



## Rhinomanometry (Airway Analysis)

**RHINOMANOMETRY** is an objective (scientifically measurable) **method of measuring a person's ability to breathe through their nose.** The computerized instrument that we use accomplishes this by simultaneously measuring the patient's airflow and air pressure in the nasal cavity and throat area. The computer then calculates the cross sectional areas using this data.

**Compromised nasal function is believed to cause or contribute to a long list of disorders:** Mouth breathing; altered growth and development of the skull and mandible (i.e. long face syndrome); abnormal rest posture of the lips, tongue and mandible; swallowing disorders; speech disorders; constricted dental arches; temporomandibular joint disorders (TMJ); congestive heart failure; allergies; insomnia. Also, after orthodontic treatment, mouth breathing **may contribute to unacceptable relapse of the teeth.**

Knowing that obstruction of the upper airway can cause or contribute to so many problems, **we must measure it accurately.** RHINOMANOMETRY has been shown to be the only adequate way to distinguish patients with skeletal obstruction; something that neither a detailed history nor visual exam can do by themselves.

**Normal range of measurements** of the cross sectional areas of the nasal cavity **have been established** in the medical literature. Nasal resistance varies with patient's age. Normal nasal resistance in adults has been determined at 60 sq.mm. and above. An opening of less than 60 sq.mm. in the cross sectional cavity area of an adult necessitates mouth breathing. Since one can breathe through either side of the nose, what is most important in assessing nasal function is "total nasal resistance". However, severe impairment in one nostril may still cause breathing difficulty. The smaller the airway passage, the more the patient must rely on breathing through his mouth to supplement an adequate respiration.

RHINOMANOMETRY analysis ranges of the most restricted **cross sectional area** of the nasal cavity for different age groups is:

	<b>CHILD</b> (up to age 10)	<b>ADULT</b>
<b>NORMAL RANGE</b>	<b>40</b> sq.mm. and above	<b>60</b> sq.mm. and above
<b>MILDLY OBSTRUCTED</b>	<b>30-40</b> sq.mm.	<b>45-60</b> sq.mm.
<b>MODERATELY OBSTRUCTED</b>	<b>20-30</b> sq.mm.	<b>30-45</b> sq.mm.
<b>SEVERELY OBSTRUCTED</b>	<b>&lt; 20</b> sq.mm.	<b>&lt; 30</b> sq.mm.

*This is just one way Jackson Creek Dental Group is providing the latest in diagnostic services. If you have any further questions about RHINOMANOMETRY, or our orthodontic or craniomandibular services, please contact our office at (209) 223-2712.*