



## HIGHLIGHTS

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Sometimes it is not just the patient who needs support  
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Out of a wheelchair, into a career

## How I live with my chronic illness

**Emma Franklin has been living with chronic illness for over 10 years. She shares her story of how she has built a global support network & a successful career despite her ongoing health challenges.**

My name is Emma Franklin. I've just turned 27 and live in Staffordshire. The main areas of ill health that impact my life are living with chronic fatigue and multiple chemical sensitivity (MCS), which Breakspear Medical have been treating for the last three years.

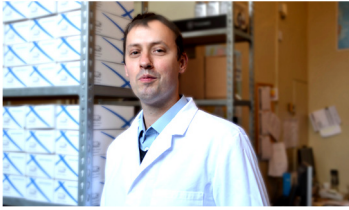
I feel it is important to share personal stories to give others hope that improvements in health are possible.

I was a totally typical child, living life, involved in every activity under

the sun, and never really being ill. However, when I was 13, I had the routinely offered HPV vaccine at school, which triggered me to feel unwell for a couple of years.

I first started to develop serious fatigue when I was around 15 years old, which was followed by frequent viral infections, such as tonsillitis, swine flu, mumps and glandular fever. I would come home from school and go straight to bed to sleep. I'd then be woken

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## A day in the life of our... Pathology Manager Jason Adams

**For over 16 years, Jason Adams has led the two-member Pathology department to provide a smooth and efficient diagnostic service, which helps the doctors determine the cause and nature of health issues of our patients. He is married to one of our medical secretaries, whom he met at Breakspear Medical.**

After I arrive at the office and have turned my computer and music on, my first jobs of the day are to update the pathology database and to convert the secure results into a standard format so that the doctors can view them on our document management system.

Normally around this time, the first requests for blood tests start to roll in. With each request, there is paperwork to process, unique labels to produce and data entry required before I can take the required tubes and/or kits upstairs to the nursing team.

After the samples are delivered back to Pathology, the labels must be checked and then the samples are prepared for sending to the laboratories. Some blood samples will require standing and spinning in our centrifuge while others samples will require freezing. Every sample needs a laboratory requisition form completed and then packaged ready for the scheduled courier pickup.

Between the sample collections, I will be checking and sending any new results to the doctors and secretaries. After the doctors have reviewed the results, I'll then send them to the patients to review before they have a follow-up doctor appointment.

On my lunchbreak, most days I walk into the town centre with my wife to have lunch and then I'm back for the busiest part of my day! There are strict shipment requirements for packaging and sending blood samples to both the international and UK laboratories. Great

care and attention to detail protects the courier from potential contamination, ensures the samples arrive at their destination unharmed and, in many cases, keeps them at the required correct temperature.

I can only think of a few times that our shipments haven't made it to their destination and those were due to something truly unavoidable. For example, Hurricane Katrina springs to mind!

Once the international packages are on their way by 2:00pm, I can start breathing again and make sure all of the paperwork is scanned onto the computer.

Most of the UK shipments go out via next-day Royal Mail and these are picked up in the late afternoon. A motorcycle courier will pick up the ones bound for London and deliver them to the laboratory within hours. Many results will be returned and distributed the next day.

When all shipping prep is complete, I check the database to see if any of the results are past their expected date of receipt and follow up on any late ones. (In the old days, this task was managed with a massive colour-coded file which took up much of the office wall but now this is all managed with the press of a button.)

After making sure all the results that have arrived during the day have made it to the respective doctors and been prepared to send out to the patients, I cut the music, turn off the lights and I'm done for another day.



Common harmful pollutants:

# Outdoor & indoor air pollution

By Dr Nikita White

**For decades, the main focus has been placed on outdoor air pollution and its harmful effects on human health & ecology. Today we must also consider indoor air pollution, which may pose a greater risk than we previously thought.**

According to a press release by World Health Organisation (WHO), air pollution contributes to up to seven million premature deaths worldwide on an annual basis.<sup>1</sup> There are proven links to cardiovascular disease and respiratory complications.

