



# 2023 Job Analysis

American Chiropractic Board of Sports Physicians<sup>®</sup> (ACBSP<sup>™</sup>)  
Certified Chiropractic Sports Physician<sup>®</sup> (CCSP<sup>®</sup>) Exam

Prepared for:



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## Executive Summary

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This report describes a job task analysis study completed by the American Chiropractic Board of Sports Physicians® (ACBSP™) for the Certified Chiropractic Sports Physician® (CCSP®) exam. This study was conducted to obtain detailed empirical data regarding the profession, which will be used to update the current CCSP® certification test. A job analysis is the first step in the process of credentialing test development, and essential to establishing validity because it provides a link between the exam process and professional practice.

First, a list of tasks was generated by a panel of experienced subject matter experts that outlined what they believed were key tasks, skills and knowledge that were required for an individual to be a successful Chiropractic Sports Physician. This list was used to create a survey regarding the importance of each task and the time spent on each task. The survey was sent to approximately 1,800 professionals identified by the ACBSP™ who held active CCSP® certification. Of these, 270 individuals partially or fully completed the survey.

The survey results provide empirical information regarding what tasks are most important and require the most time. Those tasks or knowledge statements with higher relevancy as measured by importance and frequency (times) deserve more weight on the exam. This report provides details on the methodology and results of this survey.

## The Validity Argument

Validity refers to whether there is evidence to support given interpretations of test scores. The modern conceptualization of validity views is from an argumentative perspective (Kane, 1992; 2004). There are several types of validity, each contributing to the overall quality of the test. Figure 1 illustrates the several components that each contribute to the overall quality and validity of any test.

As the goal of professional credentialing is to correctly assert that someone who passes the test has a certain level of knowledge regarding the content and the skills required to do their job adequately, an integral part of the test development process is providing evidence of **content validation**—does the content of the test assess all relevant parts of the intended construct?



Figure 1. Chain of validity

It is critical for professional organizations to provide evidence that links the test scores back to the job or professional role. To do this, an empirical analysis of what the job entails should be conducted. This process is known as **job analysis** or **practice analysis**.

All accreditation agencies require evidence of content validation. The National Commission for Certifying Agencies (NCCA), Standard 10A requires that *'A job/practice analysis must be conducted leading to clearly delineated performance domains and tasks, associated knowledge and/or skills, and sets of content/item specifications to be used as the basis for developing each type of assessment instrument (e.g., multiple-choice, essay, oral examination)'*. Additionally, Standard 14.14 under the Standards for Educational and Psychological Testing (AERA, APA, & NCME, 1999) explicitly states that *'The content domain to be covered by a credentialing test should be defined clearly and justified in terms of importance of the content for the credential-worthy performance in an occupation or profession.'*

To provide a psychometrically sound foundation for the development of an updated CCSP® exam, ASC helped facilitate a job/task analysis survey for the ACBSP™. The job analysis is supporting evidence to meet these requirements of content validation because the intended interpretation of test scores is that a person is qualified to perform the job. Understanding what is needed to perform that job is critical to making sure that the appropriate content is on the test.

This report details the design and results of this study, and the implications for future test design. Future efforts will document further development along the test process outlined above.

## Study Design

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A standard textbook on job analysis (Brannick et al., 2007) describes several designs for a job analysis study; a model commonly used for credentialing exams is a **task inventory** (Raymond & Neustel, 2006). The goal of this approach is to produce a comprehensive list of professional tasks performed on the job, then have a wide range of incumbents rate each task on aspects such as **importance** and **time spent** on the task in a normal work week. This provides empirical evidence as to which tasks are more important or more frequent in the job; those tasks should obviously have more weight on the final test than rare or unimportant tasks.

### Subject Matter Expert Recruitment and Participation

To complete the job/task analysis, it was essential to recruit a committee of subject matter experts (SMEs) that had knowledge in the field to oversee the process. The SMEs were recruited for the job/task analysis panel based on their number of years of experience in the industry and their general understanding of the profession. ACBSP™ attempted to recruit this advisory panel across various regions and demographic profiles to ensure representativeness. Table 1 presents the experienced professionals who served on the panel for this study.

**Table 1. Subject Matter Expert (SME) committee members**

Name	Credentials	Location	Yrs of Experience
Jordan Knowlton-key	DACBSP	NY	1
Mahea Schreindorfer	DACBSP	CA	1
Jasmine Piper	CCSP	OR	1
Maily Tran	CCSP	CA	4
Lakia Brown	CCSP	IN	1
Kindra Ingram	CCSP	MD	7
Emma Scaro	CCSP	WI	1

Name	Credentials	Location	Yrs of Experience
Peggy Chin	CCSP	CA	4
Mike Buchakjian	CCSP	PA	7
Leon Tom	CCSP	TX	21
Christopher Dean	CCSP	MN	11

The SME panel had specific responsibilities during this study, including the following:

- Each member was required to attend the job/task analysis meetings.
- Each member was required to provide demographic information about themselves, their specialties, practice setting, experience in the industry and their professional affiliations in the survey form.
- SMEs were trained in the job/task analysis process. During this training, the SMEs were engaged by a facilitator that led them through how to identify and understand what was expected from them in the study. In this meeting, the SMEs began defining tasks and skills that they believed were essential in the role of a Chiropractic Sports Physician. The second meeting presented the list of tasks and knowledge statements that the panel had worked on and included a debrief and Q&A period.
- Each SME was required to be free of conflicts of interest and each was required to sign confidentiality and conflicts of interest statements.

