

# Breakspear Medical Bulletin

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## New thoughts on Obsessive Compulsive Disorder

*This article is a summary of Dr Aristo Vojdani's recently published article entitled Obsessive Compulsive Disorder and Differentiation between Non-Autoimmune OCD and the Autoimmune version of the disease called PANDAS.*



Obsessive Compulsive Disorder (OCD) is an anxiety disorder characterised by a collection of intrusive thoughts and actions that usually concern things which make no sense or fears that have little real basis. The thoughts keep replaying and produce a significant level of anxiety. To reduce the anxiety temporarily, a series of routines take place, such as hand-washing, cleaning, checking,

counting, redoing, hoarding and praying.

Often tolerance to the rituals' calming effects occurs and then more and

more elaborate rituals develop so that the OCD-sufferer can feel relief from the obsession. These rituals often interfere with learning and may appear paranoid or psychotic to other people.

Drs Schwarz and Baxter at University of California, Los Angeles, compared positron emission tomography (PET) scans of people with and without OCD. PET scans are an imaging

*(Continued on page 8)*

## New products at Breakspear Pharmacy

Breakspear Pharmacy supplies patients with nutritional products as well as numerous other household products for sensitive people.

The Healthy Home Starter Pack is exclusively available through Breakspear Pharmacy and is for sale to patients at a discounted rate compared with the prices of the individual products. The pack includes: washing powder, fabric conditioner, multi-surface cleaner, toilet cleaner, handwash, shower gel and toothpaste, all for £30 (+VAT).



(For non-patients, the cost is £45 +VAT.)

Dr Daniel Goyal put together this starter pack to help new patients quickly and easily start using low chemical load

personal hygiene and household cleaning products.

Breakspear Pharmacy will also be carrying a selection of difficult-to-find, long shelf-life foods to help make many common dietary changes easier.

*See On the Market: on page 2 for a grain-free Pizza Base Mix and Cheese Bread Mix and see page 11 to read about other newly available foods at our Pharmacy.*



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## On the market: grain-free pizza base mix and cheese bread mix

**Isabel's Naturally Free From is a small English company making a large contribution to meeting the special dietary needs of many coeliacs and grain-intolerant people.**

Two products now available at Breakspear Pharmacy are Isabel's Pizza Base Mix (£2.50) and Isabel's Cheese Bread Mix (£2.33).

Both of these easy-to-use food mixes are:

**Gluten-free**—All products that are labelled gluten-free must meet certain European Standards in order to make this claim. The European Standards Commission Regulation (EC) No.41/2009 sets the levels of gluten-free foods to be 20 parts per million of gluten or less. Isabel's mixes' approved test results indicate that gluten was not detected (limit of detection 0.001g/100g).

**Grain-free**—both the Pizza Base Mix and the Cheese Bread Mix are made from only cassava starch, modified cassava starch, milk powder\*,

salt and natural yeast extract. Cassava starch is made from the roots of the cassava plant, which is a native South American vegetable that grows in the form of a woody shrub.



**Suitable for vegetarians**—as you can see from the ingredients listed above, these products do not contain any meat or animal-derived additives.

**Without additives**—these products have no artificial preservatives, artificial flavours, artificial colours or added sugar.

**Low in salt**—the Pizza Base Mix has 0.2g sodium per 100g and the Cheese Bread Mix 0.4g of sodium per 100g.

While these products are not certified organic, all the ingredients are responsibly sourced from accredited partners. The cassava roots used to produce the flours are cultivated without the use of agrochemicals and are GM-free. No pesticides or chemicals are used on grazing areas.

The Pizza Base Mix is a Neopolitan-style thin pizza base, which was developed with the help of a famous Italian restaurant in Leeds. The crust is chewy yet crispy and many people would not be able to tell that it is gluten-free.

The Cheese Bread Mix can be prepared in a food processor and has a delicate cheese flavour, which can be supplemented further with additional ingredients such as grated cheese, fresh herbs or poppy seeds. The cheese breads can be eaten warm or cold and served at any meal or as a snack.

*\* Allergen info: Currently these mixes contain milk. Work is underway to develop dairy-free mixes in the future. Eggs are to be added to the mix when preparing; however, egg substitutes work well, too.*

### Breakspear Medical Bulletin

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**Breakspear Medical Bulletin** is a private publication that we aim to produce quarterly. It is for the promotion of environmental medicine awareness and Breakspear Medical Group Ltd. This newsletter is not intended as advice on specific cases but as a forum of information researched and stored at Breakspear Medical Group. We urge readers to discuss the articles in this bulletin with their health-care practitioners. Unauthorised reproduction of this newsletter, or quotation except for comment or review, is illegal and punishable by law.

