



410.581.6222
877.776.2200
Fax: 410.581.6228

www.bocusa.org

10451 Mill Run Circle, Suite 200
Owings Mills, Maryland 21117

How to Use the Content Outline to Prepare for the Certified Orthotic Fitter (COF) Multiple Choice Certification Examination

The **Certified Orthotic Fitter Content Outline** is a schedule of the tasks involved and the domains of the practice of a COF. The Content Outline is derived from a Job Analysis, a careful description of the tasks performed by practitioners. A randomized national survey of O&P practitioners is conducted by BOC every five years to determine what changes, if any, have occurred in the practice. From this survey the Content Outline is updated and the exam questions revised.

Each question on the exam is based on this outline. In fact, **none** of the BOC certification exams can contain any question, case simulation or demonstration that cannot be directly linked to a specific item in the relevant Content Outline. Therefore, to prepare to take the exam, we suggest that you study this Outline and especially consider what the underlying knowledge, skills and abilities you need to be able to serve patients.

The format of the exam is such that it does not follow this outline in order; rather, questions regarding outline sections are placed randomly throughout the exam. In order to understand how to fit a Lumbosacral Orthoses for example, one has to comprehend the relevant anatomy, the pathophysiology, the material and engineering sciences, etc.

A practitioner must be a complete instrument for patient care, providing maximum benefit, not just fabrication, adjustment or placement. This, then, is the basis for the examinations that test the knowledge, skills and abilities of a competent practitioner. It is not sufficient just to know how to fit a patient with a device – your patient has to be able to benefit from your service. This will not happen until s/he, for example, knows how to don and doff, care for, and in general utilize the orthosis provided. This is why each candidate is required to have a significant period of patient care practice experience to be eligible to take the exam. You won't get all your preparation at one school (e.g. Trulife, SAI, or DeRoyal)--you will learn the fundamentals and then sharpen them during patient care practice. To study, review your original training materials. Bring your patient experience into play; it is indispensable.

To study a good sample of questions on-line please refer to the **Self-Assessment Examination (SAE)** or practice test, developed by experts to help you prepare for certification. All questions come from prior exams; answers are confidential, a computer grades your exam. Several reports help you understand your grade and establish your strengths and weaknesses. You may re-take the exam as often as you like, in the privacy of your home or office. For more information regarding the SAE, go to www.bocinternational.org, link to SAE.

Now, to the specifics of the COF Content Outline.

Performance Levels

There are three Performance Levels, or levels of difficulty, for exam questions: Recall (RE), Application (AP), and Analysis/Evaluation (AN).

RECALL (RE) questions require only the recognition of specific factual information, which generally does not vary, relative to the situation. An example is:

Which of the following is **NOT** a type of sander?

- A. belt
- B. palm
- C. band
- D. drum

APPLICATION (AP) questions require the comprehension, interpretation or manipulation of concepts or data, in which the response or outcome is situationally dependent, but not overly complex (i.e., application of knowledge which varies based on patient and environmental characteristics). An example is:

To fit a Jewett hyperextension, the fitter needs all of the following measurements **EXCEPT**

- A. hip circumference.
- B. chest circumference.
- C. mandible to sternal notch.
- D. symphysis pubis to sternal notch.

ANALYSIS/EVALUATION (AN) questions require integration or synthesis of a variety of concepts or elements to solve a specific problem situation (i.e., evaluating and rendering judgments on complex problems with many situational variables). An example is:

After fitting a patient with an LSO with APL, the fitter should remind the patient to return if there is

1. significant weight gain/loss.
2. any skin irritation.
3. an increase in pain.

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2, and 3

Now, examine the Content Outline. Note the three **bold face numbers on the top right** of the Outline: these indicate the number of questions in each section by performance level. The total number of questions, by performance level is summed at the end of the Content Outline (i.e., 24 RE, 60 AP, 16 AN, total 100 questions). Note the majority of questions (60) are at the Application (AP) level, which is testing your understanding, analysis and management of concepts or data from a patient in a particular situation. Both AP and AN questions require clinical patient care experience.

