

The American Board of Orthodontics

Written Examination Guide

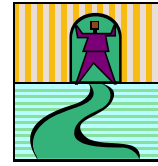
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WRITTEN EXAMINATION

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Background

The ABO Written Examination is a comprehensive exam that assesses the examinee's knowledge of basic sciences and clinical concepts. It is administered at computerized testing centers throughout the United States and Canada. You must petition the board for the opportunity to use a PearsonVUE testing facility outside of the U.S. and Canada. The board will evaluate the security of the test site. If the board concludes the integrity of the examination process can be maintained, permission may be given to test at an overseas facility. Each request will be assessed on an individual basis and the decision of the board is final.

The written examination is available to any educationally qualified practicing orthodontist who has never taken the written exam or was unsuccessful on a prior written exam. Residents in an ADA accredited orthodontic program may take the written exam in the year of their graduation or if they have completed 18 months of their program at the time of the exam. Anyone who has successfully completed the written examination is eligible for the ABO Clinical Examination.

There is no time limitation nor expiration date for the written examination. In other words, a successfully completed written examination will never need to be retaken.

The written examination consists of multiple-choice questions related to the basic sciences, applied biomedical sciences, orthodontic theory, orthodontic practice, related dental disciplines and the orthodontic literature. Questions are developed from various sources by the ABO's Written Examination Committee. In the past, the committee formulated questions using the recommended reading list and referencing journals, textbooks and actual clinical case reports. Now, the process has been improved in order to keep the examination relevant to orthodontics as it is practiced today. The ABO has solicited questions from educators across the country, and will be asking for submission of questions from residents as well. These questions are reviewed and refined by the examination committee and then added to the bank of questions. The goal is to have thousands of questions in order to write multiple examinations for the computerization process. To that extent, the ABO has provided educators (and later, residents) an [entry page for question submission](#) on our website.

It is suggested that candidates review the courses taken during their advanced orthodontic education, major textbooks, and current orthodontic literature. The examination is based on subject areas outlined by the Commission on Dental Accreditation and includes the following subjects:

1. Embryology and Genetics
2. Growth and Development
3. Head and Neck Anatomy
4. Histology
5. Oral Physiology and Biochemistry
6. Pathology
7. Research Methodology and Biostatistics
8. Adjunctive Orthodontic Procedures as related to integrated disciplines
9. Biomechanical Principles
10. Cephalometrics and Radiography
11. Clinical Orthodontics (adults and children)

12. Clinical Photography
13. Craniofacial Deformities
14. Dentofacial Orthopedics
15. Infection and Hazard Control
16. Interdisciplinary Comprehensive Care
17. Risk Management
18. Literature Review
19. Principles of Occlusion
20. Orthodontic and Orthopedic Appliance Design
21. Orthodontic Dental Materials
22. Orthodontic Diagnosis and Treatment Planning
23. Orthodontic Technique
24. Radiographic and Imaging Techniques
25. Surgical Orthodontics (Diagnosis, Treatment Planning and Presurgical and Postsurgical Orthodontic Treatment for Orthognathic Surgery)
26. Temporomandibular Disorders
27. Cardiopulmonary Resuscitation

[Download Written Examination Guide and Reading List \(pdf, 16 pgs\)](#)

Test Specifications

The American Board of Orthodontics Written Examination is based on criterion-referenced testing, which is the concept that examinees should be measured against the skill and knowledge represented by each test item. The difficulty of each item for the minimally-competent examinee is the basis for setting the Criterion Standard, one that is represented as an absolute standard on a Benchmark Scale. The Benchmark Scale and Criterion Standard for The American Board of Orthodontics Written Examination were first established in 2003 and updated for 2008 and beyond.