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Editor's note: Having a very sensitive coeliac husband sometimes makes quick, fun meals challenging. When a family member gave us a sample of these mixes, I was amazed at how simple they were to make and how good they were to eat, even for those of us who can eat gluten and grains!



## Ask Dr Jean Monro



**I have tested positive for Lyme disease. What is the latest information about it?**

For over 2 decades, Breakspear Medical Group has been testing and treating Lyme disease using certified laboratory tests and personalised antibiotic programmes in conjunction with other recommendations.

Along with reading the latest reports and articles, our doctors frequently attend conferences and lectures to learn the latest information on Lyme disease and gain knowledge of what doctors around the world are discovering.

Earlier this summer, Dr Joseph Burrascano Jr, who is one of the United States' leading authorities on treating tick-borne diseases, particularly Lyme disease, presented, "Lyme disease: the nuts and bolts" in DePere, Wisconsin, USA.<sup>1</sup>

In his presentation, Dr Burrascano defined Lyme disease as an illness that results from the bite of an infected tick. It is also known as borreliosis (after the infecting stealth pathogen, *Borrelia burgdorferi*) and is present on every continent except Antarctica.

Dr Burrascano refers to ticks as "nature's dirty needle" as one tick bite can result in simultaneous co-infections by different germs such as:

- Spirochaetes (Lyme)
- Parasites (Babesia)
- Bacteria (Ehrlichia, Anaplasma)
- Mycoplasma – half-like bacteria half-like virus organism without cell wall
- Viruses (Tick Borne Encephalitis, West Nile Virus)

He spoke about the new strain of *Borrelia* called SCW-30h, which has been found all over the USA. He also commented on another new strain, *B.americana*, which has been found in the southern USA.

Dr Burrascano went on to describe the retrovirus XMRV (xenotropic murine leukaemia virus-related virus), which was first isolated from prostate cancer patients. It is now being linked to Lyme disease.

Dr Judy Mikovits, Research Director of The Whittemore-Peterson Institute for Neuro-Immune Disease, was looking for XMRV in chronic fatigue syndrome (CFS) patients. She found that only 3.7% of healthy controls had it, while 95% of CFS cases were antibody positive and 68% were PCR (polymerase chain reaction, which is DNA testing) positive. That means that in her study, 98% of her CFS patients were testing positive for XMRV.

She, and collaborating clinicians, also found XMRV in Lyme, fibromyalgia, atypical multiple sclerosis and autism. Theoretically, XMRV can cause or add to many symptoms and immune defects, as seen in all these illnesses.

The symptoms of Lyme disease are like those of many other common illnesses, which means that sometimes patients are misdiagnosed and do not undergo necessary testing.

As an initial screening test, the CD-57 Count (Natural Killer Cells) can be used and confirmatory tests then undertaken. If diagnosed early and treated with a 4-week course of oral antibiotics as soon as possible, it is fully curable.

However, if present for more than 6 weeks and less than 1 year, it is considered to be disseminated Lyme. Initial non-specific symptoms gradually change to involve multiple discrete organ systems causing, for example, joint pain, stiffness, subtle swelling, numbness, tingles, "brain fog" and impaired short-term memory, and the original, general symptoms of headaches, fatigue and sweats may persist.

Disseminated Lyme requires treatment with antibiotics for a longer period of time. Often the duration of treatment mirrors the duration of the illness.

Chronic Lyme disease, which is defined as illness lasting for 1 or more years, is the start of a clinically significant immune breakdown. Sadly, because most Lyme tests are serologies, which measure immune response to *B burgdorferi*, a weakened immune system may result in more false negative tests. Most symptoms at this stage are neurological, with nutritional disturbances and metabolic effects.

## Linking a pesticide to ADHD in children

In May 2010, the Los Angeles Times reported that a recent Californian study involving the government health records of 1,139 children links the pesticide malathion to attention deficit hyperactivity disorder (ADHD).

The study's sample group of children were representative of the general population. This is unlike several previous studies linking ADHD to pesticides, which generally studied children of farm workers and others exposed to abnormally high levels of pesticides.