## Methodology

The following presents the overall procedures followed in this study:

- The definition and use of the test was defined and a broad outline of areas that were deemed relevant to the profession were identified.
- An exhaustive list of tasks and/or knowledge statements for the professional role was generated.

- Rating scales for tasks and knowledge statements, as well as relevant demographic questions, were created to assess sampling.
- The SMEs reviewed and finalized the survey that was published and administered to the target audience.
- Results were collected, analyzed, and a final report was published.

### Defining the Task Statements

A task statement is a phrase that describes a discrete activity on the job that has a beginning and an end and typically produces some sort of finished product (report, brief, plan, diagnosis, measurement, etc.) or works toward a goal (Gael, 1983). The phrase typically has three parts: an action verb, a direct object noun, and an (optional) qualifier or descriptor (Brannick et al., 2007, p. 50). This is depicted in the example below.



Figure 2. Parts of a task statement

### Determining Domains

A web meeting with the advisory board (SMEs) was held on February 3<sup>rd</sup>, 2023, to introduce the CCSP® domains. The advisory panel reviewed the domains and subdomains from the previous JTA as well as the current exam, producing the list below. Table 2 presents a preliminary outline of the domains that were deemed representative of the content on the exam.



**Table 2. Domains established by the SME panel**

Domain
A. Team Physician and Events
B. Evaluate and Manage Concussions
C. Clinical Biomechanics
D. Sports Nutrition
E. The Environment and the Athlete
F. Medical Legal Aspects
G. Diagnosis of a Sports Injury
H. Treatment of Sports Injuries
I. Adjunctive Therapies
J. Prevention of Sports Injuries
K. Diagnostic Imaging
L. Emergency Procedures
M. Special Clinical Considerations

### **Creation and review of a task list**

The next step in the process was for the panel to define a comprehensive list of professional task and knowledge statements (often simply called “tasks”). A total of 82 task statements made up the final list for the survey. Table 3 highlights the domains and the number of task statements that were finalized for the survey.

### **Rating Scale Determination**

As above, the job/analysis survey is designed to assess target audiences’ beliefs about the importance or frequency of the task or knowledge they feel is required to do their job. Table 4 provides the rating scales for both Time (frequency) and Importance that were developed for this job/task analysis.

**Table 3. Tasks by domains**

Domain (Content Area)	Tasks
A. Team Physician and Events	14
B. Evaluate and Manage Concussions	4
C. Clinical Biomechanics	6
D. Sports Nutrition	6
E. The Environment and the Athlete	4
F. Medical Legal Aspects	11
G. Diagnosis of a Sports Injury	6
H. Treatment of Sports Injuries	5
I. Adjunctive Therapies	6
J. Prevention of Sports Injuries	3
K. Diagnostic Imaging	4
L. Emergency Procedures	7
M. Special Clinical Considerations	6
<b>Total</b>	<b>82</b>

**Table 4. Rating scales for Importance and Frequency**

Importance	Description
1	Not important
2	Somewhat important
3	Moderately important
4	Very important
5	Extremely important
Frequency	Description
1	Never
2	0 to 1 hours per week
3	1 to 3 hours per week
4	3 to 5 hours per week
5	More than 5 hours per week

## Demographic Characteristics of Interest

Demographic questions were created to add to the survey to assess the characteristics of the target population. These demographic variables included gender, state of primary work location, years of experience, highest level of education, and a question evaluating if the respondent is CCSP® certified.

## Survey Delivery

The survey was published using SurveyMonkey. The URL to the survey was then disseminated, with an email invitation to 1,834 professionals identified by ACBSP™. The survey was active for 30 days before data was accessed for analysis.

## Results

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The first section below presents a summary of the sample who responded to the survey. This is followed by a summary of the demographic questions asked on the survey. The final section presents descriptive statistics related to the task analysis questions. These results include average Importance, average Frequency, and the different combined metrics (e.g., Importance x Frequency, Importance + Frequency) for each task statement.

## Sample

A total of 270 professionals participated in the survey. A total of 165 respondents completed the full survey while 171 respondents completed more than 80% of the survey. The following sections present summaries of the demographics describing the set of respondents that completed 80% or more of the survey ( $N = 171$ ). Results indicated that the sample was widely dispersed in terms of the demographics listed above, providing evidence that the sample was appropriate and adequate.