The ABO Written Examination consists of 240 multiple-choice questions. The following is a breakdown of the percentage of questions to total exam for each topic:

MODULE 1 - Basic and Applied Biomedical Sciences. Topics include:

Anatomical Sciences / Anatomical Landmarks of the Skull	10%
Biochemistry / Physiology / Bone Biology and Histology	5%
Developmental Anatomy / Developmental Disturbances / Genetic Disorders	7%
Growth and Development	7%
Microbiology / Immunology / Infection Control / Pathology	4%

MODULE 2 - Clinical Sciences "A". Topics include:

Occlusion	5%
Temporomandibular Disorders	4%
Radiography / Photography	4%
Cephalometrics / Computer Techniques / Anatomical Landmarks of the Lateral and Frontal Cephalogram	8%
Topics below are combined in this percentage	5%
Cardiopulmonary Resuscitation / Risk Management / Practice Management / Ethics	
Statistics / Research Design / Pharmacology / Pain and Anxiety Control	
Preventive Dentistry / Oral Hygiene / Behavioral Science / Patient Management	
Speech Pathology / Orthodontic History	

MODULE 3 - Clinical Sciences "B". Topics include:

Orthodontic Materials / Physical Principles / Orthodontic Techniques and Appliances	6%
Orthopedics / Biomechanics	6%
Orthodontic Diagnosis / Case Analysis / Treatment Planning	4%
Orthodontics / Oral Surgery / Periodontics / Endodontics	4%
Orthodontics / Restorative Dentistry / Implantology	4%

MODULE 4

Patient Analysis	17%
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MEMORANDUM

DATE: September 2011
TO: ABO Examinee
FROM: American Association of Orthodontists
SUBJECT: Reading List for ABO Written Examination

On behalf of the American Board of Orthodontics, the American Association of Orthodontists is happy to provide you with directions on how to access the majority of the articles on the ABO reading list.

Articles 1 – 61 are AJODO articles and can be obtained free of charge through the AAO website:

- Go to www.AAOinfo.org
- Login to the AAO website. Type in the email address on file for you at the AAO and your AAO password. Click on the Go button.
- Click on My AAO (in the blue bar)
- Under Member Benefits in the middle of the page you will see this link: AJODO: [Immediate access to the AJO/DO online](#).
- Click on the green hyperlink to access the AJODO site. You do not need to login to the AJODO website since you self-authenticated by logging in on the AAO website.
- Find the article by clicking on Articles and Issues, or save a copy of the ABO Reading List and click on the hyperlink for each article.

If you do not remember the email address on file for you at the AAO: Contact the AAO 1.800.424.2841

Can't remember your password: Click on Did you forget your password? and create a new password. You do not need to know your old password to create a new password for the AAO website.

To watch a Jing video on how to access the AJODO website from the AAO website click:

<http://www.screencast.com/t/ZeglRqk56X>

Articles 62 – 76 can be obtained free of charge from the Angle Orthodontist website at www.angle.org

Articles 79, 80, 82 and 91 can be found for free by clicking on the ABO Reading List hyperlink.

Articles written by Dr. Kokich might be found at the following website address:

<http://www.kokichorthodontics.com> and click on Publications at left side of page

You should be able to locate these articles in your university library, any medical library or for download for a fee:

77, 78, 81, 83, 84, 85, 86, 87, 88, 89, 90

Please be aware that copyright issues prohibit the AAO Library from providing the articles on the ABO reading list.

The AAO wishes you success on the ABO written examination and your journey toward board certification.

**THE AMERICAN BOARD OF ORTHODONTICS
WRITTEN EXAMINATION**

2012 READING LIST

The objective of this reading list is to offer the practicing orthodontist a list of references, which may serve as a source of knowledge in preparing for certification. This reading list includes papers of historical as well as scientific interest. It is intended to give the orthodontist a broad perspective of the changing world of orthodontic theory and practice. Several articles by ABO directors are also included so the candidates may have some insight into their background and current interests. It should be clearly understood that a bibliography, such as this, is not all encompassing and does not remain static. It will be continuously subject to additions and deletions. Current literature and textbooks on orthodontics may be studied in addition to the suggested references.

The American Board of Orthodontics does not consider any of the texts and/or articles to contain the indisputable answer to any questions within the field of orthodontics.

