



American Board for Certification in Orthotics, Prosthetics & Pedorthics, Inc.
Serving the OP&P profession since 1948

PRACTITIONER

Book of Rules & Candidate Guide

Eligibility Requirements • Application Process • Exam Content





American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc.

Practitioner Book of Rules & Candidate Guide

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Overview

FOUNDED IN 1948 as a not-for-profit organization, the American Board for Certification in Orthotics, Prosthetics and Pedorthics Inc., commonly known as ABC, is a credentialing body established by the orthotic and prosthetic profession to identify those practitioners who satisfy minimum qualifications to render essential public health services in these disciplines. ABC conducts examinations to test the competency of those persons engaged in the practice of orthotics and/or prosthetics who voluntarily apply for the examination process.

Practitioner certification in orthotics and/or prosthetics is awarded as an attestation of competency for the public, those who require orthotic and/or prosthetic services and those in other health professions. The awarding of ABC certification provides the certified practitioner with an appropriate and meaningful recognition of professional competence.

Practitioners whose education and clinical training meet existing ABC requirements may sit for the ABC examinations which are designed to evaluate knowledge of current orthotic/prosthetic treatment modalities as well as ability to assess patients, formulate a treatment plan, implement that treatment plan and manage the total care of patients in need of orthotic and/or prosthetic interventions. Those who successfully complete the examination process are awarded certification in orthotics, prosthetics or both. The awarding of these certificates recognizes that the individual has demonstrated a minimum level of competence.

The ABC practitioner certification programs are accredited by the National Commission for Certifying Agencies (NCCA), an organization that establishes standards on examination validity, reliability and safeguards to the public for credentialing programs. ABC certification is

recognized nationally by various state agencies and third-party payers for insurance reimbursements. ABC certification is considered the standard among orthotic, prosthetic and pedorthic professionals.

ABC certification also is highly regarded by orthopaedic surgeons, physical and occupational therapists, amputee support groups and other members of the rehabilitation community. ABC certification is nationally and internationally recognized.

Orthotic and Prosthetic Practitioners

An ABC Certified Orthotist or Prosthetist is a healthcare professional who has demonstrated their qualifications and competency through a thorough and detailed examination process. This individual has been specifically educated and trained to manage comprehensive orthotic and/or prosthetic patient care. This includes patient assessment, formulation of a treatment plan, implementation of the treatment plan, follow-up and practice management.

Orthotic care may include, but is not limited to, patient evaluation, orthosis design, fabrication, fitting and modification to treat a neuro-musculoskeletal disorder or acquired condition.

Prosthetic care may include, but is not limited to, patient evaluation, prosthesis design, fabrication, fitting and modification to treat limb loss for purposes of restoring physiological function and cosmesis.

The *Orthotic, Prosthetic and Pedorthic Scope of Practice* can be located on the ABC website at www.abcop.org or by calling the ABC office at 703-836-7114.

Professional Credentials

Practitioners aspiring to become ABC Certified Orthotists or Prosthetists (CO or CP) must successfully meet the board mandated prerequisites for credentialed individuals. These include submitting the appropriate documentation of education and residency training, successfully passing the comprehensive written, written simulation and the hands-on Clinical Patient Management examinations. These in-depth examinations are designed to cover the domains, tasks and skills of the profession as well as the clinical decision-making and problem-solving skills involved in patient care.

Successful completion of the rigorous requirements and examinations is confirmation that you have the education, knowledge, experience and skills required of an ABC Certified Orthotist and/or Prosthetist.

The credential of Certified Prosthetist-Orthotist (CPO) is conferred to practitioners whose responsibilities conform to those of both orthotist and prosthetist and who successfully fulfill all of the requirements in both disciplines.

Governance of ABC

The affairs of ABC are governed by the board of directors. Therefore, the board is responsible for the policies and procedures governing certification, and the board has the authority under its bylaws to modify the rules, regulations and policies as it deems appropriate. The board is comprised of ABC Certified Orthotists, Prosthetists, Pedorthists and public representatives.

Proprietary Ownership of ABC Credentials

Certification is a privilege, not a right. The ABC board of directors maintains legal authority to award its certification credentials and may withhold, suspend or revoke any certification credential in accordance with the established policies, rules and regulations.

Code of Professional Responsibility

Upon approval for candidate status, candidates are subject to the ABC *Code of Professional Responsibility*. Adherence to the Code is required throughout the candidacy and continues once certification is granted.

Timeline for Certification Process

ACTIVITY	WINTER EXAM SESSION	SPRING EXAM SESSION	SUMMER EXAM SESSION	FALL EXAM SESSION
Application Deadline	December 1	March 1	June 1	September 1
Eligibility letters mailed	4 weeks after application deadline	4 weeks after application deadline	4 weeks after application deadline	4 weeks after application deadline
Written exam logistical information mailed by the testing agency	4 weeks prior to exam	4 weeks prior to exam	4 weeks prior to exam	4 weeks prior to exam
Written exam scores mailed	4-6 weeks post exam	4-6 weeks post exam	4-6 weeks post exam	4-6 weeks post exam
New certificant packages mailed	8 weeks post exam	8 weeks post exam	8 weeks post exam	8 weeks post exam

Note: Dates are approximate

Eligibility Requirements for Certification

Orthotic and prosthetic practitioners may qualify to be examined upon completion of specific education and experience requirements established by ABC. The education and experience requirements are summarized in the chart on page 9.

Education of Orthotists and Prosthetists

Education must be from a regionally accredited institution of higher learning in the United States or its territories unless otherwise specified. In addition, all specialized education in orthotics and prosthetics must have been acquired from a program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Clinical Experience

All graduates of a CAAHEP accredited orthotics or prosthetics baccalaureate, masters, or certificate program must obtain their clinical experience by completing a National Commission on Orthotic and Prosthetic Education (NCOPE) accredited residency program. This is a 12-month program in which a resident is tracked through the program with specific clinical experience, research and other requirements. Residents must successfully complete the residency program to meet the certification eligibility requirements.

Foreign Education/Certification

Individuals who have received their baccalaureate, masters and/or orthotic and prosthetic education in

a foreign country must have their education evaluated by the World Education Services (WES), P.O. Box 5087, New York, NY 10274-5087, (212-966-6311), www.wes.org. WES is a professional education evaluation service that equates foreign education to programs in the United States.

Graduates of the University of Strathclyde's National Centre for Training and Education in Prosthetics and Orthotics are not required to submit a transcript evaluation from WES. An official transcript indicating degree conferral must be submitted with the application for ABC certification.

If an applicant is certified and currently in good standing by the Canadian Board for Certification of Prosthetists and Orthotists (CBCPO), ABC will waive the educational and experience eligibility criteria. Candidates must submit a letter from CBCPO verifying good standing dated within two months of the application for ABC certification. Practitioners certified by the CBCPO must take the ABC examinations.

Extension of Credential (CPO)

Certified practitioners seeking to extend their credential to CPO (seeking certification in the second discipline) must meet the education and experience requirements in effect at the time of their application and described in this publication.

Upon extension of credential, the newly credentialed CPO will receive a new certification, MCE effective and expiration date.

