Nasal Douching

Using a nasal douche as a solo or adjunctive treatment is recognised as beneficial in reducing nasal symptoms where infection and/ or nasal allergy have been identified as a cause. Nasal douching or nasal irrigation as it is sometime called is a safe and simple system of washing out the nose and can be performed in several different ways.

Sinonasal disease can lead to damage of the mucociliary transport system inside the nose. Research has shown that mucus contains inflammatory mediators and when its transportation through the nose becomes slow due to poor ciliary function, inflammation can increase. Nasal irrigation is considered beneficial in removing thickened mucus and therefore reducing inflammation (9, 13). For many years Ear Nose and Throat surgeons have used nasal douching as a post operative cleansing treatment to aid in the healing process after surgery. Nasal douching may be particularly helpful for rhinosinusitis

Douching the nose is also recommended before applying a corticosteroid nasal treatment and therefore particularly useful for patients being treated for rhinitis. Douching will remove lingering mucus cleansing the mucous membranes to aid in maximum surface exposure on which to apply medicated treatments. It has been shown that nasal douching before the use of a steroid nasal spray will enhance efficacy and generally improve symptomatic control (3).

The benefits of using an isotonic solution have been reported and research has shown no changes to the mucous membranes of the lining of the nose when used regularly. The solution can be an isotonic balanced salt solution or a hypotonic solution containing only salt to aid in osmotic mucus drainage from the sinuses.

Nasal douching is not a medicated solution. An isotonic solution can be safely used by all age groups, adults and children (5, 6), to support daily nasal hygiene. It can be used as a base line preparation treatment or alone in mild symptomatic disease and is an alternative treatment when a person is unwilling or unable to use a medicated nasal spray containing steroid. Caution should be taken with regards to sodium overload ensuring patients do not swallow any solution (e.g. in patients with hypertension or renal disease).

A solution can be mixed-up at home, or commercial products are available to the public from the pharmacy or via the internet.

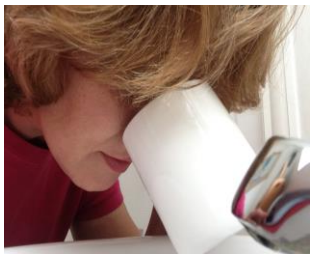
- There are several proprietary products on the market which aid in the application of a nasal douching solution. Please see table 1 below for examples.
- Using a proprietary product for children under twelve years may make nasal douching more acceptable and safer where there is uncertainty about mixing up a homemade solution.
- The ready mixed sprays available are very convenient for all users but particularly make nasal douching acceptable for younger children.
- Some companies provide the mixed dry ingredients in sachets to add to cooled boiled water to make a solution.
- Using commercial products will make the process of nasal douching easier but at considerable cost for the user.
- Using commercial products can support compliance in performing douching and encourage its regular use.

How to perform nasal douching

- Wash hands before performing the procedure
- Douching can be performed in the morning and or evening, or more frequently if severe infection is active and advised by a clinician.

A balanced isotonic solution can be made at very little cost using home ingredients. Its application requires no specialised equipment and the fluid is sniffed into the nose from a mug or cupped hands.

Ingredients for isotonic douching solution
240 mls previously boiled and cooled water
equal parts: 1/4 teaspoon salt
1/4 teaspoon bicarbonate of soda



ACTION		RATIONALE
Use clean equipment A spoon and mug in which to mix ingredients together	Ensure there are no visible residual crystals from previous douching use	Ensuring equipment is clean and free from food or crystal particles prevents risk of further nasal irritation
Measure out dry ingredients 1/4 teaspoon salt 1/4 teaspoon bicarbonate of soda	No specific type of salt is required but it must be clean and free from other food contaminates Bicarbonate of soda often referred to as baking soda is sold from the cooking section of most general food stores	The salt and bicarbonate together create a balanced isotonic solution This balanced mix should prevent the solution from stinging inside the nose. Equivalent to our own tears.
Mix dry ingredients with boiled water that has cooled down	Ensure the dry ingredients have dissolved before proceeding and ensure the solution is room temperature Do not keep solution ready mixed for longer than 24 hours Do not store in fridge Do not heat solution in microwave	The water must be boiled before use to allow for sterilization and to remove harmful elements from the tap water Using the solution at room temperature should be acceptable to the nose and will not cause burning from being too hot, or nasal sensitivity from being too cold
Lean over a sink **Bring mug of solution to nose** **Sniff a small amount of the fluid into the nose** for approximately two to three seconds **Alternatively** **Use cupped hands pouring solution into hand and sniff**	Do not sniff up large amounts of liquid **<u>Do not swallow liquid</u>**	A small amount of douche solution should be sniffed into the nasal cavity and allowed to run back out of the nose once sniffing has stopped Sniffing too much solution may cause it to be swallowed or cause choking

from hand **Take nose away from the mug** **Allow the liquid to run back out of nose into the sink**		As a wash the liquid should be sniffed into the nose and allowed to run back out
To cleanse both sides of the nasal cavity it may be necessary to block each nostril alternatively as you sniff		This ensures that the solution has entered both sides of the nose
Repeat this action several times as tolerated ideally until all the solution has been used	The nose may water naturally after nasal douching and this should be expected	The natural cleansing processes of the nose will be stimulated by douching
After nasal douching blow your nose and let it rest for 10-20 minutes before applying any treatment spray	Always blow the nose gently so as not to over stimulate or cause damage inside the nose	If nasal treatments are applied whilst the nose is watering the treatment spray will be washed out of the nose reducing its effectiveness.

Alternative devices and ready mixed preparations to aid douching

1. A twenty ml syringe (without needle) may be used to squirt the solution into the nose rather than sniffing it up.

2. Using a device like a small jug or tea pot to pour the solution into one nostril allowing gravity to let it run out through the other nostril has been successfully used by many of Eastern origin. The mouth is kept open to breathe through whilst performing the process. *Jala-neti*, means to cleanse the nose with water, which is an old yogic technique from India.
   Neti pots are available on the commercial market.(6)

3. Using a squeezy bottle is a high-volume, low-pressure system. The solution is squirted into one nostril allowing it to run out of the other nostril and has been found to be a very effective delivery device. The mouth is kept open to breathes through whilst performing the process.
   SinuRinse bottles are available on the commercial market.

4. A douching spray is a ready mixed solution in a canister needing no preparation. This makes it a very convenient device readily available and easy to apply and incorporate into daily life. The convenience will encourage compliance toward regular use of nasal douching and likely other treatment regimes. This can be especially useful when staying away from home to support continued treatment use. Sterimar Spray and Nasal Mist are available on the commercial market.

Nasal Douching Aids for purchase: Table1

Manufacturer	Name of product	Where can be purchased
Neilmed products Except for the spray these products come with sachets of mixed powder to add to cooled previously boiled water to make up a solution. www.Neilmed.com	SinuRinse Bottle adult and child sizes Neti pot Sinugator pulsing irrigator Nasal mist	From a UK pharmacy or online
Sterimar www.sterimarnasal.co.uk	Sterimar seawater spray Isotonic or hypertonic	From a UK pharmacy or online
Emcur www.emcur.co.uk	Emcur irrigation system	From a UK pharmacy or online
Yogamatters	Neti pot - plastic, White	
Acu-Life	Neti-Rinse Nasal Irrigator	Online
Toddletime Ltd	Emmay Care Health Nasal Aspirator	Online

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