

Attacking ASTHMA

DIET FOR A WHEEZE-FREE LIFE

by Ros Ben-Moshe

I imagine someone standing on your chest while you are lying down. The heaviness, difficulty in breathing and near suffocation will bring you closer to the sensation experienced by an asthma sufferer. Asthma, derived from the Greek word for panting, is dramatically on the rise. It affects more than two million Australians, of whom over 60,000 are admitted to hospital annually due to the disease. With the exception of New Zealand, Australia has the world's highest proportion of asthma sufferers — 11 per cent — which includes two in every five children of primary school age.¹ Asthma affects people of all ages, with reactions ranging from occasional mild attacks to ongoing, often life-threatening, attacks. More than 680 Australians die each year from asthma, yet evidence suggests that up to 60 per cent of those deaths are preventable.

Although there is no one specific cause of asthma, in many cases it is due to allergies or hypersensitivities to environmental factors and/or food. Asthma can also result from respiratory tract infections; colds and coughs; atmospheric pollutants including car, cigarette and factory fumes; changes in temperature, particularly cold or dry air (even drinking a very cold drink can cause a sudden drop in body temperature); household chemicals, detergents and fumes such as paint; perfumes and strong smells; and inhaled allergens such as dust, mould and animal hair. Asthma can also arise after exercise.

Because there are so many common triggers of asthma it is often difficult to isolate its cause, but a good starting point is food. Eating some foods can help prevent or alleviate asthma attacks in four ways: by helping control underlying inflammation of air passages; by dilating air passages; by thinning down mucus in the lungs; and

by preventing food allergy reactions that trigger asthma attacks.² Furthermore, a good diet increases the chances of creating a strong immune system which will then be less likely to react to potential asthma triggers.

The notion that certain foods can prevent asthma is not new. It has been recognised since 1550 BCE, when an Egyptian medical text prescribed figs, grapes, frankincense, cumin, juniper fruit, wine and sweet beer for asthma. Early Chinese medicine recommended tea leaves, from which was derived theophylline, the anti-asthmatic drug still in circulation. Ancient Greeks and Roman physicians advocated pungent foods like garlic, cinnamon, pepper and vinegar, while the medieval Jewish philosopher and Spanish physician, Moses Maimonides, in his *Treatise On Asthma*, wrote of the benefits of freshwater fish and other foods that are still recommended today.³

The attack

In an asthma attack, air wheezes through narrowed passages of the bronchial tubes with each inhalation or exhalation. The smooth muscles of the bronchial tree, the tubes that distribute air through the lungs, go into spasmodic contractions; the membranes lining these tubes swell; and the lungs fill with mucus. In contrast to other respiratory conditions, coughing does little to ease the accumulation of mucus, which continues to collect in the air passages during an attack. The intensity of an attack varies from person to person. It can be brief or, if the lungs are not cleared of mucus and other secretions, can lead to suffocation and emergency treatment. The number of fatalities from asthma is on the rise, with 730 Australians fallen victim to its strangulating hold in 1997.⁴

Digestion and asthma

The connection between digestion and asthma is stronger than one may assume at first glance. In asthma the airways narrow and, if this is in response to an allergen such as food, mucus is produced in an attempt to wash away the offending irritant. Further evidence shows that nearly 90 per cent of asthma sufferers regularly or occasionally wake between 3am and 5am, coughing, wheezing and short of breath. In fact, some people only ever have nocturnal symptoms. It is thought that acid, which flows from the stomach into the oesophagus, causes reflux which then stimulates the nerves of the chest and lungs to constrict the bronchial tubes.⁵

Asthma is an inflammatory condition and, as with all inflammations, there are factors which aggravate the condition, while others have a healing action. Food falls into both these categories, and understanding which foods should be included in or excluded from your diet can help alleviate asthma and put it into the past tense. Below is a list of foods that may help treat and heal the weak spots that asthma preys on.

Aniseed

Aniseed has a calming action on the nervous system and thus on the digestive and respiratory systems. It also has an anti-spasmodic or calming effect on the lungs. As large quantities of aniseed can slow metabolism, it should only be used in moderation, perhaps while symptoms are present — as a tea, for example, once a day for a maximum period of a few weeks — and then not used again for another 10 days or so.⁶

Caffeine

Good news for coffee and tea drinkers is that for centuries caffeine has been used in the treatment of asthma. An Italian study of over 72,000 Italians showed that asthma odds dropped by 5 per cent in one-cup-a-day drinkers, by 23 per cent in two-cup-a-day drinkers and, among three-a-day drinkers, by 28 per cent.⁷ Three cups of coffee were shown to have about the same broncho-dilating effect (opening up of the airways) as the most commonly prescribed asthmatic drugs such as theophylline. Caffeine operates in a similar way to theophylline, relaxing the muscles surrounding the bronchial tubes.

