

Factors Affecting Atopy, Possible Prevention and Treatment

Atopy is the inherited tendency to develop the classic allergic diseases -- atopic dermatitis (eczema), allergic rhinitis (hay fever), and asthma, also referred to as the allergic triad. Atopic predisposition or family history of atopy can be defined as at least one parent or older sibling with this condition. Atopy involves the capacity to produce immunoglobulin E or IgE (a type of protein in blood plasma that acts as an antibody to activate allergic reaction) in response to common environmental proteins such as house dust mites, pollen, pets, cigarette smoke and other environmental toxins and food allergens, such as peanuts. IgE antibodies are found in the lungs, skin, and mucous membranes. They are associated mainly with allergic reactions and parasitic infections. "Allergy, in whatever guise, is fundamentally an immune disease, a manifestation of a hyper-reactive immune system."ⁱ

"Asthma is the most common chronic disease affecting children and, with the related atopic disorders of eczema and allergic rhinitis, constituted a third of all chronic disorders even 30 years ago"! The health care burden on communities is staggering. However, by comparison to research into cancer, cardio vascular disease and AIDS, the resources put into these diseases are comparatively small. Yet there is no doubt in the medical community that these diseases are increasingly common. Some studies are showing a yearly increase of up to 1%. "The British ISAAC figures (International Study of Asthma and Allergies in Childhood) from 1996 gave a prevalence of hay fever and eczema in the previous 12 months of 18.2% and 16.4% respectively. These unprecedented increases in prevalence could be classified as an epidemic."ⁱⁱ

What causes atopy and what factors are involved in developing these conditions?

It has recently been discovered that the transmission of atopy is detectable only through the maternal line.ⁱⁱⁱ Another study concludes that the risk of developing

atopic dermatitis (3%), or atopy in general (7%), "increases by a factor of two with each first-degree family member already suffering from atopy".^{iv}

However, it has been shown that although atopy can remain the same in a population, the incidence of atopy is increasing in certain populations.

How can this be explained? Why might some people develop atopy and others with the inherited trait do not?

The following factors have been shown to increase the likelihood of developing atopy:

- 1. *Caesarean delivery*** may have an impact on the development of atopy because of its gut flora modulating properties. Caesarean delivery may be an additional risk factor for wheezing and allergic sensitization at least to food allergens up to the age of 2 years. This should be considered when caesarean section is done for other than medical reasons.^v Also, "babies born vaginally have a lower risk of respiratory problems. It is widely accepted that the contractions of labour help prepare the baby's lungs to breathe air. Babies born by caesarean section have a higher risk of respiratory distress syndrome than babies born vaginally at the same gestational age. Adults with asthma are more likely to have been delivered by caesarean section compared with adults without asthma."^{vi}
- 2. *Food intolerances and dietary factors*:** Food intolerances are caused by incomplete digestion and a leaky gut. An inflamed gut wall can allow particles to get from the digestive tract into the bloodstream. These form circulating immune complexes which lodge in organs and tissues and attract macrophages. Unlike a true food allergy, such as one to peanuts or shellfish, a food intolerance is not an IgE mediated reaction, and so not an atopic condition. However, this chronic intestinal inflammation can overload an otherwise healthy body and exacerbate atopic conditions. Some people have

diminished reactions if the offending foods are avoided and their gut is allowed to heal.

Numerous studies have shown that “breastfeeding is prophylactic against atopy including atopic eczema, food allergy, and respiratory allergy—throughout childhood and adolescence.”^{vii} The fact that breastfed children are significantly less likely to develop atopy suggests that traditional cow milk formulas may be causing a food intolerance and possible gut flora damage from infancy. Although this is not the cause of atopy, it may make the child more susceptible. We also know that colostrum and breastmilk provide protection against a variety of diseases as well as the common cold. Healthier, more robust children are also less likely to develop asthma and allergies.

Nutrition may play a role in increasing the risk of allergies. One hypothesis “is that the increase in prevalence of allergic diseases is inversely related to the decrease in dietary antioxidant intake in communities”. Studies have also “shown associations between consumption of oily fish and reduced risk of asthma”^{viii}, but there are no studies which have followed atopically predisposed families for a generation or more to explain the link, if there is one, between nutrition and whether or not atopy can be entirely prevented. It seems that “once the atopic process has started, no nutritional strategies have been found to be effective as secondary or tertiary preventive measures”.^{ix}

On a more positive note, the development of some atopy can be influenced in-utero according to a study of 120 pregnant women with a history of a previous child with atopy. One group of women was given dietary advice with “almost complete exclusion of milk and dairy products, egg, fish, beef and peanut” for the period of pregnancy and lactation. The study showed that the children of the women on the antigen avoidance diet were significantly less

likely to develop atopic eczema as infants, especially those who were breastfed. "Avoidance of common dietary allergens during pregnancy and lactation enhanced the preventive beneficial effect of exclusive breast feeding on the incidence of atopic eczema among infants at high risk."^x

