



เอกสารอ้างอิง

1. ประดิษฐ์ เรืองรองรัตน์. "มุมมองเคลื่อนคอนตายล์" สารระนิพนธ์หลักสูตรประกาศนียบัตรชั้นสูง ภาควิชาทันตกรรมประดิษฐ์ คณะทันตแพทยศาสตร์ บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล, 1982.
2. ไพฑูรย์ จินดาโรจนกุล. "การวิเคราะห์ภาพถ่ายด้านข้างของกะโหลกศีรษะด้วยรังสีเอกซ์ ในเด็กอายุ 8 - 16 ปี โดยใช้เกณฑ์ของริกเกิลส์" วิทยานิพนธ์ปริญญามหาบัณฑิต ภาควิชาทันตกรรมจัดฟัน บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย, 1982.
3. สมนึก พุทธิพรย์. "เอกสารประกอบคำบรรยายวิชาทันตกรรมบดเคี้ยว" ภาควิชาทันตกรรมบดเคี้ยว คณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย, 1982.
4. AB Dentatus. "Instructions for Use of the Dentatus Articulators." Stockholm, Sweden, 1973.
5. Academy of Denture Prosthetics. "Glossary of Prosthodontic Terms." J. Prosthet. Dent. 38 (1977) : 66-109.
6. Andrews, L.F. "The Six Keys to Normal Occlusion." Am. J. Orthod. 62 (1972) : 296-309.
7. Arstadt, T. (ed.) The Capsular Ligaments of Temporomandibular Joint and Retrusion Facets of the Dentition in Relationship to Mandibular Movements Akademisk Forhag, Oslo, 1954, cited by Brewka (25)
8. Ash, M.M., Jr. (ed.) Functional Occlusion I, 1 st ed., The University of Michigan Dental Publications, 1975.

9. Ash, M.M.Jr. (ed.) Functional Occlusion II, 2 st. ed., The University of Michigan Dental Publications, 1980.
10. Basta, T.F. "Dynamics of Occlusion." International Conference for Orthodontists, Munich, 1979.
11. Bauer, A. and Gutowski, A. (eds.) Gnathology : Introduction to Theory and Practice, Quintessence Publishing Company, Berlin, Chicago, Rio de Janeiro, Tokyo, 1976.
12. Beck, H.O. "A Clinical Evaluation of the Arcon Concept of Articulation." J. Prosthet. Dent. 9 (1959) : 409-421.
13. Begg, P.R. "Stone Age Man's Dentition;" Am. J. Orthod. 40 (1954) cited by Schweitzer<sup>(134)</sup>
14. Bergström, G. "On the Reproduction of Dental Articulation by Means of Articulators: A kinematic Investigation." Acta Odontol. Scan. 9 supp. 4 : (1950) ; cited by Beck<sup>(12)</sup>
15. Berry, H.M.Jr. and Hofmann, F.A. "Cineradiographic Observations of the Temporomandibular Joint Function." J. Prosthet. Dent. 9 (1959) : 21-33.
16. Berry, H.M., Jr. and Hofmann, F.A. "Cineradiographic Analysis of Temporomandibular Joint Physiology." J. Prosthet. Dent. 14 (1964) : 174-190.
17. Beyron, H. Svensk Tandlakara Tidskrift 35 (1942), cited by Beck<sup>12)</sup>

18. Beyron, H.L. "Characteristics of Functionally Optimal Occlusion and Principles of Occlusal Rehabilitation." J. Am. Dent. Assoc. 48 (1954) : 648-656.
19. Björk, A. "Sutural Growth of the Upper Face Studied by the Implant Method." Acta Odontol. Scand. 24 (1966) : 109-127.
20. Blackwood, H.J.J. "Arthritis of the Mandibular Joint." Br. Dent. J. 115 (1963) : 317-326.
21. Blackwood, H.J.J. "Cellular Remodeling in Articular Tissue." J. Dent. Res. 45 (1966) : 480-489.
22. Boucher, C.O. (ed.) Current Clinical Dental Terminology, 2 d. ed., The C.V. Mosby Company, St. Louis, 1974.
23. Brandrup - Wognsen, T. "The Face - Bow, Its Significance and Application" J. Prosthet. Dent. 3 (1953) : 618-630.
24. Breitner, C. "Bone Changes Resulting from Experimental Orthodontic Treatment" Am. J. Orthod. 26 (1940) : 521-547.
25. Brewka, R.E. "Pantographic Evaluation of Cephalometric Hinge Axis." Am. J. Orthod. 79 (1981) : 1-19.
26. Brill, N., Lammie, G.A., Osborne, J. and Perry, H.T. "Mandibular Positions and Mandibular Movements." Br. Dent. J. 106 (1959) : 391-400.
27. Brill, N., Schübeler, S. and Tryde, G. "Influence of Occlusal Patterns on Movements of the Mandible." J. Prosthet. Dent. 12 (1962) : 255-261.
28. Brotman, D.N. "Hinge axis Part I : The Transverse Hinge Axis." J. Prosthet. Dent. 10 (1960) : 436-440.