Air pollution is generally invisible to the human eye because the harmful particles can be as small as a molecule. These tiny particles are called particulate matter (PM) and the quantity of them is measured in tiny units called micrometres ( $\mu\text{m}$ ). (See right column for further explanation.)

Some sources of PM are diesel fumes, vehicle tyres and brakes, tobacco smoke, volcanic ash and mould spores.

A recent study attempted to determine the global estimated mortality due to outdoor fine PM exposure.<sup>2</sup> They implied that outdoor pollution has a greater effect on health than previously estimated and that by reducing atmospheric PM, it may result in a more significant improvement in everyone's health than previously thought.

## How small is a micrometre?

The measurement of a micrometre ( $\mu\text{m}$ ) is one thousandth of a millimetre, which is only about three percent of the diameter of a human hair.

A PM of  $10\mu\text{m}$ , commonly written as  $\text{PM}_{10}$ , or less is called a fine particle; the smaller  $\text{PM}_{25}$  can only be detected with an electron microscope.

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## Common harmful pollutants: outdoor & indoor air pollution



### Examples of air pollutants include the following:

- **Volatile organic compounds (VOCs)** - sources include the burning of fuels, such as gas, wood and kerosene and are also in products such as perfume, cleaning agents and paints.
- **Toxic organic micro-pollutants (TOMPS)** - a range of chemicals produced by the incomplete combustion of fuels.
- **Lead and heavy metals** - small particles of heavy metals are emitted from industrial activities and mine tailings and are contained in fertilizers and pesticides, which are spread on crops.
- **Sulphur dioxide** - used as a preservative and antioxidant in foods and drinks.
- **Nitrogen oxides** - gases which contribute to the formation of smog and acid rain.

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In our modern times, there has been a significant increase in harmful PM in the air and it is difficult to study the effects of these tiny particles due to the lack of ultra-sensitive instruments required to identify and monitor them and their effects within the human body.

Not only has air pollution been linked to respiratory and cardiovascular disease, but now also cognitive and neuropsychiatric disorders.

A recent Chinese study measured the cognitive function of individuals at various times throughout their lives, using maths and verbal tests and matching the air quality data at the same times and geographic locations.<sup>3</sup> The conclusion was that long-term exposure to air pollution decreased verbal test scores. Furthermore, with increased age, this effect was more pronounced, particularly in men. This suggests that the cost of air pollution on health is greater, particularly in ageing brains.

### Air pollutants can be primary or secondary pollutants.

Primary air pollutants are emitted directly from the source and secondary pollutants form when pollutants react to one another in the atmosphere.

Volatile organic compounds (VOCs) are a source of air pollution. VOCs have been detected in fragranced consumer products, even in those listed as “green” or “organic”. Examples of such commonly used indoor products are wax, cleaners, disinfectants, cosmetics and hobby products. Exposure to fragranced products has been linked with a range of ill-health effects, including runny nose/eyes, migraines, asthma attacks, breathing difficulties and inflammation of the skin (contact dermatitis).

Scented products can contain dozens of different VOCs, including terpenes, which are primary pollutants and can react with ozone to generate secondary pollutants, such as formaldehyde and acetaldehyde.<sup>4</sup> The consequent ill-health effects lead to increased absenteeism and decreased productivity in the workplace.

While the range of ill-health effects from VOCs may sound minor, it is the cumulative exposure of these compounds and the risks to long-term health that is currently unknown.

In addition to scented products, many industrial pollutants can come from within our homes such as fire-retardants, paints,

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oils, carpets, plastics, paper (which contains formaldehyde) and many others. These can all be inhaled and contribute to ill-health.

The evidence keeps coming which shows that indoor air pollution is becoming increasingly common and further action is required.

