

An Approach to Asthma

The inspiration for this leaflet is the work of Dr Firshein, an American doctor who suffered from severe asthma himself. After spending one week in ITU following a life threatening attack and leaving the hospital feeling not much better, he vowed to find better answers to the disease.

He found that using a combination of methods such as breathing good quality air, dietary change, allergy tests and breathing exercises he was able to reverse his asthma and begin a largely drug-free life. He then developed the Breath of Life Program. Other doctors were sceptical, so he decided to give the program the toughest test possible, at a school in the Bronx with exceptionally high rates of asthma.

The program proved highly successful and he was honoured by the American Medical Association. He now finds that within 6 weeks of starting his program 60% of his patients have reduced their medication by half and 80% report better health; by 3-6 months 70% need only occasional medication. **This tells us that asthma can be reversed in many people.**

I have based this leaflet on his program but have added some observations of my own. There are 6 essential elements in the program.

- 1) Clean Air
- 2) Getting the Best out of Your Medication
- 3) Food and Nutrition
- 4) The Use of Nutritional Supplements
- 5) Breathing Techniques
- 6) Using the Mind to Enhance Health

1) Clean Air

Both the incidence and death rate from asthma has virtually doubled over the last 20 years. It is no accident that this increase has occurred at a time when both indoor and outdoor pollution has dramatically increased. We are now exposed to more chemicals than at any time in our history – over 50,000 have been dumped into the atmosphere since 1949 and billions of tonnes are released each year. Many of these are in the air we breathe and it has been estimated that 1.2 billion people world-wide are exposed to levels of pollution that are so toxic that it permanently damages their health.

Dr Firstein found that once he started breathing unpolluted air on a regular basis, his asthma began to improve and this improvement held even when he was exposed to short-lived triggers in the environment. **Breathing pure air is one of the keys to reversing asthma.** The first thing an asthmatic needs is a haven where he can breathe pure air and the bedroom is the most important room. Surprisingly indoor air is often more polluted than outdoor air. A basic point to understand is that chemical pollutants, even at safe levels, have been shown to increase sensitivity to allergens. Put

another way – **in asthma we are dealing with both toxicity and allergy and the two are very closely linked.**

To create a room with clean air means removing triggers to asthma. These can be **house dust mites, dust, pollens, cigarette smoke, pets, moulds and chemicals.** The **house dust mite** is often the key trigger for asthma. An average pillow contains 2000 house dust mites. **The first step is using dust-mite covers for the pillows and then the mattresses.** Washing the pillow every 3 months is also helpful. Oddly enough, frequent baths can aggravate house dust mite allergy, probably because it leads to more scales. Opening windows regularly helps. Cuddly toys usually contain large amounts of house dust mite. Putting them in the freezer will remove the mites.

The next step is using a vacuum cleaner with a HEPA filter – which removes dust mites, pollens, chemicals and particulates (small particles that irritate the lung) and using an **air purifier** with a HEPA filter in the bedroom. Use this on full before bedtime and leave on a low setting overnight. Dust mites are typically found in the bedding, carpets, curtains and fluffy toys. Washing the bedding twice weekly, damp dusting, keeping fluffy toys out of bedroom (or putting in the freezer for 6 hours which kills mites), reducing clutter and airing the bed will all help. In more severe cases removing carpets is useful for two reasons: they harbour dust mites and carpets outgas formaldehyde, pesticides and other chemicals, especially when new.

Understanding chemicals is important. Generally your sense of smell is the biggest clue (this sense of smell is very acute in chemically sensitive people), if you can smell it then it may be harmful. **Formaldehyde** is one of the worst offenders and is found in glues, wallpaper, particleboard and chipboard. **Paints** are a problem as they emit volatile organic compounds (VOCs) – use non-toxic varieties (water based are better than oil or solvent based). **Moulds** can be a problem, especially in the autumn – look for these in damp areas. **Aerosols** and cleaning sprays are thought to be responsible for 1 in 7 cases of asthma **so anyone with asthma should stop using aerosols.** Even using a spray once a week can trigger symptoms. Synthetic **carpets** have also been associated with asthma in both children and adults. **Pets** may need to be excluded from rooms, washed regularly or even removed. Cats cause more problems than dogs and it can take 9 months after removal of a cat for symptoms to abate. Although dealing with all of these issues is necessarily complex, the rewards are great. **The goal here is to identify and remove the triggers to asthma.** (See resources for information on products available).