All articles that are new to the Reading List have been highlighted.

You will find a hyperlink with each article that takes you to the publisher's website. Please read the enclosed memorandum on how Articles 1-61 can be obtained free of charge by logging into www.AAOinfo.org.

JOURNAL ARTICLES

1.	Stability of treatment for anterior open-bite malocclusion: A meta-analysis, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 139, Issue 2 , Pages 154-169, February 2011	Geoffrey M. Greenlee, et al.
2.	Effects of lingual arch used as space maintainer on mandibular arch dimension: A systematic review, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 138, Issue 4 , Pages 382.e1-382.e4, October 2010	Azzurra Viglianisi
3.	Self-ligating bracket claims, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 138, Issue 2 , Pages 128-131, August 2010	Steven D. Marshall, et al.
4.	Systematic review of self-ligating brackets, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 137, Issue 6 , Pages 726.e1-726.e18, June 2010	Stephanie Shih-Hsuan Chen, et al.
5.	Root resorption associated with orthodontic tooth movement: A systematic review, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 137, Issue 4 , Pages 462-476, April 2010	Belinda Weltman, et al.
6.	Early treatment for Class II Division 1 malocclusion with the Twin-block appliance: A multi-center, randomized, controlled trial, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 135, Issue 5 , Pages 573-579, May 2009	Kevin O'Brien, et al.

7.	Critical factors for the success of orthodontic mini-implants: A systematic review, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 135, Issue 3 , Pages 284-291, March 2009	Yan Chen, et al.
8.	Medication effects on the rate of orthodontic tooth movement: A systematic literature review, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 135, Issue 1 , Pages 16-26, January 2009	Theodosia Bartzela, et al.
9.	Relationship between rapid maxillary expansion and nasal cavity size and airway resistance: Short- and long-term effects, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 134, Issue 3 , Pages 370-382, September 2008	Nanci Lara Oliveira De Felipe, et al.
10.	Radiographic and periodontal requirements of the American Board of Orthodontics: A modification in the case requirements for adult and periodontally involved adolescent and preadolescent patients, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 134, Issue 1 , Pages 3-4, July 2008	John E. Grubb, et al.
11.	Comparison of hand-traced and computerized cephalograms: Landmark identification, measurement, and superimposition accuracy, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 133, Issue 4 , Pages 556-564, April 2008	Dustin Roden-Johnson, et al.
12.	Surgically assisted rapid palatal expansion: A literature review, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 133, Issue 2 , Pages 290-302, February 2008	Lokesh Suri, Parul Taneja
13.	Treatment effects and short-term relapse of maxillomandibular expansion during the early to mid mixed dentition, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 131, Issue 4 , Pages 456-463, April 2007	Julie Vargo, et al.
14.	Periodontal response to early uncovering, autonomous eruption, and orthodontic alignment of palatally impacted maxillary canines, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 131, Issue 4 , Pages 449-455, April 2007	Andrew D. Schmidt, Vincent G. Kokich
15.	Long-term comparison of treatment outcome and stability of Class II patients treated with functional appliances versus bilateral sagittal split ramus osteotomy, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 127, Issue 4 , Pages 451-464, April 2005	Jeffrey L. Berger, et al.
16.	A change in the certification process by the American Board of Orthodontics, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 127, Issue 3 , Pages 278-281, March 2005	Michael L. Riolo, et al.
17.	The American Board of Orthodontics: Diplomate recertification, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 6 , Pages 650-654, December 2004	Michael L. Riolo, et al.