### How to reduce your exposure:

- Use good quality air purifiers at home and at work.
- Ensure that there is good ventilation while cooking.
- Service cars regularly to prevent excessive exhaust smoke from developing, or consider a hybrid car.
- Try not to drive with windows open, particularly in cities and heavy traffic.
- Don't use air fresheners or scented cleaning products in the car or at home. Use natural or "eco-friendly" cleaning products.
- Avoid scented/perfumed toiletries.
- Consider planting trees outside and having houseplants inside, which can remove pollutants from the air. Spider plants are particularly useful indoors.
- Educate yourself and others about the effects of pollution and potential solutions.



## Studying city pollution

The Mexico City Metropolitan Area is an example of a heavily polluted environment, which has been the subject to many studies of the effects of air pollution on health.

Some studies have found:

- Chronic inflammation involving the nose, throat and lungs has been linked to air pollution and brain damage.
- Despite children living in smoke-free homes in Mexico City, they still had evidence of lung disease with reduced lung function in areas with high levels of pollution.
- Using MRI scans, 56 percent of children living in the Mexico City Metropolitan Area were found to have visible physical changes to the frontal region of their brain, which is linked to higher cognition, planning, personality and proper social behaviour. The study also observed similar brain lesions in 57 percent of exposed dogs, which suggests pollution to be the cause.
- Exposure to particulate matter has been linked to changes related to neurodegenerative diseases, such as Alzheimer's and Parkinson's.
- Blood tests indicated increased systemic inflammatory markers in people living and working in areas with increased exposures to particulate matter and other outdoor pollutants.

1. World Health Organization. 7 million premature deaths annually linked to air pollution. 2014 [Cited 2019 July 15]. Available from: <https://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>
2. Burnett R, Chen H, Szyszkowicz M, Fann N, Hubbell B, Pope CA 3rd, et al. Global estimates of mortality associated with long-term exposure to outdoor fine particulate matter. *Proc Natl Acad Sci U S A*. 2018;115:9592-7.
3. Zhang X, Chen X, Zhang X. The impact of exposure to air pollution on cognitive performance. *Proc Natl Acad Sci U S A*. 2018;115:9193-7.
4. Nazaroff WW, Weschler CJ. Cleaning products and air fresheners: exposure to primary and secondary air pollutants. *Atmos Environ*. 2004;38:2841-65.





## Feeding your child for a bright future

Gabrielle Hyland, Nutritional Therapist

**What we feed our children can influence their early mental, emotional & physical development. Nutritional therapist Gabrielle Hyland describes some of the dietary challenges parents must address to help their child develop optimally.**

A nutritious diet is vital for a child's weight gain, bone growth and development of a healthy immune system, and it is also essential for a child's ability to acquire language skills, memory and brain connectivity. The reasons a child may suffer from poor nutrition are varied.

### Allergy/sensitivity

The most common food allergies/sensitivities in children are cow's milk, eggs, peanuts, tree nuts, sesame seeds, soy and wheat. If these foods are eaten, symptoms may occur immediately, such as hives, eczema, cough, wheeze, runny or blocked nose, abdominal pains and diarrhoea. Intolerance symptoms, which take longer to appear, can be similar to those of allergy. Low-dose immunotherapy can help many patients tolerate more foods.

### Picky eating

Picky eating is often about rejecting foods because of their texture, flavour, colour, and ingredients. In many cases, it is an

overdeveloped sensory issue, but the consequences of a limited diet can be serious.

A case recently published in the *Annals of Internal Medicine* described a teenager who developed optic nerve damage and sight loss due to nutritional deficiencies. The adolescent confessed that since elementary school, he had avoided foods with certain textures and only ate chips, Pringles (processed crisp-like snacks, which contain rice, wheat, corn and potato flakes), white bread, processed ham slices and sausage.

Picky eating often develops because the child has not been exposed to a wide range of different foods. Fortunately many parents find that their child is willing to try previously rejected food when it is re-presented days or weeks later. Also, eating with family and friends is more likely to encourage a curious child to experiment with new foods.