To understand how to use the Content Outline to anticipate the exam questions, consider the following two examples. Compare Example 1 and 2 below with the Content Outline section 1 and 8. Notice that there is not one reference source encompassing all that is contained in the exam; it is a combination of education, training and experience.

Example 1: *Reprinted from COF Content Outline*

	<u>RE</u> 1	<u>AP</u> 5	<u>AN</u> 2
I. Facilities Management			
A. Determine elements of the fitting room (e.g., adjustable stool, exam/fitting table, mirror, hard back chair, and parallel bars, or other appropriate ambulating device)			
B. Determine required equipment, tools, and materials			
1. manufacturing/alteration equipment (e.g., heat gun, oven, bending irons, sewing machine, alignment device, anvil, grinding and carving tools, vise)			
2. measuring devices (e.g., tape measures, goniometer, calipers, VAPC caliper, ML gauge, measuring chart, plumb bob, yard/meter stick)			
3. casting equipment and materials (e.g., saws, spreaders, stockinette, indelible pencil, plaster of Paris, fiberglass, surgical gloves, water, bowls)			
C. Comply with environmental safety regulations in all practice settings (e.g., pathogens, cross-infection, work place hazards)			
D. Assure quality care by development and maintenance of policies and procedures regarding patients, prescribers, personnel, maintenance of records, etc.			
E. Comply with HIPAA regulations			

Section 1. There will be 8 questions on the exam devoted to **Facilities Management**, 1 RE, 5 AP, and 2 AN. To understand this section it may be helpful to download the BOC Facility Accreditation materials, www.bocinternational.org for review of important aspects of facility management.

- You may be asked how to use equipment (1.B.), measuring devices (1.B.2.), or casting equipment (1.B.3.).
- Knowledge about the fitting room (1.A.) and tools required for proper patient care (1.B.) may be asked.
- Questions are asked regarding technical and clinical elements of the fitting room (1.A.) and safety (1.C.).
- For C, think “OSHA,” work safety, and make sure you are current on those regulations.
- There are also questions throughout the exam relevant to your office professional policies and procedures (1.D.), so review your manuals and records system.
- Questions concerning exposure to pathogens and cross-infection (1.C.) are asked.

Example 2: *Reprinted from COF Content Outline*

	<u>RE</u> 3	<u>AP</u> 8	<u>AN</u> 3
8.Evaluation/Selection of Product/Model/Type of Orthoses			
A. Cervical/Cervical Thoracic Orthoses (CO, CTO)			
1. soft foam collars			
2. semi-rigid (e.g., Philadelphia)			
3. rigid (e.g., multiple post)			
B. Thoraco-Lumbo-Sacral Orthoses (TLSO)			

1. rigid (e.g., Taylor, Knight-Taylor, plastic, hyperextension)
2. flexible (e.g., with steel stays, thermal molded insert)
C. Lumbo-Sacral Orthoses (LSO)
1. rigid (e.g., chairback, Knight, Harris, Williams flexion, plastic)
2. flexible (e.g., with steel stays, thermal molded insert)
D. Knee Orthoses (KO)
1. rigid types (e.g., ACL, PCL, MCL, OA, multi-ligamentous, genu recurvatum, dynamic and adjustable R.O.M.)
2. flexible (e.g., patella-stabilizer, elastic type knee supports with or without inserts/hinges/pads)
E. Knee Ankle Foot Orthoses (KAFO) (e.g., double or single upright, leather or plastic, dynamic and adjustable R.O.M., ischial weight bearing)
F. Ankle Foot Orthoses (AFO) (e.g., double or single upright, leather or plastic, dynamic and adjustable R.O.M., posterior leaf spring (metal or plastic))
G. Foot Orthoses (FO) (e.g., arch support, UCBL, straight/ reverse last shoes, shoe modifications, foot plate)
H. Wrist/Hand/Finger Orthoses (WHFO, WHO) (e.g., dynamic and adjustable R.O.M., resting, and functional orthoses)
I. Elbow Orthoses (EO) (e.g., dynamic and adjustable R.O.M., resting, and functional orthoses)
J. Shoulder Orthoses (SO) (e.g., dynamic and adjustable R.O.M., resting, and functional orthoses)
K. Functional Fracture Orthoses (e.g., upper extremity and lower extremity)
L. Abdominal and Pelvic
1. trusses (e.g., flexible and rigid)
2. flexible supports
3. maternity supports
M. Compression Devices
1. lymphedema garments
2. compression garments
3. burn garments
N. Breast Prosthesis and Ancillary Supplies