18.	Influence on the masticatory system in treatment of obstructive sleep apnea and snoring with a mandibular protruding device: A 2-year follow-up, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 6 , Pages 687-693, December 2004	Anette M.C. Fransson, et al.
19.	Delayed tooth eruption: Pathogenesis, diagnosis and treatment. A literature review, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 4 , Pages 432-445, October 2004	Lokesh Suri, et al.
20.	Stability and predictability of orthognathic surgery, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 3 , Pages 273-277, September 2004	L. 'Tanya J. Bailey, et al.
21.	Surgical and orthodontic management of impacted maxillary canines, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 3 , Pages 278-283, September 2004	Vincent G. Kokich
22.	Occlusal adjustment for treating and preventing temporomandibular disorders, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 2 , Pages 138-139, August 2004	Greg J. Huang
23.	A cephalometric comparison of treatment with the Twin-block and stainless steel crown Herbst appliances followed by fixed appliance therapy, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 126, Issue 1 , Pages 7-15, July 2004	Abbie T. Schaefer, et al.
24.	The ABO discrepancy index: a measure of case complexity, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 125, Issue 3 , Pages 270-278, March 2004	Thomas J. Cangialosi, et al.
25.	The ABO's 75th anniversary: a retrospective glance at progress in the last quarter century, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 125, Issue 3 , Pages 279-283, March 2004	Thomas J. Cangialosi, et al.
26.	Long-term follow-up of Class II adults treated with orthodontic camouflage: A comparison with orthognathic surgery outcomes, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 123, Issue 3 , Pages 266-278, March 2003	Colin A. Mihalik, et al.
27.	Managing the developing Class III malocclusion with palatal expansion and facemask therapy, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 122, Issue 4 , Pages 349-352, October 2002	Patrick K. Turley
28.	Orthodontics and temporomandibular disorder: A meta-analysis, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 121, Issue 5 , Pages 438-446, May 2002	Myung-Rip Kim, et al.
29.	The importance of incisor positioning in the esthetic smile: The smile arc, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 120, Issue 2 , Pages 98-111, August 2001	David M. Sarver
30.	The effect of preemptive and/or postoperative ibuprofen therapy for orthodontic pain, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 120, Issue 1 , Pages 20-27, July 2001	Melissa K. Bernhardt, et al.

31.	Pseudoelasticity and thermoelasticity of nickel-titanium alloys: A clinically oriented review. Part I: Temperature transitional ranges, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 119, Issue 6 , Pages 587-593, June 2001	Margherita Santoro, et al.
32.	Pseudoelasticity and thermoelasticity of nickel-titanium alloys: A clinically oriented review. Part II: Deactivation forces, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 119, Issue 6 , Pages 594-603, June 2001	Margherita Santoro, et al.
33.	Considerations for orthognathic surgery during growth, Part 1: Mandibular deformities, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 119, Issue 2 , Pages 95-101, February 2001	Larry M. Wolford, et al.
34.	Evaluation of treatment and posttreatment changes of protraction facemask treatment using the PAR index, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 118, Issue 4 , Pages 414-420, October 2000	Peter Ngan, Cynthia Yiu
35.	Early treatment of vertical skeletal dysplasia: The hyperdivergent phenotype, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 118, Issue 3 , Pages 317-327, September 2000	Wayne L. Sankey, et al.
36.	Treatment timing for Twin-block therapy, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 118, Issue 2 , Pages 159-170, August 2000	Tiziano Baccetti, et al.
37.	The genetics of human tooth agenesis: New discoveries for understanding dental anomalies, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 117, Issue 6 , Pages 650-656, June 2000	Heleni Vastardis
38.	The use of the lingual arch in the mixed dentition to resolve incisor crowding, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 117, Issue 1 , Pages 81-85, January 2000	Mathew M. Brennan, Anthony Gianelly
39.	Objective grading system for dental casts and panoramic radiographs, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 114, Issue 5 , Pages 589-599, November 1998	John S. Casco, et al.
40.	Nasal obstruction and facial growth: The strength of evidence for clinical assumptions, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 113, Issue 6 , Pages 603-611, June 1998	Katherine W.L. Vig
41.	The functional matrix hypothesis revisited. 4. The epigenetic antithesis and the resolving synthesis, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 112, Issue 4 , Pages 410-417, October 1997	Melvin L. Moss
42.	The functional matrix hypothesis revisited. 3. The genomic thesis, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 112, Issue 3 , Pages 338-342, September 1997	Melvin L. Moss