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### Limited household diets

There is a growing trend towards veganism as an ethical diet choice. However, according to the Vegan Society, the nutrients most at risk in a vegan diet include vitamins A (retinol), B12, C, and D (D3 is the animal form), as well as calcium, iodine, iron, omega-3 essential fats and protein.

These are all vital nutrients for a growing and developing body's health and deficiencies can lead to chronic disease later in life.

Eating a low-fat diet is not recommended for children, as it has been shown that neurodevelopment (important for reading ability, social skills, memory, attention/focus) and cognitive abilities (essential for learning and problem solving) are enhanced by consuming DHA (an omega-3 fatty acid). Studies have found that a low intake of omega-3 has been associated with impaired emotion-processing in children with attention deficit hyperactivity disorder (ADHD).

### The diet for optimal development

If you'd like help to ensure that your child's diet is optimal for growth and development, book a consultation with one of our nutritional therapists to discuss your concerns

## RECOMMENDED RECIPE:

### Orange & chocolate squares

Rich, dark, gluten-, dairy- and sugar-free squares



## INGREDIENTS:

175g coconut oil	4 eggs
200g dark (sugar-free) chocolate	125g granulated xylitol or stevia
3 tsp prepared instant coffee	125g ground almonds
1 tsp orange oil or extract	125g shelled hemp seeds
	1 medium orange's zest

## METHOD:

1. Preheat oven to 170°C/160°C fan/Gas Mark 4 and grease a 20x20cm baking pan.
2. In a medium saucepan, melt the coconut oil gently over a very low heat.
3. Stir in the broken-up dark chocolate until melted, then mix in the instant coffee and orange oil/extract. Remove from heat and allow to cool.
4. In a separate bowl, whisk the eggs until light and fluffy, then fold in the xylitol or stevia, ground almonds, shelled hemp seeds and orange zest.
5. Gently fold in the cooled melted chocolate mix until just uniform in colour. (Try not to overmix to keep the eggs fluffy.)
6. Pour and evenly spread in the prepared baking pan and bake in the oven for about 20 minutes (or until cooked through).
7. Remove from oven and place on cooling rack at room temperature.

Keep covered in the fridge for up to 5 days. Can be frozen then defrosted before serving.



*Carers need support and guidance, too, & sometimes this can go unrecognised.*

## Carer support

# Finding help caring for someone

By Daniel Segal, Psychological Counsellor

**Caring for someone being treated for allergy or environmental illness can challenge the mental & physical health of the carer. Our psychological counsellor Daniel Segal writes about options available to carers to help them through the challenges.**

Behind many patients is a strong, battle-worn, exhausted, emotional and brave individual. These caring individuals can be parents, siblings, partners, friends or even children and each one of these people often needs to cry but has to smile and carry on.

Carers can push their boundaries and energies so far that they can become agitated, short fused and/or depressed. By burning the wick at both ends, they are risking the mental and physical health of a very important person: themselves.

These individuals need support and guidance, too, and sometimes this can go unrecognised. Without support, they begin to feel strained, alone and lost. Thankfully there is support available.

There are a number of types of therapy which

provide a choice when looking for one that will be useful to the situation and matches the individual's personality.

### **One-to-one talking therapy**

Some people enjoy talking whilst the therapist listens and others prefer a therapy that is goal based. Whichever talking therapy one chooses, it is important to feel that emotions, worries and concerns can be unloaded and to believe that it is possible to have better direction. We can all put a brave smile on for a while but that does not solve the pains behind it, which is what working with a therapist can do.

### **Group therapy**

Group therapy is talk therapy, too; however, instead of spending time alone with a therapist, one shares the therapy session with others

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who are having similar experiences. Group therapy can often help individuals feel stronger knowing that they are not the only ones having emotional thoughts, previously unimaginable challenges and unfamiliar experiences.