Section 8. Evaluation/Selection of Product/Model/Type has 14 total questions, 3 RE, 8 AP, and 3 AN questions, regarding products, models, and types of orthoses, which may be placed at random anyplace throughout the exam.

- Questions may be asked regarding any of these orthoses (8. A through L) relative to the patient and clinical situation, and may be asked in any section of the exam, relative to any professional activity, i.e., ethics, patient communication.
- You need to know the underlying pathology (3.A. 2-3), the anatomy (7.A.1-2), to explain the objective of each device (4.A.),
 - measuring for each device (1.B.2., 7.A.),
 - fitting and customizing these devices (5.A.),
- You may be asked for information (4.), on how to:
 - don and doff the device (4.B.),
 - communicate logically (4.)
 - observe patient confidentiality (2.A.).



<p style="text-align: center;">Certified Orthotic Fitter Detailed Content Outline</p> <p>An "X" denotes the examination will NOT contain items for the given task at the cognitive level indicated in the respective column (recall, application or analysis).</p>	Cognitive Level			Total
	Recall	Application	Analysis	
I. Facilities Management	1	5	2	8
A. Determine elements of the fitting room (e.g., adjustable stool, exam/fitting table, mirror, hard back chair, and parallel bars, or other appropriate ambulating device)			X	
B. Determine required equipment, tools and materials				
1. manufacturing/alteration equipment (e.g., heat gun, oven, bending irons, sewing machine, alignment device, anvil, grinding and carving tools, vise)			X	
2. measuring devices (e.g., tape measures, goniometer, calipers, VAPC caliper, ML gauge, measuring chart, plumb bob, yard/meter stick)			X	
3. casting equipment and materials (e.g., saws, spreaders, stockinette, indelible pencil, plaster of Paris, fiberglass, surgical gloves, water, bowls)		X	X	
C. Comply with environmental safety regulations in all practice settings (e.g., pathogens, cross-infection, work place hazards)			X	
D. Assure quality care by development and maintenance of policies and procedures regarding patients, prescribers, personnel, maintenance of records, etc.				
E. Comply with HIPAA regulations				
II. Perform Professional Practice/Ethics	2	5	1	8
A. Maintain patient confidentiality			X	
B. Provide trainings, lectures and information to staff or other health care professionals, on current orthotic information			X	
C. Establish a quality assurance system that evaluates patient care				
D. Participate in orthotic clinics			X	
E. Fulfill necessary continuing education requirements			X	
III. Patient Assessment/Evaluation	3	11	4	18
A. Establish relationship with patient				
1. Patient intake				
a. Record all personal and insurance information about patient			X	
b. Discuss financial matters for services/devices with patient			X	
c. Determine patient's expectations				

Certified Orthotic Fitter Detailed Content Outline	Cognitive Level			Total
	Recall	Application	Analysis	
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d. Interview patient and obtain history			X	
e. Collect and evaluate patient records				
f. Identify the pathology of the disease to provide the proper orthosis or prosthesis				
g. Discuss any related medical treatment(s)			X	
B. Evaluate and assess patient to determine				
1. skin condition			X	
2. range of motion			X	
3. muscle strength			X	
4. manual dexterity			X	
5. coordination			X	
6. posture and gait			X	
7. proprioception			X	
8. sensation			X	
C. Assess Prescription				
1. Determine elements of a valid prescription				
a. Verify validity of prescriber		X	X	
b. Verify information contained on prescription			X	
2. Determine relation of prescription to presenting problem				
3. Discuss prescription with patient (i.e., explain the patient's role/responsibilities)			X	
4. Contact prescribing doctor and discuss/revise prescription			X	
IV. Communication/Patient Education	3	7	2	12
A. Explain purpose/objective of orthosis				
1. Inform patient and/or caregiver of the various procedures to be performed			X	
2. Explain advantages and disadvantages			X	
3. Determine patient's expectations				
4. Explain patient's role/responsibilities			X	
B. Provide initial instructions				
1. Instruct patient and/or caregiver in donning, doffing, care of orthosis/prosthesis			X	X
2. Demonstrate proper application, alignment and removal			X	X
3. Instruct patient and/or caregiver in fitting adjustments such as using prosthetic socks or tightening straps, etc.			X	
4. Explain how to recognize potential problems (e.g., pressure points, skin breakdown, numbness)				
5. Explain care and cleaning procedures		X	X	