Clues to dust mite are: worse in late summer and autumn, symptoms worse at night or on waking, improves on a Mediterranean holiday (few mites).

Clues to pollen are: worse in spring and early summer, often worse morning and on clear days, better after rain.

Clues to mould are: often worse in autumn, worse when damp or before rain and thunderstorms, improves on Mediterranean holiday.

Clues to chemicals: worse after renovations, new carpets, painting. Sensitive to chemical smells such as petrol, perfumes, tobacco.

2) Getting the Best Out of Your Medication

Medication can be very useful but ultimately it cannot cure your asthma. For this you must look elsewhere. A good understanding of the pros and cons of the various treatments is vital.

Beta Agonists

These are usually the short-acting blue inhalers, such as Ventolin (salbutamol), Alupent (orciprenaline), Bricanyl (terbutaline) and also include long-acting inhalers such as Serevent (salmeterol) which is green and Atrovent (Ipratropium) which is grey. Some are available as tablets and syrups.

Pros: These are popular, convenient and in many cases rapid acting. They have changed the way asthma is managed and are here to stay.

Cons: They do not reduce inflammation in the airways (so the underlying problem of asthma is unaffected), they increase allergy, they become less effective and can even stop working over time and have been associated with a higher death rate (studies have shown that use more than 25 canisters a year have a 40 times higher death rate). Long-acting inhalers are of most concern and Salmeterol should only be used together with a steroid inhaler because of this danger.

Side effects, such as tremor, can be due to swallowing particles left on your tongue – this can be avoided by rinsing your mouth after.

Steroids

These can be inhaled (this is usually a brown inhaler, occasionally orange or maroon) or can be taken by mouth.

Pros: Unlike beta agonists they have a preventative effect by reducing early and late phase inflammation in the lungs; they reduce the number of attacks and when taken by mouth can be life-saving in emergencies.

Cons: By mouth they have serious side-effects though usually only if taken long term. By inhaler they can cause short-term growth suppression and decrease lung cell growth in children. They can lead to increased infections, glaucoma and osteoporosis. They deplete magnesium which protects against asthma.

Combination Inhalers

These usually combine a steroid with a long acting beta agonist such as salmeterol. These include Seretide (purple inhaler), Symbicort (red and white) and Combivent. These are quite effective but using them may mean that you take in more of the drugs than you really need.

Theophyllines

These include SloPhyllin, Nuelin and others. They are taken by mouth

Pros: Can help control asthma

Cons: Has caffeine-like effect with poor concentration, irritability (if dose too high) – also effects made worse by coffee. Dose varies for different people – smokers often need higher doses.

Cromoglicate

Also called Intal. Tilade is a related compound. These are inhalers.

Pros: By far the safest drug available for asthma, has a preventative effect –inhibiting early and late phase inflammation. Ideal for prevention in children and where there is intermittent exposure to allergens (eg before exposure to animals). These drugs are much underused and may be the best drug for children.

Cons: Not very effective for acute attacks and can take 6 weeks to get full benefit. It can cause cough. Tilade (but not cromoglicate) has an off-putting smell and taste.

Leucotriene Inhibitors

Main drug is Singulair (montelukast) and this is taken by mouth.

Pros: can help in intermittent and exercise induced asthma. They reduce early phase inflammation (which is less serious than late phase inflammation).

Cons: has a variable effectiveness, has not been shown to help for more than one year and there is no long term safety data.

Other Points

Inhalers are often not used properly. One study found few people were using them effectively (4% of women and 43% of men).

Presently it is fashionable to use combination inhalers such as Seretide and Symbicort which are combinations of inhaled steroids and long acting beta agonists.

