report

By Sue Litchfield

I cannot believe how the time has flown! So much has happened in my life I should write a book. So sorry I missed out on the last meeting due to a health problem. It was also our AGM - all the positions were declared vacant, and all were re-elected:

- **Dr George Samra** remains as **President**;
- **John Natoli** remains as **Secretary**.

I am so pleased to hear that Reg and Lynn Grady have come back onboard. Reg and Lyn have been members of the Association for a number of years. During that time they have been very valuable committee members holding the position of catering coordinator. After the retirement of John Goninan. Lyn became the president. They were both missed on the committee, so welcome back!

I would also like to say a special thanks to Kerrie Hoareau, Dr Samra's receptionist, for all her help, especially during the past few months, which have not been easy for me. Also thanks to Susan Ridge who has done a fabulous job with the newsletter - I have to say it's as good as they get! And thanks also to John Natoli for doing all the printing and posting for the newsletter.

Our bank balance is starting to look good again - we now have \$7800.00 in a term deposit and our cheque account has a balance of just over \$3000.00.

It is disappointing to see that quite a few members have not renewed in spite of being sent reminder notices. It is the memberships that keep us afloat with our ongoing expenditure – for instance the web page requires constant maintenance. Luckily we do have some members who are very generous with donations, which I would like remind everyone, are tax deductible. A member, Eddy, who has generously paid the joining fee off all new members in the past, has very kindly offered to continue - we are all very grateful for this very generous offer. Many thanks.

Report by Bev Cook (Newcastle)

I am very happy to report the recent meeting we had in Toronto was a great success. We were fortunate to have Dr Mark Donohoe as our guest speaker with a very timely subject: "Chronic Complex Illness- the GEMINI Approach to Understanding CHRONIC FATIGUE SYNDROME". (As many of you will remember, the Sydney group had Dr Donohoe deliver the same topic with great success!)

We were blessed with a lovely day, weather-wise, and Dr. Donohoe had a safe trip up from Sydney, although there was more than usual traffic to battle through due to the school holidays. All 24 of us were happy to welcome him. As there were about a dozen new faces at our meeting, it seemed appropriate to start the meeting with a brief history of the Newcastle Branch of the HAA highlighting the aim of the Association, which is being to inform and educate the communities in which we live to prevent diabetes.

Some 30 years ago, a few local people being diagnosed and treated for hypoglycemia, and other health issues such as chronic fatigue syndrome, fibromyalgia, candida albicans and allergies, got together for monthly meetings to support one another. A very successful beginning at the meeting

held in the staff room at Hillsborough Primary School. After some time, a new venue was chosen at the new Multi-Purpose Centre in Toronto. We were the first group to use that venue, and the Council marked the occasion by letting us have the meeting there that day free of charge. We have been able to hold our meetings over the recent few years in the Meeting Room at the Toronto Library.

Our dear friend Dr George Samra has been a regular guest speaker, much appreciated, over all the years we have operated locally. The group has had many other guest speakers including the late Don Pemberton, clinical nutritionist, as well as naturopaths, herbalists and doctors. As all guest speakers had different subjects, the result has been an ongoing education campaign for the benefit of our community, to help prevent diabetes and manage our other related health issues.

As the HHAA is a registered charity and not for profit organisation, without any financial support from the Government, and no recognition from that body, an effort was put forward to gain some recognition in Newcastle, by the contact person for the local group being nominated for an award from the Government for 25yrs volunteer service. This award was presented to Bev, (contact person) at a ceremony by Federal Member Sharon Grierson in 2009. The following year, 2010 the Newcastle Branch of HHAA was able to apply for a Government Grant for volunteer organisations to assist in the local running of the group. This was to the amount of a few thousand dollars, providing sound equipment, a trolley, a cupboard to house the equipment, including a large esky and a small filing cabinet and sundry items. All much appreciated!

More recently, it was suggested by the parent body to approach our local council for assistance in the rental of the library meeting room. The Lake Macquarie City Council could not waive the rental cost, but very kindly advanced the amount of \$1000 to assist in paying the rental and overheads for running our meetings, as they were for the benefit of the local community. A very pleasant surprise for which our branch is very grateful.