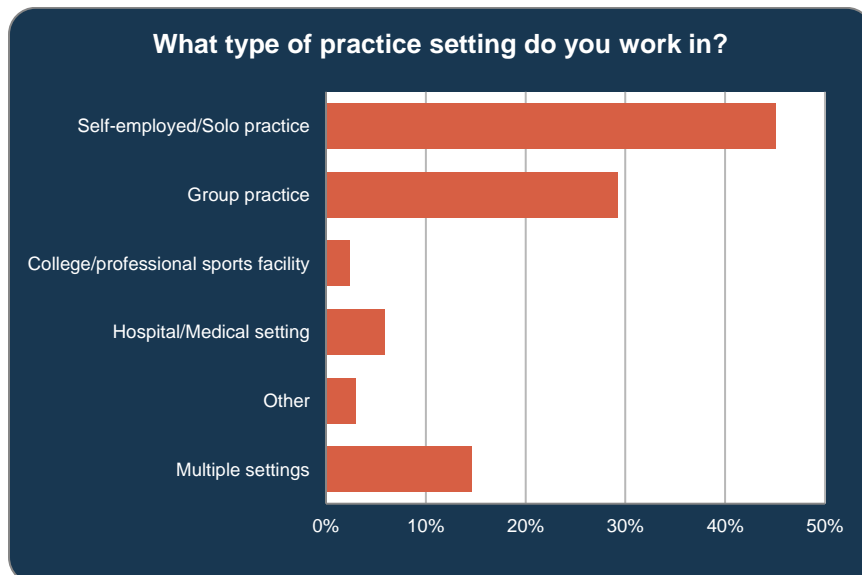
## Demographics

### Practice Setting

The breakdown of respondent's primary practice settings is presented in Table 5 and Figure 3. Approximately 45% of the sample responded that they were Self-employed/Solo practice, 29% indicated that they were part of a Group Practice. Fifteen percent of the sample indicated that they worked across multiple practice settings.

**Table 5. Practice Setting distribution**

Practice Setting	N	Percent
Self-employed/Solo practice	77	45.03%
Group practice	50	29.24%
Multiple settings	44	14.62%
Hospital/Medical setting	10	5.85%
Other	5	2.92%
College/professional sports facility	4	2.34%



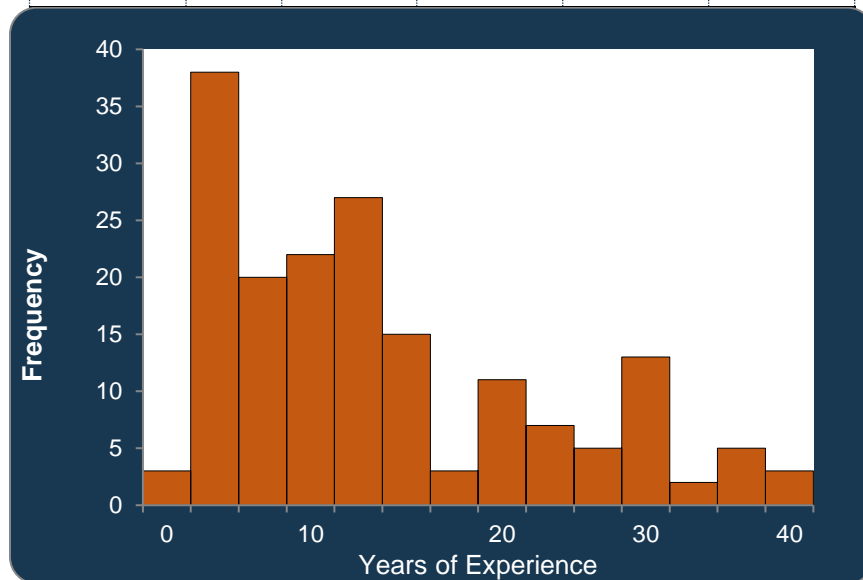
**Figure 3. Visual depiction of Primary Practice setting distribution**

## Years of experience

The mean years of experience in the sample was  $M = 12.56$  years, with a  $SD = 10.10$ . Three respondents reported that they had less than 1 year of experience, and six respondents indicated they had more than 35 years of experience.