This study found that the children who had higher levels of the pesticide malathion in their urine seem to be at an increased risk of ADHD.



According to the Times article, "ADHD is thought to affect 3-7% of children in the United States, with boys affected much more heavily than girls. Its prevalence is generally assumed to have increased sharply in the last 3 to 4 decades, but controversy exists about whether the incidence has increased or diagnostic standards have broadened."

Accounting for factors that could confound the results, the researchers concluded that a tenfold increase in malathion metabolite levels in urine -- still a very low level -- was associated with a 55% higher risk of having ADHD. For the most commonly detected metabolite, dimethyl thiophosphate, children with levels higher than the median of detectable concentrations were twice as likely to have been diagnosed with ADHD as those with no detectable concentrations.

The researchers speculated that for most of the children in their study, exposure came through food. The 2008 report of the USA pesticide residue program found, for example, that 28% of frozen blueberries, 25% of strawberries and 19% of celery were contaminated with malathion.

### What is malathion?

Malathion is a man-made organophosphate insecticide which is widely used in agriculture, residential landscaping, public recreation areas, and in public health pest control programs such as mosquito eradication.

In the USA, there are 40 registered organophosphate pesticides similar to malathion with at least 73 million pounds used in agricultural and residential settings.

If one searches the web for more information on malathion, one realises that this insecticide is commonly used in the UK for treatment of scabies, pubic lice and head lice.

On the UK government Environmental Agency website, it states, "[Malathion] is harmful to human's health, highly toxic to honey bees and some other insects and is also harmful to fish."

The research brings forth many unanswered questions. The study was conducted on urine samples from children, which only gives a "snapshot" of a sample in time. As malathion apparently can clear from the body in 3-5 days and levels fluctuate widely, this study cannot examine the variable long-term effects of exposure, which would help determine causal factors. Also, it cannot be concluded whether the pesticide itself is causing ADHD or if children with ADHD cannot clear it from their bodies as efficiently as other children.

## ILADS educational meeting on Lyme disease in London 2010



The International Lyme and Associated Diseases Society (ILADS) is a non-profit, international, multi-disciplinary medical society dedicated to the diagnosis and appropriate treatment of Lyme and its associated diseases.

In order to give physicians the basic tools to diagnose and treat Lyme disease and associated diseases, an ILADS conference was held in London at the Royal College of Obstetricians and Gynaecologists in June 2010. Breakspear Medical Group's doctors, Dr Jean Monro, Dr Christabelle Yeoh and Dr Terence Daymond attended the conference.

Internationally renowned speakers from Europe and America were present and talking about Lyme disease, tick-associated infections and problems associated with Lyme borreliosis. It was a whole day's programme with many interesting talks.

Speakers at the event included:



**Dr Sarah Chissell** (from the UK) - presented a talk on Lyme disease in pregnancy and implications for the foetus. Dr Chissell is a consultant obstetrician and gynaecologist at East Kent Hospitals NHS University Trust and organised the event.



**Dr Raphael Stricker** (from the USA) - talked about the difficulties of diagnosing Lyme disease. He has noticed an increase in Lyme disease in the USA over the last 20 years and stated that Lyme disease is now the most common vector-borne disease. Interestingly the increase in cases of Lyme disease mirrors to some extent the increase in deer population, which has risen from 500,000 in 1900 to 30 - 40 million in 2000.

In describing clinical factors, Dr Stricker noticed that tick bites can only be recalled by 50% - 60% of patients, erythema migrans [bull's eye rash] by about 35% - 60%, and arthritis in only 20% - 30%. Neurological symptoms are quite common, particularly in Europe, and Bell's palsy (due to 7<sup>th</sup> nerve damage) is a common early sign of neurological disease. He discussed some of the difficulties in testing and identified the CD57 test as being of some help to determine how active the infection is.



**Dr Christian Perronne** (from France) - discussed the problems of diagnosis of

Lyme disease, starting with the problems of clinical diagnosis. A tick bite has an incubation period of between 3 and 32 days; the skin rash may occur in only about 50% of people. There is no accurate diagnostic test and no gold standard test. False positives may occur in blood tests and there may be differences between regions, depending on the species of the organism *Borrelia* (which are the bacteria which cause Lyme disease). The sensitivity of blood tests rises from 20% to 50% in patients with the typical rash (erythema migrans), to nearly 40% to 100% in those with neurological or arthritic problems. Patients with arthritis are almost always nearly 100% positive for Lyme disease. He concluded that negative test results for Lyme disease by ELISA or Western Blot are not a guarantee of absence of infection.