Peak Flow Meters

Using peak flow meters, which can be prescribed, can be very useful. Take several readings morning and evening at about the same time and record the highest these. This will tell you how your asthma is doing. Steroids may be needed when peak flow drops 20-50%.

3) Food and Nutrition

There are two aspects to this. One is that improving the diet: this can make a big difference to asthma, probably by supplying the anti-oxidants that reduce lung inflammation. Secondly many asthmatics have food allergies which contribute to their asthma.

3a) improving Diet

Diet makes a big difference to asthma. Two Australian studies in 2012 looked at the effect fruit and vegetables on asthma. **First they reduced fruit and vegetables (to two servings of vegetable and one of fruit daily) and then they increased it to seven servings of fruit and vegetables daily. In the first case their asthma became worse within 2 weeks and in the second, it reduced asthma exacerbations by half.**

Another study was even more extraordinary. **They looked at severe asthmatics in Sweden who had proved resistant to all treatments and most of these had many hospital admissions with asthma. They put 35 of these patients on a strict plant-based diet. Within a year all but 2 out of the 24 that kept up with the diet were able to reduce their medication and often get off drugs altogether.**

A further study showed that kids eating junk food have higher rates of asthma. Another study showed that a Mediterranean diet (high in fruit, vegetables, fish and low in refined food, meat and dairy) can halve the risk of developing serious lung disease.

3b) Food Intolerance

Identifying food allergens proved to be a major factor in Dr Firshein's recovery. Allergies are common in asthma, especially to dust mite and pollens but also to foods. The commonest foods to cause intolerances in children with asthma are milk, egg and peanuts. Food additives, chocolate and wheat often cause problems too. Any food can be involved. Usually the best way to diagnose the problem is to exclude some or all of the suspected foods for 1 to 2 weeks and then re-introduce them. This needs to be done methodically and will often require further advice or reading (see leaflet on food intolerance). Using a peak flow meter can be useful whilst doing this.

In one study of an exclusion diet (milk, grains, fish, coffee, tea, eggs, sugar, chocolate, apple), 71% improved in 4 months and 90% in a year.

Clues to food intolerance: can include any of following - food craving, bloating fatigue, sweating, aggravation with alcohol, heaviness under eyes, associated problems such as eczema, irritable bowel, migraine.

4) The Use of Nutritional Supplements

It is likely that two major factors are responsible for the large increase in asthma in the last few decades. One is polluted air and the other is a nutritionally depleted diet. One way to deal with the latter is to increase the quality of the food we eat. However sometimes nutritional supplements are needed. There is now a mountain of evidence that these can improve health.

Even good quality food may not have enough minerals and this is because soils subjected to intensive farming have become progressively depleted of minerals, often with levels dropping by over 50% in the last few decades. One of these minerals is **magnesium and it is probably the most important nutrient for asthmatics** and levels are invariably low. This is a natural **bronchodilator**. It is also **anti-inflammatory** (stabilises mast cells) and acts as an **antihistamine**. Supplements can be used by mouth but studies have also shown that magnesium helps when given intravenously or by nebuliser in emergencies. Take 200-500mg daily.

Many asthma attacks are triggered by infections. One way to reduce this is to take **Vitamin D**. This boosts immunity, reducing the number and severity of infections (see Boosting Immunity leaflet for more information). Use at least 2000 IU daily and aim for a blood level at the upper end of the normal range (near 150nmol/l). Vitamin D comes from sunlight so this is a particularly important supplement in winter.

Omega 3 fatty acids are natural anti-inflammatory agents reducing late phase inflammation (the most important phase). They take about 10 weeks to work but can be markedly effective after 6-9 months, (aim for 6 grams of EPA of fish oil (usually 6 capsules) daily, 12 for non fish eaters, or 3 tablespoonfuls of flaxseed (linseed) oil daily.

