



# RESEARCH REFERENCES

## MYOFUNCTIONAL ORTHODONTICS

Since the time of Dr Edward Angle, 100 years of research published in thousands of articles has proven that tongue position and function, plus mode of breathing and mouth breathing cause poor facial growth and malocclusion. More recently, published articles relating to MRC's appliances have proven their effectiveness in treating varying malocclusions.

### References

- Angle, E.H. Dr. - The Treatment of Malocclusion of the Teeth. Ed 7. Chapter 2. Saunders Philadelphia: 1907.
- Graber T. - The Three M's. Muscles, Malformation and Malocclusion. Am J Ortho Dentofac Orthop. 1963 June 418-450.
- Wienstein S. - Minimal Forces in Tooth Movement. American Journal of Orthodontics 1967;53:881-903
- Sakuda M. Ishizwa M. – Study of the Lip Bumper. J. Dent. Res. 1970;49:667
- Profit W.R. – Lingual Pressure Patterns In The Transition From Tongue Thrust To Adult Swallowing. Arch Oral Biol. 1972;17:55-63
- Harvold, E. D.D.S., Ph.D., L.L.D., Tomer, B. D.D.S., Karin Vargervik, D.D.S., and George Chierici, D.D.S.- Primate experiments on oral respiration. Am J Orthod. 1981 Apr;79(4):359-72.
- Bresolin, D.D.S., M.S.D., Shapiro, P. D.D.S., M.S.D., Shapiro, G. M.D., Chapko, M K. Ph.D., and Dassel, S. M.D. Brasilia, D.F., Brazil, and Seattle, Wash. – Mouth breathing in allergic children: Its relationship to dentofacial development. Am J Orthod. 1983 Apr;83(4):334-40.
- Little RM, Riedel RA, Artun J. - An evaluation of changes in mandibular anterior alignment from 10 to 20 years postretention. Am J Orthod and Dentofacial Orthop 1988; 93:423-8.
- S. Linder- Aronson, D.G. Woodside, A. Lundstrom, and J.Mc. William  
- Mandibular and maxillary growth after changed mode of breathing. Am Journal Orthod Dentofac Orthop 1991;100:1-18.
- Nevant C.T., Buschang P.H., Alexander R.G. and Steffen J.M. - Lip Bumper Therapy for Gaining Arch Length. (Am J Orthod Dentofac Orthop 1991;100:330-6)
- Ram S. Nanda, DDS, MS, PhD, and Surender K. Nanda, DDS, MS. – Considerations of dentofacial growth in long-term retention and stability: Is active retention needed?. American Journal of Orthodontics and Dentofacial Orthopedics April 1992.
- Linder-Aronson, DDS, PhD, D. G. Woodside, DDSc, MSc[D], PhD(hc), E. Hellsing, DDS, PhD, and W. Emerson, DDS Huddinge, Sweden, Toronto, Canada, and Loma Linda, Calif. - Normalization of incisor position after adenoidectomy. Am J Orthod Dentofacial Orthop. 1993 May;103(5):412-27.
- Gross, PhD, Kellum, PhD, Michas, BS, Franz, BA, Foster, MS, Walker, BA, and Bishop, DDS, MS. - Open-mouth posture and maxillary arch width in young children: A three-year evaluation. University, Miss. Am J Orthod Dentofac Orthop 1994;106:635-40.
- Simoes WA. - Insights into maxillary and mandibular growth for a better practice. J. Clin. Pediatr. Dent. 1996; 21(1):1-8.
- Roberts WE, Hohlt WF, Arbuckle GR - The supporting structures and dental adaptation. In: Science and practice of occlusion. McNeill C (Ed). Quintessence, Chicago 1997, pp: 79-92..
- Otopalik, Brown H, DDS., Am J Ortho Dentofac Orthop. Vol 113 No.6, June 1998.
- Katherine W. L. Vig, BDS, MS, FDS, DOrth - Nasal Obstruction and Facial Growth: The Strength of Evidence for Clinical Assumptions. Am J Orthod Dentofacial Orthop 1998;113:603-11