29. Carlsson, G.E. and Oberg, T. "Remodelling of the Temporo-mandibular Joints." Oral Sci. Rev. 6 (1974) : 53-86, cited by Thilander et. al. (149)
30. Celenza, F.V. "Articulators and Determinants of Occlusal Morphology". The International Prosthodontic Workshop on Complete Denture Occlusion pp. 89-104, Michigan, June 1972.
31. Celenza, F.V. and Nasedkin, J.N. (eds.) Occlusion : The State of the Art, Quintessence Publishing Co., Inc., Chicago, Berlin, Rio de Janeiro, Tokyo, 1978.
32. Charlier, J.P., Petrovic, A. and Herrmann - Stutzmann, J.H. "Effects of Mandibular Hyperpropulsion on the Prechondroblastic Zone of the Young Rat Condyle." Am. J. Orthod. 55 (1969) : 71-74.
33. Chiappone, R.C. "A Gnathologic Approach to Orthodontic Finishing" J. Clin. Orthod. 9 (1975) : 405-417.
34. Chiappone, R.C. "Recording the Occlusion an Easy Method," J. Clin. Orthod. 11 (1977) : 683-688.
35. Choukas, N.C. and Sicher, H. "The Structure of the Temporo-mandibular Joint," Oral Surg. 13 (1960) : 1203-1213.
36. Christensen, L.V. and Slabbert, J.C.G. "The Concept of the Sagittal Condylar Guidance : Biological Fact or Fallacy?" J. Oral Rehabil. 5 (1978) : 1-7.
37. Cohen, R. "The Relation of Anterior Guidance to Condylar Guidance in Mandibular Movement:" J. Prosthet. Dent. (1956) : 758-767.

38. Corbett, N.E. De Vincenzo , J.P., Huffer, R.A. and Suryock, E.F. "The Relation of the Condylar Path to the Articular Eminence in Mandibular Protrusion." Angle Orthod. 41 (1971) : 286-292.
39. Craddock, F.W. "The Accuracy and Practical Value of Records of Condyle Path Inclination." J. Am. Dent. Assoc. 38 (1949) : 697-710.
40. Curnutte, D.C. "The Role of Occlusion in Diagnosis and Treatment Planning : Criteria." Seminar on Diseases of the Temporomandibular Apparatus, Calif., April, 1982.
41. Cutler, B.S., Hassig, F.H. and Turpin, O.L. "Dentofacial Changes Produced during and after Use of a Modified Milwaukee Brace on Macaca Mulatta". Am. J. Orthod. 61 (1972) : 115-137.
42. Dawson, P.E. (ed.) Evaluation, Diagnosis, and Treatment of Occlusal Problems , The C.V. Mosby Company, St. Louis, 1974.
43. Durkin, J.F. Heeley, J.D. and Irving, J.T. The Cartilage of the Mandibular Condyle, in Temporomandibular Joint - Function and Dysfunctions (Zarb, G.A. and Melcher, A.H. eds) pp. 29-99, Munksgaard, 1973.
44. Enlow, D.H. (ed.) Handbook of Facial Growth, W.B. Saunders Company, Philadelphia, London, Toronto, 1975.
45. Ermshar, C. "Anatomy and Neuroanatomy of the TMJ. Function". Seminar on Diseases of the Temporomandibular Apparatus, Calif., April, 1982.

46. Farman, A.G., Esposito, C.J. and Veal, S.J. "Myofascial Pain - Dysfunction Syndrome : Analysis of 164 Cases." Quintessence Int. 13 (1982) : 1279-1285.
47. Folke, L.E.A. and Stallard, R.E. "Condylar Adaptation to a Change in Intermaxillary Relationship." J. Periodont. Res. 1 (1966) : 79-89.
48. Furstman, L. "The Effect of Loss of Occlusion upon the Mandibular Joint." Am. J. Orthod. 51 (1965) : 245-261.
49. Gerber, A. Coordinated Occlusion and Condyle - in Fossa Centric, in Proceedings of the Second International Prosthodontic Congress (Lefkowitz W. ed.) pp. 157-159, The C.V. Mosby Company ; St. Louis, Toronto, London, 1979.
50. Gillis, R.R. " Establishing Vertical Dimension in Full Denture Construction." J. Am. Dent. Assoc. 28 (1941) : 430-436.
51. Graber, T.M. , Chung, D.D.B. and Aoba, J.T. "Dentofacial Orthopedics versus Orthodontics." J. Am. Dent. Assoc. 75 (1967) : 1145-1166.
52. Granger, E.R. "Bio - mechanics of Periodontal Disease." J. Periodontol. 21 (1950) : 98-105.
53. Greene, C.S. "Orthodontics and the Temporomandibular Joint." Angle Orthod. 52 (1982) : 166-172.
54. Guichet, N.F. (ed.) Occlusion : A Collection of Monographs , The Denar Corporation, Anaheim, California, 1970.
55. Gysi, A. "The Problem of Articulation." Dent. Cosmos. 52 (1910) : 1, cited by Beck<sup>(12)</sup>