Oily fish

Oily fish such as mackerel, salmon, tuna, herrings, sardines and anchovies help heal inflammation of the air passages and are shown to be a long-term treatment against asthma. The oil, which occurs naturally in fish, contains omega-3 fatty acids that help heal inflammation of the air passages, allowing for regeneration of the airways. In Britain tests showed that, following the consumption of the equivalent of 225 grams of mackerel for 10 weeks, the production of inflammation promoting leukotrienes was reduced by half. Leukotrienes are a thousand times more potent in stimulating bronchial constrictions than histamine.⁸ Studies have shown that, even if you are in the early stages of an attack, fish oil can calm the inflammation in the later stages of an attack, bringing instant relief. It is interesting to note that Eskimos, whose diet includes regular high intake of oily fish, have little asthma. However, as fish is also one of the more allergic food types, especially in children, care should be taken.

Vitamins

Many fruits and vegetables are rich sources of anti-oxidant vitamins A, C and E. These vitamins help neutralise oxygen free radicals which may stimulate inflammation of the lungs. A daily intake of 300mg of vitamin C has been shown to cut the risk of asthmatic

wheezing and bronchitis by 30 per cent⁹, with 100 grams of rosehip syrup translating to 520mg of vitamin C. Other good sources are blackcurrants and cranberries. Vitamin A or, in its food form, beta-carotene, helps maintain the linings of the lungs and is found in many foods including dark green and orange vegetables and egg yolk. Vitamin E is essential for healing and is present in large amounts in wheatgerm and almonds. There are many other vitamins and minerals that will help stave off an asthma attack. The key is a varied diet comprising many fruits and vegetables.

Evening primrose oil

Asthma is known as an 'atopic' condition in that it is caused by an abnormal body defence system. Evidence suggests the abnormalities could be a secondary consequence of a disordered fatty acid metabolism. It is also thought that atopic people may have a faulty enzyme function. Evening primrose oil has been found to bypass this fault, correcting some atopic conditions such as asthma and eczema.

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Garlic

Renowned as one of nature's best antibiotics, garlic, with its warming and strengthening action on the respiratory system, is a natural choice for bronchitis, coughs and asthma. Unless there is inflammation in the digestive system caused by stomach ulcers or gastritis, garlic can be eaten regularly. If you are worried about bad breath, garlic loses pungency when chopped, rather than crushed, and cooked rather than taken raw. In addition, much of the pungency is in its inner green shoot, which can be removed.

Ginger

With its hot, dry nature and expectorant qualities, ginger helps combat the buildup of mucus in the bronchial tubes. Like aniseed, ginger should be used in moderation.

Lemon thyme

A lemon-scented herb, lemon thyme is an expectorant and has mild anti-spasmodic properties. It can be used as a tea or, like regular thyme, in salads and cooking.

Marjoram

In the 16th century, Mattioli prescribed marjoram for chest disease with wheezing, oppression and mucus, and in 1720 the director of the medical department of the University of Paris described marjoram as one of the best remedies for wheezing.¹⁰

Onions

With more than three natural inflammatory drugs that help counter asthma, onions have proved to be much more than just a gourmet's delight. Studies conducted by Dr Dorsch at the University of Mainz in Germany showed that diphenylthiosulphinat, a chemical present in onions, displayed higher anti-inflammatory activity than the

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popular drug prednisolone.¹¹ Furthermore, participants in a study were given onion juice before being exposed to irritants or histamines, a chemical that induces asthmatic symptoms. Bronchial asthma attacks dropped by about 50 per cent. This can be explained by two of onion's anti-inflammatory agents, thiosulphinates and quercetin, which is used in the treatment of hayfever. Another study conducted at the State University of New York also detected an unusual sulphur compound that helps prevent the chain reaction culminating in asthma and other inflammatory reactions. Onions also have a strong antibacterial action, which helps in cases where asthma comes as a result of a bacterial infection, such as *Chlamydia pneumoniae*. In short, your body will only benefit if onions are a regular part of your diet.

Pumpkin

Another vegetable with anti-inflammatory qualities, pumpkin has been found to be valuable for spasms, irritation and inflammation of the respiratory tract.