Education and Experience Requirements

PATHWAY	EDUCATION	EXPERIENCE
1	Bachelors or Masters degree in orthotics or prosthetics from a CAAHEP accredited program.	A 12-month NCOPE accredited residency program.
2	Bachelors or Masters degree in any major, plus an orthotic or prosthetic certificate from a CAAHEP accredited program.	A 12-month NCOPE accredited residency program.
3	Foreign degree equivalent to a Bachelors or Masters in orthotics and prosthetics.	A 12-month NCOPE accredited residency program.
	Foreign degree equivalent to a Bachelors in any major; plus, an orthotic or prosthetic certificate from a CAAHEP accredited program.	A 12-month NCOPE accredited residency program.

The Application Process

All requirements must be satisfied prior to the application deadline. Individuals who have met the eligibility requirements may submit an application for approval as a candidate for certification. Such applications will be considered for the next available examination session.

The process for applying is:

- 1) Submit the application, and
- 2) Register for the examination(s). Registration for at least one of the three examinations must be submitted with the application.

Applicants for practitioner certification who have been evaluated and deemed to have satisfied all eligibility requirements are assigned a “candidate” status. The candidate is granted a three-year eligibility period in which to take and pass the three examinations. The examinations are the written, the written simulation and the Clinical Patient Management (CPM).

General Application Information

1. **Application Forms:** Individuals seeking certification may obtain an application from ABC. Applications are available on the ABC website, www.abcop.org, or by calling the ABC office at 703-836-7114.
2. **Submission of Application:** Applications must be complete in all respects to be processed and approved. Incomplete applications will not be processed until all required documents and fees are submitted. Such processing delays will cause the applicant to be excluded from a desired examination date and location.

3. **Fees and Documentation Required:** (carefully read the application for instructions and requirements)

- The non-refundable application fee
- Completed application form
- Official degree transcript*
- Copy of the certificate of completion from the approved orthotic or prosthetic course(s)
- The examination fees

**Sealed, official transcripts may be mailed directly to ABC from the school or you may submit them with your application. Sealed transcripts must not be opened by the applicant.*

4. **Application Deadline:**

Winter session—December 1

Spring session—March 1

Summer session—June 1

Fall session—September 1

5. **Acceptance of Applications and Examination Registrations:** Although every effort is made to accommodate all eligible candidates, ABC reserves the right to limit the number of registrants should space be restricted. Applications and registrations will be accepted on a first-come, first-served basis.

6. **Application Decision:** Applicants will be notified in writing of their eligibility decision approximately four weeks after the application deadline.

7. **Applicant Ineligibility:** An applicant will be determined ineligible for the following reasons:

- Insufficient documentation to assess eligibility
- Documentation provided does not meet eligibility requirements
- Lack of required fees

If it is determined that the information provided is inadequate to assess eligibility, the applicant will be notified and given a deadline to respond with necessary documentation. If documents are not received by the given deadline, the application will be denied. The application may be reconsidered during a later examination cycle. Information regarding the next examination cycle must be requested by the applicant. One subsequent application will be processed under the original fee. If the applicant is denied eligibility a second time, a new application and fee will be required.

8. **Eligibility Period:** The approved candidate will be granted a three-year eligibility period in which to take and pass the examinations. The candidate will be granted no more than four attempts at each exam within their eligibility period to pass each examination.

9. **Re-Examination:** Any candidate who is unsuccessful on one of the three examinations may retake the examination provided the candidate is within his or her eligibility period and has not exhausted the allotted four attempts at the examination. All other scores will stand throughout the eligibility period. To register for the next available examination, the candidate must request and submit the current registration form and fees.

10. **Reapplying for Eligibility:** Once the candidate has exhausted his or her eligibility period, he or she may reapply for eligibility by submitting a new application, subject to the prevailing Book of Rules,

complete with supporting documentation and application fee. The previous file will be referenced only for the official degree transcripts should the applicant reapply within a period of seven years following the expiration of his or her original eligibility. The same policy regarding the transcripts applies to those submitting an application to extend credentials.

11. **Address Changes:** The home and/or email address provided on the application will be used for mailing the letter of eligibility, examination confirmation and results. Individuals are responsible for informing ABC immediately in writing of any address changes.

12. **Authority:** ABC reserves the right to ask applicants to furnish such information or make such inquiries as may be deemed appropriate to identify the nature and extent of the applicant's education, experience, competency, moral character and reputation.

13. **Falsification:** Discovery that an applicant has falsified any information on the application shall lead to any or all of the following actions:

- Rejection of the application
- Barring the applicant from examination
- Revocation of any existing ABC certification status of the applicant
- Reference of the incident to the Professional Discipline Committee
- Any act of falsification shall be made a part of that individual's permanent record.

14. **Cancellation/Refund Policies:** Any candidate who is unable to take an examination for which he or she has registered must notify ABC with a signed letter. Cancellations are effective the date they are received by ABC.

Receipt of notification at least 30 days prior to the examination entitles the candidate to a 100 percent refund. Any registered candidate who notifies ABC in writing in less than 30 days prior to the examination will forfeit the entire fee for that examination. The eligibility period will not be extended.

Extenuating circumstances may be considered. Such requests must be in writing, signed by the candidate, addressed to ABC and include the reasons for the request and supporting documentation. To register for the next available examination, the candidate must request and submit the current registration form and fees.

15. Application Appeals: Applicants whose applications have been denied by the Applications Review Committee on the basis that the applicant has failed to demonstrate the minimal eligibility requirements may appeal their denial. Applicants must submit appeals in writing to the ABC board of directors.

Appeals must:

- Be in writing, signed by the applicant and sent to ABC by certified mail
- State the specific reasons for appeal
- Be accompanied by evidence or other pertinent information refuting original findings
- Be postmarked no later than 30 calendar days after the date on the notification letter

Appeals Decision:

Applicants submitting an appeal to the board of directors will receive notification of the decision within 45 days of receipt of the request. The board of directors' decision is final.

Examination Policies and Information

1. **Statement of Non-Discrimination:** ABC does not discriminate among applicants on the basis of age, sex, race, religion, national origin, disability or marital status.

2. **Confirmation of Examination Dates/Location(s):** All registered candidates will be notified by mail or email by the contract testing service with all logistical information, including a list of sites and an explanation of the test site selection process. All candidates registered for the Clinical Patient Management examination will receive written confirmation and logistical information for the examination dates approximately 45 days prior to the scheduled examination.

3. **Authorization-to-Test Letter:** Candidates for the examination will receive an authorization-to-test letter from the contracted testing service. It is the responsibility of the applicant to adhere to the instructions on the letter to secure an examination date, time and location. To be admitted for testing for any examination, you must arrive at the assigned location at least 30 minutes prior to your scheduled exam time, present your authorization-to-test letter and have your identity confirmed by photo ID.

You will be required to show two current forms of identification, including one current, unexpired government-issued photo identification document with signature (e.g., driver's license or passport) and a second identification document with your signature (e.g., credit card or work ID). The name on both identification documents must match the name on the authorization-to-test letter. You will not be permitted to test without the required identification.