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44.	The functional matrix hypothesis revisited. 1. The role of mechanotransduction, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 112, Issue 1 , Pages 8-11, July 1997	Melvin L. Moss
45.	The mechanism of Class II correction in late Herbst treatment, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 112, Issue 1 , Pages 87-91, July 1997	Michael Konik, et al.
46.	Biomechanics of orthodontic correction of dental asymmetries, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 107, Issue 6 , Pages 618-624, June 1995	Edsard van Steenberg, Ravindra Nanda
47.	Impacted maxillary canines: A review. <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 101, Issue 2 , Pages 159-171, February 1992	Samir E. Bishara
48.	The risk of orthodontic treatment for producing temporomandibular mandibular disorders: A literature overview. <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 101, Issue 1 , Pages 79-83, January 1992	Cyril Sadowsky
49.	Arch perimeter changes on rapid palatal expansion. <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 97, Issue 3 , Pages 194-199, March 1990	Michael D. Adkins, et al.
50.	A long-term prospective evaluation of the circumferential supracrestal fiberotomy in alleviating orthodontic relapse, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 93, Issue 5 , Pages 380-387, May 1988	John G. Edwards
51.	An evaluation of changes in mandibular anterior alignment from 10 to 20 years postretention, <i>American Journal of Orthodontics & Dentofacial Orthopedics</i> , Volume 93, Issue 5 , Pages 423-428, May 1988	Robert M. Little, et al.
52.	Prediction of mandibular growth rotation evaluated from a longitudinal implant sample, <i>American Journal of Orthodontics</i> , Volume 86, Issue 5 , Pages 359-370, November 1984	Vibeke Skieller, et al.
53.	Skeletal morphologic features of anterior open bite, <i>American Journal of Orthodontics</i> , Volume 85, Issue 1 , Pages 28-36, January 1984	Thomas J. Cangialosi
54.	Third molars: A review, <i>American Journal of Orthodontics</i> , Volume 83, Issue 2 , Pages 131-137, February 1983	Samir E. Bishara, George Andreasen
55.	Deep overbite correction by intrusion, <i>American Journal of Orthodontics</i> , Volume 72, Issue 1 , Pages 1-22, July 1977	Charles R. Burstone
56.	The "Wits" appraisal of jaw disharmony, <i>American Journal of Orthodontics</i> , Volume 67, Issue 2 , Pages 125-138, February 1975	A. Jacobson

