

## The benefits of salt to respiratory conditions

We are all used to hearing that we should minimise the amount of salt we add to our food; the reason for this is that too much salt can raise blood pressure. Therefore adding too much salt to food can have an adverse effect on long term health. Processed food we eat every day is generally high in salt so there is no need to add extra to our food. However, the affects of salt on the health is not all negative. For example, there is growing consensus that inhaled salt (specially formulated to allow inhalation) can benefit respiratory conditions such as asthma, bronchitis, sinusitis and hay fever. The official scientific and medical term for salt is sodium chloride. In the past year or two, I have been asked more often about the health benefits of inhaled sodium chloride as more people are coming aware of its benefits. For the purpose of this article I will explain the reasons why salt can help respiratory problems, the clinical evidence of its effectiveness and possible side effects. It is important to note that there are specialised devices available to convert sodium chloride (salt) into a safe inhaled format; therefore, no attempt should be made to inhale normal table salt.

### History of use for respiratory conditions

Salt or saline therapies have been used for breathing difficulties in some parts of the world for centuries with excellent results. Salt is known to have anti-inflammatory and anti-bacterial actions. Salt therapy has long been used in Eastern Europe to relieve breathing difficulties in patients suffering from asthma and other respiratory conditions. The possible benefit of salt therapy for respiratory conditions such as asthma, sinus problems, hay fever, etc are only being realised in western countries in recent times. When tiny salt particles are breathed in, they penetrate deep into the lungs; once in the lungs, the salt absorbs bacteria and clears away mucus which would otherwise block the airways. In 2006, the New England Journal of Medicine published results of a study of cystic fibrosis patients who used saline therapy for 48 weeks. The study found that it was a safe and effective additional therapy for patients. It is considered that up to 85% of patients using saline therapy for respiratory complaints experience relief of varying degrees. For this reason, salt therapy treatment rooms have been opening in many major cities around the world, including recently in London. I would not be surprised if we see salt treatment rooms opening in Ireland soon.

### How salt therapy works?

Did you ever find the sea air or the salt water of the ocean clearing your head? Many people who suffer from sinus problems find that a trip to the seaside and a swim in the ocean unblocks their congestion and gives a temporary relief from their sinus problems. It is not a myth that salt water “clears the head”. In fact, there is clinical evidence of the effectiveness of salt therapies in the relief of sinus problems and upper respiratory tract conditions.

Salt therapy primarily works by activating the cilia in the lungs. Cilia are tiny “hair like” structures that line the lungs and whose role is to sweep mucus and dirt out of the lungs. Many lung conditions such as bronchitis, asthma and cystic fibrosis result in the cilia become clogged with mucus. In these conditions the cilia can become so clogged that they are unable to clear the mucus thus further blocking the breathing tubes and exacerbating breathing difficulties. Smokers experience the same problem with the cilia becoming blocked with tar thus causing the characteristic smoker’s cough.

## How can you experience the benefits of salt therapy?

Up until recently, the only salt therapy available was on prescription in the form of sodium chloride nebulas. Sodium chloride nebulas are used as a safe diluent for other drugs and to loosen mucus. Now a new product is available through pharmacies. This product is called a Salin Plus<sup>®</sup> Breath Easy Device and is showing exciting results for respiratory and allergic conditions.

The process works when air is forced through the filter which contains a micro-crystallised deposit of salts, primarily sodium chloride. This creates a fine, constant spray of sodium chloride in the surrounding area. The sodium ions that are released from Salin Plus<sup>®</sup> activate the cilia in the lungs allowing them to excrete mucus more efficiently. By stimulating cilia motion, even in the case of the chronic smokers who usually have very low cilia motion, Salin Plus<sup>®</sup> results in a faster elimination of the secretions in the respiratory passages.

Many using Salin Plus<sup>®</sup> find easier breathing after only a few days of use. However, I would advise never to reduce medication for conditions like asthma and bronchitis until getting assessed by your doctor. Salin plus<sup>®</sup> can benefit those suffering from asthma, bronchitis, cystic fibrosis, hay fever and snoring. A big advantage of it is that it is a natural therapy that does not cause side effects associated with conventional medicines.

## How you can benefit from salt therapy?

A morning swim in the ocean is a great way of opening up the airways. However, this is not exactly practical for those of us living in Westmeath. Salin Plus<sup>®</sup> is a new option for those wanting to experience the power of salt therapy. Due to the success of Salin Plus<sup>®</sup> in treating breathing difficulties it has won it many awards over the last 10 years including the recognition at the 24<sup>th</sup> European Cystic Fibrosis Conference in Vienna in 2001.

### **Snoring**

Salt therapy can provide an effective relief for snoring. More information on snoring can be obtained in Whelehans or at [www.whelehans.ie](http://www.whelehans.ie). Salin Plus<sup>®</sup> can relieve snoring by breaking up the mucus that causes nasal congestion and is a cause of snoring in many people.

It has also been shown to reduce snoring by reducing swelling in the soft palate (back of roof of mouth).

### ***Sleep Apnoea***

Sleep apnoea is a potentially serious sleep disorder in which breathing repeatedly stops and starts. You may have sleep apnoea if you snore loudly and you feel tired even after a full night's sleep. Treatment is necessary to avoid heart problems and other complications.

Treatment includes lifestyle changes such as losing weight, reducing alcohol or stopping smoking. Other treatment options include wearing a mandibular advancement splint (MAS) which is a device like a gum shield you wear while sleeping. For severe sleep apnoea a machine called a continuous positive airway pressure (CPAP) may be used. You must wear a CPAP at night and it works by blowing pressurised air into the upper airways. Sometimes surgery, such as removing tonsils is needed.