4. **Test Center Closings:** If a test center must be closed before a test date, all candidates for the

affected center will be offered options that may include having their examinations rescheduled to an alternate date determined jointly by ABC, the contract testing service, and the candidate; or receiving full refunds of examination fees. When an administrative cancellation is required, refunds and rescheduling options will apply only to candidates scheduled to report to the affected center.

5. **Hazardous Weather:** If you are unable to travel to your testing center due to hazardous weather, you must notify ABC at (703) 836-7114 within three days after the examination date to be eligible for refund or rescheduling options. ABC will determine whether or not conditions warrant a full refund of examination fees. Neither ABC or the contract testing service will make any reimbursements for any expenses (other than examination fees) incurred by candidates unable to reach their test centers due to hazardous weather.

6. **Space Limitation for CPM Examination:** Due to the logistical requirements of the CPM examinations, limitations on the number of candidates who can be accepted for testing may apply. In this event, candidates will be notified of a deferral to the next available date. Examination fees will be refunded and deferred candidates are responsible for submitting those fees for a future examination.

7. **Special Accommodations:** It is the policy of ABC to administer certification examinations in a manner that does not discriminate against an otherwise qualified applicant. ABC offers reasonable and appropriate accommodations for the examinations for those persons with documented disabilities, as required by the Americans with Disabilities Act (ADA).

Candidates requesting any accommodation must submit a separate Application for Examination Accommodations with the application/ registration form to provide adequate time to resolve any documentation issues or examination logistical issues that may arise. ABC will review each request on an individual basis and make decisions relative to appropriate accommodations. Requests received without the full name of the applicant or the required documentation will be denied. The Special Accommodation Policy and Application for Examination Accommodations are available from the ABC office.

8. **Language:** The examinations are offered in English only. No translators or translation devices will be allowed during the examination.

9. **Misconduct at the Examinations:** It is improper for examination candidates to engage in any of the following activities:

- Failing to observe any rules of conduct as outlined by the test proctor
- Copy in writing or otherwise record or transmit to others any examination questions or answers or other aspects of the nature or content of the examination
- Bring any answering agent of any nature (i.e., books, notes) to the examination site or school grounds
- Remove from the test site any used scratch paper or notes taken during the exam
- Offer, assist, or solicit assistance from other candidates, examiners or those responsible for the administration of the examination
- Engage in any other conduct or inappropriate behavior that is injurious to the integrity of the examination or to any of its participants

10. **Dismissal Policies:** Any candidate who is observed engaging in any of the above listed activities will be subject to dismissal from the examination, may be barred from future examinations for a period ranging from one year to permanent dismissal and

may be required to forfeit his or her current examination fees and a period of eligibility. Prior to determination regarding future permission to take the examination, the candidate is entitled to request a review by written appeal, provided the written appeal is received by ABC within 30 days of dismissal. The written appeal must cite reasons refuting the decision for dismissal.

Following a review of the written appeal, the board of directors will make a determination regarding future permission to take the examination. The candidate will be notified of the board's decision within 45 days of receipt of the appeal. The board of directors' decision is final.

11. **Examination Results:** The contract testing service will mail or email score reports directly to the candidates approximately four to six weeks following the written examinations. CPM score reports will be mailed approximately 10 weeks following the examination. Score reports will be mailed to the home address and/or emailed to the email address on the application unless otherwise instructed, in writing, by the candidate.

12. **Scoring Procedures:** Answer documents for all examinations are scored by the contract testing service. Scores within five percent of the passing score are always re-verified as part of standard quality control procedures.

13. **Examination Scoring:**

Scoring of the written examination: The passing score for the written examination has been recommended by a geographically diverse panel of practicing certified practitioners with both clinical and educational backgrounds individually selected by the board of directors. This panel, under the guidance of testing experts from the contract testing service, computes a passing score representing the minimum level of knowledge that must be demonstrated to pass the examination. All examinations are administered and scored by a computer-based system.

Scoring of the written simulation examination: Each simulation problem contains options that are scored as clearly indicated in competent practice or clearly contraindicated. The problems also contain options that are appropriate (without being clearly indicated), neutral and inappropriate (without being clearly contraindicated). All problems are scored individually by comparing the candidate's responses with those identified as optimal by content experts. The scores for each problem are then combined to calculate the total score. Candidates achieving the optimal score select the path identified as the optimal path, avoiding options that detract from the score by being contraindicated or clearly contraindicated in competent practice. The passing point, as determined by expert judges, is fixed to assure that all passing candidates achieve at least the minimally acceptable score.

Scoring of the Clinical Patient Management examination: ABC calculates CPM scores using a formula that weights each response relative to how critical that item is judged to be. This judgment is developed by a panel of certified practitioners. Clinical examiners evaluate a candidate's performance on each task. The passing point is referenced to a criterion with clear, predetermined standards.

14. Hand Scoring: If a failing score is received, the results may be verified through hand scoring. However, the scoring methods used by ABC and the contract testing service are highly reliable and accurate and rarely does hand scoring produce a change in a score. Written requests for hand scoring must be received within two weeks of receipt of the test scores and must include the fee in the form of a check or money order made payable to The American Board for Certification in Orthotics, Prosthetics and Pedorthics Inc. The fee for hand scoring the written examination is \$75. The fee for hand scoring each written simulation examination is \$225. The fee for hand scoring each clinical patient management examination is \$225. Results of the hand scoring process are mailed approximately eight weeks after receipt.

15. Examination Appeals: Candidates may request a review of a specific item or questions presented on the examination, or may appeal a particular incident or circumstance in relation to an examination.

Review of Examination Question or Item: All requests for review of items, questions or tasks appearing on an examination must be submitted in writing. All requests will be forwarded to the ABC Professional Credentialing Committee or its designees for review. The written request for review must be:

- Completed by the candidate and submitted within 30 days following the examination date
- Accompanied by thorough clinical documentation to support the basis of the challenge

Review of Incident or Administrative Procedure: Candidates may request a review of a specific incident or procedure relative to the examination process or administration if it is felt the incident or procedure impeded the candidate's opportunity for successful completion of the examination. The written request for review must be:

- Completed by the candidate and submitted within 14 days of the examination date
- Accompanied by necessary evidence or other pertinent information

Appeals Decision: Candidates submitting a request for review to ABC shall receive notification of the results within 45 days of receipt. Should the candidate not be satisfied with the decision rendered, the candidate may submit a written appeal to the board of directors within 14 days. Candidates will be notified of the board's decision within 45 days of receipt of the request. The decision of the board is final.

19. Privileged Information: The nature, format, content and results of examinations administered by ABC are considered privileged information. Due to the importance of test security and item banking, neither test booklets nor answer keys will be disclosed or made available for review by candidates or any other unauthorized third party.

20. **Release of Information:** ABC is committed to protecting the confidentiality of candidates' records and has adopted policies to ensure their privacy. Information about candidates and their examination results is not released to any third party, other than state licensure boards, if required. Additionally, candidates' test scores are not released by telephone.

21. **Data Compilation:** ABC may develop and publish statistical data regarding the examinations providing the identities of the candidates are not divulged.

The ABC Practitioner Examinations

General Description of the Examinations

Candidates are required to successfully pass three examinations that are designed to evaluate knowledge and clinical competencies in orthotics and prosthetics practice. The three examinations are independent of one another and may be taken in any sequence. The examinations and the passing scores are reviewed and revised annually.