Giving the child (or breastfeeding mother) probiotics has been shown to alleviate and/or delay the onset of atopy. "With allergic disease on the rise, probiotics have the potential to positively impact atopic dermatitis, asthma, and allergic rhinitis. The lactobacillus rhamnosis strain (LGG) has been shown to decrease the severity and delay the onset of atopic dermatitis."^{xi}

Atopic dermatitis specifically can be caused by food additives, dyes and preservatives. The most common eczema-causing food additives are tartrazine, sodium benzoate, sodium glutamate and sodium metabisulphite, but food allergy which presents as atopy can be caused by any of the following:

- A complete food such as milk, soya, carrot, egg, pork, wheat, mushroom, chicken, apple.
- A naturally occurring chemical such as: Salicylate in many herbs, fruit and vegetables; tyramine in aged meat, cheeses and wine; purines in protein foods.
- An added ingredient that does not occur naturally in food - such as a preservative, colouring, flavour or artificial sweetener.
- In a complex food, i.e. any processed food, you could be sensitive to any one of the ingredients. For example, in bread it is possible to react to wheat, preservatives, yeast, or bleaching agents. The simple truth is that any reaction, including the skin conditions known as eczema and dermatitis, can be provoked by any food.^{xii}

3. Environmental factors

Numerous studies have shown that children raised on a farm or in very rural conditions are less prone to atopy.^{xiii} The "hygiene hypothesis" is considered one of the greatest factors as children who are exposed to natural infection in childhood (vaccines are not considered "natural") tend to have a lower incidence of atopy. First born children tend to suffer more than their siblings and children in nursery or day care from a young age suffer less, as these children are exposed to more viruses and bacteria. This may partly explain why the more affluent the community, the greater the number of atopy in the population.^{xiv}

As part of the hygiene hypothesis, studies have shown that "living in mould-infested rooms, an urban living environment and a smoking mother and/or father were associated with the risk of asthma." Pollution, as a cause of atopy in general, however, is still debatable. Although it can aggravate atopy, in one study children in more polluted East German cities were less likely to develop asthma and allergy than in the cleaner West German cities.^{xv}

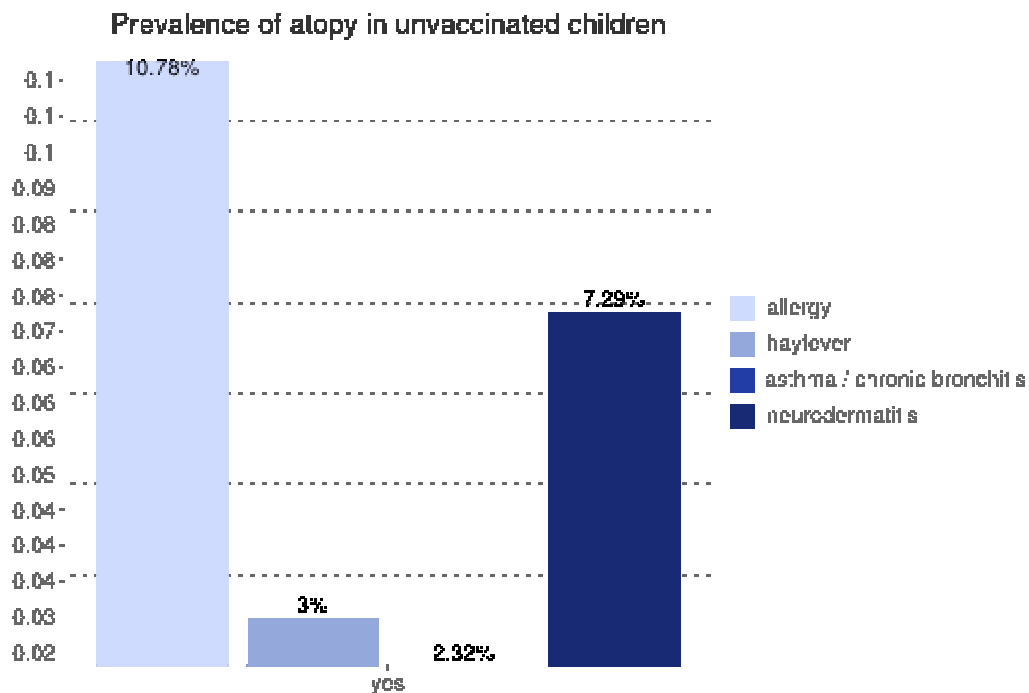
That said, air pollution, ozone levels, pollution in the home and chemicals of all types will exacerbate all forms of atopy even if they are not the original cause. Living in the Thames Valley just miles from the Didcot Power Station, our hayfever, eczema and asthmatic conditions are as bad or worse than when we lived in New York City. Although we live in a suburban, nearly rural area, the Thames Valley is known for a higher incidence of respiratory diseases.