**Table 6. Years of experience**

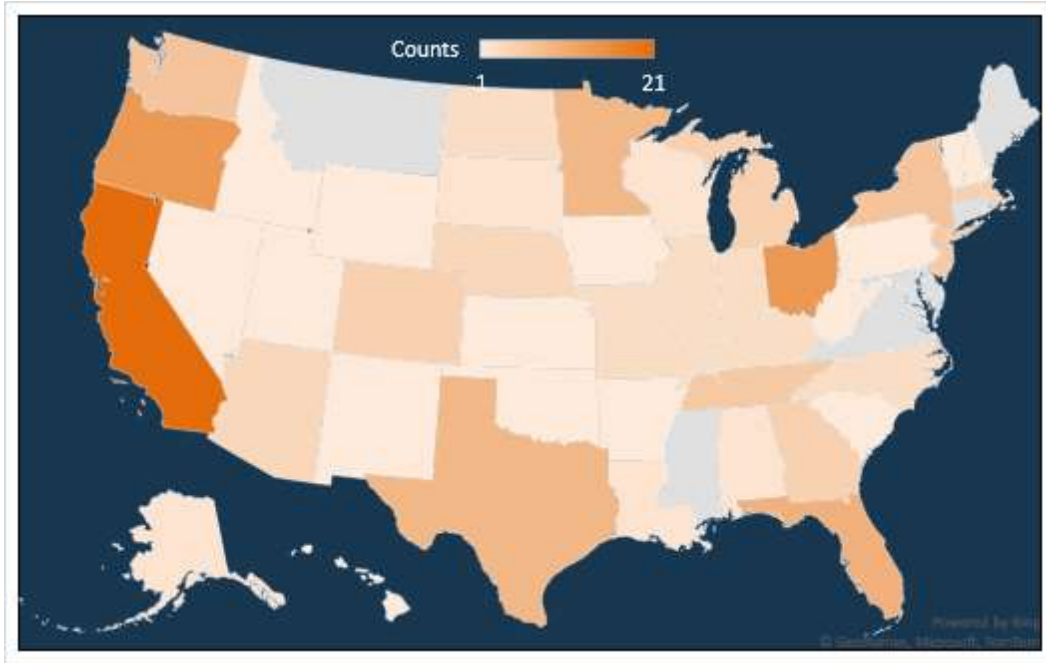
N	Mean	SD	Minimum	Maximum	Median
171	12.56	10.10	0	40	10



**Figure 4. Distribution of respondents' Years of Experience**

## State

Respondents from the survey were relatively distributed across the United States, with the largest portion of the sample coming from the California ( $n = 21$ ), Ohio ( $n = 14$ ), and Oregon ( $n = 14$ ).



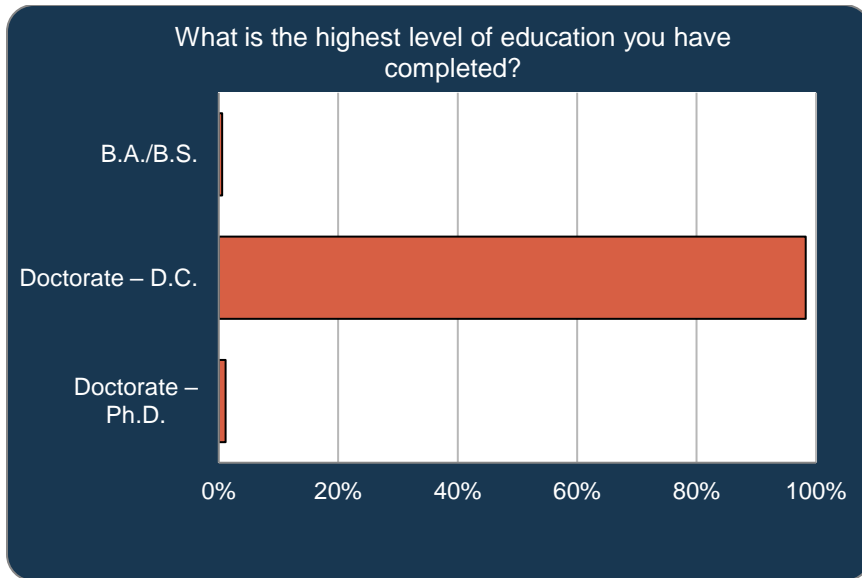
**Figure 5. Count of respondents by State**

**Highest Education and CCSP® Status**

Because this is an advanced chiropractic certification, over 99% of the respondents indicated that they had a Doctorate degree (Doctor of Chiropractic, 98%, Ph.D., 1%). One person in the sample indicated that they had a B.A./B.S. degree. One hundred percent of the respondents indicated that they were CCSP® certified.

