

**CROSSING THE BRIDGE:
Anne Pemberton, Leeds.**

Abstract

This paper describes the case studies of four individuals aged between twelve and forty four years, who have undertaken a modified version of the Sunderland protocol in order to correct the biochemical anomalies arising from leaky gut syndrome. The paper is written from a nursing perspective which brings together symptoms and behaviour. The subjects have diagnoses of Chronic fatigue / Fibromyalgia, Asperger's syndrome, High functioning autism with Dyslexia and Irritable bowel syndrome with Dyslexia respectively. Each have made the journey through gluten and casein withdrawal, candida treatment and re-sulphation of the gut. The effects of the transition on the musculoskeletal system, the endocrine system, liver / detox system, sensation and perception, the visual system and state of mind / behaviour have all been described. The positive and negative aspects of the program are discussed with references to the alternative therapies. Discussion surrounding foods that harmed and foods that healed, combined with tips for food combinations which helped to reduce some of the more severe symptoms of poor digestion and hypothyroidism. Finally evidence of a genetic predisposition that challenges the "male personality trait".

Why the title:

It is my belief that there is no clear cut distinction between autism and neurotypical functioning. Many of us remain on the bridge flitting to one side then the other depending on situations we might find ourselves in. Most of us are unaware that this is happening. I hope to demonstrate how four of us found our way across the bridge using the optimal nutrition approach. The subjects are two adult females and two teenage boys.

Case studies:**Female** (45yrs)**Diagnoses:**

Psoriasis - from age 7: - Repeated use of topical steroids.

Hay fever - from age 10

Depression - Late teens - early twenties

Migraines.

Constant fungal infections (thrush, cystitis, athletes foot) from age eight onwards

Fibrocystic breast disease

Menstrual problems (menorrhagia, short cycle) - Constant use of female hormones from age 15yrs.

Sub clinical - diabetes (familial)

Sub clinical - adrenal insufficiency (familial)

Sub clinical - hypothyroidism (familial)

Recent diagnoses 2 yrs:

Irlen syndrome / visual dyslexia

fibromyalgia / chronic fatigue syndrome

candidiasis.

Female (37yrs).

Long psychiatric history / ? Schizophrenia (teens)

Sub clinical - Diabetes

Sub clinical - Hypothyroidism - (familial)

Menstrual problems (amenorrhoea)

Recent diagnoses 2yrs:

Asperger syndrome

Irlen syndrome / visual dyslexia

candidiasis.

PHILIP (15yrs)

Born with candida (fungal skin scales at birth - ringworm)

Poor feeder / difficult to wean.

Chronic ear & chest infections

Hyperactive / sound + light sensitive (even in utero)

Chronic nappy rash

Persistent colic

Screaming miserable sickly baby & toddler

Haphazard development of milestones.

Feingold diet - age 3 - 6yrs

Food allergy tests - cytotoxic at age 5yrs

Diagnoses:

Asperger syndrome - age 6yrs

classic autism - age 12yrs

Irlen syndrome / visual dyslexia - age 13yrs

candidiasis - age 13yrs

High functioning autism with dyslexia - age 14yrs

ANDREW (Age 13yrs)

Quiet, insular child. Late with milestones (walked at 2yrs, echolalic until age 5.5yrs)

Intermittent A.S. behaviours

Diagnoses:

Primary encopresis - age 7yrs

Irritable bowel syndrome - age 11yrs

Irlen syndrome - age 11yrs.

Candidiasis - age 11yrs

Although all presented slightly different the common denominator was the diagnoses of Irlen syndrome followed by Candidiasis.

Began Sunderland Protocol April 2000:

Gluten (wheat, barley, rye, oats) + corn (hi glycemic index hi mould)

Half hour after ingestion -

Extreme tiredness, falling asleep (the 15yr old male fell asleep for sixteen hours). Heavy gut (feels like all the energy from the body has been drained into the gut). Incidentally this happens in Janie

and myself in reaction to all proteins, due to incomplete protein metabolism resulting in free flowing ammonia).

8 - 12 hours after ingestion -

Whole body feels heavy and painful. Unable to lift arms above head. Moving main body muscles such as hips, thighs, back can feel like the muscles are tearing.

Pain from front of head going right around head, down the neck and spine, into shoulders and arms, also across hips and down the backs of the legs.

Tight respiratory muscles (possible panic attack).

Extreme difficulty with movement for the next 12 - 24 hours.

Day 3-

Still painful in all muscles (mostly between the shoulder blades and shoulders). Diarrhoea.

Symptoms slowly subside but it takes four days to eliminate toxins from body.