Pet allergies and dust mites are also factors which contribute to the incidence of atopy. It is unclear, however, if it is beneficial to children in atopic families to be raised with or without pets from a young age. Several studies have been

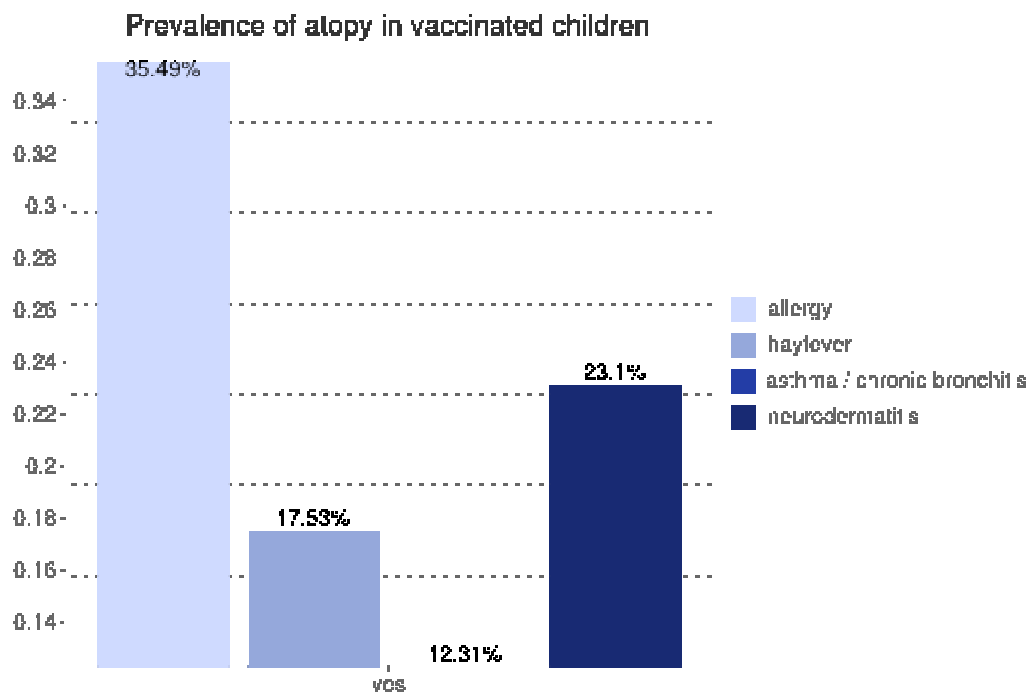
conducted, but there is a lack of consensus regarding the influence of household pets on the development of allergies in childhood. ^{xvi}

4. Vaccination

Although very few studies have been conducted comparing vaccinated and un- (or partially) vaccinated children, one survey of over 11,500 unvaccinated children by the naturopath (Heilpraktiker) and homeopath Andreas Bachmair (www.vaccineinjury.info) has shown that there is a significantly lower incidence of atopy among unvaccinated children as shown in the tables below.



Bachmair also surveyed about 1,500 vaccinated children and the results of the study show that these children do have a much higher incidence of atopy. If you compare his two studies, one sees that vaccinated children are at least 3 times as likely to have a form of atopy than unvaccinated children.



The participants in this study were primarily from English and German speaking countries with the greatest number coming from the United States. The majority of unvaccinated children were aged 2 and younger while the vaccinated majority were 11-12 years of age. Although the rate of breastfeeding was about 6 months or longer in both groups, the unvaccinated children were breastfed for longer. The unvaccinated children were also more often treated with alternative medicine than the vaccinated group. Unfortunately, Bachmair's study is not detailed enough to take into account the rate of caesarean section, the child's living conditions and the child's and mother's diet. However, it definitely calls for more research.

In general, the more affluent the community, the more likely the child will be to have been fully vaccinated. It is becoming increasingly difficult to conduct such studies as in the Western world certainly the uptake of vaccinations is close to 100%. Since vaccines were first introduced in the 19th century, the

average child entering school now receives vaccines for about 14 different diseases. Is it simply a coincidence that the incidence of atopy has now reached epidemic proportions? Do vaccines play a role in protecting children from diseases that were once common and easily overcome in the healthy child, but therefore expose them to lifelong illnesses such as asthma, skin problem, hayfever and possibly much more severe autoimmune diseases?