A warm welcome was given to Dr Mark Donohoe and all were eager to hear him speak on the Gemini Approach to Understanding Chronic Fatigue. In the audience were people who had recently been diagnosed with CFS as well as those of us who have battled with it for many years. It was so good to hear the condition is more readily recognised, although sad it is becoming more prevalent now. As there was a coverage of Dr Mark Donohoe's material in the HHAA Newsletter from the previous Sydney meeting, we will not cover that again. However, the question time following Dr Donohoe's delivery was very interesting and a good opportunity for us all to gain even more information. A huge 'thank you' to Dr. Donohoe for coming to Toronto and giving us the information to better understand CFS!

At this point, and a very sad note too, we acknowledge the sad passing of three of our regular members who assisted with organising our local meetings, attending them for many years. Our friends, Francette Reckwell, Gerry and Pam Gowing all passed away last March. We miss them. Our thanks for helping to run the meeting with sound and recording goes to Graham Hughes and there to help Frank Wallenhoffer. Frank's wife, Nada, along with Ralda Mathias, were also a big

help in getting the afternoon tea spread out for all of us. The mention of afternoon tea brings us to give a special thank you to dear friend Pat Byfield, who, although not able to attend, did make the delicious sandwiches. Thanks to all who 'chipped in' to help like Jill and Steve, long-term members of the group.

How To Gain Better Health by Treating Your Body Holistically

(By Brent Daisley BSc, CMTA, FDN, HLC, CHEK, MT. Sydney Holistic Lifestyle Centre)

There are three things your body requires – air, water and food. These days however these three things are often of such low quality that they can cause problems to your body's metabolism. Metabolism is the sum of all chemical processes that occur inside your body at any given point in time. It's quite an amazing bit of hardware and software your body with over two trillion reactions occurring at a metabolic level, every second. So the sources of your air, water and food need to be of the highest quality.

Let's have a look at the importance of each and how to ensure that it is of a quality that will not harm your body but enhance it. Air. Two issues one must look at is air quality and whether you are actually breathing in a way that will promote your health. The quality of your air can come in to question if you live in an urban environment. Exhaust fumes, factory emissions and off-gassing carpets, furniture etc. can result in a toxic air quality inside your home. The idea here would be to get yourself an air filter than can help clean the air where you spend the most time. In addition certain plants have also known to have a good ability to cleanse the air in your home.

Now that your air is clean, are you breathing in a fashion that facilitates oxygenating the trillions of cells you have in your body? For breathing to be most effective you need to be breathing 'diaphragmatically'. That is rather than your chest moving when you breathe you should be breathing largely where your upper stomach / diaphragm moves the most. If this is not the case then you have what is known as an 'inverted breathing pattern'. With each and every breath you are unknowingly creating stress inside your body. Let's run a quick test to see how you breathe.

Lie down and place one hand on your chest and one hand on your stomach. Now take a few breaths. What hand is moving the most – the hand on your chest or the hand on your stomach? If your hand on your stomach moves the most then you are breathing diaphragmatically. However if the hand on your chest moves the most then you have an inverted breathing pattern.

Water. Do you drink tap water? I bet you that if I dug down into the pipes in the street feeding your home, cracked open the pipe and got you to have a look inside I bet you would never ever ever drink tap water again. Tap water these days is filled with all matter of potential toxins. Algae, rust, scale, heavy metals, pesticides, herbicides, VOC's (volatile organic compounds), chlorine, fluoride, etc. all lurk in the water you get from your tap. It has even been estimated that around 2% of the water is filled with prescription medications. In general it is not recommended to drink tap water.

So what can you do? Filter your water. Basic carbon activated water filtration systems can cost as little as \$100 and can make a big difference to the quality of the water in every glass you drink. These systems fit to your tap so you can have filtered water on demand. A very economical version comes in the form of a refillable jug with a water filter in the jug itself.

