



Non-apneic snoring and the orthodontist: radiographic pharyngeal dimension changes with supine posture and mandibular protrusion.

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OBJECTIVE: To evaluate the radiographic changes that occur in the pharynx and surrounding structures with alteration of posture from the upright to the supine position and the effect that mandibular protrusion whilst supine has on these dimensions. **DESIGN:** Prospective cephalometric study. **SETTING:** University Dental Hospital and School. **SUBJECTS AND METHOD:** This prospective study involved 35 consecutively referred adults with proven non-apneic snoring. Lateral skull radiographs were obtained with the subjects upright in occlusion, supine in occlusion and supine with the mandible protruded to the maximum comfortable position. Radiographs were traced and digitized, and the pharyngeal dimensional changes and hyoid position were examined. Males and females were examined separately. **RESULTS:** Radiographic pharyngeal dimensions were changed with altered posture, resulting in significant reductions in the minimum post-palatal ($p < 0.01$) and post-lingual ($p < 0.05$) airway measurements in the supine position. Mandibular protrusion whilst in the supine position produced increases in the functioning space for the tongue. **CONCLUSION:** A supine posture results in significant reductions in pharyngeal airway measurements of non-apneic snorers. Mandibular protrusion whilst in the supine position produces an increase in the functioning space for the tongue.

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