According to a study by the World Allergy Organization, early exposure to infections offers protection. "For example, recovery from natural measles infection reduces the incidence of atopy and allergic responses to house dust mites to half that seen in vaccinated children."^{xvii}

One study is currently being conducted by "KIGGS" (Studie zur Gesundheit von Kindern und Jugendliche in Deutschland) on the overall health of 17,000 children and adolescents through the Robert Koch Institute in Germany. This study was conducted over a three year period and the full results should be available in 2013. "According to the KIGGS study more than 40% of children between the ages of 3 and 17 years were sensitized against at least one allergen tested (20 common allergens were tested) and 22.9% had an allergic disease. Although we did not perform a blood test, around 10% stated that their children had an allergy."^{xviii} If you compare this large study to Bachmair's study, it is clear that there is a substantial difference in the vaccinated and non-vaccinated population.

The vaccine connection has always been of personal interest to our family as both sides suffer from a variety of atopy. Our children were breastfed for at least 18 months each and are entirely unvaccinated. They were born vaginally, have had little to no antibiotics and eat a healthy, organic diet. Until recently I did not investigate food intolerances and so our children were

raised on dairy, meat, eggs, wheat, etc. like the majority of the Western population.

For this dissertation, I had hoped to find a group of unvaccinated children to do a comparison study with vaccinated/unvaccinated people and the incidence of atopy. However, 90% of my responses were of fully vaccinated children. Only our family has 3 unvaccinated children and a strong family history of atopy in the parents and grandparents, but all three children have not developed any atopy (and they are now 8, 14 and 16 years of age). The other unvaccinated families (or those only vaccinating against one disease) do not have a history of atopy. One family with a history of atopy vaccinated their children after the age of 13 months and these two children are, according to the mother's report, significantly healthier than their peers and have no atopy (11 and 14 years of age). Another family with two only partially vaccinated children found that the child with fewer vaccines has no atopy; her brother, breastfed for 18 months (*versus only three*) has asthma and allergies. This family feels that the vaccines were the direct cause of the condition as they appeared shortly after immunizing.

The data I have collected from over 20 families predisposed to atopy clearly shows that the longer a child was breastfed, the less incidence or severity of atopy. However, these vaccinated children still developed asthma, allergies and eczema even in families that placed the child on an anti-allergen diet from infancy.

Conventional medicine would consider the above studies and reports "anecdotal", and claim that not enough research has been done to substantiate any changes in the vaccine policy. Yet they are not asking for or supporting such research to be conducted.

5. Emotional or psychological issues

Although probably not a direct cause of developing atopy, psychosomatic issues including emotional trauma and stress can trigger asthma, allergies and dermatitis. Few studies of the emotional state of children presenting with atopy have been conducted, but it is common belief among holistic practitioners that particularly the mother-child relationship plays a role in these diseases. This can even begin in-utero: "Mother's stress during pregnancy can also influence the baby's developing immune system." This study in Boston "found increased levels of IgE expression in cord blood among infants whose mothers experienced higher level stress even when exposed to relatively low levels of dust mite during pregnancy. This indicates that mother's stress during pregnancy magnified the effect of dust exposure on the child's immune system such that the child's immune response at birth may be altered even with lower levels of dust exposure in the home. The results held true regardless of the mother's race, class, education or smoking history. This further supports the notion that stress can be thought of as a social pollutant that, when 'breathed' into the body, may influence the body's immune response similar to the effects of physical pollutants like allergens, thus adding to their effects."^{xix}

It could be argued that over the past few generations the overall stress levels in families have increased. More families have two working parents; children spend more time in day care or in after-school activities, and the pressure is greater to perform academically from a young age.

In my own experience, stress, particularly when related to an issue with a family member, can easily trigger an asthmatic episode. Thinking about asthma or an asthma trigger or simply forgetting medication at home can as

well. According to Dr. Stanley Levenstein of The International Child and Youth Care Network,

"The various organs of the body which are not under voluntary control, are especially sensitive to changes in the individual's emotional state. The reason for the lack of voluntary control over these activities is that the organs concerned receive their nerve supply from a part of the nervous system known as the "autonomic" nervous system which regulates all involuntary bodily functions. The autonomic nervous system is under the control of a part of the brain known as the hypothalamus, which in turn is very sensitive to any changes that may affect the individual's emotional equilibrium. The autonomic nervous system is intended to help maintain the effective functioning of the body as a whole, but in cases of psycho-somatic illness, the nature of the stresses and the nervous responses to them produce a pathological reaction.