56. Hanau Engineering Co. "Articulator Technique Series H-2."  
Buffalo, N.Y., 1963.
57. Haselnus, D.F. Free Functional Occlusion, in Proceedings of the Second International Prosthodontic Congress (Lefkowitz, W. ed.) pp. 171-172, The C.V. Mosby Company, St. Louis, Toronto, London, 1979.
58. Huffman, R.W. and Regenos, J.W. (ed.) Principle of Occlusion Laboratory and Clinical Teaching Manual, Ohio State University, 1967.
59. Ingervall, B. "Functionally Optimal Occlusion : The Goal of Orthodontic Treatment." Am. J. Orthod. 70 (1976) : 81-90.
60. Isaacson, D. "A Clinical Study of the Condyle Path." J. Prosthet. Dent. 9 (1959) : 927-935.
61. Ismail, Y.H. and Rokni, A. "Radiographic Study of Condylar Position in Centric Relation and Centric Occlusion." J. Prosthet. Dent. 43 (1980) : 327-330.
62. Jankelson, B. "Neuromuscular Aspects of Occlusion : Effects of Occlusal Position on the Physiology and Dysfunction of the Mandibular Musculature." Dent. Clin. North Am. 23 (1979) : 157-168.
63. Javid, N.S. "A Comparative Study of Sagittal and Lateral Condylar Paths in Different Articulators." J. Prosthet. Dent. 31 (1974) : 130-136.
64. Kawamura, Y. and Majima, T. "Temporomandibular - Joint's Sensory Mechanisms Controlling Activities of the Jaw Muscles." J. Dent. Res. 43 (1964) : 150.

65. Kawata, T., Kishigami, H., Yamashita, S. Uyama, K., Toda, K. and Uemura, S. "Mandibular Movement in Angle Class III Malocclusion in the Mixed Dentition." Angle Orthod. 52 (1982) : 61-68.
66. Kornfield, M. (ed.) Mouth Rehabilitation Vol. II, The C.V. Mosby company, St. Louis, 1974.
67. Kurth, L.E. "Balanced Occlusion." J. Prosthet. Dent. 4 (1954) : 150-167.
68. Kurth, L.E. and Feinstein, M.S. "Variations in Locating of Arbitrary and True Hinge Axis Points," J. Calif. Dent. Assoc. 29 (1961), cited by Brewka<sup>(25)</sup>
69. Laskin, D.M. "Etiology of the Pain - Dysfunction Syndrome." J. Am. Dent. Assoc. 79 (1969) : 147-153.
70. Lauritzen, A.G. (ed.) Atlas of Occlusal Analysis, Johnson Publishing Co., Boulder., Colorado, 1974.
71. Lauritzen, A.G. and Bodner, G.H. "Variations in Location of Arbitrary and True Hinge Axis points." J. Prosthet. Dent. 11 (1961) : 224-229.
72. Lazzari, J.B. "Application of the Hanau Model "C" Face - Bow." J. Prosthet. Dent. 5 (1955) : 626-628.
73. Le Pera, F. "Determination of the "Hinge Axis"." J. Prosthet. Dent. 14 (1964) : 651-666.
74. Lee, R.L. Anterior Guidance, in Advances in Occlusion (Lundeen, H.C. and Gibbs, C.H. eds.) 1 st ed., pp. 51-80, John Wright, PSG Inc., Boston, Bristol, London, 1982.



