



HYPERTONIC SALINE NASAL IRRIGATION

Why irrigate?

Very salty water, **hypertonic saline**, can clean the nose, relieve nasal congestion, protect the nose from infections, and reduces postnasal drip. It is called hypertonic because the salt concentration of the water is higher than would be normally found in the human body which is **isotonic**.

What do I need?

- **Canning, sea or kosher salt:** *avoid table salt* that contains additives and will be irritating.
- Optional: **Baking soda** (bicarbonate): preservative
- Delivery system: Our recommendation is the simple durable **Neti-Pot**. (more info on next page)

Other alternatives are a Water-Pik with a specialized nasal tip, a

lavage kit, a baby aspirator, ear bulb syringe or spray bottle. Spray

bottles are best for children.



How do I mix it?

With a measuring spoon, **add one even teaspoon of salt (not table salt) to one cup of warm water**. Stir thoroughly so that all the salt is dissolved.

The salt water usually doesn't sting but undissolved salt particles are more likely to be irritating. If you do experience **stinging** at first, you can use a little less than a teaspoon, but after a few days there should be no discomfort and you can add more salt.

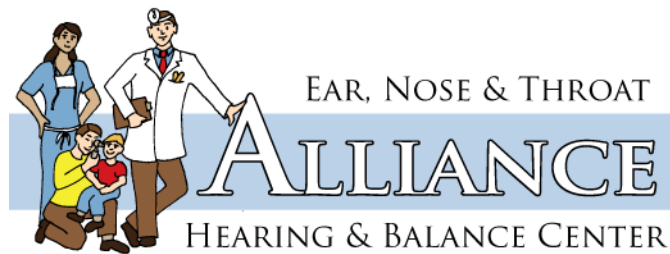
If you plan to make a larger batch for storage, you will need to add baking soda.

water

salt

+/- baking soda

1 cup (8 oz)	1 teaspoon	1/8 teaspoon
2 cups (16 oz)	2 teaspoons	1/4 teaspoon
4 cups (1 quart)	4 teaspoons	1/2 teaspoon



Additives

Baking soda (sodium bicarbonate) - not baking powder! - is believed to help with dissolving thick mucus.



Alkalol, a commercial product available in most pharmacies at about \$3.50 per pint, can be used as an oral rinse or nasal irrigant. The active ingredients include salt (sodium chloride), alum (an astringent), and baking soda (sodium bicarbonate). Alkalol also contains a number of natural extracts such as menthol and eucalyptol which are essentially add flavor. It contains minimal amount of alcohol. While Alkalol can be used at half or full strength, it can be used at a greater dilution. Try adding one tablespoon to each cup of saline.

Borofax® ointment (boric acid): As a nasal moisturizer, some health care professionals have recommended Borofax® ointment which is available without a prescription and can be mixed with the saline.

Xylitol: There are several commercial products that allow the addition of this natural antibiotic. **Xlear** (premixed solution) and Breathe.ease XL with

Xylitol (powder additive)



Breathe.Ease XL Solution Packets (mix in 500 cc water) \$17

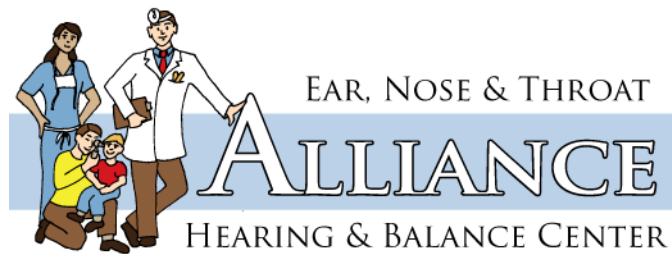
Hydro Med, Inc, 4419 Van Nuys Blvd., Sherman Oaks, CA 91403. [\(800\) 560-9007](tel:8005609007).
<http://www.hydromedonline.com/>

How to irrigate?

The saline solution can be any temperature you like, but it is usually a good temperature if you stick your finger in the water and you can't judge whether it is hot or cold. Some report that they prefer cool saline irrigation because it decongests the nose.

When using a Neti-Pot or other nasal irrigation bottle, lean over a sink, tilt your head to one side (it should be almost flat – one ear up and one down) and put the spout of the Neti Pot or bottle into the UPPER nostril. Pour the salt water slowly into your nose while you continue breathing through your mouth. Due to gravity the water will flow into the upper nostril, turn the corner at the back of the nose, and trickle back out the lower nostril. When the pot is about half empty, stop, turn your head the other way and repeat the process.

Let the water drip out. Then gently blow your nose. You will probably need to blow it several times in the next few minutes as your sinuses drain.



original Neti-Pot (video of how to use) www.himalayaninstitute.org/Netipot/NetiPotGateway.aspx

How to use other irrigation systems www.mayoclinic.com/health/nasal-lavage/MM00552 - 22k

How often to irrigate?

You will find what works best for you. Start irrigating once in the morning and once at night. There is no harm in doing it 3 or 4 times daily, cutting back to once a day if feeling better or using it only as needed. There should not be any problem with using nasal saline for as long as it helps you.