Principles of Nasal Irrigation, by K.C. Mehta, M.D.

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While some amount of mucus production from the nasal and sinus lining is normal, allergies and sinus infections can cause excessive mucus production. This excessive mucus production causes nasal and sinus symptoms such as a runny and stuffy nose or post-nasal drip. The key to symptom relief is to physically wash away this excess mucus and allergens, such as grass and tree pollen, dust particles, pollutants and bacteria from the nasal passages. This rinsing will reduce inflammation of the mucosa membrane, allowing you to breathe more normally.

Current medical literature indicates that **large volume** saline nasal irrigation, delivered with low positive pressure, provides superior symptom relief to patients with sinus disease and nasal allergies. For an effective nasal rinse, you need to use a large volume (100-200 mL) of saline solution in **each of the nasal passages**, delivered with adequate positive pressure to displace the mucus, pollen and allergens from the nasal passages.

The key to significant symptom relief is to perform a true saline nasal irrigation with sufficient volume and adequate pressure to remove mucus and associated pathogens from the nasal passages. Therefore, effective nasal irrigation devices **must** have the following characteristics:

1) The capacity to hold a large volume of saline solution (200 mL to 240 mL.)
2) The ability to deliver the solution with low but adequate pressure into the nasal passages. The pressure must be sufficient such that the saline can not only flow through the nasal passages, but also displace the mucus, pollen and allergens.
3) Finally, the saline solution must travel up the nasal passage, flow over the septum and out through the other nasal passage. Until this entire flow cycle occurs, you will not achieve a thorough cleansing job. This fact alone makes **nasal sprays unsuitable** for true large volume saline nasal irrigation.

Think about this!

The Nose is the only filter to approximately 14,000 liters of air that we breathe every day. In order to keep this air-filter clean, it is necessary to have a routine of daily nasal hygiene.

True large volume nasal Irrigation devices

1) Large volume, Positive Pressure, squeeze bottle system

The large volume (240 mL) easy-squeeze bottle system effectively satisfies the requirements for a true saline nasal irrigation as described above. It allows the user to deliver the solution with sufficient pressure to **thoroughly clean** the nasal passages, while maintaining the head in an upright position (no tilting or twisting of the neck required). The user has complete control of the pressure and the volume of solution as it enters into the nasal passages, allowing for a **gentle** and therapeutic experience. All mucus and associated pathogens are displaced from the nasal passages, allowing the user to experience **long-term symptomatic relief** when the product is used consistently.

The **NeilMed® SINUS RINSE™** system is a large-volume, positive-pressure, squeeze-bottle system that is the **#1 recommended saline nasal irrigation system** by ENT and Allergy specialists in the USA and Canada. The success of the **NeilMed® SINUS RINSE™** system has created a consensus among thousands of family doctors, ENT and Allergy specialists that large-volume, positive-pressure saline nasal irrigation systems provide the greatest relief to patients with nasal allergy and sinus disease.

2) Neti Pots:

All Neti Pots operate on the principle of gravity. Tilting your head and simultaneously raising the Neti Pot device allows the solution to flow through the nasal passages due to the effect of gravity. They are suitable for patients who cannot tolerate **even the smallest amount of pressure** in the nasal passages.

Disadvantages

1) Many Neti Pots on the market are not sized to hold 200 mL to 240 mL of saline solution. You may have to prepare the solution twice to get the large volume required, which is costlier and more time consuming. However, the **NeilMed® NasaFLO™ Neti Pot** is of adequate size (240 mL).

2) Most Neti Pots do not allow the user to control the flow of saline solution into the nasal passages. However, the **NeilMed® NasaFLO Neti Pot** has a lid (to prevent accidental spills) and allows the user to stop the flow, by placing a finger on a hole on top of the lid.

3) The **biggest limitation** of all Neti Pots is that gravity alone **cannot** create sufficient pressure to wash away all the undesirable mucus and nasal irritants. While it may seem to provide some immediate symptomatic relief, long term relief is **unlikely** because most of the mucus and associated pathogens remain in place.

Dr. Mehta is the founder, inventor, patent-holder and President of **NeilMed®** Pharmaceuticals, Inc., a world leader in designing and manufacturing Nasal irrigation systems.