75. Lindblom, G. "On the Anatomy and Function of the Temporomandibular Joint." Acta Odontol. Scand. 17 suppl. 28 (1960).
76. Long, J.H. "Location of the Terminal Hinge Axis by Intraoral Means." J. Prosthet. Dent. 23 (1970) : 11-24.
77. Lucia, V.O. "Centric Relation - Theory and Practice." J. Prosthet. Dent. 10 (1960) : 849-856.
78. Lucia, V.O. (ed.) Modern Gnathological Concepts, The C.V. Mosby Company, St. Louis, 1961.
79. Mack, H. and Moser, F. The Examination of the Stomatognathic System and Initial Treatment, in Gnathology : Introduction to Theory and Practice (Bauer, A. and Gutowski, A. eds) pp. 317-338, Quintessence Publishing Company, Berlin, Chicago, Rio de Janeiro, Tokyo, 1976.
80. Martel, M.H. "When - Why - How to Adjust Occlusion." Quintessence Int. 13 (1982) : 933-942.
81. Maruyama, T. Miyauchi, S. and Unekoji, E. "Analysis of the Mandibular Relationship of TMJ. Dysfunction Patients Using the Mandibular Kinesiograph." J. Oral Rehabil. 9 (1982) : 217-223.
82. McCollum, B.B. "Fundamentals Involved in Prescribing Restorative Dental Remedies." Dent. Items Interest 61 (1939) : 528-641, cited by Brewka<sup>(25)</sup>
83. McCollum, B.B. "The Mandibular Hinge Axis and a Method of Locating It." J. Prosthet. Dent. 10 (1960) : 428-435.

84. Mintz, V.W. "Temporomandibular Syndrome." Seminar on Diseases of the Temporomandibular apparatus, Calif, April 1982.
85. Mitchell, D.L. and Wilkie, N.D. "Articulator through the Years. Part I. Up to 1940." J. Prosthet. Dent. 39 (1978a) : 330-338.
86. Mitchell, D.L. and Wilkie, N.D. "Articulators through the Years. Part II. from 1940." J. Prosthet. Dent. 39 (1978b) : 451-458.
87. Moffett B.C. "The Morphogenesis of the Temporomandibular Joint." Am. J. Orthod. 52 (1966) : 401-405.
88. Moffett, B.C. A Biologic Consideration of Centric Relation Based on Skeletal and Connective tissue Responses, in Occlusion: The State of the Art (Celenza, F.V. and Nasedkin, J.N. eds.) pp. 13-18, Quintessence Publishing Co, Inc., Chicago, Berlin, Rio de Janeiro, Tokyo, 1978.
89. Moffett, B.C. "Anatomy and Physiology of the Temporomandibular Joint," International Conference for Orthodontists, Munich, 1979.
90. Moffett, B.C., Johnson, L.C., McCabe, J.B. and Askew, H.C. "Articular Remodeling in the Adult Human Temporomandibular Joint." Am J. Anat. 115 (1964) : 119-142.
91. Mohl, N.D. "Head Posture and Its Role in Occlusion." N.Y. State Dent. J. 42 (1976) : 17-23.

92. Mongini, F. Occlusion and the Temporomandibular Joint, in Advances in Occlusion (Lundeen, H.C. and Gibbs, C.H. eds.) 1st ed., pp. 88-103, John Wright. PSG Inc., Boston, Bristol, London, 1982.
93. Morgan, D.H. "Mandibular Joint Pathology Importance of Radiographs." Dent. Radiogr. Photogr. 43 (1970) : 3-11.
94. Moss, M.L. Embryology Growth and Malformations of the Temporomandibular Joint, in Disorders of the Temporomandibular Joint (Schwartz, L. ed.) W.B. Saunders Company, Phila, 1959, cited by Moffett<sup>(89)</sup>
95. Moyers, R.E. "An Electromyographic Analysis of Certain Muscles Involved in Temporomandibular movement." Am. J. Orthod. 36 (1950) : 481-515.
96. Moyers, R.E. "Some Physiologic Considerations of Centric and other Jaw Relations." J. Prosthet. Dent. 6 (1956) : 183-194.
97. Myers, M.L. "Centric Relation Records." Historical Review" J. Prosthet. Dent. 47 (1982) : 141-145.
98. Öberg, T., Carlsson, G.E. and Fajers, C.M. "The Temporomandibular Joint : A Morphologic Study on a Human Autopsy Material." Acta odontol. Scand. 29 (1971) : 349-384.
99. Olsson, A. and Posselt U. "Relationship of Various Skull Reference Lines." J. Prosthet. Dent. 11 (1961) : 1045-1049.