57.	The six keys to normal occlusion, <i>American Journal of Orthodontics</i> , Volume 62, Issue 3 , Pages 296-309, September 1972	Lawrence F. Andrews
58.	Prediction of mandibular growth rotation, <i>American Journal of Orthodontics</i> , Volume 55, Issue 6 , Pages 585-599, June 1969	A. Björk
59.	The clinical application of a tooth-size analysis, <i>American Journal of Orthodontics</i> , Volume 48, Issue 7 , Pages 504-529, July 1962	Wayne A. Bolton
60.	The use of cephalometrics as an aid to planning and assessing orthodontic treatment: Report of a case, <i>American Journal of Orthodontics</i> , Volume 46, Issue 10 , Pages 721-735, October 1960	Cecil C. Steiner
61.	Frankfort-Mandibular Plane Angle in Orthodontic Diagnosis, Classification, Treatment Planning and Prognosis, <i>American Journal of Orthodontics and Oral Surgery</i> , Volume 32, Issue 4 , Pages 175-230, April 1946	C.H. Tweed
62.	Long-Term Stability of Lip Bumper Therapy Followed by Fixed Appliances, <i>The Angle Orthodontist</i> , Volume 76, Issue 1 , Pages 36-42, January 2006	Michael Joseph Solomon, et al.
63.	Rapid Maxillary Expansion Followed by Fixed Appliances: A Long-term Evaluation of Changes in Arch Dimensions, <i>The Angle Orthodontist</i> , Volume 73, Issue 4 , Pages 344-353, August 2003	James A. McNamara, et al.
64.	A Longitudinal Study of Incremental Expansion Using a Mandibular Lip Bumper, <i>The Angle Orthodontist</i> , Volume 73, Issue 4 , Pages 396-400, August 2003	C. Chris Murphy, et al.
65.	An Improved Version of the Cervical Vertebral Maturation (CVM) Method for the Assessment of Mandibular Growth, <i>The Angle Orthodontist</i> , Volume 72, Issue 4 , Pages 316-323, August 2002	Tiziano Baccetti, et al.
66.	Does Malocclusion Affect Masticatory Performance?, <i>The Angle Orthodontist</i> , Volume 72, Issue 1 , Pages 21-27, February 2002	Jeryl D. English, et al.
67.	Orthodontic Biomaterials: From the Past to the Present, <i>The Angle Orthodontist</i> , Volume 72, Issue 6 , Pages 501-512, December 2002	Robert P. Kusy
68.	Incisor Root Resorptions Due to Ectopic Maxillary Canines Imaged by Computerized Tomography: A Comparative Study in Extracted Teeth, <i>The Angle Orthodontist</i> , Volume 70, Issue 4 , Pages 276-283, August 2000.	Sune Ericson, Jüri Kuroi
69.	The Esthetic Impact of Extraction and Nonextraction Treatments on Caucasian Patients, <i>The Angle Orthodontist</i> , Volume 70, Issue 1 , Pages 3-10, February 2000.	S. Jay Bowman, Lysle E. Johnston Jr.
70.	The Role of Computerized Video Imaging in Predicting Adult Extraction Treatment Outcomes, <i>The Angle Orthodontist</i> , Volume 68, Issue 5 , Pages 391-399, October 1998	Thuan N. Le, et al.

71.	A review of contemporary archwires: Their properties and characteristics, <i>The Angle Orthodontist</i> , Volume 67, Issue 3 , Pages 197-208, June 1997	Robert P. Kusy
72.	Surgically assisted rapid maxillary expansion: A comparison of technique, response, and stability, <i>The Angle Orthodontist</i> , Volume 67, Issue 4 , Pages 309-320, August 1997	William M. Northway, John B. Meade Jr.
73.	Clinical and scientific applications/advances in video imaging, <i>The Angle Orthodontist</i> , Volume 66, Issue 6 , Pages 407-416, December 1996	John E. Grubb, et al.
74.	Uncovering labially impacted teeth: apically positioned flap and closed-eruption techniques, <i>The Angle Orthodontist</i> , Volume 65, Issue 1 , Pages 23-34, February 1995	Michael E. Vermette, et al.
75.	Radiographic Evaluation of Skeletal Maturation, <i>The Angle Orthodontist</i> , Volume 52, Issue 2 , Pages 88-112, April 1982	Leonard S. Fishman
76.	Long-Term Posttreatment Evaluation of Rapid Palatal Expansion, <i>The Angle Orthodontist</i> , Volume 50, Issue 3 , Pages 189-217, July 1980	A. J. Haas
77.	The genetic basis of normal and abnormal craniofacial development, <i>Acta Odontologica Scandinavica</i> , Volume 56, No. 6 , Pages 321-325, January 1998	Irma Thesleff
78.	Basic mechanisms in craniofacial growth, <i>Acta Odontologica Scandinavica</i> , Volume 53, No. 3 , Pages 144-151, January 1995	Birgit Thilander
79.	The Heritability of Malocclusion: Part 2. The Influence of Genetics in Malocclusion, <i>British Journal of Orthodontics</i> , Volume 26, No. 3 , Pages 195-203, September 1999	P.A. Mossey
80.	Maxillary development revisited: relevance to the orthopaedic treatment of Class III malocclusions, <i>European Journal of Orthodontics</i> , Volume 19, Issue 3 , Pages 289-311, June 1997	Jean Delaire
81.	Meta analysis of the treatment-related factors of external apical root resorption, <i>Orthodontics & Craniofacial Research</i> , Volume 7, Issue 2 , Pages 71-78, May 2004	G.R. Segal, et al.
82.	Prevention of infective endocarditis: Guidelines from the American Heart Association, <i>Journal of the American Dental Association</i> , Volume 139, No suppl 1 , Pages 3S-24S, January 2008	W. Wilson, et al.
83.	Occlusion, orthodontic treatment, and temporomandibular disorders: A review, <i>Journal of Orofacial Pain</i> , Volume 9 Issue1 , Pages 73-115, Winter 1995	J.A. McNamara, et al.
84.	Class II Malocclusions: Diagnostic and Clinical Considerations With and Without Treatment, <i>Seminars in Orthodontics</i> , Volume 12, Issue 1 , Pages 11-24, March 2006	Samir E. Bishara
85.	Guidelines for managing the orthodontic-restorative patient, <i>Seminars in Orthodontics</i> , Volume 3, Issue 1 , Pages 3-20, March 1997	Vincent G. Kokich, Frank M. Spear