The written and written simulation examinations are administered by computer-based testing (CBT). CBT is a method of administering tests in which the responses are electronically recorded. As the name implies, computer-based testing makes use of a computer instead of a traditional pen and paper examination. These two examinations are generally offered in the winter, spring, summer and fall at approximately 250 locations around the country.

The Written Examination

The written examination is a three-hour, multiple-choice, CBT examination consisting of 165 questions designed to measure a candidate's general knowledge of basic principles of patient and practice management. General knowledge assessed on the written examination may include anatomy, kinesiology, componentry, materials and practice management. Sample written examination test items may be found in Appendices II and III.

The Written Simulation Examination

The written simulation examination assesses candidates' problem-solving skills through an interactive format. The simulations imitate lifelike situations an orthotist or prosthetist might encounter in daily clinical practice. The written simulations include six problems. Candidates will have three hours for completion of the written simulation examination.

For orthotics, the problems may include scoliosis/kyphosis; spinal cord injuries; fractures; treatment of stroke; upper extremity management; hip and knee pathologies; cervical spine and neuromuscular disease.

The prosthetics simulation may include management of the transradial and transhumeral amputee, upper extremity amputee, partial foot amputee and immediate postoperative fitting procedures.

A sample written simulation examination is provided to each candidate prior to the examination.

The Clinical Patient Management (CPM) Examination

The Clinical Patient Management (CPM) Examination is designed to assess the practical skills considered by experts to be necessary in the competent performance of orthotics and prosthetics. The CPM requires candidates to demonstrate practical ability in a clinical environment. Skills in such areas as patient

evaluation, prescription criteria, measurement technique, fitting, alignment and appropriate handling of patients are evaluated. The CPM examinations are hands-on practical examinations. They are not CBT examinations. The CPM Examinations are generally offered twice a year in one specific location.

Examination Content

The development of valid examinations begins with a practice analysis, which gives a clear and concise definition of the knowledge, skills and abilities needed for competent job performance.

Experts have identified the critical job components in the orthotic and prosthetic profession using a process that includes interviews, surveys, observation and group discussions.

ABC conducted a *Practice Analysis of the Certified Practitioners in the Disciplines of Orthotics and Prosthetics* that identified performance domains for both orthotists and prosthetists. Within each performance domain, several identified tasks provide the basis for questions in the examinations. The Practice Analysis also identified associated knowledge and skills related to the practice of orthotics and prosthetics. The domains, tasks, knowledge and skills are in Appendix I.

Scope Of Practice

An ABC Certified Orthotist and/or Prosthetist is a health care professional who is specifically educated and trained to manage comprehensive orthotic and/or prosthetic patient care. This includes patient assessment, formulation of a treatment plan, implementation of the treatment plan, follow-up and practice management. Orthotic care may include, but is not limited to, patient evaluation, orthosis design, fabrication, fitting and modification to treat a neuromusculoskeletal disorder or acquired condition. Prosthetic care may include, but is not limited to, patient evaluation, prosthesis design, fabrication, fitting and modification to treat limb loss for purposes of restoring physiological function and/or cosmesis.

The orthotist and/or prosthetist certified by ABC is bound by the ABC *Code of Professional Responsibility*, which is enforced by a Professional Discipline program. The certified orthotist/prosthetist is obligated to support and conform to professional responsibilities that promote and assure the overall welfare of the patient and the integrity of the profession. The time limited certification expires without compliance with requirements of the Mandatory Continuing Education program.

The *Orthotic, Prosthetic and Pedorthic Scope of Practice* can be located on the ABC website at www.abcop.org or by calling the ABC office at 703-836-7114.

Initial Certification

Practitioners successfully completing the certification examinations will receive a congratulatory letter, a certificate, a certification number, a sleeve patch, the *ABC Guide to Maintaining Your Certification*, a copy of the *Code of Professional Responsibility* and information regarding the proper use of the ABC credential and logo. Newly certified practitioners will receive an invoice for that year's certification fees at a prorated amount.

Certified practitioners in good standing will receive the *O&P Almanac, Mark of Merit* newsletter, and be listed in the ABC online directory.

A directory of all ABC credentialed individuals and organizations is maintained online and available at www.abcop.org.

Maintaining Certification

All certificatees are required to maintain certification by remitting annual fees, participating in the Mandatory Continuing Education (MCE) program and adhering to the *Code of Professional Responsibility*.

Professional Conduct

Practitioners are required to abide by the *Code of Professional Responsibility* to maintain good standing. The Code was adopted to promote acceptable standards of moral and professional conduct. Certified practitioners must abide by the rules and policies of the board and must otherwise conduct themselves in a fashion that brings credit to the profession, including, if necessary, the exposure of illegal, improper and/or unethical conduct of others that can assist the board in maintaining the standards of the profession. Complaints alleging violations of the Code are referred to the Professional Discipline Committee for review.

Mandatory Continuing Education (MCE)

The following requirements have been established for maintaining continuing education. Please consult the *ABC Guide to Maintaining Your Certification* for additional information on this program.

ABC requires that you maintain your certification through appropriate learning activities relevant to your ABC credential. Although ABC will acknowledge content outside of your scope of practice, **you are required to earn the majority of your continuing education credits on content specifically related to your ABC certification.**

Single Discipline Orthotist or Prosthetist—CO or CP

- A total of 75 credits must be earned during the 5-year cycle.
- A minimum of 50 credits must be Category I Scientific.
- A maximum of 25 credits may be Business and/or Category II Scientific.
- Business credits can be earned in either Category I or II, but do not count toward satisfying the 50 Category I Scientific credits.

Dual Discipline Orthotist Prosthetist—CPO

- A total of 100 credits must be earned during the 5-year cycle.
- A minimum of 75 credits must be Category I Scientific.
- A maximum of 25 credits may be Business and/or Category II Scientific.
- Business credits can be earned in either Category I or II, but do not count toward satisfying the 75 Category I Scientific credits.
- When extending your credential from CO or CP to CPO, the certification date of your most recent credential will determine your 5-year continuing education cycle. For example, if your orthotic certification was awarded in 2007 and your prosthetic certification was awarded in 2010, the effective date for your 5-year cycle will be 2010.

MCE statements are mailed twice per year. These statements should be filed in a secure place since this information serves as the practitioner's official record of recertification. MCE statements are also available online at www.abcop.org.

Failure to Satisfy the Mandatory Continuing Education Requirements

Certified Orthotists and/or Prosthetists who fail to satisfy the continuing education requirement within the 5-year cycle are required to complete 30 penalty credits in addition to the number of credits they are deficient. These credits must be earned within the following calendar year. Of the 30 penalty credits, a minimum of 20 must be Category I Scientific.

Failure to comply with the mandatory continuing education requirements by the end of your 5-year MCE cycle will result in suspension for up to one year. During suspension, you are not permitted to use your certification title and number, you will not receive any complimentary publications, nor will you be included in the ABC online directory.

Failure to maintain your certification may also have a serious effect on your facility's accreditation. Only individuals with an active certification can provide direct patient care and/or supervise others in the provision of care. While on suspension, another appropriately certified individual in good standing must sign off on your patient records.