**Dr Carsten Nicolau** (from Germany) - discussed holistic treatment of Lyme disease, which involves the practice of integration of conventional and complementary therapies to optimise health and prevent and treat disease by addressing contributing factors. Treatment includes specific antibiotics for the required period of time, changes in diet to support a healthy, active lifestyle, dietary supplements including probiotics, vitamins and minerals, supportive medication and detoxification, checking the effectiveness of antibiotics, strengthening the immune system, pain relief, treating mood swings. Occasionally natural therapies can be of great benefit; in particular some plants and herbs can help to stabilise the immune system and block inflammatory processes. Pain therapy, physical exercises, stress management, mental coaching and social support are also helpful.

There were many other speakers present at this conference, including Dr Ann Corson, who specialises in paediatric Lyme disease.

The doctors at Breakspear Medical Group are grateful for the experience of attending the conference and the opportunity to share common attitudes and management protocols with renowned international colleagues.

It is hoped that additional material in the form of a CD or DVD will be produced in the future. (When available, details will be published in a forthcoming Breakspear Medical Bulletin.)

## New thoughts on formaldehyde causing cancer

### Formaldehyde is a chemical used widely in building materials and household products.

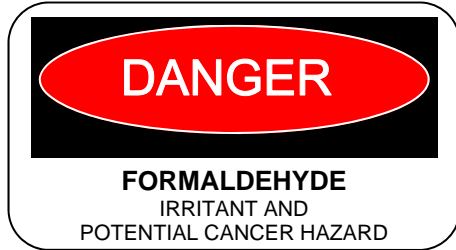
The American Environmental Protection Agency (EPA) has concluded that formaldehyde causes cancer when inhaled by humans.

In June 2010, the EPA released a 1,043 page draft assessment of their formaldehyde health risk conclusions for public input and peer review. The draft assessment states, "There is sufficient evidence of a causal

relationship between formaldehyde exposure and cancers of the upper respiratory tracts, with the strongest evidence for nasopharyngeal and sino-nasal cancers."

The document also claims that there is sufficient evidence of a causal association between formaldehyde exposure and lymphohematopoietic cancers, Hodgkin's lymphoma and leukaemia and 7 other non-cancer health effects from formaldehyde inhalation, including pulmonary function, neurologic and behavioural toxicity and reproductive and developmental toxicity and immunological toxicity.

While many are pleased that this information is being distributed, Betsy Natz, executive of the Formaldehyde Council, representing leading formaldehyde producers and users in the USA, took issue with EPA's findings, contending that there is not a demonstrable link between formaldehyde and leukaemia, or a causal link with nasopharyngeal and sino-nasal cancers.



Formaldehyde is a common compound with many uses. For example, it can add permanent-press qualities to fabric and it is used as a preservative in some cosmetics, fabric conditioners, detergents and shampoos, some paints and coating products, as well as most pressed-wood products. It also occurs in natural processes, such as combustion. Thus, it may be present in substantial concentrations both indoors and outdoors.

At room temperature, it is a colourless, pungent-smelling gas, which readily converts to a variety of derivatives. It can cause:

- watery eyes
- burning sensations in the throat and eyes
- coughing
- fatigue
- nose bleeds
- headaches
- skin rash
- nausea
- breathing difficulties, particularly in those with asthma

For most people, the effects of formaldehyde are short term, although it can cause allergies. Those with formaldehyde allergy are advised to also avoid formaldehyde releasers, which are chemical compounds that slowly release formaldehyde. Formaldehyde releasers are often used in cosmetics as antimicrobial preservatives.

### Dangers of formaldehyde: in American news

In 2006, Hurricane Katrina and Hurricane Rita displaced thousands of US residents of the Gulf Coast. In a rescue effort, the Federal Emergency Management Agency (FEMA) supplied 120,000 travel trailers and mobile homes as temporary housing. Some of the people who moved into the temporary homes complained of breathing difficulties and persistent headaches after prolonged exposure to the formaldehyde, which is contained in wood products in the trailers. The American Centers for Disease Control and

Prevention (CDC) performed indoor air quality testing on 519 of the FEMA-supplied temporary accommodation units and found that, on average, there were 77 parts per billion (ppb) while common indoor levels are 10-20 ppb.