It is not only the autonomic nervous system which plays a part in the production of psycho-somatic disorders. Hormones such as cortisone, thyroid hormone and insulin, which are produced by various glands in the body and secreted directly into the bloodstream, play an important part in the development of psychosomatic disorders. The endocrine glands, which produce these hormones, also receive their nerve supply from the autonomic nervous system and are therefore influenced by, and in turn influence, the individual's emotional state. The activity of the endocrine glands is also regulated by the hypothalamus which has been described as 'the conductor of the endocrine orchestra'.

It can thus be seen that there is the most intimate connection between the individual's emotional state and the functioning of his or her body. This interconnectedness is so great that many people have argued that the term "psycho-somatic" is an artificial one, implying as it does a separation between the functioning of the psycho and the soma. In fact it is increasingly being shown that there is an

interplay between psychic and somatic factors in virtually all "physical" illnesses and not only in "psycho-somatic" disorders."^{xx}

The contributing factors outlined above are possible factors affecting the incidence of atopy. It seems that scientifically, there is no solid evidence on how to prevent these diseases from developing entirely in atopic families, though there are many questions which still need answering!

What can you do to prevent or delay the occurrence of atopy in your family?

1. Both parents should complete an avoidance and challenge diet before conception in order to identify possible triggers within the family. These foods should then be avoided by the mother during pregnancy and lactation. The infant would benefit from exclusive breastfeeding for at least 4 – 6 months with the gradual introduction of solids. Any allergenic foods, specifically those the parents are allergic to, should be avoided entirely for at least the first 12 months. Gluten and cow's milk products should be avoided for the first year in all children predisposed to atopy as well as by the breastfeeding mother. This is meant to deal with food intolerances and not food allergies. Never challenge yourself with foods that you know you are allergic to such as nuts or shellfish!
2. A vaginal birth is preferable to a caesarean birth.
3. I would carefully consider when and for which diseases to vaccinate the child. An exclusively breastfed infant is immune to many diseases and perhaps it is wiser to delay vaccination in predisposed children.

4. The child's diet should be well-balanced with plenty of antioxidants and oily fish. Probiotics should be part of the child's and/or breastfeeding mother's diet. Food additives, dyes and preservatives should be avoided.
5. Naturally the child would benefit from living in a smoke-free home, and one in which chemicals are used minimally, if at all. The bedding should be as free of dust mites as possible and any mould or damp issues immediately rectified. The child should be allowed to "play in the dirt" and not be subjected to a clinically clean household scrubbed with anti-bacterial products. Although not always possible, a more rural environment is better than an urban one.
6. Stress is an unfortunate part of life and often very hard to avoid. However, with the right lifestyle choices, a more relaxing environment can be achieved. If the parents are easily affected by stress, they could try some of the solutions outlined below preferably before conception.
7. Avoid unnecessary antibiotics. Doctors still routinely prescribe needless antibiotics. Overuse damages the bacterial balance in the intestines. This can cause the intestine to become inflamed and dysfunctional which is often the cause of food intolerances. If in doubt about whether they are truly necessary, ask for a second opinion.^{xxi}

How is atopy diagnosed and treated?

1. Medical Diagnosis:

- a) **Atopic dermatitis** (AD) is a chronic, relapsing inflammatory disease of the skin associated with significant pruritus (itch). AD is often the beginning of the atopic march, leading to subsequent aeroallergen sensitization and development of allergic rhinitis and asthma. Approximately 75% of patients with AD will go on to develop allergic rhinitis and more than 50% will develop asthma.^{xxii} This is generally easily diagnosed. The patient will

have itchy rashes which may appear red, scaly, crusted and sometimes weepy. These episodes may come and go depending on the season and other factors (see above). Skin tests may be conducted, but are usually unnecessary especially if any atopy occurs in other family members.

- b) **Atopic Rhinitis** results from allergic inflammation in the upper airways after allergen exposure. Symptoms of allergic rhinitis include rhinorrhea, nasal congestion, pruritus, and sneezing and can be associated with ocular allergy symptoms. Symptoms can be predominantly perennial or seasonal, depending on the allergens to which the individual is sensitized.^{xxiii}

- c) **Atopic asthma** is more difficult to diagnose as it can present as a respiratory tract infection. Asthma is defined as a "disorder characterized by reversible airway obstruction, airway hyperresponsiveness, and chronic airway inflammation. Early atopic wheezers developed wheezing before 3 years of age, developed early aeroallergen sensitization, had the highest levels of IgE, and, most importantly, demonstrated the lowest level of lung function at 6 and 11 years of age. Late atopic wheezers became symptomatic after 3 years of age, demonstrated aeroallergen sensitization by 6 years of age, and had less severe deficits in lung function when compared with the early atopic wheezers."^{xxiv}

2. Conventional Treatments

- a) **Atopic Dermatitis:** The most important components of treatment for AD are hydration of the skin, prevention of scratching, and application of topical anti-inflammatories (corticosteroids) or immunomodulators (tacrolimus or pimecrolimus). Occasionally antihistamines are prescribed.