- Albert H. Owen III, DDS, MSD - Unexpected Temporomandibular Joint Findings During Fixed Appliance Therapy. Am J Orthod Dentofacial Orthop 1998;113:625-31
- Thuer U, Sieber R, Ingervall B. - Cheek and tongue pressures in the molar areas and the atmospheric pressure in the palatal vault in young adults. Eur J Orthod 1999;21:299-309.
- Cavley AS, Tindall AP, Sampson WJ, Butcher AR. - Electropalatographic and cephalometric assessment of tongue function in open bite and non-open bite subjects. Eur J Orthod 2000;
- Hiyama S, Ono PT, Ishiwata Y, Kuroda T, McNamara JA. - Neuromuscular and skeletal adaptations following mandibular forward positioning induced by Herbst appliance. Angle Orthod 2000; 70:442-53.
- Gruber, T, Vanarsdall, Robert L Jnr, - Orthodontics Current Principles and Techniques, Third Edition, St. Louis, Missouri, Mosby Inc. 2000.
- Jäghagen EL, Berggren D, Isbert A. - Swallowing dysfunction related to snoring: a videoradiographic study. Acta Otolaryngol. 2000 Mar;120(3):438-43. PMID: 10894423.
- Sander FG. - Functional processes when wearing the SII appliance during the day. J Orofac Orthop 2001 62:264-74.
- Song HG, Pae EK. - Changes in orofacial muscle activity in response to changes in respiratory resistance. Am J Orthod Dentofacial Orthop 2001; 119:436-42.
- Hotokozaka H, Matsuo T, Nakagawa M, Mizuno A, Kobayashi K. - Severe dental open bite malocclusion with tongue reduction after orthodontic treatment. Angle Orthod 2001; 71:228-36.
- Sawczuk A, Mosier KM. - Neural control of tongue movements with respect to respiration and swallowing. Crit Rev Oral Biol Med 2001; 12:18-37.
- Takahashi S, Ono T, Ishiwata Y, Kuroda T. - Breathing modes, body positions, and suprathyroid muscle activity. J Orthod 2002; 29:307-13.
- Wheeler T, McGorray S, Dolce C, Taylor M, King G. - Effectiveness of Early treatment of Class II malocclusion. Am J Orthod Dentofac Orthop 2002; 121:9-17.
- Shapiro, P A, DDS, MSD Seattle, Wash. Am J Ortho Dentofac Orthop. Vol 121 No 6, June 2002.
- Quadrelli C, Gheorgiu M, Marchetti C, Ghiglione V. - Early myofunctional approach to skeletal Class II. Mond Orthod 2002 2:109-122.
- Kawamura M, Nojima K, Nishi Y, Yamaguchi H. - A cineradiographic study of deglutitive tongue movement in patients with anterior open bite. Bull Tokyo Dent Coll 2003; 44:133-9.
- Kucukkeles N, Ceylanoglu C. - Changes in the lip, cheek, and tongue pressures after rapid maxillary expansion using a diaphragm pressure transducer. Angle Orthod 2003
- Weiland, F. - Constant versus dissipating forces in orthodontics: the effect of initial tooth movements and root resorption. European Journal of Orthodontics 2003;25:335-42.
- Turpin D L, Am J Ortho Dentofac Orthop May 2003; 123:487.
- Usumez S, Uysal T, Sari Z, Basciftci FA, Karaman AI, Guray E. - The effects of early preorthodontic Trainer treatment on Class II, division 1 patients. Angle Orthod 2004 74:605-9.
- Valencia R, Saadia M, Grinberg G - Controlled slicing in the management of congenitally missing second premolars. Am J Orthod Dentofacial Orthop 2004;125:537-43

- Smale I, Artun J, Behbehani F, Doppel D, Van't Hof M, Kuijpers-Jagtman A – Apical root resorption 6 month after initiation of fixed orthodontic appliance therapy. Am j Orthod Dentofacial Orthop 2005;128:57-67.
- Ramirez-Yañez, GO, Junior E, Sidlauskas A, Flutter J, Farell C. - Dimensional changes in the dental arches after using a pre-fabricated functional appliance. J Clin Orthod (in submission) 2005a.
- Ramirez-Yañez GO, Farrell C. - Soft Tissue Dysfunction: A missing clue when treating malocclusions. Int J Jaw Func Orthop (in press) 2005b.
- Villa MP, Malagola C, Pagani J, Montesano M, Rizzoli A, Guilleminault C, Ronchetti R. Rapid maxillary expansion in children with obstructive sleep apnea syndrome: 12-month follow-up. Sleep Med. 2007 Mar;8 (2):128-34. Epub 2007 Jan 18. PMID: 17239661

## Related Articles

- Prof Nigel M. King & Dr Wong Hai Ming - [More Milk, Stronger Teeth? \(Part I\)](#). Dental Asia 2006 - Article reprinted with permission from Dental Asia Magazine
- Prof Nigel M. King & Dr Wong Hai Ming - [More Milk, Stronger Teeth? \(Part II\)](#). Dental Asia 2006 - Article reprinted with permission from Dental Asia Magazine
- Dr Robert Cerny B.D.S., M.D.Sc. - [Orthodontics. Trapped in a time warp](#). Australasian Dentist 2006
- Dr Chris Farrell B.D.S. - [Orthodontics – science or fashion](#). Australasian Dentist 2006

**MRC HEAD OFFICE - AUSTRALIA**  
 PO Box 14, Helensvale  
 QLD 4212, AUSTRALIA  
 Freecall: 1800 074 032  
 Tel: 61 7 5573 5999  
 Fax: 61 7 5573 6333  
[info@myoresearch.com](mailto:info@myoresearch.com)

**MRC USA**  
 9267 Charles Smith Avenue,  
 Rancho Cucamonga  
 CA 91730, USA  
 Freecall: 1866 550 4696  
 Tel: 1 909 587 4940  
 Fax: 1 909 945 3332  
[info@usa.myoresearch.com](mailto:info@usa.myoresearch.com)

**MRC EUROPE**  
 PO Box 718, 5140 AS Waalwijk  
 THE NETHERLANDS  
 Ph: 31 416 651 696  
 Fax: 31 416 652 745  
[info@myoresearch.nl](mailto:info@myoresearch.nl)