In 2008, a similar contamination of trailers provided by FEMA happened as trailers were used to house those affected by the Iowa floods. The FEMA tests found the average level was 65 ppb, although there were levels of 100 ppb or higher in 1 in 5 homes tested.

# New thoughts on type 2 diabetes treatment and vitamin B



## Around the world, the most common first-line drug prescribed to treat type 2 diabetes is metformin.

MedPageToday (May 2010) reported that a long-term Dutch study recently confirmed an association between metformin treatment and vitamin B12 deficiency and suggested that diabetic patients receiving metformin would benefit from vitamin monitoring and perhaps B12 supplementation.

B12 deficiency can cause fatigue, memory impairment, irritability, migraines, anaemia, nervous system damage, and sometimes symptoms of mania and psychosis.

The data showed that the biggest drop in vitamin B12 levels occurred within the first few months of receiving metformin; levels continued to decline throughout the study at a lesser rate.

Researchers found that, over time, falling vitamin B12 levels were also associated with increased serum homocysteine, which is a risk factor for heart disease. Metformin treatment also appeared to depress folate levels, which are essential to numerous bodily functions.

Interestingly, metformin became available in the British National Formulary in 1958; however, it was not used widely until the 1970s.



Good dietary sources of B12 are dairy products and free-range eggs.

## About diabetes

Diabetes is a long-term chronic condition that affects 2 million people in England and Wales, with speculation that a further 750,000 people have the condition but have not been diagnosed.

Diabetes can have serious health consequences including heart disease, stroke, amputation, kidney failure and blindness.

It is a condition caused by too much glucose (sugar) in the blood. Normally, as food is digested, it enters the bloodstream and then the body requires insulin to move the glucose out of the blood and into cells, where it is then broken down to produce energy.

With diabetes, the body is unable to break down the glucose.

There are 2 types of diabetes: type 1 and type 2. Type 1 occurs when the body does not produce insulin and therefore is treated with insulin injections.

Type 2 is the more common form of diabetes which occurs when not enough insulin is produced for the body to function properly, or when the body does not react to insulin.

It is often controlled by a healthy diet and monitoring blood glucose levels. However, the condition may progress and require medication.

## Your thoughts on wheat allergy, intolerance and coeliac disease

Of the people who completed our online survey:

96% of the respondents believe that they have a wheat allergy, wheat intolerance, gluten-intolerance or coeliac disease. (94% of the respondents were women.)

83% of respondents have been formally diagnosed with a wheat allergy, intolerance or coeliac disease.

In the people sensitive to wheat, the most common symptoms are:

- bloated stomach and/or stomach cramps
- headaches
- diarrhoea
- mood swings

## New online survey:

Tell us your thoughts on Lyme disease

Lyme disease is the illness that results from the bite of an infected deer tick. Infected ticks have been found everywhere in the world except the Antarctic.

Is the medical profession doing enough to help those already infected?

Visit our website:

[www.breakspearmedical.com/survey](http://www.breakspearmedical.com/survey) to tell us your thoughts.

## New thoughts on Obsessive Compulsive Disorder

(Continued from page 1)

**Basal ganglia** – a group of nuclei in the brain associated with thought processing, which includes a variety of functions such as motor control and learning.

**Caudate nucleus** – a nucleus within the basal ganglia associated with learning and memory.

**Orbital frontal regions** – the forward part of the brain associated with behaviour, including reward, attention, long-term memory, planning and drive.

technique which produces a 3-dimensional picture of functional processes in the body, including the brain.

The researchers identified specific areas of the brain which were overactive in people with OCD. They showed the basal ganglia, caudate nucleus and the orbital frontal regions of OCD patients light up differently and show heightened activity (see above for explanations of these terms). After successful treatment with either medication or behaviour therapy, in subsequent PET scans, these symptoms were markedly diminished or had disappeared.

The observed heightened activity of the basal ganglia in OCD sufferers may be the result of elevated serotonin levels. Serotonin is a neurotransmitter (a brain chemical which transmits messages) that is a well-known contributor to feelings of well-being. More serotonin is produced in the gut than in the brain. (Further information on colonic flora illustrating this is available upon request.)

The medications used to treat OCD, called serotonin re-uptake inhibitors (SSRIs), target the receptor sites in the basal ganglia, making more serotonin available to direct messages properly. Many studies show that OCD symptoms decrease in response to SSRI treatment. Examples of SSRIs prescribed are: Prozac, sertraline and paroxetine.