100. Parker, W.S. "Centric Relation and Centric Occlusion - An Orthodontic Responsibility." Am. J. Orthod. 74 (1978): 481-500.
101. Perry, H.T. "Temporomandibular Joint and Occlusion." Angle Orthod. 46 (1976) : 284-293.
102. Posselt, U. "Studies in the Mobility of the Human Mandible." Acta Odontol. Scand. 10 suppl. 10 (1952), cited by Celenza, and Nasedkin<sup>(31)</sup>
103. Posselt, U. "Hinge Opening Axis of the Mandible." Acta Odontol. Scand. 14 (1956-1957) : 49-63.
104. Posselt, U. "Movement Areas of the Mandible." J. Prosthet. Dent. 7 (1957a) : 375-385.
105. Posselt, U. "Range of Movement of the Mandible." J. Am. Dent. Assoc. 56 (1958) : 10-13.
106. Posselt, U. (ed.) Physiology of Occlusion and Rehabilitation, 2 d ed., Blackwell Scientific Publications, Oxford and Edinburgh, 1968.
107. Posselt, U. and Franzén, G. "Registration of the Condyle Path Inclination by Intraoral Wax Records : Variations in Three Instruments." J. Prosthet. Dent. 10 (1960) : 441-454.
108. Prentiss, H.J. "A Preliminary Report upon the Temporomandibular Articulation in the Human Type." Dent. Cosmos 60 (1918): 505-512.
109. Preti, G., Scotti, R., Bruscajin, C. and Carossa, S. "A Clinical Study of Graphic Registration of the Condylar Path Inclination." J. Prosthet. Dent. 48 (1982) : 461-466.

110. Ramfjord, S.P. "Temporomandibular Joint Dysfunction : Dysfunctional Temporomandibular Joint and Muscle Pain." J. Prosthet. Dent. 11 (1961) : 353-374.
111. Ramfjord, S.P. "The Significance of Recent Research on Occlusion for the Teaching and Practice of Dentistry." J. Prosthet. Dent. 16 (1966) : 96-105.
112. Ramfjord, S.P. and Ash, M.M. Jr. (eds.) Occlusion, 2 d ed., W.B. Saunders Company, Philadelphia, London, Toronto, 1971.
113. Ramfjord, S.P. and Enlow, D.R. "Anterior Displacement of the Mandible in Adult Rhesus Monkeys : Long Term Observation." J. Prosthet. Dent. 26 (1971) : 517-531.
114. Ramfjord, S.P. and Hiniker, J.J. "Distal Displacement of the Mandible in Adult Rhesus Monkeys." J. Prosthet. Dent. 16 (1966) : 491-502.
115. Razeq, M.K.A. "Clinical Evaluation of Methods Used in Locating the Mandibular Hinge Axis." J. Prosthet. Dent. 46 (1981) : 369-373.
116. Rees, L.A. "The Structure and Function of the Mandibular Joint." Br. Dent. J. 96 (1954) : 125-133.
117. Ricketts R.M. "Laminagraphy in the Diagnosis of Temporomandibular Joint Disorders." J. Am. Dent. Assoc. 46 (1953) : 620-648.
118. Ricketts, R.M. Bioprogressive Therapy, 1 st ed., Rocky Mountain Co., 1970.

119. Ricketts, R.M. "A Proven Classification System for the Temporomandibular joint Disturbance." International conference for Orthodontist, Munich, 1979.
120. Riesner, S.E. "Roentgen Technique for the Mandibular Joint" Ortho. and Oral Surg. Int. J. 23 (1937) : 740-747, cited by Winberg<sup>(158)</sup>
121. Roth, R.H. Gnathologic Concepts and Orthodontic Treatment Goals in Technique and Treatment with Light - Wire Edgewise Appliances (Jarabak, J.R. and Fizzell, J.A. ed.) pp. 1160-1224, The C.V. Mosby Company, St. Louis, 1972.
122. Roth, R.H. "Temporomandibular Pain - Dysfunction and Occlusal Relationships." Angle Orthod. 43 (1973) : 136-153.
123. Roth, R.H. "Functional Occlusion for the Orthodontist." J. Clin. Orthod. 15 (1981a) : 32-41, 44-51.
124. Roth R.H. "Functional Occlusion for the Orthodontist Part III." J. Clin. Orthod. 15 (1981b) : 174-179, 182-198.
125. Roth, R.H. and Gordon, W.W. "Functional Occlusion for the Orthodontist Part IV." J. Clin. Orthod. 15 (1981) : 246-254, 259-265.
126. Roth R.H. and Rolfs D.A. "Functional Occlusion for the Orthodontist Part II." J. Clin. Orthod. 15 (1981) : 100-123.
127. Sadowsky, C. and BeGole, E.A. "Long - term Status of Temporomandibular Joint Function and Functional Occlusion after Orthodontic treatment." Am. J. Orthod. 78 (1980) : 201-212.