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	Recall	Application	Analysis	
C. Evaluate psychological impact of devices on patient, family and others				
D. Establish procedures for patient follow-up				
1. Initiate and encourage on-going communication with patient and/or caregiver		X	X	
2. Develop and maintain patient's records			X	
3. Inform patient and/or caregiver of provisions of continued servicing of device (e.g., adjustments, consultation)		X	X	
4. Communicate with the patient and/or caregiver verbally and in writing		X	X	
E. Conduct inter-professional communications			X	
V. Orthosis Application and Delivery	6	10	1	17
A. Finalize alignment and fit orthosis to patient				
1. Don orthosis to patient and finalize alignment, fit, and cosmetic appearance			X	
2. Demonstrate proper application, alignment, and removal			X	
3. Demonstrate to patient and/or caregiver donning, doffing, fitting, adjustments and care of orthosis			X	
4. Explain how to recognize potential problems (e.g., pressure points, skin breakdown, numbness, contractures)				
5. Have patient and/or caregiver demonstrate proper application and removal			X	
6. Have patient and/or caregiver sign receipts and acknowledgements		X	X	
B. Explain follow-up procedures			X	
C. Refer to physician for post-fitting follow-up		X	X	
VI. Patient Follow-up	1	5	1	7
A. Evaluate fit and function of orthosis/prosthesis				
B. Perform necessary adjustments			X	
C. Schedule follow up visits		X	X	
VII. Patient Preparations/Measurements	4	5	1	10
A. Measure patient				
1. Select techniques (e.g., patient positioning, casting, tracing)			X	
2. Identify anatomical landmarks		X	X	
3. Use measuring devices			X	
B. Perform casting procedures for foot only			X	
C. Select materials for diabetic shoes and inserts				
VIII. Evaluation/Selection of Product/Model/Type of Orthoses	4	12	4	20

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	Recall	Application	Analysis	
A. Cervical/Cervical Thoracic Orthoses (CO, CTO)				
1. Soft foam collars			X	
2. Semi-rigid (e.g., Philadelphia)			X	
3. Rigid (e.g., multiple post)			X	
B. Thoraco-Lumbo-Sacral Orthoses (TLSO)				
1. Rigid (e.g., Taylor, Knight-Taylor, plastic, hyperextension)			X	
2. Flexible (e.g., with steel stays, thermal molded insert)			X	
C. Lumbo-Sacral Orthoses (LSO)				
1. Rigid (e.g., chairback, Knight, Harris, Williams flexion, plastic)			X	
2. Flexible (e.g., with steel stays, thermal molded insert)			X	
D. Knee Orthoses (KO)				
1. Rigid types (e.g., ACL, PCL, MCL, OA, multi-ligamentous, genu recurvatum, dynamic and adjustable R.O.M.)				
2. Flexible (e.g., patella-stabilizer, elastic type knee supports with or without inserts/hinges/pads)			X	
E. Knee Ankle Foot Orthoses (KAFO) (e.g., double or single upright, leather or plastic, dynamic and adjustable R.O.M., ischial weight bearing)				
F. Ankle Foot Orthoses (AFO) (e.g., double or single upright, leather or plastic, dynamic and adjustable R.O.M., posterior leaf spring (metal or plastic))				
G. Foot Orthoses (FO) (e.g., arch support, UCBL, straight/reverse last shoes, shoe modifications, foot plate)				
H. Wrist/Hand/Finger Orthoses (WHFO, WHO (e.g., dynamic and adjustable R.O.M., resting, and functional orthoses))			X	
I. Elbow Orthoses (EO) (e.g., dynamic and adjustable R.O.M., resting and functional orthoses)			X	
J. Shoulder Orthoses (SO) (e.g., dynamic and adjustable R.O.M., resting, and functional orthoses)			X	
K. Functional Fracture Orthoses (e.g., upper extremity and lower extremity)			X	
L. Abdominal and Pelvic				
1. Trusses (e.g., flexible and rigid)			X	
2. Flexible supports			X	
3. Maternity supports			X	
M. Compression Devices				
1. Lymphedema garments				
2. Compression garments			X	
3. Burn garments				
N. Breast Prosthesis and Ancillary Supplies			X	
Totals	24	60	16	100