Salin Plus<sup>®</sup> can relieve the symptoms of sleep apnoea by clearing nasal congestion and reducing swelling on the soft palate.

### ***Chronic sinusitis***

Chronic sinusitis is inflammation of the sinus that lasts 12 weeks or longer despite treatment. Chronic sinusitis interferes with drainage and causes mucus to build up. Chronic sinusitis may make it difficult to breathe through the nose. The area around the eyes and face may feel swollen and there may be throbbing facial pain or a headache. Chronic sinusitis may be caused by an infection, but it can also be caused by growths in the sinuses (nasal polyps) or by a deviated nasal septum. Treatment involves the use of steroid nasal sprays, antibiotics (if infection) and in extreme cases, surgery, including drainage or the removal of polyps. Salts have been shown to provide renewed permeability and sinus drainage in the nasal passages. This is the basis of ENT consultants recommending the use of for the use of sea aerosols such as Sterimer<sup>®</sup> nasal spray for chronic respiratory diseases. Salin Plus<sup>®</sup> can provide relief from long term sinusitis by unclogging congestion in the nasal passages.

### ***Asthma***

With asthma, the airways become over-sensitive and react to things that would normally not cause a problem, such as cold air or dust. Muscles around the wall of the airway tighten up, making it narrow and difficult for the air to flow in and out. The lining of the airways swell and sticky mucus is produced. This makes it difficult for air to move in and out and why the chest has to work so much. Detailed information on asthma and its treatment can be obtained for free in Whelehans pharmacy or at [www.whelehans.ie](http://www.whelehans.ie).

Studies undertaken to determine the benefit of salt therapy in the treatment of asthma have concluded that while it does not improve lung function, it does improve the quality of life of those who use it by reducing cough, reducing sputum (phlegm) volume and nasal congestion. In studies, it was shown to reduce the number of hospitalisations. In Whelehans, we find that asthma is the most common reason for people buying Salin Plus®.

### **COPD**

Chronic obstructive pulmonary disease (COPD) is the name for a group of lung diseases including chronic *bronchitis*, *emphysema* and *chronic obstructive airways disease*. The main symptom of COPD is an inability to breathe in and out properly. Smoking is the cause of 90% of COPD cases in developed countries. Detailed information on COPD and its treatment can be obtained for free in Whelehans pharmacy or at [www.whelehans.ie](http://www.whelehans.ie).

As with asthma, Salin Plus® therapy does not improve the lung function in COPD; however it does improve the quality of the patient's life and reduces the rate of hospitalisations. Clinical evidence shows that it improves quality of life in COPD by reducing shortness of breath, clearing mucus and reducing night time waking.

### **Hay fever**

Hay Fever is a type of allergic rhinitis caused by pollen or spores. Allergic rhinitis is a condition where an allergen (something that causes an allergic reaction) makes the inside of your nose inflamed (swollen). Hay fever affects the nose, sinuses, throat and eyes. Hay Fever usually occurs during the spring and summer months. Symptoms of hay Fever include sneezing, running nose, watery eyes, nasal congestion, itching in the throat, eyes and ears and swelling around the eyes. Detailed information on Hay Fever and its treatment can be obtained for free in Whelehans pharmacy or at [www.whelehans.ie](http://www.whelehans.ie).

### **Cystic Fibrosis**

Cystic fibrosis is Ireland's most common life threatening inherited disease. Ireland has the highest incidence of cystic fibrosis in the world. Cystic fibrosis mainly affects the lungs and digestive system. It causes them to become clogged with thick, sticky mucus. It is caused by a faulty gene that controls the movement of salt and water in and out of cells in the body. Cystic fibrosis causes recurrent chest infections, poor growth and related health problems, such as diabetes and infertility.

A study on the effect of Salt Therapy on breathing and respiratory function on children and teenagers suffering from cystic fibrosis showed significant clinical improvement in the patient's condition including the elimination of sputum. The study concluded that salt therapy should not be used as an alternative for conventional therapy but as an addition to conventional therapy. It study concluded it was a safe and inexpensive addition to therapy for cystic fibrosis patients.

## What you will notice when you use salt therapy

Many people who start using Salin Plus® notice that initially it causes them to cough more. The reason for this is that the salt therapy frees up the cilia in the lungs, thus allowing mucus to be coughed up and cleared. However this coughing generally stops within three weeks. This is not something to be concerned about as coughing is an important part of the body's "clearing" mechanism.

However, if the cough becomes too intense, you can temporarily reduce the intensity setting on the Salin Plus® device or reduce its use for a while. This is a similar phenomenon that occurs when someone stops smoking. When someone stops smoking, the cilia become unclogged of tar which causes a cough for a few weeks as the lungs clear mucus and tar caused by smoking. While inhaled saline therapy is only intended for use in conjunction with other prescribed treatments, clinical trials have shown that many patients report a significant reduction in the need for steroids and other medication.

## Side effects

The use of the salt therapy does not show any side effects apart from as mentioned in the last paragraph, some temporary coughing initially as it helps clear mucus. It does not interfere with other medical conditions or medicines. It does not increase the amount of salt in the bloodstream as salt particles are so small and are inhaled at such low amounts and the salt inhaled is absorbed in the mucus and expelled by the patient.

**Disclaimer: No salt therapy is meant as an alternative to prescription medicine. Salt therapy can be used in combination to prescribed medicine. Never stop a prescribed medicine without checking with your doctor**

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