86.	Managing treatment for the orthodontic patient with periodontal problems, <i>Seminars in Orthodontics</i> , Volume 3, Issue 1 , Pages 21-38, March 1997	David P. Mathews, Vincent G. Kokich
87.	Orthodontic-endodontic treatment planning of traumatized teeth, <i>Seminars in Orthodontics</i> , Volume 3, Issue 1 , Pages 39-44, March 1997	David R. Steiner, John D. West
88.	Interdisciplinary management of single-tooth implants, <i>Seminars in Orthodontics</i> , Volume 3, Issue 1 , Pages 45-72, March 1997	Frank M. Spear, et al.
89.	Ceramic brackets: Something old, something new, a review, <i>Seminars in Orthodontics</i> , Volume 3, Issue 3 , Pages 178-188, September 1997	Samir E. Bishara, Dale E. Fehr
90.	Managing complex orthodontic problems: the use of implants for anchorage, <i>Seminars in Orthodontics</i> , Volume 2, Issue 2 , Pages 153-160, June 1996	Vincent G. Kokich
91.	Highlights of the 2010 American Heart Association Guidelines for CPR and ECC, American Heart Association , Pages 1-32, 2010	American Heart Association

TEXTBOOKS

1.	<i>ADA Guide to Dental Therapeutics</i>	ADA Publishing <u>Second Edition 2000</u> Chapter 4 Chapter 10
2.	<i>Gray's Anatomy</i>	<u>Thirty-Eighth Edition 1995</u> Chapter 3 Chapter 7 Chapter 8
3.	<i>Oral Histology</i>	Development, Structure and Function, Antonio Nanci, The Mosby Co. <u>Seventh Edition 2008</u> Chapter 2 Chapter 3 Chapter 5 Chapter 6 Chapter 10 Chapter 12
4.	<i>Syndromes of The Head and Neck</i>	Gorlin, Cohen and Hennekam; Oxford <u>Fourth Edition 2001</u> Chapter 21 Chapter 22 Chapter 23 Chapter 24

5.	<i>Facial Growth</i>	D. Enlow, W.B. Saunders Co. <u>Third Edition 1990</u> Chapter 1 Chapter 2 Chapter 3 Chapter 12 Chapter 14 Chapter 15
6.	<i>Oral and Maxillofacial Pathology</i>	Neville, Damm, Allen and Bouquet, W.B. Saunders Co. <u>Third Edition 2009</u> Chapter 1 Chapter 7 Chapter 14 Chapter 16 Chapter 17
7.	<i>Management of Temporomandibular Disorders and Occlusion</i>	J. Okeson, The Mosby Co. <u>Sixth Edition 2008</u>
8.	<i>Radiographic Cephalometry, from Basics to Videoimaging</i>	A. Jacobson, Quintessence Publishing Co., Inc., 1995 Chapter 3 Chapter 4 Chapter 5 Chapter 8 Chapter 10 Chapter 12 Chapter 18 Chapter 22
9.	<i>Oral Radiology Principles and Interpretation</i>	S.C. White and M.J. Pharoah, The Mosby Co. <u>Fourth Edition 2000</u> Chapter 3 Chapter 11 Chapter 13 Chapter 24
10.	<i>Contemporary Orthodontics</i>	W.R. Proffit with H.W. Fields, Jr., The Mosby Co. <u>Fourth Edition 2007</u>
11.	<i>Biomechanics in Clinical Orthodontics</i>	Ravindra Nanda, W.B. Saunders Co., 1997 Chapter 1 Chapter 5 Chapter 7 Chapter 10