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BOC Certified Orthotic Fitter Scope of Practice

I. Definitions

A. Practice of Orthotics

BOC Orthotic Fitter A BOC COF is an individual trained and qualified to measure, fit, dispense and adjust prefabricated orthoses. Orthotics is the practice, pursuant to a physician's order, of addressing medical conditions of the lower limbs, upper limbs and spinal anatomical structure. Drawing on knowledge of biomechanics and a variety of devices and components, the Orthotic Fitter may measure, fit and adjust prefabricated orthoses appropriate to the conditions presented. Follow-up appointments are required to evaluate the efficacy of the orthosis, make adjustments/service the devices as necessary and promote patient compliance with the goal of achieving desired outcomes.

B. Certified Orthotic Fitter

A Certified Orthotic Fitter is a professional whose competence in fitting prefabricated orthoses is evaluated and verified by the Board of Certification/Accreditation, International.

C. Orthotic Devices

"Orthotic Devices/Modalities" include ankle-foot orthosis, knee-ankle-foot orthosis, hip-knee-ankle-foot orthosis, hip orthosis, knee orthosis, cervical orthosis, thoracic and lumbar orthosis, wrist-hand orthosis, shoulder-elbow orthosis, foot orthosis, gradient compression garments and mastectomy supplies. An Orthotic Fitter fits prefabricated orthotic devices designed to provide for the support, alignment, prevention, and/or correction of neuromuscular or musculoskeletal disease, injury or deformity.

II. General Requirements for a Certified Orthotic Fitter

To become certified as an Orthotic Fitter, a candidate must meet initial educational requirements and pass a comprehensive written Multiple Choice exam (MCE) and Video Practical exam (VPE) given by the Board of Certification/ Accreditation, International (BOC), which is accredited by the National Commission for Certifying Agencies. Once certified, an Orthotic Fitter must meet continuing education and annual renewal requirements to maintain BOC certification. The BOC-certified Orthotic Fitter must also adhere to a code of ethics designed to ensure a comprehensive scope of professional competence and deportment. A certified Orthotic Fitter's activities must reflect his/her certification(s) and education.

III. Roles of an Orthotic Fitter

A. Patient Assessment

Ascertain physician/clinician's diagnosis, gather information, examine patient, and evaluate. Determine patient's realistic expectations and consult with clinician as appropriate. A clinician is defined as any healthcare provider who has the legal and/or licensed authority in the state to order or prescribe medical care.

B. Implementation

Select appropriate orthosis, device(s), measure, assemble, and apply orthosis to patient. Modify, adjust and conduct trial fittings. Facilitate patient's understanding and conduct appropriate follow-up. Orthotic Fitters are authorized to treat primary diagnoses as provided by the physician/clinician.

C. Practice Management

Comply with universal precaution procedures and occupational safety and health rules. Document all patient matters and communicate with other professionals.

D. Professional Development and Responsibility

Adhere to legal and ethical Scope, participate in continuing education, fulfill civic responsibilities, participate in research as appropriate, and educate the public and health professionals on available orthotic services. Refer to allied healthcare practitioners when patient/customer presents with medical conditions that require custom fabricated orthotic devices or prefabricated orthoses that are outside of this scope of practice.