Spicy foods

People who like hot, pungent, spicy foods such as hot chilli peppers, garlic, spicy mustard, horseradish and onions will relish the immediate relief they bring. These foods stimulate the nerve endings in the digestive tract, releasing secretions in the mouth, throat and lungs. This results in a thinning of the mucus, allowing it to be expelled before it clogs the airways. In addition, spicy foods, especially chilli peppers, contain capsaicin, which acts as an anti-inflammatory agent when eaten, and as a broncho-dilator when inhaled.

Other foods

Other foods which can help soothe the lungs include barley, maize, rice, cabbage, carrot, zucchini, fennel, lettuce, pumpkin, pear, lemon, mandarin, grapefruit, peach, apricot, quince, pawpaw and melon. The spice turmeric also has an anti-inflammatory effect.

Potential asthma triggers

Below is a list of some of the more common culprits that trigger an asthma attack. Food-induced reactions usually occur within an hour or so, although in some cases they can come up to 48 hours later. The good news is that avoiding suspect foods and food additives for six months has shown to reduce bronchial complaints in 93 per cent of cases.¹²

Dairy products

In an elimination diet, one of the first things to be excluded should be dairy products. A common reaction to dairy products, as with other allergens, is an increase in mucus production to expel the cause of irritation. A key early warning sign that your child may be susceptible to developing asthma is if there is an existing eczema problem or family history of asthma. Especially in children, allergies often change as the child grows and develops. As a toddler the reaction may be eczema yet, if untreated, as a school child it may change to asthma. The main thing is to be aware of any signs and act immediately to prevent further health implications in adult life.

Food additives

Many food additives are common triggers for an asthma attack and include MSG, tartrazine (102), brilliant blue (133), ponceau (124)

and sulphites. People with asthma tend to react only after eating large doses of MSG, as when it is liberally added to food. Tartrazine is a little more difficult to avoid. It is a yellow dye (number 102), used to make yellow foods, and is also commonly mixed with blue (133) to make green. Over 300 products contain tartrazine including medicines, jellies, lollies and butter-flavoured foods. Sulphites have been implicated as a trigger in asthma-related deaths, and their use on fresh fruit and vegetables has since been banned in America and by the European Union.¹³ In Australia, however, products with sulphites need only be clearly labelled. Foods commonly containing sulphites are dried tree fruits such as apricots, to preserve their colour. Matabisulphites and sulphur dioxide are added to many other foods including grapes, fruit bars, pickles, hot chips and packet potato chips, small goods, beers, wines, ciders and some fruit juices.

Salicylates are another common trigger for asthma. Like MSG they are found naturally in foods such as herbs, spices, vegetables, citrus fruits and strawberries. They are also present in certain medications such as aspirin and non-steroidal anti-inflammatory drugs such as ibuprofen. Reactions usually occur within half to one-and-a-half hours after ingesting.

Not surprisingly, soft drinks do not escape the list of manmade products on the ever-increasing list of foods that could be potential culprits. Among a whole array of unnatural ingredients, they contain the preservative benzoate, also present in a range of products from chewing gum to jams.

Meat

One of the fatty acids in meat is arachadonic acid, which produces leukotrienes. These, as previously mentioned, cause inflammation.

Salt

It is important to cut down on salt, as it has been found that the greater the intake of dietary salt, the more reactive the bronchial tubes become to histamine, the substance produced by the body which can cause an allergic reaction.¹⁴

This is not an exhaustive list of the causal factors of asthma. The importance of diet in asthma cannot be underestimated. Avoiding known triggers and eating a varied diet of organic fruit and vegetables, oily fish and other whole foods will not only be beneficial to your entire wellbeing, it may help make asthma a thing of the past.

1. *Asthma Victoria fact sheet*, August 2000 and phone conversation March 2001
2. Jean Carper, *Food Your Miracle Medicine: How Food can prevent and treat over 100 symptoms and problems*, Simon and Schuster, London 1994
3. *Ibid*
4. *Asthma Victoria fact sheet*, August 2000
5. *Natural prescriptions, Dr Giller's Natural Treatments and Vitamin therapies for more than 100 common ailments*, Ballantine books, New York 1994
6. Rose Elliot and Carlo De Paoli, *Kitchen Pharmacy: How to make your own remedies*, Tiger Books International, London 1991
7. Jean Carper
8. Jean Carper
9. Jean Carper
10. *Kitchen Pharmacy*
11. Jean Carper
12. Jean Carper
13. *Foods That Harm, Foods That Heal: An A-Z guide to safe and healthy eating*, Readers Digest Australia, 1997.
14. Melvyn Werbach MD, *Healing Through Nutrition: A natural approach to healing 50 common illnesses with diet and nutrients*, New York, 1993, page 35

The Australian Asthma Foundation has constructed an Asthma Action Plan to help manage the condition. For further information contact your local Asthma Foundation on Tel: 1800 645 130.