Now that your water is filtered, are you drinking enough water? Virtually every single metabolic process in your body is pegged to the amount and flow of water inside your body. Being dehydrated can cause a variety of ailments so it is super important that your body is always adequately hydrated. You would be amazed at the list of health problems that come from a body

that is dehydrated – asthma, arthritis, joint problems, digestion problems, vision problems, poor energy, etc. The general rule is to do the following to get your daily requirement of water. Upon rising drink one glass of room temperature water. Twenty to thirty minutes prior to meals have a glass of water. This will dramatically improve your digestion as stomach acid and enzyme production virtually ceases in a dehydrated body. Then mid-morning, mid-afternoon and before bed have another glass of water. By doing this you will bring your daily total more in line with current guidelines of 6-8 glasses of water per day.

Food. A lot has changed in our food supply over the last hundred years. From what was a relatively toxin free high quality source we now have over 85,000 chemicals currently approved for use in food manufacturing. This is not only all the way from the soil, but also from the processing and manufacturing of the food by the big food companies. What we have largely ended up with is a whole bunch of 'non-foods' that are causing big problems to our overall health. There are some simple rules to stick to when you are sourcing quality foods.

Meats should be free range, grass fed, hormone and anti-biotic free. Oils and butters should be organic as they are concentrated food sources and breads the same and of a single grain source, not multi-grains. Foods that come prepackaged should also be avoided, as they are very high in salts and sugars. While we are on the topic of pre-packaged foods, never ever use a microwave either. So there you go. Put the above into effect in your life and feel and see the difference. Try and live by the rule if it wasn't here 10,000 years ago then don't go near it. I hope you enjoyed this article. Yours truly, Brent Daisley.

Coconut Oil Toothpaste

(doctorsaredangerous.com)

Sodium fluoride is alleged to protect our teeth, but it's actually a poisonous chemical that causes cancer, damages the nervous system, and even creates weak teeth and bones. Fluoride is common in rat poison, and the German Nazis added it to prisoners' water - because it's known to placate people and make them easier to control. If you haven't already done so, now is the time to dump your fluoride toothpaste.

Coconut oil is the perfect base for your natural homemade toothpaste, because it's powerful, natural antibacterial and antifungal - so it works to kill harmful bacteria in your mouth while you brush. Coconut oil is excellent for your gums, and brushing with it regularly can eliminate bleeding and sore gums. The oil kills the bacteria that are responsible for gingivitis - and, if you have gingivitis, we suggest you massage coconut oil into your gums regularly, in addition to using it in your toothpaste. Brushing your tongue with the oil helps with thrush, a fungal problem localized in the mouth, and coconut oil has been found to stop and even reverse some tooth decay.

Another key ingredient in homemade toothpastes is baking soda. (Sodium bicarbonate.) Baking soda is used for two reasons: First, it's a mild abrasive that provides a gentle cleansing. Second, it's alkaline, and can neutralize acids in your mouth that cause tooth decay. Baking soda also absorbs odours and helps produce sweet breath.

To make your own toothpaste, just use a fifty/fifty ratio of coconut oil to baking soda. Start with a small batch and use a few tablespoons of each. If you like, add a few drops of an edible essential

oil - such as peppermint or spearmint - for flavour and a touch of stevia for sugar-free sweetness. After mixing your toothpaste, keep it in a container with a lid. Then, spoon some out for use, or dip your dry toothbrush into it. The mixture doesn't need to be refrigerated, and because coconut oil is antibacterial, antiviral and antifungal, it'll help keep your toothbrush clean and sanitary too. Coconut oil hardens at temperatures below 23°C, so you'll want to rinse with warm water to prevent the oil from hardening in your sink or drain.

Epsom Salts and How it can Benefit You

In this article we discuss how Epsom Salt can benefit you. We also discuss Epsom Salt & Autism. However, much of the info on Autism applies to other disorders also and even to those of us not affected, so it's certainly worth a read!