Milk ingestion:

Half an hour after ingestion -

Extreme strange "quivering" nausea across the whole of the gut. The complete gut is on "overdrive", the whole body is hyperactive. Within minutes of the "quivering nausea" a sore neck and a strange sore pain creeps across the back of the head (occipital lobe area). This is combined with a light - headed, dizzy feeling.

The eyes are unable to focus creating eye strain around the eye sockets and a temporal lobe headache.

Feeling "drunk".

12 - 36 Hours after -

Profuse diarrhoea - light fatty offensive stools with undigested food.

Dry itchy eyes. Dry itchy skin.

Sore achy neck and dizzy light headedness continues. Visual focus comes and goes. Acidic stomach which is often difficult to detect from hunger, This subsequently encourages biscuit or bread bingeing.

Extreme thirst.

Excessive mucous in nose and ears (sniffing, sneezing / fingers in ears - scratching, partial deafness).

48 - 72 hours after -

Painful sinuses. Still light headed with intermittent aches around back of neck, runny nose, dry throat, thirst (sinusitis / hay fever / head cold type symptoms).

Recovery at around the end of the 3rd day

NB: The same symptoms occur with salicylates, nightshades (attacks joints rather than muscles) and sugars (although reactions are shorter in duration). This suggests a possible link through sugars (glycemic index).

Two months after commencing GFCF diet:

After initially improving considerably on GFCF we experienced a sudden major slump. Generally exhausted. Feeling "Sick all over". Continually feeling "toxic".

Dramatic weight loss - 45yr old 5st in three months.

- 15yr old 3st in six months.

- 13yr old 3.5st over nine months.

- 37yr old No weight loss but definite change in body shape, from 10yr old boy to woman.

Diagnosis of candidiasis:

The diagnosis was based on iridology, stool analysis and medical examination. Learned of "brown candida eyes".

We opted for the Biocare approach as they provided good technical support and a protocol to follow.

Diet:

Eliminate fruit skins, nuts, fermented products, fungus all processed foods.

Treatment:

3months - Caprylic acid and garlic or oregano complex (recommended for children) and female 37yrs due to being gentler in action and smaller molecules.

Probiotics.

Liver support.

Followed by enterogard (intestinal conditioner) - L-Glutamine + other sulphur enzymes in a base of vit a+c.

Symptoms of die off:

Sore mouth / throat.

Nasal congestion / post nasal drip.

Nausea, wind / bloating.

Excruciating sore neck - up the back and into the occipital lobe area of the head. Head too heavy to hold upright and yet neck too sore to rest on anything.

Feeling of being "spaced" and being aware of that (mostly).

Irrational thinking and "loss of the plot".

ST memory of a goldfish / ocd behaviours.

Bending forward caused complete loss of visual perception / fragmenting of picture.

Toxic muscles - pain and knots, stiff muscles and joints alternating with dyspraxia (too much mobility / lack of co-ordination.

Legs and arms too heavy to lift.

Muscle twitching.

Swollen thyroid / hypothyroidism (Only in the adults). Elevated TSH (36)

Hormone imbalance / irregular menstrual cycle.

Mood swings / depression.

Increased hypersensitivity - light, sound, tactile, smell.

Increased food intolerance (Janie and I restricted to whole grain rice, some green vegetables and fish).

Irritable bowel.

Vaginal burning / itching / discharge.

Exacerbation of psoriasis.

Athletes foot / fungal toenails.

Dizziness, loss of balance, water on the brain.

Vivid dreams / no dream recall.

Deep sleep / insomnia.

Tight chest.

Spots in front of eyes, burning or watery eyes.

Easy bruising, chilliness, cold hands and feet / Raynauds..

Numbness, burning, tingling.

Anal irritation.

At the end of nine weeks we had developed overwhelming toxicity, irrational thinking and generally feeling really sick. In a constant opiate fog which mimicked the fog prior to GFCF withdrawal. Ash, White and Shaw all suggest that candida toxins behave like opiates just as gluten and casein. Not surprising when White says Candida normally excretes 70 toxins, which doubles during "die off". In consultation with the nutrition consultant and Biocare we were wisely advised to discontinue the course of antifungals and move on to the next phase of treatment.

Within four days of commencing the enterogard the fog had cleared and we began to feel better and more energised. The advice given at this point was that if we were still unable to reintroduce foods after two months we should go back to the antifungal treatment. By the two months stage we were back to the foggy head / lethargic sickly beings of two months previous. For the next year we continually switched from one phase to the other. Each time we embarked on anti fungal therapy we became toxic much quicker, until we were only managing a couple of weeks. Realising this couldn't all be die off we consulted with Donna Williams who quickly pointed out that oregano

was a high salicylate food and as such should be eliminated. Eliminating the final batch of salicylates brought three weeks of the worst PMT ever.

Mood swings.

Irritability.

Hypersensitivity / tactile defensiveness.