- b) **Allergic Rhinitis:** This form of atopy is treated with nasal steroids, oral anti-histamines, topical antihistamines, and decongestants. Immunotherapy is now sometimes used for hayfever patients to desensitize them to the allergen.
- c) **Atopic Asthma:** Asthma is a life threatening disease and in severe cases needs immediate attention. Generally, the daily intake of inhaled bronchodilators (ie salbutamol) is part of the routine of an asthmatic; in moderate to acute cases an inhaled corticosteroid is given regularly. In severe cases, the patient is admitted to hospital and oxygen is administered often with an oral steroid such as prednisolone. The treatment for this disease has not significantly changed over the years, but the exact treatment is beyond the scope of this paper.

3. Nutritional Treatments

As previously discussed, all patients with atopy should undergo an avoidance and challenge diet to either rule out food intolerances or to alleviate the symptoms of atopy by avoiding the offending food. This would be the first course of treatment for all three diseases.

Secondly, it is crucial to ensure that the patient has a well rounded, balanced diet with plenty of anti-inflammatory foods, five or more portions of fruit and vegetables, plenty of oily fish, wholegrains and water. Seed oils should be replaced as much as possible with healthier oils such as olive oil and coconut oil.

Also consider supplementing with N-acetyl-cysteine and alpha-lipoic acid, two nutrients which help boost glutathione levels in the body. According to Jimmy Gutman, MD, GACEP, in his book GSH, The Body's Most Powerful Protector, "There is a direct correspondence between low glutathione levels and the severity of the asthma attack."^{xxv} Glutathione is a key protective molecule of the immune system and low levels are routinely found in people with disease and the elderly.

As many people are deficient in Vitamin D, it should be considered to give 2,000 IUs Vitamin D3 to atopic patients, especially those who avoid sunlight. (All vitamin and mineral recommendation units cited here are for adults only.)

Conventional medicine can rob the body of nutrients or make them less bioavailable. If the following drugs are used, you may need to increase the intake of certain vitamins and minerals preferably through food intake, though in many cases it is difficult to get it through food alone:

Corticosteroids: calcium, folate, magnesium, potassium, selenium, Vitamin C and D as well as zinc and probiotics

Breathing medications such as Flonase and Flovent – these deplete folic acid, most minerals and iodine

Bronchodilators: magnesium, calcium, potassium, B6, B1

Antihistamines: Atarax and Vistaril – Melatonin^{xxvi}

Specific nutritional recommendations for the following diseases:

- a) **Atopic Dermatitis** – in this case, there may be a deficiency particularly of EFAs, Zinc and Vitamin A. Supplements of fish oil, cod liver oil, primrose oil (6000 mg/day), zinc (15mg) and probiotics should be taken daily. As already discussed, infants should be breastfed and gluten (and any other known allergens) should be avoided also by the mother. In older children and adults, gluten and dairy should be avoided at least for several months regardless of the outcome of the avoidance diet. If food testing does not identify a trigger, then an anti-dysbiosis treatment is recommended.

- b) **Allergic Rhinitis** – A diet high in magnesium and methionine-rich foods such as nuts and seeds, oats and leafy greens is crucial. Foods containing quercetin, a flavonoid with anti-inflammatory action, such as cabbage, onions and apple

peel are particularly helpful. High doses of Vitamin C (at least 1,000 mg/daily), calcium, magnesium with flavonoids (1g/day), methionine and quercetin in supplement form may also be necessary for a time. Bee pollen and/or local honey are helpful for some people if started before the hayfever season. It is best to start with the diet and add other treatments later to see which is the most helpful.

c) Atopic Asthma – Here again a diet high in magnesium is necessary. I personally have had obvious flare-ups if I stop taking it in supplement form even for a few days. Once a food intolerance test is done, usually an anti-dysbiosis treatment (especially if the patient has been treated with antibiotics frequently) is necessary. This can start with anti-microbial foods such as raw garlic, teas and spices before the commercial products are added. As with rhinitis, Vitamin C (at least 1 g/day) with flavonoids is a must. Selenium (from brazil nuts or as a supplement) is also important. Turmeric is anti-inflammatory and will boost glutathione levels as will cruciferous vegetables. Lycopene, the antioxidant in tomatoes, helps reduce symptoms in exercise induced asthma and 30mg/day are recommended.