The exact cause of OCD is not known. It has been found that a person who experiences injury to the basal ganglia will develop OCD

symptoms. Stressful events can tip the scale from low-grade OCD symptoms to full-blown OCD. Most cases of non-autoimmune OCD have a gradual onset.

A National Institute for Mental Health study published in 1990 found that of 46 patients with severe OCD, 17% of the parents and 5% of the siblings also met diagnostic criteria for OCD. Some people develop OCD without any family

### Signs and symptoms of autoimmune OCD (PANDAS)

- Sudden onset or sharp increase in OCD symptoms
- Presence of tics and/or hyperactivity
- Involuntary and irregular movements of the legs, arms or face
- Irritability, temper tantrums, mood changes
- Age regression; reverting to younger developmental stage
- Separation anxiety
- Night time difficulties
- Severe nightmares and new bedtime fears or rituals

history of OCD or Tourette syndrome, which is an inherited disorder associated with repetitive motor and vocal tics.

There is a subgroup of OCD which develops rapidly called paediatric autoimmune neuropsychiatric disorders associated with streptococcal infection (PANDAS). PANDAS is linked to autoimmunity dysfunction.

For an estimated 25-30% of children with OCD, it is thought to be triggered or exacerbated by the body's own immune cells, which, while attacking the streptococcus, also begin attacking the body's own basal ganglia or B-cells, which play a large part in immune response, and nerve cells. Children suffering from this may have tics, trembling, twitches, grimacing, clumsiness, loss of maths skills, sensitivity to touch and clothing labels, poor attention span, distractibility, irritability, impulsivity, separation anxiety and bedtime fears. This condition may require antibiotic and immunomodulatory treatment.

There are a variety of laboratory tests that are recommended if PANDAS is suspected. These tests include: throat culture for Group A B-Haemolytic Streptococcus and blood tests to check for elevated antibody levels against the streptococcal extracts (antistreptolysin titre), B-cell and brain antigens.

(Continued on page 9)



## GPC: an important nutritional supplement to be strongly considered



Dr Eberhard Schwarz

**GPC (GlyceroPhosphoCholine) is a purified form of choline, which is extremely stable and well absorbed, even through the blood brain barrier.**

Choline is an essential nutrient, which is a chemical similar to the B-vitamins. Although the human body can make some choline, good dietary sources are: milk, beef liver, eggs, oranges and potatoes.

It is recommended that one consumes 500 - 2000 mg in the daily diet.<sup>1</sup>

Unfortunately food intolerances and food allergies, highly processed foods, pregnancy, and many different illnesses can lead to choline depletion, either because there is not enough in restricted diets or the uptake is compromised by different conditions.

While choline is important for all body cells, it helps to stabilise, boost and improve developing, healthy, ageing and traumatised brains. Breast milk and other milks are among the crucial sources of choline for proper early brain development and lifelong functioning.

Only some choline is free choline; the bulk of choline is bound in the form of GPC. This great excess of bound choline over free choline is the pattern for choline reserves throughout the body. Free choline is to be used immediately otherwise there may be cross-reactions with other substances that interfere with proper function.

Choline in GPC is:

- a key reservoir of methyl groups which are important for healthy gene regulation and

numerous other biochemical and metabolic functions

- a key source of betaine, another orthomolecule important for osmotic protection, as well as methylgroup regulation
- an important osmotic protectant and important for digestion as a constituent of the bowel fluid
- a source for the neurotransmitter acetylcholine
- an important back-up source of the phospholipids, phosphatidylcholine (PC) and sphingomyelin (SPH) which are building blocks of our cell membrane systems<sup>2</sup>

GPC seems to be the best oral choline source because it is a stable molecule. GPC is 90% absorbed in the intestine.

Furthermore, its easy crossing of the blood brain barrier makes GPC effective quickly.

One of its effects is to boost the release of growth hormone from the pituitary gland and raise the production of the neurotransmitter acetylcholine, which is dearly needed when one has node degenerative or compromised conditions.

Studies on a number of different populations found that the average intake of choline was below adequate.

*If you feel that you might benefit from supplemented GPC, ask your doctor for more detailed information.*

1. Dietary reference intakes for thiamine, riboflavin, niacin, vitamin B<sub>12</sub>, pantothenic acid, biotin and choline. A report of the Food and Nutrition Board, Institute of Medicine. Washington, DC: National Academy Press;1998.