ABC will send you notification of the deficient credits and the impending suspension via certified letter. ABC imposes discipline specific penalty credits if you fail to meet the minimum credit requirements during your 5-year MCE cycle. These penalty credits are added to the number of credits you are delinquent and the total must be satisfied before suspension will be lifted. You must inform ABC via certified letter within 30 days of your delinquency notification that you intend to earn the deficient and penalty credits within one calendar year. Failure to do so may result in immediate revocation of your certification.

The subsequent 5-year MCE cycle will commence as scheduled, shortening the subsequent cycle by the amount of time it takes you to satisfy the credits. The deficient and penalty credits you earn while on suspension will not be applied to your next 5-year cycle.

Annual Renewal Fees

Certified practitioners must remit annual renewal fees to maintain good standing with ABC. Annual renewal notices are mailed in mid-September and must be paid by December 1. Upon certification, newly certified practitioners will receive an invoice for that year's certification fees at a prorated amount. Subsequent renewal notices will be sent automatically.

Reinstatement of Credential

Once you've satisfied both the penalty and deficient credits, you must remit all delinquent and current year's annual renewal fees in order to regain all rights and benefits to your ABC certification title and number. Subscriptions to the complimentary publications will be renewed as well. You will receive a letter acknowledging your reinstatement along with a new time-limited certificate.

Revocation of Credential

In accordance with ABC's general policies regarding reinstatement, failure to be reinstated during the one-year suspension period will result in revocation of the delinquent certification. Notice of your revocation may be published in the *O&P Almanac* and provided to third party payers.

Reapplication

If your credential is revoked, you may reapply and become recertified upon successful completion of the appropriate re-entry examination. The educational and experiential requirements at the time of reapplication will be waived. Once recertified, you will be provided with a new certification number, certification date, and MCE expiration date.

Leave of Absence Policy

A request for a leave of absence from the profession for not more than two years can be approved by the Continuing Education Committee according to the following criteria:

- A leave of absence will not be granted for more than two years. If you wish to recertify after a leave of absence of more than two years, you must fulfill the ABC reinstatement requirements in effect at the time you return to direct patient care activities.
- During the leave of absence, you may not use your credential for the purpose of direct patient care or facility management. If you are found to be using your credential for either of these purposes, you will be subject to disciplinary action as set forth by the *ABC Code of Professional Responsibility*.
- You must continue to pay annual renewal fees. Your name will appear in the online directory with the modifier (L) designating that you are on a leave of absence.
- Your 5-year MCE cycle will be extended by the equivalent length of time that you are on leave of absence. It is your responsibility to notify ABC that you wish to reactivate your credential before the two years has expired.

It is your responsibility to notify ABC that you wish to reactivate your credential before the two years has expired.

Emeritus Status

Emeritus is an inactive/retired status reserved only for those Certified Orthotists and/or Prosthetists who satisfy all of these requirements:

- Have officially retired from patient care and are not engaged in any employment arrangement using the ABC credential.

- Have been credentialed by ABC for at least 25 years.
- Are at least 55 years of age or are prevented by reasons of health from continuing to practice.
- Are in good standing at the time of application.

Individuals granted Emeritus status are not permitted to use the ABC credential for purposes of patient care that would result in professional remuneration or which would be used for the financial and business benefit of an orthotic or prosthetic facility. You may continue to use your credential designated with the modifier (E) following your credential in circumstances where you are providing patient care for a humanitarian purpose or on a charitable basis.

If you have been granted Emeritus status, the annual renewal fee is waived. You may retain your original certificate but you are not actively credentialed with ABC. A new certificate verifying your Emeritus status will be issued. You will continue to receive a complimentary subscription to the *O&P Almanac* and *Mark of Merit* newsletter.

Retired Practitioner Status

Retired status is granted to those individuals who have retired from practice and are not eligible for Emeritus status. The use of the retired credential is prohibited for purposes of professional remuneration or which would be used for the financial and business benefit of an orthotic, prosthetic, or pedorthic facility. You may continue to use your credential designated with an (RET) in circumstances in which you are providing patient care for a humanitarian purpose or on a charitable basis. Retired individuals are not listed in the online directory, do not receive the complimentary publications, and do not pay an annual renewal fee.

Reinstatement Policies

Past-Due Individuals

If you do not renew your certification in any given year you will no longer possess the credential and are not permitted to use the ABC credential or logo. Only credential holders in good standing will receive the *O&P Almanac, Mark of Merit* newsletter, and be listed in the ABC online directory. Past-Due individuals are subject to the following policy on reinstatement:

- ➔ If you have not renewed your credential for a period of one to two years, you may reinstate your original certification by submitting the current year and all past year renewal fees. Please note all fees submitted will be applied to the oldest balance due.
- ➔ If you have not renewed your credential for a period of more than two years, you may reinstate your certification only by taking and passing the appropriate re-entry examinations in addition to paying the current renewal fees. However, you will not need to meet the current educational and experiential requirements. The prevailing fees and available schedule date for examinations will apply.

Upon passing the exams, you will receive a new certification number, certification date, and MCE expiration date.

Retired or Emeritus Individuals

If you have been granted Retired or Emeritus status and wish to reinstate your credential, you are subject to the following policies for reinstatement:

- ➔ To return to active practice before two years, you can send a letter of request to ABC. All previous and current renewal fees must be paid at the time of reinstatement.
- ➔ To return to active practice after two or more years, you must take and pass the appropriate re-entry examinations and pay current renewal fees. However, you will not need to meet the current educational and experiential requirements. The prevailing fees and available schedule date for examinations will apply.

Upon passing the exams, you will receive a new certification number, certification date, and MCE expiration date.

Appendix I

Certified Orthotist and Prosthetist Domain, Tasks, Knowledge and Skills

Domain 1: Patient Assessment

Tasks:

- Review patient's prescription/referral
- Take a comprehensive patient history, including demographic characteristics, family dynamics, previous use of an orthosis/prosthesis, diagnosis, work history, avocational activities, signs and symptoms, medical history (including allergies to materials, current medications), reimbursement status, patient expectations, patient compliance with ancillary care and results of diagnostic evaluations
- Perform a diagnosis-specific functional clinical and cognitive ability examination that includes manual muscle testing, gait analysis and evaluation of sensory function, range of motion, joint stability and skin integrity
- Consult with other healthcare providers and caregivers, when appropriate, about patient's condition in order to formulate a treatment plan
- Verify patient care by documenting history, ongoing care and follow-up using established record-keeping techniques
- Refer patient, if appropriate, to other healthcare providers for intervention beyond orthotic/prosthetic scope of practice

Domain 2: Formulation of the Treatment Plan

Tasks:

- Evaluate the findings to determine an orthotic/prosthetic treatment plan

- Formulate treatment goals and expected orthotic/prosthetic outcomes to reduce pain, increase comfort, provide stability, prevent deformity, address aesthetic factors and promote healing to enhance function and independence
- Consult with physician, referral source or appropriately licensed healthcare provider to modify, if necessary, the original prescription and/or treatment plan
- Identify design, materials and components to support treatment plan
- Develop a treatment plan based on patient needs, including patient education and follow-up
- Communicate to patient and caregiver about the recommended treatment plan and any optional plans, including disclosure of potential risks and benefits in orthotic/prosthetic care
- Document treatment plan using established record-keeping techniques
- Ensure patient or responsible parties are informed of their financial responsibilities (for example, insurance verification and authorization, deductibles, co-pays) as they pertain to proposed treatment plan

Domain 3: Implementation of the Treatment Plan

Tasks:

- Inform patient, family and caregiver of the orthotic/prosthetic procedure, possible risks and time involved in the procedure
- Provide patient with preparatory care for orthotic/prosthetic treatment (e.g., diagnostic splint, compression garment)
- Select appropriate materials and techniques in order to obtain a patient model and image

- Prepare patient for procedure required to initiate treatment plan (e.g., measure, take impression, delineate, scan, digitize)
- Perform procedure (e.g., measure, take impression, delineate, scan, digitize)
- Refer to manufacturer's specifications and other technical resources regarding components and materials
- Select appropriate materials and components for orthosis/prosthesis based on patient criteria to ensure optimum strength, durability and function (e.g., ankle or knee joints, feet, knee units, lamination layups)
- Prepare delineation, impression and template for modification and fabrication (e.g., prepare impression or reverse delineation, digitize)
- Rectify and prepare patient model and image for fabrication
- Fabricate or assemble orthosis/prosthesis in order to prepare for initial or diagnostic fitting and delivery
- Assess device for structural safety and ensure manufacturers' guidelines have been followed prior to patient fitting and delivery (e.g., torque values, patient weight limits)
- Assess and align orthosis/prosthesis for accuracy in sagittal, transverse and coronal planes in order to provide maximum function and comfort
- Ensure materials, design and components are provided as specified in the treatment plan
- Complete fabrication process after achieving optimal fit and function of orthosis/prosthesis (e.g., convert test socket to definitive orthosis/prosthesis)
- Educate patient and caregiver about the use and maintenance of the orthosis/prosthesis (e.g., wearing schedules, other instructions)
- Reassess orthosis/prosthesis for structural safety prior to patient delivery

- Document treatment using established record-keeping techniques to verify implementation of treatment plan
- Refer patient to appropriate healthcare providers (e.g., nurse practitioners, therapists) for necessary ancillary care

Domain 4: Follow-up Treatment Plan

Tasks:

- Obtain feedback from patient and caregiver to evaluate outcome (e.g., wear schedule and tolerance, comfort, perceived benefits, perceived detriments, ability to don and doff, proper usage and function, overall patient satisfaction)
- Assess patient's function and note any changes
- Assess patient's skin condition (e.g., integrity, color, temperature, volume) and note any changes
- Assess patient's general health, height and weight and note any changes
- Assess patient's psychosocial status (e.g., family status, job or caregiver) and note any changes
- Assess fit of orthosis/prosthesis with regard to strategic contact (e.g., multiple force systems, total contact) to determine need for changes relative to initial treatment goals
- Assess fit of orthosis/prosthesis with regard to anatomical relationships to orthosis/prosthesis (e.g., trimlines, static and dynamic alignments) to determine need for changes relative to initial treatment goals
- Assess patient's achievement of planned treatment outcomes
- Formulate plan to modify orthosis/prosthesis based on assessment of outcomes and inform patient and caregiver of plan to modify orthosis/prosthesis as necessary

- Make or supervise modifications to orthosis/prosthesis (e.g., relieve pressure, change range of motion, change alignment, change components, add pressure-sensitive pad)
- Assess modified device for structural safety
- Evaluate results of modifications to orthosis/prosthesis, including static and dynamic assessment
- Reassess patient knowledge of goals and objectives to ensure proper use of orthosis/prosthesis relative to modifications
- Document all findings and actions and communicate with physicians, referral sources and appropriately licensed healthcare providers to ensure patient status is updated
- Develop long-term follow-up plan

Domain 5: Practice Management

Tasks:

- Plan, implement, evaluate and document policies and procedures in compliance with all applicable federal and state laws and regulations and professional and ethical guidelines (e.g., CMS, HIPAA, FDA, ADA, OSHA, ABC Code of Professional Responsibility)
- Develop and implement personnel policies and procedures (e.g., benefits, training, incentives, staff recognition, regular performance evaluations)
- Establish procedures for patient care that comply with current medical and legal requirements
- Demonstrate proper documentation of patient history and financial records using established record-taking techniques
- Create a professional, cooperative working environment to improve patient care

Domain 6: Promotion of Competency and Enhancement of Professional Practice

Tasks:

- Participate in continuing education and provide such education for other healthcare providers, orthotic and prosthetic practitioners, pedorthists, assistants, fitters, technicians and office staff (e.g., publications, seminars, case studies)
- Participate in education of residents, students and trainees
- Conduct or participate in product development research, clinical trials and outcome studies
- Participate in the development, implementation and monitoring of public policy regarding orthotics/prosthetics (e.g., provide testimony and information to legislative and regulatory bodies, serve on professional committees and regulatory agencies)
- Participate in consumer organizations and nongovernmental organizations in order to promote competency and enhancement of orthotic/prosthetic profession

Knowledge Statements

The certified practitioner should demonstrate the following knowledge:

- Musculoskeletal anatomy, including upper limb, lower limb, spinal
- Neuroanatomy and neurophysiology
- Anatomical landmarks (surface anatomy)
- Kinesiology, including upper limb, lower limb, spinal
- Normal human locomotion
- Gait training
- Pathological gait
- Tissue characteristics/management
- Volumetric control
- Planes of motion
- Biomechanics
- Pathologies (e.g., muscular, neurologic, skeletal, vascular)
- Basic pharmacology
- Medical terminology
- Referral documents
- Procedures to record data
- Policies and procedures regarding privileged information
- Roles and responsibilities associated with other healthcare professions
- Reimbursement protocols (e.g., CMS, DMERC)
- Material safety procedures and standards (e.g., OSHA, MSDS)
- Universal precautions, including sterile techniques and infection control
- Ethical standards regarding proper patient management, including ABC Code of Professional Responsibility
- Scope of practice related to orthotic/prosthetic credentials
- Boundaries of the scope of practice (i.e., when to refer a patient to other healthcare providers and caregivers)
- Orthotic/prosthetic design
- Orthotic/prosthetic fitting criteria
- Clinical examination techniques, (e.g., range of motion [ROM]), manual muscle tests, sensation, proprioception)
- Impression-taking techniques, materials, devices and equipment
- Rectification/modification procedures as they relate to specific orthotic/prosthetic designs
- Measurement tools and techniques
- Orthotic/prosthetic forms (e.g., assessment, orthometry, measurement, evaluation, outcomes)
- Materials science
- Componentry
- Alignment devices and techniques
- Hand and power tools
- Mechanics (e.g., levers and force systems)
- Care and maintenance of orthoses/prostheses
- Computer-aided design and manufacturing (CAD/CAM)
- Item warranty and warranty limitations
- Loss control (e.g., risk management, inventory control)
- Research methodology and literature