This was followed by a dramatic improvement in visual perception. So much so that Philip's strabismus had self corrected, and all of us managed a reduction of at least one layer of tint on our Irlen lenses.

Having read around candida and dysbiosis during the previous twelve months I came across Erica White. Erica is a nutrition consultant who cured herself of candidiasis in her fifties then went on to become a nutrition consultant specialising in the subject. She has developed the following protocol (four point plan) for the eradication of candida / dysbiosis in her book THE candida COOKBOOK. Detection of candida is via a self report questionnaire, which provides a scoring system.

Four point plan:

Antifungals.

Probiotics.

Diet.

Optimum nutrition (mega vitamin / mineral / fatty acid therapy) - Patrick Holford approach.

Liver support - milk thistle, dandelion root, enzymes.

At the same time we came across MSM on a very useful website a1msm.co.uk. Knowing that caprylic acid (derived from coconuts) is a high sulphur compound, and that msm is known for its effectiveness against guillardia and chlostridium tetani. We made a joint decision to try msm as an antifungal, primarily to keep costs down. Unfortunately the msm website hosts a protocol for the use of msm which should be avoided by ASD individuals at all costs, due to the danger of liver failure.

Rosemary Waring's research states that 2.5 % of the ASD population cannot metabolise sulphur, and a further 30% can only partially metabolise it. Donna convinced us that the L-Glutamine had given her back her visual perception. Then we realised that the dose of L-Glutamine in the Enterogard was much higher than we could cope with. in addition it contained other sulphur amino acids. We found a powdered form of L-Glutamine and commenced that at 1gm per day. Within a few days we saw improvements in our health without the dip we experienced earlier ,although not the visual perceptual improvements Donna had experienced. For us the improvements were better protein metabolism. Better blood sugar control. Calmer gut. Clearing up of the toxins. Although the dose for L-Glutamine is 1 - 3gms any more than 1gm makes us hyperactive and

evokes panic attacks. We were aware that we were no longer treating the candida and the old symptoms were returning:

Balch and Balch Prescription for Nutritional Healing. Talk a lot about msm as a general detoxer. They state not to exceed 2gms per day (in the neurotypical person) as detox is too rapid. Based on this information and the fact that we needed much less of the L-Glutamine than the regular therapeutic dose we decided to use the msm as Erica White used the caprylic acid. We began with 100mgs per day in two doses, increasing by 50mgs each time our symptoms subsided (every 21 to 28 days).

On commencement / increase of msm dose: Here's what happened.

Day 1 +2

Generally feeling better. Slightly more energy.

Day 3

Herxheimer reaction / Die off / Healing crisis.

Heady / spaced. Poor concentration. Blurred vision, loss of visual perception, spots before the eyes.

Irrational thinking, loss of the plot.

Sore neck and head, eyes burning.

Poor short term memory (OCD / AS behaviours).

Toxic muscles, dyspraxia, poor co-ordination.

Extreme lethargy, limbs too heavy to lift, numbness, tingling.

Heavy sleep, no dream recall.

Intolerance to high sulphur foods (Soya, chick peas, brassica, parsnips, coconut).

Sore throat. Dry mucous membranes in nose. Post nasal drip. Early morning catarrh. Lethargy.

Halitosis.

Day 4

Painful stiff neck. Sore "all over" headache. Hypersensitivity - light / sound / touch. Woolly / water in the head feeling. Jaw pain / stiffness on eating. (?Chlostridium tetani).

NB: During days three to seven any muscle exertion provokes lymph drainage of the muscle toxins into the bloodstream which sent us "off the planet" for a while.

Interestingly ADHD children have a marvellous coping mechanism for this. They eat the offending food, race around, drink copious amounts then slump to recharge for about ten to fifteen minutes.

Day 5

Dry flaky skin / exacerbation of psoriasis. Poor temperature regulation. Increased hypersensitivity - all senses. Vivid dreams. Irritable bowel / anal itching. Vaginal burning / itching / discharge. Above symptoms subsiding slowly.

sore throat subsiding. Strange muscle twitching. Numb areas coming and going.

Day 7-10

Head cold (constant sniffles, dry throat, dry eyes. Possible dehydration (need 3Ltrs per day). Sulphur foods easier.

Day 10 - 20:

Skin calming. Bowel calming. Feeling warmer. Head cold subsides. Patches of incredibly clear visual perception (without Irlen lenses or prescription). Increase in energy levels / muscle tone. Re-Introducing other foods (only possible once we reached 300mgs msm)

Interesting note:

From days 3 - 10 we walked a tightrope with high sulphur foods (coconut, beans (especially soya, sprouts, chick peas). Had to be very careful how much we ate (none on days 3 - 6) as too much tipped us over the edge. Each time we came to day ten we were able to tolerate more previously intolerable foods. Each successive treatment cycle brought small steps of improvement.