**Table 7. Education distribution and CCSP® Status**

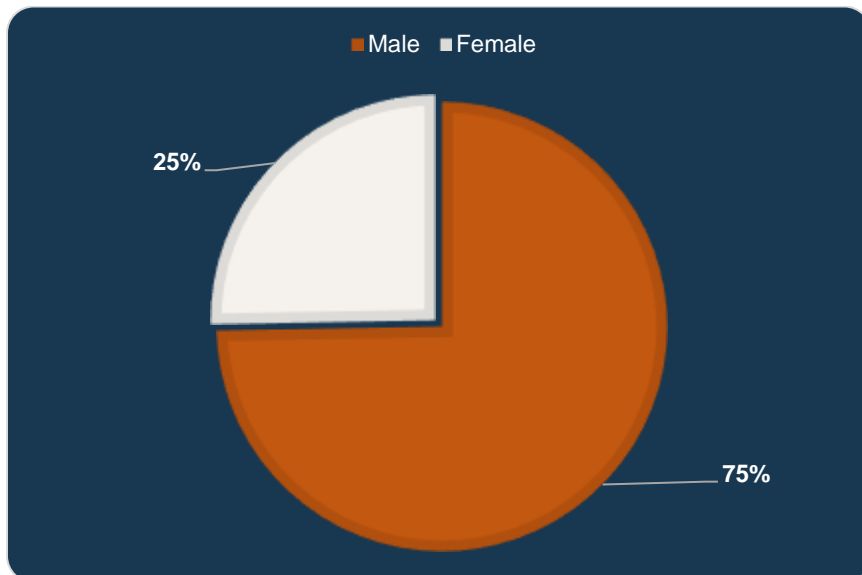
Education	N	Percent
Doctorate – D.C.	168	98.25%
Doctorate – Ph.D.	2	1.17%
B.A./B.S.	1	0.58%
CCSP Status	N	Percent
CCSP® certified	171	100%



**Figure 6. Visual depiction of Highest Level of Education**

### Gender

Figure 7 presents the Gender breakdown of the individuals that responded to the survey. Approximately 75% of the respondents indicated they were Male, and approximately 25% of the sample indicated they were Female.



**Figure 7. Gender distributions**

## Task ratings & Test Specification Weights

The mean rating of both time and importance was calculated for each task statement on the survey. In addition, mean time and importance were combined with both an additive model ( $T + I$ ) and multiplicative model ( $T \times I$ ), as mentioned in Raymond and Neustel (2006). Each of these metrics provides an index of the significance of the task in the role of a professional. Table 8 presents the mean statistics of these four indices for each of 13 domains as well as the number of tasks included in the final survey. It also includes the sum of the Importance x Time index across all tasks within a domain, which provides a quantification of the importance and time for tasks in that domain. This will be used in a later report to derive test specifications.

Results show that the domains *Team Physician and Events* (14) and *Medical Legal Aspects* (11) areas on the survey had the largest number of task questions. The highest average Time x Frequency ratings were also the highest for these two domains.

Evaluation of Importance and Frequency averages across each domain individually shows that both the mean importance and mean frequency is the highest for *Treatment of Sports Injuries* (5). Although this area only has five survey tasks, evaluation of whether to increase the proportion of items on the exam in this category is warranted. The lowest Importance mean rating was found for *Sports Nutrition*, followed by *Team Physician and Events*. The lowest Frequency mean ratings were found for *Emergency Procedures* and *Sports Nutrition*. This type of information will be important when determining the relative weight of the examination devoted to each domain.

Appendix A lists the tasks sorted by content areas (domains) as arranged in Table 8 below, while Appendix B lists the same data but sorted by the Time x Importance rating.



**Table 8. Task rating averages and sums across domains**

Domain	Total	Mean Imp.	Mean Freq.	Mean I + F	Mean I x F	Sum I x F
A. Team Physician and Events	14	3.88	2.56	6.44	10.09	141.32
B. Evaluate and Manage Concussions	4	4.43	2.76	7.19	12.26	49.04
C. Clinical Biomechanics	6	4.11	3.43	7.54	14.21	85.29
D. Sports Nutrition	6	3.33	2.22	5.55	7.56	45.37
E. The Environment and the Athlete	4	4.04	2.71	6.74	11.07	44.30
F. Medical Legal Aspects	11	4.59	3.99	8.58	18.46	203.02
G. Diagnosis of a Sports Injury	6	4.58	3.95	8.53	18.27	109.65
H. Treatment of Sports Injuries	5	4.72	4.30	9.02	20.30	101.49
I. Adjunctive Therapies	6	4.46	3.93	8.38	17.61	105.66
J. Prevention of Sports Injuries	3	4.32	3.64	7.96	16.10	48.30
K. Diagnostic Imaging	4	4.07	2.87	6.94	11.71	46.85
L. Emergency Procedures	7	4.57	2.15	6.72	9.82	68.71
M. Special Clinical Considerations	6	4.23	2.63	6.86	11.17	67.02

## Summary

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This report describes a job/task analysis study that was conducted by the American Chiropractic Board of Sports Physicians™ (ACBSP™) for the Certified Chiropractic Sports Physician® (CCSP®) exam. The goal of the study was to produce a comprehensive list of professional tasks performed by a CCSP® professional, so as to provide empirical data to support (or negate) the Importance and Frequency of tasks that are relevant to the professional role.

The first step in this study was the development of a set of domains, or content areas, that were deemed appropriate for the exam. An expert panel of SMEs used these domains as well as historical job/task analysis information to facilitate an exhaustive list of tasks they felt were reflective of the tasks required for the CCSP® professional. After the task list was vetted, a survey was conducted that presented this list of tasks to respondents, asking them to gauge each task's importance and frequency in their role. Survey responses for the task statements as well as responses to key demographic variables of interest were analyzed.