- Human development and aging, ranging from pediatric to geriatric, as they relate to orthotic/prosthetic treatment
- The psychology of the disabled
- Patient educational materials
- Federal and state rules, regulations and guidelines (e.g., FDA, ADA, HIPAA)
- ABC Facility Accreditation Standards
- NCOPE Residency Standards

Skill Statements

The certified practitioner should demonstrate the following skills:

- Interpreting referral documents, (e.g., prescriptions, orders)
- Interpreting radiological images
- Communicating with patient/family/caregiver
- Communicating with referral sources and appropriately licensed healthcare providers
- Performing physical examinations
- Identifying gross surface anatomy
- Interpretation of physical findings (e.g., recognizing skin pressures, dermatological conditions)
- Analysis of normal and pathological gait/motion
- Analysis of orthotic/prosthetic gait/motion
- Managing patients relative to their diagnosis or condition
- Impression-taking/ measuring for orthoses/prostheses
- Using mechanical measuring devices
- Using electrical measuring devices
- Using computer-based measuring devices
- Patient delineation rectification and/or patient model modification
- Orthotic/prosthetic fabrication
- Use of safety equipment
- Use of hand and power tools
- Use of materials and components
- Use of alignment devices
- Aesthetic finishing
- Evaluating fit and function of an orthosis/prosthesis
- Adjusting and modifying orthoses/prostheses
- Maintaining and repairing orthoses/prostheses
- Restoring optimal fit and function of orthoses/prostheses
- Solving patient's problems related to ADLs
- Documentation

Appendix II

Sample Orthotic Written Examination

Following are sample questions that are similar to those you will find on the orthotic written examination.

1. The muscle that has the PRIMARY responsibility of rotating the thumb to touch the tips of the index and middle fingers is the:
 - A. Opponens pollicis
 - B. Flexor pollicis longus
 - C. Abductor pollicis brevis
 - D. Extensor pollicis longus
2. What is the MOST important factor in decreasing the vertical loading of the lumbar spine?
 - A. Application of a three-point pressure system for vertical stabilization.
 - B. Enhancement of the abdominal hydropneumatic mechanism
 - C. Strengthening of the gluteal and abdominal musculature
 - D. Immobilization of the thoracolumbar spine
3. In which of the following conditions is a Milwaukee CTLSO contraindicated?
 - A. Skeletal immaturity
 - B. Idiopathic scoliosis
 - C. Thoracolumbar curves
 - D. Curves greater than 60 degrees
4. The measurement for a TLSO (anterior hypertension orthosis) should be taken with the patient in what position?
 - A. Standing erect
 - B. Sitting erect
 - C. Lying prone
 - D. Lying supine
5. Which of the following orthoses is designed to manage spondylolisthesis in an active teenager?
 - A. LSO (Corset)
 - B. LSO (Knight)
 - C. Jewitt
 - D. LSO (Anterior Overlap)
6. The trim lines of a ground reaction ankle foot orthosis should be anterior to the malleoli to serve as a:
 - A. Dorsiflexion assist
 - B. Plantarflexion assist
 - C. Dorsiflexion stop
 - D. Plantarflexion stop
7. The orthotic recommendation for treating a patient with an ulnar nerve lesion at the wrist is an opponens orthosis plus what component?
 - A. IP extension assist
 - B. Thumb post
 - C. MP stop
 - D. Opponens bar
8. When treating a patient with a knee flexion contracture, what is the MOST appropriate knee joint to use when designing a KAFO?
 - A. Dial lock joint
 - B. Polycentric joint
 - C. Extension stop knee joint
 - D. Bail lock joint
9. Facilities material safety data sheets should be:
 - A. Read by all staff that uses the materials.
 - B. Stored safely in the manufacturing business office.
 - C. Filed with the Food and Drug Administration.
 - D. Sent to the HCFA office in your region.

10. A patient who has relocated to your area comes in with a device fabricated at another orthotics and prosthetics facility. The patient is in your office because of discomfort and dissatisfaction with the overall fit. Upon evaluation you notice some minor fitting problems, but the main problem is that the assembly of the device is structurally unsound.

What should you do?

- A. Tell the patient that his device is no good, nor is his practitioner.
- B. Tell the patient to go back to where the device was fabricated.
- C. Provide immediate structural repair, then consult with the patient's physician to schedule for a replacement.
- D. Discuss the fitting problems, but do nothing until the patient can pay for a new device.

Orthotic Answer Key:

- 1. A
- 2. B
- 3. D
- 4. D
- 5. D
- 6. C
- 7. C
- 8. A
- 9. A
- 10. C

Appendix III

Sample Prosthetic Written Examination

Following are sample questions that are similar to those you will find on the prosthetic written examination.

1. Which of the following muscles would be MOST suitable for myoelectric control of the elbow joint by a shoulder disarticulation amputee?
 - A. Rhomboid major and sternocleidomastoid
 - B. Rhomboid major and subscapularis
 - C. Pectoralis major and trapezius
 - D. Pectoralis major and coracobrachialis
4. When the counter of the shoe fits too tightly on a SACH foot, which of the following problems can result?
 - A. Posterior lean of pylon
 - B. Less compression of the heel
 - C. Decrease in push-off resistance
 - D. Decrease in external rotation of the foot
3. A 23-year-old, wrist disarticulation amputee intends to return to work as a carpenter. Which terminal device will offer the largest range of tool handling capabilities?
 - A. Dorrance 555
 - B. Dorrance 7
 - C. Dorrance 88X
 - D. Dorrance 12P
4. The anterior trim line of the Symes prosthesis usually extends to the level of the patellar tendon in order to:
 - A. Provide a long lever arm to distribute force.
 - B. Achieve better suspension.
 - C. Decrease compression loads on the prosthesis.
 - D. Improve cosmetic appearance.
5. Venous return of the blood to the heart is assisted by the:
 - A. Action of the skeletal muscles.
 - B. Positive pressure in the heart.
 - C. Independent contraction of the arterial walls.
 - D. Arterial blood pressure.
6. A unilateral transradial prosthetic patient complains that the axilla loop of his harness is uncomfortable. The most common reason for this complaint is that the cross point is:
 - A. Too close to the amputated side.
 - B. Too close to the sound side.
 - C. Superior to C7.
 - D. Inferior to C7.
7. A transtibial amputee has an anatomical A-P measurement of 95 mm (3-3/4). What is the correct A-P measurement of the positive model for a PTB hard socket?
 - A. 95 mm (3-3/4)
 - B. 97 mm (3-7/8)
 - C. 101 mm (4)
 - D. 103 mm (4-1/8)
8. Records do not fulfill all of their purposes unless they:
 - A. Include a comprehensive medical history.
 - B. Are detailed and include a description of all symptoms and treatment.
 - C. Can be used for legal purposes.
 - D. Are maintained and up-to-date

9. A 75-year-old, quadruple-bypass, obese patient who is also a transfemoral amputee comes to you with a prescription for a suction socket with hydraulic knee unit and a dynamic response vertical shock pylon type prosthetic foot. You should:

- A. Call the physician and suggest an alternate prescription.
- B. Provide the prosthesis as ordered by the referring physician.
- C. Tell the patient to schedule an appointment at an amputee clinic.
- D. Refer patient to another practitioner for a second opinion.