2. Kidd PM. GPC (GlyceroPhosphoCholine): mind-body power for active living and healthy aging, the vital nutrient for survival. St George, UT: Total Health Communications; 2007.

## New thoughts on Obsessive Compulsive Disorder

(Continued from page 8)

The treatment programme for PANDAS would include:

1. Antibiotics.
2. Treatment of sensitivities. In our experience at Breakspear, this is the treatment for any autoimmune condition.

3. Use of a supplement regime for prevention of upper respiratory tract infections.

4. Elevation of serotonin by nutrients.

Visit [www.latitudes.org](http://www.latitudes.org) for the original article about OCD and PANDAS or ask your Breakspear physician about the tests available.

*Adapted from: Vojdani A. Obsessive compulsive disorder and differentiation between non-autoimmune OCD and the autoimmune version of the disease called PANDAS. Latitudes. 2003;6:1-6.*

## Did you know...?

### GM blight-resistant potatoes field trials begin in UK

BBC News online 8 June 2010 reported that a field trial of a genetically modified (GM) variety of

potato resistant to "late blight" has begun in eastern England.

Late blight is a destructive, naturally-occurring pathogen called *Phytophthora infestans*. It was the cause of the Irish potato famine in the mid-19th century.

Supporters of GM foods argue that a disease-resistant plant would reduce the amount of chemicals being sprayed, cut the emissions from the tractors putting them on the fields and also reduce the environmental impact of the production and distribution of agrichemicals.

However, there is also strong opposition to GM foods.

GM Freeze is a campaign group which focuses on the difficulty with trials on open air land, where cross pollination between GM and other crops by insects, such as bumble bees, hoverflies and beetles, is inevitable.

Dr Helen Wallace, director of the campaign group GeneWatch, claims that it is possible to breed blight-resistant potatoes using conventional methods and therefore the trial is a waste of money.

### Resveratrol improves brain function

Resveratrol is a naturally-produced compound found in the skin of red grapes and is a constituent of red wine.

According to a study by Kennedy DO et al. at Northumbria University, apparently even a modest amount of resveratrol was found to substantially increase blood flow in the brain.

In the study, 22 student volunteers receiving a supplement containing 250mg resveratrol or a placebo on alternate days performed mental tasks for 36 minutes and had their blood flow to the brain monitored. The results show that resveratrol may enhance brain function when difficult mental functions are being performed.

The results were published in American Journal of Clinical Nutrition, March 2010.

### Linking *Clostridium difficile* and vitamin D deficiency

A recent study shows an association between *Clostridium difficile* (*C. diff*) and low vitamin D levels.

*C. diff* is a naturally occurring species of bacteria that can become overpopulated when there is a gut flora disruption, often created by antibiotics. This can lead to bloating, constipation, stomach pain, diarrhoea and other intestinal disease, including severe infection of the colon.

The American study involved 83 hospitalised patients with documented *C. diff* infections. Of the 62 patents who completed the study, 55% had low vitamin D levels.

Dr Moshe Rubin, New York Hospital Queens, Weill Cornell Medical College, New York, USA, stressed that the study only shows an association, not cause and effect. Even if the findings are confirmed, low levels of vitamin D may just be a marker for some other damaging factor. He suggests his next study would be to supplement vitamin D in patients who have *C. diff* to see if their outcomes improve.

### MS risk linked to smoking and Epstein-Barr virus

MedPageToday reported that a recent study links smoking to increased chances of developing multiple sclerosis in people who already have one of the established risk factors for the disease.

According to the article, in patients with high antibody levels against Epstein-Barr virus -- known to enhance the risk of MS -- smoking nearly doubled the chances of developing the illness.

The study was supported by the NIH, the National Health and Research Council of Australia, the Australian Rotary Health Research Fund, and MS Australia.



# Available at our Pharmacy

[www.breakspearmedical.com/shop](http://www.breakspearmedical.com/shop)



Breakspear Pharmacy Online is extending our free postage and handling offer until 30 September 2010. That means UK patients and practitioners who have accounts with us can register and order any time of the day or night from our website and receive their order with no additional postage fees.\*

**Introductory offer: free postage and handling for all orders placed and paid for online.\***

\* Free postage and handling applies only to UK orders placed and paid for online which do not require special delivery and does not apply to orders placed in person, by fax or over the phone. Republic of Ireland registered customers will be charged £15 for parcels up to 2kg. Offer expires 30 September 2010.