4. Other non-medical treatments

a) Atopic Dermatitis

From personal experience, the symptoms of these skin problems can be alleviated at least in part by the following *topical solutions*:

- A gentle scrub made with Himalayan salt and oil (i.e. olive or almond oil)
- A bath soak made of Himalayan salt or dried oats/oatmeal
- A cream, ointment or oil made of the following herbs: chickweed, plantain (ribwort), and either olive oil, vitamin E, Omega-3 fatty acid. (A simple oil made with crushed plantain and chickweed and put on the

affected area cured my daughter's spreading skin rash (probably an allergic reaction to rubber shoes) within a few days.)

- A cream or lotion containing zinc, colloidal silver and primrose oil; With regards to the colloidal silver, I have not been able to find any research showing its efficacy with regards to eczema, but anecdotally it works. Silver is a known anti-microbial, anti-fungal agent.

Sun exposure, directly on the affected skin as long as possible without causing sunburn, has also been shown to be effective. If this is not possible, UVB phototherapy lamps can provide a similar effect.

b) Allergic rhinitis

- *Removal of anything that exacerbates the problem* such as pet dander/hair, dust mites, etc.
- *Herbal remedies* – as with all forms of atopy, anti-inflammatory herbs are helpful (see below for examples).
- *Homeopathic remedies* – There are several different remedies that can be helpful depending on the exact symptoms. A combination to suit each individual can be made up specifically by a homeopathic pharmacy such as Helios.
- *Petroleum jelly* inside the nose at the start of the day can offer some protection to the mucous membranes
- *Bee Pollen* – eating bee pollen or locally sourced honey may offer some alleviation of symptoms. However, some people are actually allergic to bee pollen, so this is quite controversial. Children under one year should be not be given honey.

c) Atopic Asthma

- *Avoid taking paracetamol* as it depletes glutathione and thereby increases the likelihood of more severe asthma.
- As with rhinitis, if at all possible *the allergen must be removed* whether it is a case of dust mites, pets, etc. and in many cases, it is a combination of several.
- *Herbs that are helpful:*

Nettle leaf, eyebright, plantain (ribwort), chickweed, elderflower and chamomile and any anti-inflammatory herbs such as ephedra, meadowsweet or liquorice (these may need to be administered by a qualified practitioner!). These can be made into a tea or taken as a tincture and used for all forms of atopy.

Valerian – particularly in the case of stress-induced asthma.

Cramp bark – to relax the chest muscles during asthmatic episodes

Elderberry – as it is extremely high in vitamin C and quercetin

- *Neuro-linguistic Programming (NLP)* - a method of influencing brain behaviour through the use of language and other types of communication to enable a person to "recode" the way the brain responds to stimuli and manifest new and better behaviours.

As asthma episodes (and quite likely eczema) can often be triggered psycho-somatically, NLP may be able to reprogram the mind, thereby eliminating asthmatic situations caused by external stressors.

- *Acupuncture* – From personal experience, asthma can be relieved by classical acupuncture. Medically speaking, this is still considered

controversial, but further studies are being conducted. Some acupuncturists also use Chinese herbs, and I have found that these greatly reduce symptoms and address many of the underlying causes. Even applying pressure to certain points in the body, similar to acupuncture, can alleviate the immediate spasms until medical help can be summoned.

- *Sport* – According to the journal of immunology, “Recent reports indicate that aerobic exercise improves the overall physical fitness and health of asthmatic patients... Potential exists, therefore, for the amelioration of asthma-associated chronic airway inflammation through the use of aerobic exercise training as a non-drug therapeutic modality.”^{xxvii}

It is clear that atopy is a problem affecting many millions of families from different cultures around the world. However, with the existing research, families can attempt to prevent or lessen the severity of asthma, rhinitis and eczema from before conception. With a healthy diet, extensive breastfeeding and generally a well-balanced lifestyle at least some of the symptoms can be avoided. Still, much more research needs to be conducted into the cause of this epidemic in order to find sure solutions that are not inflicting other ailments, which unfortunately conventional medicine often does. Nutritional naturopathy can alleviate many of the symptoms and help the client to live a fuller, healthier life possibly by reducing the dependence on conventional drugs.

ⁱ Herbs to Combat the Allergic Triad, Discovering Herbal Medicine, May 2007

ⁱⁱ *Thorax* 1999;54(Suppl 2):S46–S51 Worldwide variations in the prevalence of atopic symptoms: what does it all mean?

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ⁱⁱⁱ Maternal inheritance of atopic IgE responsiveness on chromosome 11 q^a Nuffield Department of Medicine, John Radcliffe Hospital, Oxford OX3 9DU, UK

^{iv} Küster, W.; W. Küster, M. Petersen, E. Christophers, M. Goos and W. Sterry (December 12, 2004). "A family study of atopic dermatitis". *Archives of Dermatological Research* (Springer Berlin / Heidelberg) 282 (2 / January, 1990): 98–102. doi:10.1007/BF00493466.