10. What is the best course of action when a long-time patient asks to be referred to another practitioner?

- A. Offer your services for free.
- B. Provide him with a list of certified practitioners.
- C. Telephone his doctor and complain.
- D. Refer to a psychiatric practitioner.

Prosthetic Answer Key:

- 1. C
- 2. B
- 3. B
- 4. A
- 5. A
- 6. B
- 7. C
- 8. D
- 9. A
- 10. B

Appendix IV

Examination Question References and Recommended Reading List

Examination development involves the use of many references and resources including, but not limited to:

Orthotics and Prosthetics

American Medical Association. *American Medical Association Handbook of First Aid and Emergency Care*. Random House Reference, 2009.

Biomechanical Principals and Application. American Academy of Orthopaedic Surgeons. Mosby, 1985.

Dorland. *Dorland's Illustrated Medical Dictionary*. 31st edition. Saunders, 2007.

The Code of Professional Responsibility. American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc., 2010.

Hislop, Helen, and Jacqueline Montgomery. *Daniels and Worthingham's Muscle Testing: Techniques of Manual Examination*. 8th edition. Saunders, 2007.

Human Walking. 3rd edition. Edited by Jessica Rose and James G. Gamble. Lippincott Williams & Wilkins, 2005.

Inman, Verne T, Henry J. Ralston, and Frank Todd. *Human Walking*. Williams and Wilkins Co., 1981.

Kendall, Florence, Patricia Provance, and Elizabeth McCreary. *Muscles, Testing and Function*. Lippincott Williams & Wilkins, 1999.

Lunsford, Thomas R. *Strength of Materials in Orthotic and Prosthetic Design*. American Academy of Orthotists and Prosthetists, 1996.

Lusardi, Michelle, and Caroline Nielsen. *Orthotics and Prosthetics in Rehabilitation*. 2nd edition. Butterworth-Heinemann, 2006.

Orthotics, Prosthetics and Pedorthics Scope of Practice. American Board for Certification in Orthotics, Prosthetics and Pedorthics, Inc., 2010.

Perry, Jacquelin. *Gait Analysis: Normal and Pathological Function*. Slack Incorporated, 1992.

Rasch, Philip. *Kinesiology and Applied Anatomy*. 7th sub-edition. Lea and Febiger, 1993.

Selected Readings from the Journal of Prosthetics and Orthotics. Edited by C. Michael Schuch. American Academy of Orthotists and Prosthetists, 1995.

Seymour, Ron. *Prosthetics and Orthotics: Lower Limb and Spine*. Lippincott Williams & Wilkins, 2002.

Sieg, Kay, and Sandra P. Adams. *Illustrated Essentials of Musculoskeletal Anatomy*. 4th edition. Megabooks, Inc., 2002.

Strandring, Susan. *Gray's Anatomy: The Anatomical Basis of Clinical Practice*. 39th edition. Churchill Livingstone, 2004.

Warfel, John. *The Extremities: Muscles and Motor Points*. 6th sub-edition. Lippincott Williams & Wilkins, 1993.

Warfel, John. *The Head, Neck, and Trunk*. 6th sub-edition. Lippincott Williams & Wilkins, 1993.

Prosthetics

Atkins, Diane J. and Robert H. Meier III. *Comprehensive Management of the Upper-Limb Amputee*. Springer-Verlag, 1989.

Atlas of Amputations and Limb Deficiencies. 3rd edition. Edited by Douglas Smith, John Michael, John Bowker. American Academy of Orthopaedic Surgeons, 2004.

Atlas of Limb Prosthetics: Surgical, Prosthetic and Rehabilitation Principals. 2nd edition. Edited by John Bowker and John Michael. Mosby, 1992.

Amputation Surgery and Lower Limb Prosthetics. Edited by G. Murdoch and R.G. Donovan. Blackwell Scientific Publications, 1988.

Clinical Aspects of Lower Extremity Prosthetics: Trans-Tibial, Symes, and Partial Foot Amputations. Edited by Donald Weber. Elgan Enterprises/Canadian Association of Prosthetics and Orthotics, 1988.

Comprehensive Management of the Upper-Limb Amputee. Edited by Diane Atkins and Robert Meier, III. Springer-Verlag, 1989.

Lower Limb Amputations: a Guide to Rehabilitation. Edited by Gloria T. Sanders. F.A. Davis, Co., 1986.

May, Bella J. *Amputations and Prosthetics: A Case Study Approach*, 2nd sub-edition. F.A. Davis Co., 2002.

Murdoch, George, and A. Bennett Wilson, Jr. *A Primer on Amputations and Artificial Limbs.* Charles C. Thomas Publisher, 1998.

Wilson, A. Bennett. *Limb Prosthetics.* 6th edition. Demos Publications, 1989.

Orthotics

Alexander, Ian J. *The Foot, Examination and Diagnosis.* Churchill Livingstone, Inc., 1997.

Atlas of Orthoses and Assistive Devices. 3rd edition. Edited by Bertram Goldberg and John Hsu. Mosby, 1997.

Atlas of Orthotics: Biomechanical Principals and Application. 2nd edition. Edited by William Bunch, et al. American Academy of Orthopaedic Surgeons, 1985.

Blount, Walter P., and John H. Moe. *The Milwaukee Brace.* Williams and Wilkins, Co., 1973.

Bowker, John, and Pfeifer, Michelle, Eds. *Levin and O'Neal's The Diabetic Foot.* Mosby, 2001.

Clinical Aspects of Lower Extremity Orthotics. Edited by Donald Weber. Elgan Enterprises/ Canadian Association of Prosthetics and Orthotics, 1990.

Decker, Wayne, and Albert, Stephen. *Contemporary Pedorthics.* Elton-Wolf, 2002.

Donatelli, Robert A. *The Biomechanics of the Foot and Ankle.* 2nd sub-edition. F.A. Davis Co., 1995.

Edelstein, Joan, and Jan Bruckner. *Orthotics: A Comprehensive Clinical Approach.* Slack Inc., 2002.

Inman, Verne T. *Joints of the Ankle.* Williams and Wilkins Co., 1976.

Lonstein John, et al. *Moe's Textbook of Scoliosis and other Spinal Deformities,* 3rd edition. W. B. Saunders, 1995.

Lovell and Winter's Pediatric Orthopaedics. 6th edition. Edited by Raymond T. Morrissy and Stuart L. Weinstein. Lippincott Williams & Wilkins, 2005.

Mercier, Lonnie R. *Practical Orthopaedics.* 6th edition. Mosby, 2008.

Neuwirth, Michael, and Kevin Osborn. *The Scoliosis Handbook.* Henry Holt and Co., 1996.

Orthotics: Clinical Practice and Rehabilitation Technology. Edited by John B. Redford, John V. Basmajian and Paul Troutman. Churchill Livingstone, Inc., 1995.

Salter, Robert B. *Textbook of Disorders and Injuries of the Musculoskeletal System.* 3rd edition. Lippincott, Williams & Wilkins, 1993.

Wu, Kent K. *Foot Orthoses: Principals and Clinical Applications.* Williams and Wilkins Co., 1990.



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