(www.blants.com.au)

Benefits:

- Flush toxins from the body
- Improves sleep and concentration
- Relieve pain and muscle cramps
- Helps joint proteins, bone tissue and mucus proteins
- Helps muscles and nerves function properly
- Eases stress
- Improves absorption of nutrients
- Regulates activity of 325 + enzymes
- Make insulin more effective
- Reduce inflammation to Improve oxygen use
- Helps prevent artery hardening and blood clots
- Helps relieve or ease migraine headaches

Sufficient Sulphur is essential to detox the body of toxins and waste. Low levels may lead to a 'backlog' of toxins, which in turn can affect our central nervous system. Most sulphur supplements are difficult for the body to absorb and therefore have minimal effect. However, *Epsom Salt* provides sulphates in a readily absorbable form to help the body rid itself of waste products and toxins by making them water soluble and therefore easily excreted.

Magnesium helps to regulate the activity of more than 325 enzymes, and performs a vital role in many bodily functions, from muscle control and electrical impulses to energy production and the elimination of harmful toxins. It improves nerve function by regulating electrolytes and is necessary to maintain proper calcium levels in the blood. Excess adrenaline and stress are believed to drain magnesium, a natural stress reliever, from the body. Magnesium is necessary for the body to bind adequate amounts of serotonin, a mood elevating chemical within the brains that creates a feeling of well being and relaxation.

As magnesium and sulphates are absorbed through the skin they intensify the biological process of detoxification and calm the nervous system. Many people find they have a very relaxed sleep as a result.

Some people who desire the wonderful therapeutic benefits from bathing in *Epsom Salt* but

have a pre-existing skin conditions have reported Epsom Salt can make the skin feel too dry. Adding just a table-spoon of either olive or essential oil to the bath gives a wonderful silky, smooth feeling to the skin.

Epsom Salts and Autism

The PST sulphation pathway is necessary for the breakdown and removal of certain toxins in the body. This includes the processing of a type of chemical called a phenol. Phenols are a regular and necessary part of life. All foods contain some phenolic compounds. However, some foods have a much higher content than others do. If the sulphation pathway is not functioning well, as with many children with autism, a person may not be able to process out the phenolic compounds as fast as they consume them. There is a cumulative effect. When the phenols start backing up in the system, it can cause a myriad of negative reactions. Symptoms of phenol intolerance include night waking, night sweats, irritability, eczema and other skin irritations.

The symptoms of phenol intolerance and yeast may be very similar because they both involve the body trying to deal with toxins. The detoxification pathway processes other phenolic compounds including salicylates (a subset of phenols), artificial food colourings, artificial flavourings, and some preservatives. Besides requiring PST, research has found the salicylates further suppress the activity of any PST enzyme present, making matters worse. Food dyes also have been shown to inhibit the PST enzyme.

Epsom Salt supplies readily absorbable sulphates which attach to phenols and sets them up for being excreted via the kidneys. The role of sulphation may well be one of the pivotal factors in the causation of autism, yet it is poorly understood and has received scant attention. The role of sulphates in the immune system, in the effectiveness of hormones and in maintaining the integrity of intestinal function, kidney function and detoxification system is deserving of much greater attention than it currently receives.

Owens (1998) has drawn the attention to the importance of sulphation issues in chemical bodies called GAGs (Glucosyl Acetyl Glucosamines) which have huge implications for many functions including brain development. Processes involving inflammation, such as that which would result from infections that may be acquired naturally or from introduction through vaccine programmes, will result in stripping of the sulphate containing GAGs from the intestinal wall.

Owens has suggested that these GAGs will form the main reservoir of sulphates held in the body. Therefore, any lingering inflammatory process will result in sulphate depletion. Waring (2000) has also presented data indicating that the conversion of sulphite to sulphate is severely inhibited after immunisation of adult students against hepatitis B.

Sulphate ions are poorly absorbed from foodstuffs but may well be better absorbed through the skin. That is the rationale for the use of Epsom Salt (Magnesium Sulphate) in the bathwater of children with autism. (Taken from The Sunderland Protocol - a paper presented at the Durham Conference 2000). Sulphur is so critical to life that the body will apparently borrow protein from the muscles to keep from running too low. Many systems in the body will not function well in a low-sulphate environment. One of the things it influences is the hormone that helps humans recognize faces and "socialize". Increasing sulphur in the body

can improve socialization and related issues.