Beat the wheeze recipes

Pumpkin Soup with Sweet Marjoram

1kg pumpkin, peeled and roughly chopped
 1 medium onion, chopped
 2 tablespoons sweet marjoram, chopped
 1 tablespoon parsley, chopped
 1 litre vegetable stock
 sea salt and pepper
 1 tablespoon oil

In a large saucepan saute the onion until translucent, then add pumpkin and lightly cook for a few minutes. Add stock, herbs and seasonings, bring to the boil, then simmer for 45 minutes or until tender. Puree until smooth, reheat, place in bowls and garnish with a little extra sweet marjoram. This is an intoxicatingly aromatic delicious soup.

Salmon Patties

450 grams salmon or tuna (tinned or fresh)
 2 free range eggs
 1 tablespoon parsley, finely chopped
 1 lemon
 1 small onion, finely chopped
 sea salt and freshly ground pepper
 2 cups rice crumbs
 2 tablespoons sesame seeds
 olive oil for frying

Prepare salmon or tuna by steaming first if using fresh fish, or by removing skins, juice and liquid if tinned. Place in a bowl with all other ingredients, using only 2 tablespoons of the rice crumbs, and mix well. Roll into patties, and in a separate dish place the rest of the rice crumbs with the sesame seeds. Coat patties in the crumb mixture and fry until golden brown in a heated oiled frying pan. Drain on paper towels. These patties are delicious served hot or cold.

Basic Chilli Sauce

As this sauce can be stored in the fridge for a couple of days you may want to make double quantity.

1 teaspoon seeded red chilli peppers, finely sliced
 1 onion, finely chopped
 2 cloves garlic, crushed
 1 tablespoon mirin
 1 tablespoon tomato paste
 3 medium tomatoes, chopped
 1 tablespoon honey
 ½ cup water or for a sweeter sauce use apple juice

oil for frying

In a saucepan, heat the oil, add the onion, garlic and chillies and saute for a few minutes. Then add remaining ingredients and cook on a low heat for about 15 minutes. The sauce can be blended or for those who prefer it to be chunky it is fine as is. This diverse sauce can be served hot or cold as an accompaniment to almost anything.

Roasted Garlic

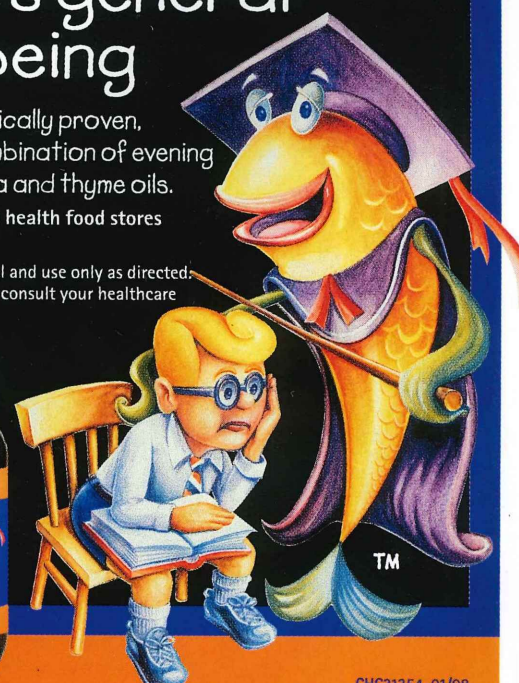
This is a great accompaniment to bread and roasted vegetables. Use as many bulbs of garlic as you like. Preheat oven to 180 degrees. Place garlic bulbs on a tray and roast until soft. Remove from the oven, allow to cool, then cut in half and squeeze out contents. Alternatively, the garlic can be peeled, coated with olive oil, covered with foil and roasted until tender.

NUTRICIA

Help improve your child's general wellbeing

Efalex is a clinically proven, balanced combination of evening primrose, tuna and thyme oils. Available from all health food stores and pharmacies.

Always read the label and use only as directed. If symptoms persist, consult your healthcare professional.



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