128. Sarnat, B.G. "Facial and Neurocranial Growth after Removal of the Condyle in the Macaca Rhesus Monkey." Am. J. Surg. 94 (1957) : 19, cited by Rickett<sup>(118)</sup>
129. Scaife, R.R. Jr. and Holt, J.E. "Natural Occurrence of Cuspid Guidance." J. Prosthet. Dent. 22 (1969) : 225-229.
130. Schallhorn, R.G. "A Study of the Arbitrary Center and the Kinematic Center of Retation for Face - Bow Mountings." J. Prosthet. Dent. 7 (1957) : 162-169.
131. Schuyler, C.H. "Factors of Occlusion Applicable to Restorative Dentistry." J. Prosthet. Dent. 3 (1953) : 772-782.
132. Schuyler, C.H. "Freedom in Centric." Dent. Clin. North Am. 13 (1969) : 681-686.
133. Schweitzer, J.M. (ed.) Oral Rehabilitation Problem Cases : Treatment and Evaluation Vol. 2, The C.V. Mosby Company, St. Louis, 1964.
134. Schwertzer, J.M. "An Evaluation of 50 Years of Reconstructive Dentistry Part I : Jaw Relations and Occlusion." J. Prosthet. Cent. 45 (1981) : 383-388.
135. Scott, J.H. "Growth Changes in the Glenoid Fossa." Dent. Pract. 6 (1955) : 117, cited by Wright and Moffett<sup>(161)</sup>
136. Sheppard, I.M. "The Effect of Hinge Axis Clutches on Condyle Position." J. Prosthet. Dent. 8 (1958) : 260-163.
137. Sicher, H. "The Biologic Significance of Hinge Axis Determination." J. Prosthet. Dent. 6 (1956) : 617-620.

138. Sicher, H. and Dubrul, E.L. (eds.) Oral Anatomy, 7 th ed.,  
The C.V. Mosby Company, St. Louis, Toronto, London,  
1980.
139. Silapabanleng, Y.S., et al. "Condylar Angles in Thai People."  
Ann. Res. Abstr. Mahidol University, 9, 1982.
140. Silverman, M.M. "Comparative accuracy of the Gnathological and  
Neuromuscular Concepts." J. Am. Dent. Assoc. 96 (1978):  
559-565.
141. Slavicek, R. and Mack, H. "Der Axiograph." Orthodontic und  
Kieferorthopädie, Heft 1, 1. Quartal, 1982 : 52-62.
142. Slavicek, R. "Gelenkorientierte Diagnose im Lateralen Feinrönt-  
genbild." Orthodontic und Kieferorthopädie, Heft 1,  
1. Quartal, 1982 : 63-68.
143. Solomon, E.G.R. Nomenclature on Centric Relation and Related  
Occlusal Positions, in Proceedings of the Second Interna-  
tional Prosthodontic Congress (Lefkowitz W. ed.) pp.  
214-216, The C.V. Mosby Company, St. Louis, Toronto,  
London, 1979.
144. Sperber, G.H. (ed.) Craniofacial Embryology, 2d ed., John Wright  
and Sons Limited, Bristol, 1976.
145. Stuart, C.E. "Good Occlusion for the Natural tooth." J. Pros-  
thet. Dent. 14 (1964) : 716-724.
146. Stuart, C.E. Occlusion as Seen through My Eyes, in Proceedings  
of the Second International Prosthodontic Congress  
(Lefkowitz W. ed.) pp. 162-164, The C.V. Mosby Company,  
St. Louis, Toronto, London, 1979.



147. Stuart, C.E. and Stallard, H. "Why an Axis ?" J.S. Calif. Dent. Ass. 32 (1964) : 204-205.
148. Teteruck, W.R. and Lundeen, H.C. "The Accuracy of an Ear Face-Bow." J. Prosthet. Dent. 16 (1966) : 1039-1046.
149. Thilander, B., Carlsson, G.E. and Ingervall, B. "Postnatal Development of the Human Temporomandibular Joint. I. A. Histological Study." Acta Odontol. Scand. 34 (1976) : 117-126.
150. Thompson, J.R. "The Rest Position of the Mandible and Its Significance to Dental Science." J. Am. Dent. Assoc. 33 (1946) : 151-180.
151. Thomson, H. "Mandibular Joint Pain." Br. Dent. J. 107 (1959) : 243-250.
152. Thurow, R.C. (ed.) Edgewise Orthodontics, 4th ed., The C.V. Mosby Company, St. Louis, Toronto, London, 1982.
153. Toller, P.A. "Opaque Arthrography of the Temporomandibular Joint." Int. J. Oral Surg. 3 (1974) : 17-28.
154. Trapozzano, V.R. and Lazzari J.B. "The Physiology of the Terminal Rotational Position of the Condyles in the Temporomandibular Joint." J. Prosthet. Dent. 17 (1967) : 122-133.