Demographic results indicated that the sample was an adequate representation of the target population. Results evaluating the importance and frequency (I x F) of the tasks across domains indicated that *Medical Legal Aspects* of the profession and *Team Physician Events* contributed the most based on the linear multiplicative model. This is not surprising given that these two domains had the highest number of tasks compared to the other domains in the survey. When evaluating the average importance and average frequencies independently, respondents thought that the most important domains were *Treatment of Sports Injuries* and *Medical Legal Aspects*, respectively.

Results from this job analysis should be used to identify which tasks should be covered by the CCSP® and to assign the relative weights associated with finalized domains. This is not directly part of the job analysis study, but of the test design step. The goal of task inclusion is not analyzing the job but rather producing the blueprints for the test. Following this, selection of tasks for inclusion should be documented in a separate test design report.

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## Appendix A: Tasks listed by content area

Table A.1. Task statements ordered by domain

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
1	A. Team Physician and Events	Travel/Attend sporting events to provide care	3.40	2.34	5.74	7.95
2	A. Team Physician and Events	Create and inventory sports medicine supplies	3.12	2.13	5.26	6.67
3	A. Team Physician and Events	Observe competition and practice areas for safety issues	3.64	2.31	5.95	8.42
4	A. Team Physician and Events	Evaluate athlete's equipment (footwear, helmets, etc.)	3.35	2.06	5.41	6.90
5	A. Team Physician and Events	Ensure emergency services are available	4.15	2.58	6.73	10.69
6	A. Team Physician and Events	Review emergency action plans for venue or event and communicate with other event personnel	4.02	2.33	6.35	9.37
7	A. Team Physician and Events	Have knowledge of and access to medications (e.g., inhalers/epi-pens)	3.95	2.29	6.25	9.06
8	A. Team Physician and Events	Have knowledge of infectious diseases	3.78	2.43	6.21	9.19
9	A. Team Physician and Events	Attend pre-season meetings with players and administrators	3.51	2.12	5.63	7.43
10	A. Team Physician and Events	Review health histories of players including unusual conditions	4.26	2.95	7.22	12.59
11	A. Team Physician and Events	Coordinate care with team medical staff	4.41	3.13	7.54	13.80
12	A. Team Physician and Events	Perform on-field examinations	4.01	2.56	6.57	10.25
13	A. Team Physician and Events	Triage injured patients	4.23	2.86	7.09	12.11
14	A. Team Physician and Events	Treat players and team staff	4.47	3.78	8.25	16.90
15	B. Evaluate and Manage Concussions	Perform baseline concussion testing	4.30	2.47	6.77	10.63
16	B. Evaluate and Manage Concussions	Perform evaluations on concussed athletes	4.35	2.78	7.13	12.09
17	B. Evaluate and Manage Concussions	Know concussion management and return to play criteria	4.69	3.12	7.81	14.62
18	B. Evaluate and Manage Concussions	Make return to play decisions for concussed athletes	4.37	2.67	7.05	11.69
19	C. Clinical Biomechanics	Perform gait analysis	3.92	3.10	7.02	12.16

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
20	C. Clinical Biomechanics	Analyze functional movements	4.33	3.74	8.08	16.22
21	C. Clinical Biomechanics	Analyze sport-specific movements	4.40	3.76	8.16	16.54
22	C. Clinical Biomechanics	Perform muscle strength testing	4.15	3.69	7.84	15.30
23	C. Clinical Biomechanics	Advise athletes and coaches on sport-specific issues based on clinical biomechanical findings	4.36	3.58	7.94	15.62
24	C. Clinical Biomechanics	Make individualized footwear and orthoses recommendations	3.49	2.71	6.20	9.45
25	D. Sports Nutrition	Advise athletes about sports nutrition	4.03	3.04	7.06	12.23
26	D. Sports Nutrition	Advise coaches about sports nutrition	3.64	2.38	6.02	8.67
27	D. Sports Nutrition	Perform body composition analysis	2.57	1.63	4.20	4.19
28	D. Sports Nutrition	Consult and educate athletes on drug & alcohol awareness	3.27	1.93	5.20	6.31
29	D. Sports Nutrition	Know and educate athletes on NCAA/USADA/WADA drug regulations	3.28	1.95	5.23	6.41
30	D. Sports Nutrition	Provide advice on ergogenic aides	3.17	2.39	5.56	7.56
31	E. The Environment and the Athlete	Know and educate athletes on proper hydration	4.40	3.56	7.96	15.68
32	E. The Environment and the Athlete	Observe and treat cold-related conditions	3.69	2.06	5.75	7.60
33	E. The Environment and the Athlete	Observe and treat heat-related conditions	4.19	2.80	6.98	11.70
34	E. The Environment and the Athlete	Assess environment specific risks (e.g., severe temperature, lightning, altitude)	3.87	2.41	6.27	9.31
35	F. Medical Legal Aspects	Communicate and meet with families	3.90	2.88	6.78	11.22
36	F. Medical Legal Aspects	Communicate with coaches	4.20	3.16	7.36	13.26
37	F. Medical Legal Aspects	Communicate with athletes	4.70	4.18	8.88	19.63
38	F. Medical Legal Aspects	Provide informed consent information/documentation	4.54	3.82	8.36	17.36
39	F. Medical Legal Aspects	Maintain documentation	4.65	4.35	9.01	20.25
40	F. Medical Legal Aspects	Maintain malpractice insurance	4.91	4.47	9.38	21.95
41	F. Medical Legal Aspects	Attend continuing education	4.80	4.24	9.04	20.36
42	F. Medical Legal Aspects	Know areas of negligence in sport	4.43	3.65	8.09	16.20
43	F. Medical Legal Aspects	Follow the ACBSP's™ Ethics policies	4.77	4.47	9.24	21.32
44	F. Medical Legal Aspects	Follow SafeSport or equivalent guidelines	4.67	4.27	8.95	19.97
45	F. Medical Legal Aspects	Know the scope of practice in the state of licensure	4.89	4.39	9.29	21.50