If growth factors were bankers, sulphate would be their money. Growth factors use sulphate to do their business. That is why it is known that if you become VERY deficient in sulphate you will stop growing if you are a child, or you will start to break down (catabolize) your own muscle to make up for this deficiency. That means if your child has not been growing, and has very flimsy muscles, you should be concerned that their sulphate chemistry may be hurting. When this happens in very sick adults, it puts them into a state called cachexia, a wasting process that happens in Alzheimers disease, Aids, Cancer, and an autism spectrum disorder called Rett Syndrome.

Dr Rosemary Waring, a biochemist researching the sulphate levels in autistic children, found that most people with autism conditions have a deficiency in a key detoxification pathway. The pathway involves using sulphur in the form of sulphate (known as sulfation). The enzyme involved is phenol sulphur-transferase (PST), but the problem is thought to hinge on an inadequate supply of usable sulphate ions, not the metabolic enzyme itself.

Dr Waring has found that most autistic spectrum kids, and lots of others with neurological conditions, are very low in sulphate and excrete higher levels of sulphate in urine. They may be as low as 15% of neurologically typical people. People with low or no ability to convert compounds to sulphate have problems handling environmental chemicals including food colours, artificial flavouring, and preservatives, some medications, and even some chemicals produced within the body. They include people with other conditions such as Alzheimers disease, Parkinsons disease, Rheumatoid Arthritis, and chemical sensitivities.

Once the process had started it would continue on a slow, but steady, downward spiral. Sulphates in the blood help rid the body of waste products by making them water soluble and therefore easily excreted. Low levels of sulphate may lead to retention of toxins as the body may have more toxins to process than it can because of a lack of sulphur, which in turn may lead to bio-chemical effects on the central nervous system.

Epsom Salt can provide essential sulphate in a readily absorbable form to unclog this "bottleneck" by supplying more sulphur to increase the amount of toxins that can be processed from the body. As the body takes in more sulphur, more toxins are processed.

Sulphates and the Gut

Sulphation capacity affects the gastro-intestinal tract. The mucins which line the gut are sulphated glycoproteins which rely on sulphation to maintain their structure. The PST enzyme ensures that your mucous membranes are coated with a slimy surface to protect them and make them resilient (membranes of the gut, nose, ears etc.)

Reduced sulphation has been associated with inflammation, gut dysfunction, and increased permeability. Sulphates help to hydrolate (surround toxins with extra water molecules) toxins out of your body. If the body builds up with toxins the gut can become permeable to indigested peptides from gluten and casein (milk products), which then travel to the brain looking like pseudo neurotransmitters, but actually acting as opioids. Researchers have noted that dairy and gluten digestion difficulties would be expected in people with low sulphation, lending credence to the gluten-free/casein-free diet approach for these

individuals.

In autism the balance of gastro-intestinal hormones seems to be altered, possibly due to the interaction between sulphation and digestive peptide hormones. Gastrin is active when sulphated, and so is cholecystokinin (CCK), a peptide active in both the gut and the brain. The secretion of CCK, liberated by gastrin, releases another hormone - secretin, which stimulates the release of digestive enzymes from the pancreas. This essential cascade process can be blocked at any stage, resulting in reduced levels of secretin, and therefore, a blocking of the essential pancreatic enzymes. The blockage may very well be averted if sufficient sulphates are available. Epsom Salts can provide those needed sulphates.

How much do I use?

With small children it is recommended to start with half a cup per bath and increase by half a cup each subsequent bath until 2-4 cups per bath is achieved.

The quantity of salts and frequency of baths varies depending on the size of the bathtub, bather, etc. Some use 3 cups per bath every day! The most common protocol is 2 cups per bath, 3-4 days per week, soaking for 20-30 minutes in a warm to hot bath. Epsom Salt is readily soluble in water, simply stir it in.

Zonulin & Leaky Gut: A Discovery that Changed the Way we View Inflammation, Autoimmune Disease and Cancer!