### **Boundaries & limitations**

For one's wellbeing, it is important that boundaries are put in place and limitations are outlined. These can be worked out in therapy sessions or can be worked on by the individual alone, which requires individuals to be honest with themselves about personal needs and requirements. Carers need to take a look at their reality and capabilities and be true to them.

However, most people are not very good with setting boundaries for themselves and probably even less able when they are caring for someone. A qualified and experienced professional can help in these situations, as they have experience discussing, analysing and helping to set an individual's boundaries and then helping to keep them in place.

For example, a carer may find that they are not getting sufficient sleep, which results in them not functioning at their best. Lack of sleep can cause fatigue and grumpiness and can weaken their immune system, causing ill health. To remedy the situation, an individualised sleep plan needs to be developed and maintained to ensure the recommended seven to nine hours of sleep is attained. To break the damaging cycle, it can be beneficial to outline limitations and ideals, which can then lead to a realistic plan to achieve objectives. Some people can devise such a plan on their own, while others may benefit with the help of a professional.

### **Me time or quality time**

De-stressing and re-grouping is good for one's physical and mental health. Many people ask themselves how they can have 'me time' when their loved ones are not well and they feel guilty at the thought of self-indulgence.

It is very important to get some 'me time' by doing something as simple as going for a scenic walk or spending time at a gym. It is during tough times that one needs to dig deep and do something different to feel stronger; completing a goal will feel good and return a feeling of worth.

### **Speaking to a friend**

Speaking to someone who cares will help to get thoughts out into the open. Will friends have all the answers? Realistically, probably not but that's not the point; the point is that maybe when getting thoughts out, helpful ideas may emerge or in answering questions and sharing experiences, it will be realised that one is doing one's best and that is a valuable thing.

### **Help is available**

If a carer or patient needs support, then please contact Breakspear Medical Reception to book an appointment with Daniel Segal.



### **About Daniel Segal, BA, MSc**

Daniel is a fully qualified and experienced psychological counsellor who can help build a programme for each individual person's needs.

He has been working with Breakspear Medical for nearly seven years.

Daniel completed his BA in Psychology and a MSc in Mental Health Counseling in New York, USA and has an Auxiliary Medication Administration Personnel (NY only). He is a member of the BACP (British Association for Counselling and Psychotherapy) and has a BACP Certificate of Proficiency.

# How I live with my chronic illness



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up by my mum for dinner and then go back to sleep until school the next day.

At age 17, I had a skiing accident in Austria and, despite wearing a helmet, I had a severe head injury, which put me unconscious for days. For weeks afterward, I couldn't read, write or watch television because every time I moved, the whole world would spin around. Ever since then I have had a lot of neurological symptoms, which have severely impacted my quality of life.

That same year, I was involved in a car crash and injured my neck, back and knee, which affected my mobility. Despite seeing a chiropractor and physiotherapist, I developed chronic pain and fibromyalgia not long after that.

In my early 20s, I had developed multiple chemical sensitivity (MCS) where I experienced symptoms such as headaches, nausea, fatigue, muscle pain, chest pain and dizziness when I was exposed to chemicals such as cigarette smoke, perfume/aftershave, shampoo, conditioner and petrol or diesel fumes. It was to the point that I couldn't have other people in the house who wore any chemicals and I couldn't leave the house without wearing a mask.

I was stumbling through university part-time studying fashion communications, which

involved journalism, marketing, branding and social media. However, I ended up leaving after the second year because my health deteriorated so much that I needed a wheelchair and eventually I could no longer get out of bed.

By age 23, I was totally bedridden with paralysis of the arms and legs. The only time I moved from my bed was once every two weeks when my mum carried me to the bathroom to bathe me, change my pyjamas then put me back in bed. At that time, I lived in total darkness and silence as I couldn't tolerate any light or noise. I was spoon-fed pureed food as I didn't even have enough energy to chew.

By this time I had been to hundreds of GP appointments and referrals and been to all sorts of NHS specialists. I even had an inpatient stay on a stroke ward to try and find out why I had so little energy.