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
46	G. Diagnosis of a Sports Injury	Obtain and review a history	4.81	4.40	9.21	21.17
47	G. Diagnosis of a Sports Injury	Perform physical examinations	4.75	4.37	9.13	20.80
48	G. Diagnosis of a Sports Injury	Develop differential diagnoses	4.73	4.33	9.05	20.45
49	G. Diagnosis of a Sports Injury	Order and interpret laboratory and/or special tests	3.99	3.04	7.02	12.10
50	G. Diagnosis of a Sports Injury	Evaluate injuries	4.87	4.52	9.39	21.99
51	G. Diagnosis of a Sports Injury	Perform pre-participation examinations	4.33	3.04	7.36	13.13
52	H. Treatment of Sports Injuries	Develop treatment plans	4.64	4.29	8.94	19.93
53	H. Treatment of Sports Injuries	Provide chiropractic manipulative therapy	4.65	4.47	9.12	20.80
54	H. Treatment of Sports Injuries	Provide post-injury instructions	4.83	4.45	9.28	21.50
55	H. Treatment of Sports Injuries	Provide athlete follow-up	4.74	4.30	9.04	20.39
56	H. Treatment of Sports Injuries	Apply return-to-play criteria	4.71	4.01	8.72	18.88
57	I. Adjunctive Therapies	Recommend and demonstrate stretching exercises	4.57	4.16	8.73	18.99
58	I. Adjunctive Therapies	Perform physiotherapies/rehabilitation techniques	4.64	4.23	8.87	19.61
59	I. Adjunctive Therapies	Perform soft tissue treatment	4.61	4.35	8.95	20.02
60	I. Adjunctive Therapies	Utilize taping techniques and bracing	4.25	3.59	7.84	15.24
61	I. Adjunctive Therapies	Understand basic strength and conditioning principles	4.69	4.14	8.83	19.42
62	I. Adjunctive Therapies	Create training programs	4.00	3.09	7.09	12.37
63	J. Prevention of Sports Injuries	Treat previous injuries in athletes	4.61	4.23	8.84	19.51
64	J. Prevention of Sports Injuries	Direct and perform warm-ups and cool-downs	3.66	2.44	6.10	8.93
65	J. Prevention of Sports Injuries	Provide patient education	4.67	4.25	8.92	19.87
66	K. Diagnostic Imaging	Take/order radiographs	4.11	2.98	7.09	12.26
67	K. Diagnostic Imaging	Take/order advanced imaging studies	4.13	2.71	6.84	11.20
68	K. Diagnostic Imaging	Interpret radiographs	4.20	3.13	7.33	13.16
69	K. Diagnostic Imaging	Interpret advanced imaging studies	3.86	2.65	6.51	10.22
70	L. Emergency Procedures	Assess the need for emergency treatment	4.66	2.90	7.56	13.52
71	L. Emergency Procedures	Respond to emergent situations (spectators, team staff, athletes, mass casualties)	4.36	2.30	6.66	10.04