By Jill Carnahan, Jul 31, 2013 (<http://primaldocs.com/members-blog/zonulin-leaky-gut/>)

An amazing discovery a few years ago revolutionized our ability to understand the gut and permeability and how this impacts a wide range of health conditions from cancer to autoimmune disease to inflammation and food sensitivities. **This little molecule, zonulin, has quite a story...**

Zonulin is the "doorway" to leaky gut

Zonulin opens up the spaces between the cells of the intestinal lining. That normally occurs, in order for nutrient and other molecules to get in and out of the intestine. However, when leaky gut is present, the spaces between the cells open up too much allowing larger protein molecules to get into the bloodstream where an immunologic reaction can take place. Once that happens, the body is primed to react to those proteins each and every time they appear. It can also cause leakage of intestinal contents, like bacteria into the immune system creating inflammation and overloading the liver's ability to filter out this garbage.

Triggers that Open the Zonulin Doorway

Based on Dr. Fasano's research, we know that the two most powerful triggers to open the zonulin door are gluten and gut bacteria in the small intestine. Gliadin causes zonulin levels to increase both in those people who have celiac disease and those who do not. As the zonulin level rises, the seal between the intestinal cells diminishes, opening up spaces between cells that allow all sorts of things to pass right through. This is called "leaky gut".

Its as if the security guard that keeps the bad guys out is taking a nap! Sometimes large food molecules will pass through to the immune system. The immune system thinks they are foreign invaders and will mount an immune response leading to food sensitivities. In addition this immune activation leads to more damage to the intestinal cells (called enterocytes) and the gut becomes more inflamed and more permeable or "leaky". As the damage continues, the microvilli that line the intestines and absorb nutrients become

damaged, leading to other nutrient deficiencies.

Top causes of increased zonulin and development of leaky gut:

1. Overgrowth of harmful organisms, like bacteria or yeast in the intestine
 - A. SIBO = small intestinal bacterial overgrowth
 - B. Fungal dysbiosis or candida overgrowth
 - C. Parasite infections
2. Gliadin in the diet (gluten containing foods)

Gliadin is a protein in wheat, that like gluten, is a trigger for people with **coeliac disease**. However, a study published in the Scandinavian Journal of Gastroenterology in 2006 clearly showed that gliadin can affect zonulin **even in people without the gene for coeliac**. The researchers concluded that

“Based on our results, we concluded that gliadin activates zonulin signaling irrespective of the genetic expression of autoimmunity, leading to increased intestinal permeability to macromolecules.”

The significance of this is that **gluten affects intestinal permeability** in all persons to different extents. It also means that 100% of patients with autoimmune disease or leaky gut could potentially benefit from a gluten-free diet.

Elevated zonulin levels and **leaky gut** are also associated with the following:

- Crohn's disease
- Type 1 Diabetes
- Multiple Sclerosis
- Asthma
- Glioma
- Inflammatory Bowel Disease

In conclusion the article states:

“Genetic predisposition, miscommunication between innate and adaptive immunity, exposure to environmental triggers, and loss of intestinal barrier function secondary to the activation of the zonulin pathway by food-derived environmental triggers or changes in gut microbiota all seem to be key ingredients involved in the pathogenesis of inflammation, autoimmunity, and cancer. This new theory implies that [once this path is activated] it can be... reversed by preventing the continuous interplay between genes and the environment.”

Zonulin and Its Regulation of Intestinal Barrier Function: The Biological Door to Inflammation, Autoimmunity, and Cancer **(Alessio Fasano)**

Abstract:

The primary functions of the gastrointestinal tract have traditionally been perceived to be limited to the digestion and absorption of nutrients and to electrolytes and water homeostasis. A more attentive analysis of the anatomic and functional arrangement of the gastrointestinal tract, however, suggests that another extremely important function of this organ is its ability to regulate the trafficking of macromolecules between the environment and the host through a barrier mechanism.