## **I was 23 years old and couldn't move, walk or talk.**

Eventually I was diagnosed with myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) by an immunologist. I already knew I was fatigued so at the time, I felt that was a pointless diagnosis! The only help I was offered was psychotherapy; I was told that after this talking therapy, I would be fully functioning

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within a year. I did not understand how speaking was going to make me better when this was a physical illness and I actually didn't have the energy to talk anyway.

Thankfully not long after that diagnosis, we found Breakspear Medical through recommendations of friends and googling treatment for ME/CFS.

After years and years of suffering, I finally had pathology test results that found multiple different causes of my symptoms. I had Lyme disease and Epstein Barr virus (EBV), as well as parasites, mycotoxins from mould exposure and multiple vitamin and mineral deficiencies plus missing or faulty genes.

At Breakspear Medical, each of my conditions were addressed in my treatment plan. One of the main treatments I have is Low-dose Immunotherapy (LDI), which has helped with my MCS and food sensitivities. The LDI treatment means that I can leave the house without a mask and have family and friends come to visit me at home. While I do still suffer with some symptoms, it is not anywhere near as bad as it used to be.

There is a huge misconception with sensitivities; people believe sensitive people just dislike the smells of items but it's so much more than that! Exposure can leave us very sick for days. I now live a totally chemical-free and toxin-free life in my own home and use social media to encourage others to do the same. Not only can chemicals cause acute sensitivity, like mine, but many are also toxic so can

contribute to chronic illness when they accumulate within the body over long periods of time.

Over the last three years, I've improved so much with various treatments for all of my conditions. I now live independently and have just started to work again from home a few hours per week. I'm doing social media for small businesses and offering consultations in branding, marketing and social media to help small businesses grow.

I use my own social media platforms to raise awareness and advocate and help others with chronic illness. I also attend charity events speaking about my experience with chronic illness as well as host social media workshops to help support the local community to grow their businesses online.

It's important to know that I'm not fully recovered and I still feel unwell but I am definitely on the right track and have made life changing improvements, which I wouldn't have done without Breakspear Medical.

It's essential for things to change within the medical community to help people like me. If my ill health hadn't been dismissed for so many years, I would never have become as sick as I did. Early diagnosis is crucial for a quicker and easier recovery. This also means better tests are needed to diagnose the actual causes of why people are living with fatigue and/or MCS. It doesn't just happen without reason!



## I'm raising awareness

Not everyone can afford private treatment, which is why I share what I can on social media to raise awareness and help others.

**It's so important to talk about it!**

You can follow me on Instagram (@emmabloudevoyage) or Facebook (Emma Franklin) or if you want to read more about the treatments I've done, I write a blog about my journey: [blondevoyage.org](http://blondevoyage.org)





In less than 3 minutes, you can help

## educate the world about Environmental Medicine

1. Visit [surveymonkey.co.uk/r/23TXMD5](https://surveymonkey.co.uk/r/23TXMD5)
2. Complete our short survey about the Environmental Medicine issues that concern you most and submit before 28 February 2020.

*(That's all you have to do.)*

The results of the survey will help guide the Environmental Medicine Foundation's new initiative to create educational videos, which will be available free on our new website (to be launched in 2020) for anyone to view.

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## Our very best wishes for Christmas & the New Year!

### Breakspear Medical's Christmas hours

Breakspear Medical will be closing for the holidays in the afternoon of Tuesday 24 December 2019 and re-open at 9:00am on Thursday 2 January 2020.

Please be aware that for guaranteed delivery before Christmas:

- LDI (antigen) vaccine orders must be placed by Monday 9 December 2019
- Pharmacy orders must be made before Wednesday 19 December 2019 (UK destinations only)
- Pathology kits and blood samples to be sent to laboratories should arrive at Breakspear Medical by 2:00pm on Wednesday 18 December 2019

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