Vitamin C is known to help asthma and allergies (aim for 0.5 -2 grams daily – more information on Vitamin C and allergies on hay fever leaflet). There is a six-fold increase in asthma in those with low selenium levels and asthma was found to improve after 14 weeks on selenium in one trial. (Note that nutrients generally take much longer to work than drugs) Use 100-200mcg daily.

Pycnogenol at doses of 1mg per pound body weight has a strong anti-inflammatory action and, in a placebo,-controlled study, was found to give a substantial improvement in FEV1, a significant difference in symptom scores and to reduce leukotrienes.

5) Breathing Exercises

Even non asthmatics will start to wheeze if asked to deliberately breathe rapidly. There's a fact about breathing that few understand. The lungs are very efficient when it comes to absorbing oxygen so breathing faster gives no advantage.

In fact, breathing too rapidly makes the situation worse. It lowers levels of carbon dioxide (CO₂). Having enough CO₂ in the blood is essential. If CO₂ is too low then haemoglobin in the blood binds to oxygen and so it is

not released to the cells properly. In addition if CO₂ is low the muscles in the airways don't relax and tighten up.

The key to good breathing is breathing slowly into the abdomen and where possible holding the breath for a few seconds. The need to breathe more slowly was discovered by Russian doctor, Konstantin Buteyko and his method of breathing: the Buteyko method is very helpful in asthma and easy to learn. See *Asthma Free Naturally* by Patrick Mckeown. There are many books and you tubes by this author and others which are worth looking for.

Being able to control breathing often removes much of the fear from asthma.

Exercise is generally beneficial for asthmatics (this also lowers CO₂). Stop and start exercises are often easier than continuous exercise. On 1988, **16% of all US Olympic medals were taken by asthmatics** proving asthma is no bar to vigorous exercise.

6) Using the Mind to Enhance Health

The mind is one of the most powerful medicines. A 1984 study showed that over 50% of children taught visualisation, relaxation and self-hypnosis had complete recovery from their symptoms from a variety of illnesses and nearly all had some improvement. Children as young as three could be taught these techniques. However like any type of training it takes practice.

There are many ways of doing this and you can be as creative as you wish. Simple techniques like visualising a boat on the water and feeling warm and relaxed and breathing easily can be practised. Many become so adept that they can relax and breathe more slowly almost anywhere. Visualising yourself as strong and healthy is another example as is visualising the immune cells clearing the lungs of debris, opening and healing the airways. Another useful visualisation is to imagine a warm ball of white light being held in your hands and then being taken into the chest – healing the lungs.

A related and powerful technique is **cognitive reframing**. This method proved highly effective for Dr Firshein. It involves firstly being able to bring about a relaxed state and then visualising a previous asthma attack but with a new ending. For example if you had a reaction after being exposed to a cat or other allergen – go back and imagine this but hold on to the relaxed state – imagine examining for clues as to the trigger in a calm way, imagine taking action – going out of the room, feeling in control and visualise your lungs opening up and relaxing. If this is done repeatedly then the body learns to respond in a new way.

Affirmations such as “My lungs are healed”, “Pure oxygen is filling every corner of my lungs and healing them” and “each cell of my body is completely healed” can be helpful.

In essence the more time you spend imagining the lungs as healthy and the less time you spend thinking of them as diseased the quicker the recovery.

Enzyme-Potentiated Desensitisation (EPD)

Food and inhaled allergies are a major cause of asthma. What if we could simply be desensitised to these? One way to do this is with enzyme Potentiated Desensitisation. This is a brilliant method invented by immunologist, Dr Len McEwan, which does just that. Although I'm not using it now, I used EPD for nearly ten years whilst working in general practice and can vouch for it being very effective for asthma (and hay fever). Unlike standard forms of desensitisation it is very safe and I never found anyone who had an adverse reaction.

EPD reduces sensitivity to both inhaled and food allergens (by combining an enzyme with either a mix of food allergens or a mix of inhaled allergens) and has been shown to help asthma in four clinical trials. It usually requires about two or three injections a year for a few years. Unfortunately it is no longer widely available and, as far as I am aware, it is only available privately.