Together with the gut-associated lymphoid tissue and the neuroendocrine network, the

intestinal epithelial barrier, with its intercellular tight junctions, controls the equilibrium between tolerance and immunity to non-self antigens. Zonulin is the only physiological modulator of intercellular tight junctions described so far that is involved in trafficking of macromolecules and, therefore, in tolerance/immune response balance. When the finely tuned zonulin pathway is deregulated in genetically susceptible individuals, both intestinal and extraintestinal autoimmune, inflammatory, and neoplastic disorders can occur.

This new paradigm subverts traditional theories underlying the development of these diseases and suggests that these processes can be arrested if the interplay between genes and environmental triggers is prevented by reestablishing the zonulin-dependent intestinal barrier function. This review is timely given the increased interest in the role of a “leaky gut” in the pathogenesis of several pathological conditions targeting both the intestine and extraintestinal organs.

Sue Litchfield's Recipes

Below is an old recipe that belonged to my grandmother. This over the years was a family favourite. It was served diluted like a cordial with a sprig of mint added. By replacing the sugar with 750 grams of xylitol, it is suitable for us to drink. If not sweet enough, add a little more Xylitol.

Handy Lemon Syrup

Ingredients:

2ozs (56gms) Citric Acid
750gms Xylitol
1 teaspoon lemon Essence
1 quart - 2 pints boiling water

Method:

- Mix acid, sugar and essence. Pour over boiling water. Allow to cool,

Date Slice (*This a favourite at tennis*)

Ingredients:

Filling

500 gms dates
½ cup water
1 teaspoon Xylitol

Method:

- Place all ingredients in a saucepan slowly bring to the boil and cook till a pulp over a low heat and stir constantly. Cool

Base:

200 gms milk free shortening (I used Nuttelex brand)
½ cup Xylitol
2½ cups Rolled Oats
2 cups plain Wholemeal Flour
1 teaspoon Bi-Carb Soda
¾ cup warm water

Method:

- Preheat oven to moderate, and line a 28x18cms slab tin with baking paper.
- Mix well together the Xylitol and shortening.
- Add bi-carb, flour and oats.
- Finally add water, mixing well.
- Divide mixture into half.
- Spread one half over the base, pressing down firmly.
- Spread over the cooked date mixture.
- Sprinkle over the remains of the base mixture and gently spread out to form a topping.
- Bake in moderate oven for about 35 minutes, or until cooked and very pale brown.
- Cut into slices and serve either warm as a dessert, or cold as a slice

Date Loaf**Ingredients:**

- 1 cup roughly chopped dates
- $\frac{3}{4}$ cup boiling water
- 2 lemon ginger tea bags
- $\frac{1}{2}$ cup chopped walnuts
- 50 gms melted butter
- $\frac{1}{4}$ teaspoon sweet leaf Stevia Extract
- $1\frac{1}{4}$ cups Self Raising flour

Method:

- Preheat oven to moderate and grease a 10x20cms loaf tin.
- Add tea bags to boiling water, allow this to sit for a few minutes, remove tea bags and reheat to boiling.
- Place dates, soda and butter into a mixing bowl.
- Pour over the boiling tea and allow to cool.
- Add walnuts and flour.
- Mix well and place in the greased loaf tin and bake for about 40 minutes. (Baking time will vary between ovens.)
- Serve cold, sliced and buttered - another favourite at tennis!

Note from the Editor

After Dr Donohoe's talk at the April meeting, I had a genetic test for the "MTHFR" gene and found that I was positive. I came down with chronic fatigue syndrome in 2001 after a bout of a flu-like virus. I found Dr Donohoe's "Gemini" description to fully explain the complexity of the illness. I am wondering if this MTHFR gene is rife within the hypoglycemic community, or in normal proportion in comparison to the population. In any case, I have found a good link on the website to a Dr Ben Lynch who has protocols set up for each variation of the MTHFR gene. I have also found some good vitamins that contain the "methyl" version of the vitamins B6, B9 (folate) and B12 - Thorne Research "MethylGuard Plus" and "Extra Nutrients III" for women and "AI's Formula" for men. I have purchased these from "iherb.com". If any members have been tested for this gene and they are positive I would appreciate your feedback.