155. Walker, P.M. "Discrepancies Between Arbitrary and True Hinge Axis." J. Prosthet. Dent. 43 (1980) : 279-285.
156. Weinberg, L.A. "An Evaluation of the Face - Bow Mounting." J. Prosthet. Dent. 11 (1961) : 32-42.
157. Weinberg, L.A. "An Evaluation of Duplicability of Temporomandibular Joint Radiographs." J. Prosthet. Dent. 24 (1970) : 512-541.
158. Weinberg, L.A. "The Etiology, Diagnosis and Treatment of TMJ. Dysfunction - Pain Syndrome. Part I : Etiology" "J. Prosthet. dent. 42 (1979) : 654-664.
159. Williamson, E.H. "Interviews on Occlusion and TMJ. Dysfunction by Dr. Brandt." J. Clin. Orthod. 15 (1981) : 333-350.
160. Williamson, E.H., Evans, D.L., Barton, W.A. and Williams, B.H. "The Effect of Bite Plane Use on Terminal Hinge Axis Location." Angle Orthod. 47 (1977) : 25-33.
161. Wright D. and Moffett, B. "The Postnatal Development of the Human Temporomandibular Joint." Am. J. Anat. 141. (1974) : 235-249.
162. Yale, S.H., Allison, B.D. and Hauptfuehrer, J.D. "An epidemiological Assessment of Mandibular Condyle Morphology." Oral Surg. 21 (1966) : 169-177.

163. Yavelow, I. and Arnold, G.S. "Temporomandibular Joint Clicking." Oral Surg. 32 (1971) : 708)-715.
164. Zuckerman, G.R. "The Geometry of the Arbitrary Hinge Axis as It Relates to the Occlusion." J. Prosthet. Dent. 48 (1982) : 725-733.



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ตารางที่ 20 ข้อมูลที่ได้จากกลุ่มตัวอย่างชาย

เลขที่	อายุ	ระยะห่าง ระหว่าง แผ่นกราฟ (มม.)	ตำแหน่งแนวแกนของ T.M.J.				คอนโตลาร์ โกดัดแดนซ์	
			ขวา		ซ้าย		ขวา	ซ้าย
			Y	X	Y	X		
1	18	152	-6	14	-3	9	41	45
2	18	159	+2	14	+3	+2	60	45
3	20	158	-2	12	0	11	41	50
4	19	162	+4	16	-2	11	54	61
5	19	156	-1	8	-1	7	68	63
6	18	156	-1	9	-5	11	59	63
7	17	150	+1	9	0	8	69	46
8	20	162	-7	16	-5	10	44	41
9	18	161	-4	11	-1	7	63	42
10	21	154	-2	9	-1	6	46	46
11	19	146	0	9	0	5	43	59
12	17	154	+5	13	-4	11	47	54
13	14	155	-5	10	-8	5	68	56
14	18	154	-5	11	-2	10	62	56
15	21	154	-2	13	-4	9	66	45
16	19	153	-3	6	-1	12	51	48
17	20	155	-6	12	-2	19	57	67
18	20	155	-2	16	+2	7	60	56
19	19	163	-5	12	-8	14	62	52
20	18	154	-2	12	-1	11	65	55
21	20	156	0	9	+2	11	69	69
22	19	150	+5	16	0	16	57	45
23	18	156	-6	13	-5	13	46	50
24	18	150	0	8	0	16	58	55
25	20	152	-1	10	-1	8	49	61
26	19	154	-8	11	-4	10	66	44
27	21	154	0	10	+2	13	61	60
28	19	145	0	12	+5	8	55	50
29	19	152	+2	11	0	10	45	56
30	18	162	+1	9	0	7	61	57

ตารางที่ 21 ข้อมูลที่ได้จากกลุ่มตัวอย่างหญิง

เลขที่	อายุ	ระยะห่าง ระหว่าง แผ่นกราฟ (มม.)	ตำแหน่งแนวแทนหมุนของ TMJ.				คอนไดลาร์ ไกต์แดนซ์	
			ขวา		ซ้าย		ขวา	ซ้าย
			Y	X	Y	X		
1	19	152	+3	13	0	7	48	49
2	19	140	+3	12	17	8	49	50
3	21	150	0	15	0	0	44	43
4	20	155	+4	8	0	10	33	47
5	19	147	+4	14	+3	16	47	54
6	20	147	0	17	0	13	49	45
7	20	142	-6	10	-2	9	49	37
8	19	148	+2	15	+2	14	51	49
9	18	150	0	8	+2	11	52	55
10	21	156	8	13	0	8	34	51
11	20	156	0	12	+3	13	31	36
12	20	147	-5	10	0	9	50	45
13	20	145	0	9	0	2	48	51
14	20	145	+3	18	0	11	49	52
15	21	140	0	11	0	11	50	58
16	21	147	0	14	0	10	44	41
17	20	146	+1	9	+4	8	65	70
18	22	148	0	9	+2	12	51	59
19	21	158	+1	13	+3	13	50	42
20	24	142	0	10	+1	12	59	54
21	22	154	-4	11	-4	9	31	32
22	21	146	+2	9	0	8	42	46
23	18	154	+1	11	+6	11	61	58
24	18	146	0	11	-2	7	61	65
25	18	143	+1	12	+7	15	59	42
26	25	160	-5	12	-7	9	58	51
27	19	144	0	12	0	12	61	56
28	21	143	+8	9	+8	10	41	51
29	18	140	0	8	0	10	45	45
30	25	139	0	12	+3	8	51	37