12.	<i>Orthodontics, Current Principles and Techniques</i>	L. Graber, R. Vanarsdall, Jr. and K. Vig, The Mosby Co. <u>Fifth Edition 2012</u>
13.	<i>Orthodontics Dentofacial Orthopedics</i>	J. McNamara, W. Burdon, 2001 Chapter 1 Chapter 25
14.	<i>Mosby's Orthodontic Review</i>	J. English, T. Peltomaki, K. Pham-Litschel <u>First Edition 2009</u>
15.	<i>Contemporary Treatment of Dentofacial Deformity</i>	W. Proffit, R. White, D. Sarver: Mosby 2003 Chapter 2 Chapter 5 Chapter 7 Chapter 9 Chapter 10 Chapter 11 Chapter 16 Chapter 17 Chapter 18
16.	<i>Clinical Periodontology and Implant Dentistry</i>	J. Lindhe, Munksgaard. <u>Fourth Edition</u> Chapter 16 Chapter 31
17.	<i>Clinical Periodontology</i>	M. Newman, H. Takei and F. Carranza W. B. Saunders Co. <u>Ninth Edition 2002</u> Chapter 5 Chapter 18 Chapter 45
18.	<i>Primer of Biostatistics</i>	Stanton A. Glantz, McGraw-Hill Fifth Edition 2001 Chapter 2 Chapter 3 Chapter 4 Chapter 5 Chapter 6 Chapter 8 Chapter 12
19.	<i>OSHA Bloodborne Pathogens Exposure Control Plan</i>	OSHA
20.	<i>ABO Website</i>	The American Board of Orthodontics, website; http://www.americanboardortho.com

21.	<i>American Red Cross Manual</i>	American Red Cross
22.	<i>3D Head & Neck Anatomy for Dentistry</i>	DVD-ROM Primal Pictures Ltd www.primalpictures.com

**THE AMERICAN BOARD OF ORTHODONTICS
WRITTEN EXAMINATION**

CLINICAL TOPICS

Adult treatment
African American cephalometric norms
Alveolar ridge for implants
Anterior facial height
Arch form
Arch length discrepancy
Assessing hand-wrist radiographs
Bicuspid extraction treatment
Bimaxillary protrusion
“Black triangles” / tooth morphology
Blocked out canines
Bolton’s tooth size discrepancy
Bruxism
Class II, Division 1 malocclusion
Class II, Division 2 malocclusion
Class III malocclusion
Closed bite
Congenitally missing premolars
Deep overbite
Dental age vs skeletal age vs chronological age
Dental midline deviations
Diastema
Early loss of primary teeth
Ectopic canines
Endodontically treated teeth
Excessive spacing
Facial asymmetry
Facial type classification
Frenum management
Functional shift
Growth patterns

“Gummy” smile
Hand wrist radiographs
Impacted canine
Implants
Incisor crowding
Lateral open bite
Mandibular asymmetry
Mandibular retrognathia
Maxillary deficiency
Maxillary protrusion
Missing mandibular incisor
Missing molars
Missing teeth
Open bite
Orthodontic relapse
Orthognathic surgery
Over erupted incisors
Over retained primary teeth
Posterior crossbite
Posterior discrepancy
Primary failure of eruption
Retained primary molars
Root resorption
Severe rotations
Space maintenance
Subdivision classification
Surgical procedures
Third molars
TMD
Tongue thrust habit
Upper lip to incisor relationship