## Specialty foods now available:

Sometimes it is hard to find a reliable source of alternative foods while making dietary changes to improve your health. Along with supplying unscented shampoos, conditioner and shower gel, natural toothpastes and household cleaning products, Breakspear Pharmacy is now offering the following alternative foods at competitive prices:

### Gluten-free quick meals:



#### Falafel mix Organ

This gluten-free mix simply needs water added in order to create tasty pea-based balls, patties or stuffing £2.72



#### Soups Free & Easy

Gluten-free, vegetarian, sugar-free soups that only require warming before eating  
Leek & Potato £1.53 or Red Pepper and Lentil £1.41

### Baking supplies:



#### No Egg (natural egg replacer) Organ

When you want to replace 1 whole egg in standard recipes, all you have to do is add 1 teaspoon of No Egg to 2 tablespoons water £2.83



#### Ground almonds Community

Ground almonds and other alternative flours can be used to substitute wheat flour in many recipes. 100g £1.57 or 2.5kg £24.33



#### Xanthan gum Doves Farm

A useful additive to thicken and help stick gluten-free baking together £3.49



#### Potato flour Community

Another great flour which can be used to thicken or substitute wheat flour 500g £1.78 or 2kg £4.68

## How to avoid obesogens in daily life

**Issue 23 of the Breakspear Medical Bulletin contained an explanatory article on hormone-mimicking pollutants, called obesogens, which can affect the body in various ways including weight gain.**

The (American) White House Task Force on childhood obesity concluded that too much fast food, too little exercise and the rise in consumption of obesogens were the possible main reasons for the weight gain and obesity epidemic.

Recommendations to avoid obesogens include the following:

**Eat organic** - consumption of foods, beverages and drinking water potentially exposes one to 10 to 13 different pesticides on average. According to a recent study supported by the US Environmental Protection Agency, eating organic for just 5 days can reduce circulating pesticides to non-detectable or near non-detectable levels. The study concluded, "...we were able to demonstrate that an

organic diet provides a dramatic and immediate protective effect against exposures to organophosphorus pesticides that are commonly used in agricultural production."



If you enjoy bottled water, drink it from glass bottles.

**Filter water** - whether it is the water one drinks or the water one bathes in, it is best to use a carbon water filter to take out the pesticides, to lower one's exposure to these harmful chemicals. In some areas, it might be beneficial to use a reverse osmosis filter.

**Reduce plastics** - many plastic food containers contain synthetic chemicals that mimic oestrogens and leach into the contained food or water. Bisphenol-A (BPA) leaches from plastic water bottles and the PVC used to wrap meat contains endocrine disrupting chemicals (EDCs), which are then stored in fatty tissue. (Because these chemicals are stored in fatty tissue, it is also advisable to eat lean meats.)

## Bulletin board

### Pilates therapy and Sherwood Technique sessions available



Carly Day, Rehabilitation Specialist, is now offering Pilates therapy in conjunction with the Sherwood Technique at Breakspear Medical Group. These combined therapies are good for back problems and as a gentle introduction to a more active life for recovering patients.

Pilates is a type of exercise that uses specialist equipment to activate muscles that we have 'forgotten' how to use properly, thus restoring more efficient and natural movement. It can have profound results in correcting altered alignment, relieving muscular tension and improving posture.

These Pilates private sessions are available for £50 per hour-long session; patients usually require a minimum of 4 sessions. For more information, contact Breakspear Reception 01442 261 333 ext 300.

## Help others by sharing your experience

Raising awareness about Lyme disease or chronic fatigue by publishing articles in magazines, newspapers or blogsites is important to bring people's attention to the under-diagnosis and under-treatment by the medical profession generally .

If you suffer or have suffered from Lyme disease, chronic fatigue syndrome or came to Breakspear with a variety of symptoms that had not been diagnosed elsewhere, we would like to hear about your experience on the road to recovery.

Simply post your story to the editor, Carolyn Northcote Monro, email: [cmonro@breakspearmedical.com](mailto:cmonro@breakspearmedical.com) and you will be contacted if your story is to be published. If you are interested in writing about your experience but do not know where to start, please contact the editor who can help you with some basic guidelines on getting started.

**We extend our grateful thanks to the people who have already submitted stories! And look forward to receiving many more.**