	MEAN	SD	SE	CV
AGE:				
MALE	18.96666667	1.09806517	0.200	5.789
FEMALE	20.33333333	1.88154986	0.344	9.234
MALE-FEMALE	19.65	1.67559754	0.216	8.527
DIS:				
MALE	154.8	4.42874622	0.809	2.861
FEMALE	147.6666667	5.74956270	1.050	3.894
MALE-FEMALE	151.2333333	6.23105037	0.804	4.120
ROTRY:				
MALE	-1.4	3.28633535	0.600	234.738
FEMALE	0.7	3.14203975	0.547	448.863
MALE-FEMALE	-0.35	3.35889913	0.434	959.685
ROTRX:				
MALE	10.96666667	2.32650890	0.425	21.214
FEMALE	11.56666667	2.58221147	0.471	22.325
MALE-FEMALE	11.26666667	2.45547929	0.317	21.794
ROTRYL:				
MALE	-1.2	3.11171313	0.568	259.309
FEMALE	1.2	3.17750716	0.580	264.792
MALE-FEMALE	0.0	3.34461368	0.432	*
ROTLX:				
MALE	10.03333333	3.11263646	0.568	31.023
FEMALE	10.23333333	2.78769876	0.509	27.241
MALE-FEMALE	10.13333333	2.93122677	0.378	28.927
CONR:				
MALE	56.16666667	8.75759112	1.599	15.592
FEMALE	48.76666667	8.91601942	1.628	18.283
MALE-FEMALE	52.46666667	9.52332848	1.229	18.151
CONL:				
MALE	53.76666667	7.31876819	1.336	13.612
FEMALE	49.03333333	8.56006499	1.563	17.458
MALE-FEMALE	51.4	8.24867735	1.065	16.048
ROTRYLY:				
MALE	-1.3	3.17458125	0.410	244.199
FEMALE	0.95	3.14305799	0.406	330.848
MALE-FEMALE	-0.175	3.34227442	0.305	1909.871
ROTRXLX:				
MALE	10.5	2.76479073	0.357	26.331
FEMALE	10.9	2.74757212	0.355	25.207
MALE-FEMALE	10.7	2.75192828	0.251	25.719
CONRL:				
MALE	54.96666667	8.09261364	1.045	14.723
FEMALE	48.9	8.66551456	1.119	17.723
MALE-FEMALE	51.93333333	8.88746954	0.811	17.113

\* = Infinity

			T-TEST
RYM	TO	LYM	-0.380155589
RXM	TO	LXM	1.694744127
RCGM	TO	LCGM	1.258259707
RYF	TO	LYF	-0.911997786
RXF	TO	LXF	2.417401232
RCGF	TO	LCGF	-0.189222704
DISM	TO	DISF	5.382895932
RYM	TO	RYF	-2.529939322
LYM	TO	LYF	-2.955373101
RXM	TO	RXF	-0.945472061
LXM	TO	LXF	-0.262133382
RCGM	TO	RCGF	3.243061184
LCGM	TO	LCGF	2.302281563
RYLYM	TO	RYLYF	-3.901107797
RXLXM	TO	RXLXF	-0.794804942
RCGLCGM	TO	RCGLCGF	3.963109338

ตารางที่ 23 แสดงผลการทดสอบ t - test ที่ได้จากคอมพิวเตอร์

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ประวัติผู้เขียน

นายพงษ์ศักดิ์ เกิดวงศ์บัณฑิต เกิดเมื่อวันที่ 30 พฤศจิกายน พ.ศ. 2499  
ที่กรุงเทพมหานคร สำเร็จการศึกษาทันตแพทยศาสตรบัณฑิต เกียรตินิยมอันดับ 2 จาก  
คณะทันตแพทยศาสตร์ มหาวิทยาลัยมหิดล ปีการศึกษา 2523 เข้าทำงานเป็นทันตแพทย์  
ฝึกหัดที่คณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย 1 ปี จึงเข้าศึกษาต่อในสาขาวิชา  
ทันตกรรมจัดฟัน ภาควิชาทันตกรรมจัดฟัน บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย ในปี  
การศึกษา 2524



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