

[Res Nurs Health](#). 1989 Jun;12(3):195-202. [Links](#)

## **Effect of respiratory rate, respiratory depth, and open versus closed mouth breathing on sublingual temperature.**

**[Neff J](#), [Ayoub J](#), [Longman A](#), [Noyes A](#).**

College of Nursing, University of Arizona.

The effect of open mouth breathing, tachypnea, and hyperpnea, either alone or in combination, on sublingual and tympanic membrane temperature in healthy adults was investigated. Seventy-eight subjects maintained randomly assigned breathing patterns for 15 minutes. Temperatures were monitored immediately prior to and for 5 minutes following the breathing protocol. The only statistically significant finding (p less than .01) was a lower sublingual temperature with open mouth breathing. No significant changes in tympanic membrane temperature were seen.

PMID: 2727326 [PubMed - indexed for MEDLINE]