

# **NASAL IRRIGATION FOR ALLEVIATION OF SINUSITIS**

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A new study demonstrates that patients with chronic sinusitis may benefit from use of nasal irrigation using a saline solution. Nasal irrigation is inexpensive and yet easy to use; however, few studies exist which examine the efficacy of the procedure.

The authors of the study, "Nasal Irrigation for the Alleviation of Sinonasal Symptoms," are Diane G. Heatley MD, Glen E. Levenson PhD, Kari E. McConnell RN, and Tony L. Kille, all from the University of Wisconsin School of Medicine, Madison, WI. Their findings will be presented Monday, September 25, 2000, at the American Academy of Otolaryngology--Head and Neck Surgery Foundation Annual Meeting/Oto Expo, being held September 24-27, 2000, at the Washington, DC Convention Center.

**Methodology:** One hundred and fifty subjects were recruited from the Madison area via newspaper advertisements. The inclusion requirements were that patients had to be older than 18 years and at least two symptoms of chronic sinusitis (nasal congestion, anterior rhinorrhea, post-nasal drainage, headache, facial pain, halitosis, cough). Participants were excluded from the study if they had, within a six-month period, undergone sinonasal surgery or used nasal irrigation; had profuse nosebleeding more than once a month, or were latex allergic.

Those eventually enrolled in the study were not under medical care for their symptoms, and although most had tried conventional therapy in the past, many no longer used these medications. No medications were prescribed to the study participants, and they were instructed to use, during the study period, any medications that they would normally use for their sinonasal symptoms.

Participants were randomly assigned to one of three treatment groups: (1) nasal irrigation with bulb syringe; (2) nasal irrigation with a nasal irrigation pot; and (3) reflexology massage (irrigation control). Prior to the study, each participant underwent anterior rhinoscopy to characterize their internal anatomy, character of secretions, and to rule out a nasal mass.

Groups one and two performed daily hypertonic saline irrigation for two weeks with one method (bulb syringe or nasal irrigation pot) and then switched to the other method for the following two weeks. Irrigation devices were collected and cultured after two weeks of use. Group three (the control) performed reflexology massage daily for two weeks. Data was collected prospectively including pre-treatment Medical Outcomes Study Short Form, pre and post-treatment Rhinosinusitis

Outcomes Measure, daily medication use, subjective treatment efficacy, and preference of irrigation method.

Results: Completing the study were 127 subjects (49 males and 78 females), ages 19 to 86 (mean of 49 years). The three groups were similar regarding gender, smoking habit, allergic rhinitis, previous sinonasal surgery, and pre-treatment Rhinosinusitis Outcomes Measure profiles. Improvement was not influenced by the presence of allergic rhinitis, previous nasal surgery, and age.

Overall, 36 percent of subjects reported decreased use of sinus medication (decongestants, antihistamines, pain relievers, and nasal sprays) during the study with no measurable difference between the three groups.

There was equal preference for the bulb syringe (46 percent) and nasal irrigation pot (43 percent). The bulb syringe was found more effective by 36 percent of subjects, nasal irrigation pot by 45 percent.

Smokers were less likely to show improvement. Men (84 percent) expressed improvement in their condition compared to 68 percent of women.

Conclusions: The study demonstrated that **daily nasal irrigation with hypertonic saline offers patients an inexpensive treatment protocol that improves chronic sinusitis symptoms**. During the study, a number of patients decreased or eliminated medication. The choice of preferred irrigation protocol was likely linked to the randomization among patient subjects. It is unclear whether the improvement found in patients in the reflexology massage group reflects a therapeutic, placebo, or combination of effects. All the findings highlight the complex interactions of managing chronic sinusitis symptoms.