After only six weeks we had a definite increase in energy and improvement in cognitive functioning. Our visual perception improved dramatically. We had calmer guts / normal bowel motion. On only 300mgs (1/10th normal dose) we finally felt the candida / dysbiosis was coming under control.

Why is candida important?

It has been demonstrated to be a major factor in the following conditions:-

Irritable bowel syndrome

hypothyroidism

diabetes

chronic fatigue / M E

multiple sclerosis

multiple allergies

autoimmune disorders

psoriasis / fungal infections

depression

fibromyalgia

dyslexia

ADHD

Autism / major biochemical disruption.

Genetics:

Our family - My side plagued with reproductive system cancers, particularly breast cancer, which Jane Plant has overwhelmingly linked to milk intolerance. Multiple sclerosis. Fibromyalgia. Psoriasis Diabetes. Hypothyroidism (all linked to candidiasis). Bowel cancers (linked to gluten intolerance). All quiet insular personalities with the odd active but odd one thrown in.

Husbands side - Plagued with manic depression, OCD (females) inflammatory bowel conditions (Coeliac syndrome, Crohn's, Irritable bowel syndrome, Hirschsprungs (males). Reproductive system cancers (male & female). All are in your face overassertive (active but odd) personalities, with the odd quiet one. Most have the brown CANDIDA pupils to varying degrees.

This generation there are AS Kids popping up all over.

Janies family - Similar pattern - further up the scale. Many "NUTTY" aunts and much chronic sickness, particularly Hypothyroidism. The generation behind Janie has AS kids popping up all over.

All of us were born of Candida mothers.

Having come this far what would we change?

In view of the fact that we had problems with salicylate intolerance that we never gave a thought to and the impact that had I would advocate the Michael Ash approach to this in the future.

Stage one: 1st wk

Eliminate:-

barley malt and malt

all yeast's, fermented products and chocolate

nuts and apples

coffee

processed meats

Stage 2: 2nd wk

Baked goods containing yeast

corn and rye

dried fruit

MSG, artificial sweeteners

maple syrup

bananas

mushrooms

fizzy drinks

sugar (use FOS)

Stage 3: 3rd wk

High salicylate foods (Feingold diet)

Phenols

Follow this for four to six weeks.

Stage 4: 7th wk

Dairy produce

Stage 5: 10th wk

Gluten

NB: High wheat diets favour chlostridial organisms.

Where are we now?

Female (45yrs). Has had an excellent colleague support network and counts herself very lucky.

Female (37yrs). Was limited to cleaning jobs pre-diet as Asperger syndrome dictated her entire life. She now works for Sense as a social tutor for blind / deaf young adults. How appropriate for someone who has lived with and overcome sensory difficulties.

Male (15yrs). Three years ago professionals advised medication and 52 week residential care. He has just gained his first city and guilds diploma at night school and is about to be integrated into college from an N.A.S. school, to study electronic engineering.

Male (13yrs). Is now a very confident, outgoing, social young man with a penchant for mathematics. He represents his school in the inter-school maths challenge as a gifted and talented pupil.

For those who are thinking about diet or doing it already with limited success here are a few tips:

Hay diet approach (don't mix animal protein with foods of high glycemic index as they use different enzyme systems to break down which puts a strain on the liver / digestive tract. By mixing grains with vegetable proteins you get a complete protein.

Food combining to lower the glycemic index (reduces the incidence of blood sugar peaks and troughs). For example adding a little protein flour (Soya, gram) to bread and pastry recipes.

Learn about the foods you are eating. High sulphur foods cause die off - high glycemic foods feed the candida (as does stress and stimulants - tea, coffee, salt). By encouraging a release of adrenaline into the bloodstream the liver converts stored sugars for use in fight or flight. This in turn feeds the candida. For our kids this is a Viscious cycle.

Avoid processed foods at all costs. These foods are stripped of nutrients by the manufacturing process. Sugar, salt and yeast's are often used in excess as preservatives.

Eat organic. With the exception of chicken as organic chicken is generally corn fed. As such provokes the same symptoms as gluten ingestion. Free range chicken is better.

Resources:

Ash, M. & Gilmore, E. (2001) Modifying Autism through Functional Nutrition. nutri-Link.

Balch, P. A. & Balch, J. F. (2000) Prescriptions for Nutritional Healing. Avery.

D'Adamo, P. J. Live Right for your Type. Michael Joseph.

Holford, Patrick. (2001) The Optimum Nutrition Bible. Piatkis.

White, Erica (2000). The Beat Fatigue Handbook. Thorsons

White, E. (1999) Beat Candida Cookbook. Thorsons