^v *Pediatr Allergy Immunol.* 2004 Feb;15(1):48-54. Mode of delivery and development of atopic disease during the first 2 years of life. Negele K, Heinrich J, Borte M, von Berg A, Schaaf B, Lehmann I, Wichmann HE, Bolte G; LISA Study Group. GSF National Research Center for Environment and Health, Institute of Epidemiology, Ingolstaedter Landstrasse 1, 85764 Neuherberg, Germany.

^{vi} A Guide to Effective Care in Pregnancy & Childbirth, Second Edition, by Murray Enkin, Marc JNC Keirse, Mary Renfrew and James Neilson, Oxford University Press, 1996, p287 AIMS Occasional Paper 'Risks of Caesarean Section - research papers' compiled by Beverley Beech, Association for Improvements in the Maternity Services, p2

^{vii} Children's Hospital and Hospital of Allergic Diseases, University of Helsinki, Helsinki, Finland, U.M Saarinen, MD 🇫🇮, M Kajosaari, MD

^{viii} *Thorax* 1999;54(Suppl 2):S46–S51 Worldwide variations in the prevalence of atopic symptoms: what does it all mean?

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^{ix} *Allergol Immunopathol (Madr).* 2012 Jul-Aug;40(4):244-52. Epub 2012 Mar 15. Diet for the prevention of asthma and allergies in early childhood: much ado about something? [Torres-Borrego J](#), [Moreno-Solís G](#), [Molina-Terán AB](#) Pediatric Allergy and Pneumology Unit, Pediatrics Clinical Management Unit, Reina Sofía Children's University Hospital, Córdoba, Spain

^x CHANDRA, R. K., PURI, S., SURAIYA, C. and CHEEMA, P. S. (1986), Influence of maternal food antigen avoidance during pregnancy and lactation on incidence of atopic eczema in infants. *Clinical & Experimental Allergy*, 16: 563–569. doi: 10.1111/j.1365-2222.1986.tb01995.

^{xi} Probiotics in the management of children with allergy and other disorders of intestinal inflammation. [Vanderhoof JA](#), [Mitmesser SH](#). Department of Medical Affairs, Mead Johnson Nutrition, 2400 W. Lloyd Expressway, Evansville, IN 47721, USA.

^{xii} <http://www.talkeczema.com/>

^{xiii} Relative Scarcity of Asthma and Atopy among Rural Adolescents Raised on a Farm PIERRE ERNST and YVON CORMIER Received August 27, 1999. © 2000 The American Thoracic Society

^{xiv} *Thorax* 1999;54(Suppl 2):S46–S51

Worldwide variations in the prevalence of atopic symptoms: what does it all mean?

J O Warner University of Southampton/Southampton General Hospital, Southampton, Hampshire, UK

^{xv} *Pediatr Allergy Immunol.* 2012 Aug 13. doi: 10.1111/j.1399-3038.2012.01342.x. [Epub ahead of print] Prevalence and risk factors of atopic diseases in German children and adolescents. Schmitz R, Atzpodien K, Schlaud M. Department of Epidemiology and Health Reporting, Robert Koch Institute, Berlin, Germany.

^{xvi} Exposure to pets and the risk of allergic symptoms during the first 2 years of life. [Pohlabeln H](#), [Jacobs S](#), [Böhm J](#). Bremen Institute for Prevention Research and Social Medicine, Bremen, Germany. pohlabeln@bips.uni-bremen.de

^{xvii} The Allergic March, World Allergy Organization, September 2007

^{xviii} www.vaccineinjury.info, KIGGS study, Robert Koch Institute, Germany

^{xix} American Thoracic Society (2008, May 19). Mother's Prenatal Stress Predisposes Their Babies To Asthma And Allergy, Study Shows.

^{xx} Psychosomatic illness and symptoms in children Stanley Levenstein, The International Child and Youth Care Network

^{xxi} Linda Lazarides, the School of Modern Naturopathy

^{xxii} Atopic diseases of childhood Kelly D. Stone, American Academy of Pediatrics

^{xxiii} Ibid

^{xxiv} Ibid

^{xxv} Jimmy Gutman, MD, GACEP, GSH, The Body's Most Powerful Protector October, 2002

^{xxvi} Drug Muggers, Which Medications Are Robbing Your Body of Essential Nutrients – and Natural Ways to Restore Them, Suzy Cohen, RPh

^{xxvii} Aerobic Exercise Attenuates Airway Inflammatory Responses in a Mouse Model of Atopic Asthma, The Journal of Immunology, 2003

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November 2012