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
72	L. Emergency Procedures	Activate EMS	4.67	2.09	6.76	9.76
73	L. Emergency Procedures	Perform CPR and utilize an AED	4.73	1.86	6.59	8.80
74	L. Emergency Procedures	Apply cervical collar, splinting, and spine boarding as necessary	4.58	1.89	6.47	8.64
75	L. Emergency Procedures	Evaluate and manage shock	4.49	1.81	6.30	8.14
76	L. Emergency Procedures	Communicate with EMS personnel	4.54	2.16	6.70	9.81
77	M. Special Clinical Considerations	Refer to and co-manage with specialists	4.58	3.33	7.90	15.22
78	M. Special Clinical Considerations	Counsel athletes about sports psychology	3.93	2.46	6.39	9.68
79	M. Special Clinical Considerations	Identify and refer for psychological counseling when appropriate	4.28	2.39	6.67	10.22
80	M. Special Clinical Considerations	Evaluate and manage special populations (pregnant, ultra, geriatric, pediatric, female, etc.)	4.25	3.07	7.32	13.05
81	M. Special Clinical Considerations	Evaluate, manage, and accommodate athletes with physical, developmental or learning disabilities	4.25	2.35	6.60	9.98
82	M. Special Clinical Considerations	Identify and manage chronic diseases in sport (e.g., sickle cell anemia, diabetes)	4.09	2.17	6.26	8.88

## Appendix B: Tasks listed by Time x Importance

Table B.1. Task statements ordered by mean I x F

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
50	G. Diagnosis of a Sports Injury	Evaluate injuries	4.87	4.52	9.39	21.99
40	F. Medical Legal Aspects	Maintain malpractice insurance	4.91	4.47	9.38	21.95
45	F. Medical Legal Aspects	Know the scope of practice in the state of licensure	4.89	4.39	9.29	21.50
54	H. Treatment of Sports Injuries	Provide post-injury instructions	4.83	4.45	9.28	21.50
43	F. Medical Legal Aspects	Follow the ACBSP's™ Ethics policies	4.77	4.47	9.24	21.32
46	G. Diagnosis of a Sports Injury	Obtain and review a history	4.81	4.40	9.21	21.17
53	H. Treatment of Sports Injuries	Provide chiropractic manipulative therapy	4.65	4.47	9.12	20.80
47	G. Diagnosis of a Sports Injury	Perform physical examinations	4.75	4.37	9.13	20.80
48	G. Diagnosis of a Sports Injury	Develop differential diagnoses	4.73	4.33	9.05	20.45
55	H. Treatment of Sports Injuries	Provide athlete follow-up	4.74	4.30	9.04	20.39
41	F. Medical Legal Aspects	Attend continuing education	4.80	4.24	9.04	20.36
39	F. Medical Legal Aspects	Maintain documentation	4.65	4.35	9.01	20.25
59	I. Adjunctive Therapies	Perform soft tissue treatment	4.61	4.35	8.95	20.02
44	F. Medical Legal Aspects	Follow SafeSport or equivalent guidelines	4.67	4.27	8.95	19.97
52	H. Treatment of Sports Injuries	Develop treatment plans	4.64	4.29	8.94	19.93
65	J. Prevention of Sports Injuries	Provide patient education	4.67	4.25	8.92	19.87
37	F. Medical Legal Aspects	Communicate with athletes	4.70	4.18	8.88	19.63
58	I. Adjunctive Therapies	Perform physiotherapies/rehabilitation techniques	4.64	4.23	8.87	19.61
63	J. Prevention of Sports Injuries	Treat previous injuries in athletes	4.61	4.23	8.84	19.51
61	I. Adjunctive Therapies	Understand basic strength and conditioning principles	4.69	4.14	8.83	19.42
57	I. Adjunctive Therapies	Recommend and demonstrate stretching exercises	4.57	4.16	8.73	18.99
56	H. Treatment of Sports Injuries	Apply return-to-play criteria	4.71	4.01	8.72	18.88



Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
38	F. Medical Legal Aspects	Provide informed consent information/documentation	4.54	3.82	8.36	17.36
14	A. Team Physician and Events	Treat players and team staff	4.47	3.78	8.25	16.90
21	C. Clinical Biomechanics	Analyze sport-specific movements	4.40	3.76	8.16	16.54
20	C. Clinical Biomechanics	Analyze functional movements	4.33	3.74	8.08	16.22
42	F. Medical Legal Aspects	Know areas of negligence in sport	4.43	3.65	8.09	16.20
31	E. The Environment and the Athlete	Know and educate athletes on proper hydration	4.40	3.56	7.96	15.68
23	C. Clinical Biomechanics	Advise athletes and coaches on sport-specific issues based on clinical biomechanical findings	4.36	3.58	7.94	15.62
22	C. Clinical Biomechanics	Perform muscle strength testing	4.15	3.69	7.84	15.30
60	I. Adjunctive Therapies	Utilize taping techniques and bracing	4.25	3.59	7.84	15.24
77	M. Special Clinical Considerations	Refer to and co-manage with specialists	4.58	3.33	7.90	15.22
17	B. Evaluate and Manage Concussions	Know concussion management and return to play criteria	4.69	3.12	7.81	14.62
11	A. Team Physician and Events	Coordinate care with team medical staff	4.41	3.13	7.54	13.80
70	L. Emergency Procedures	Assess the need for emergency treatment	4.66	2.90	7.56	13.52
36	F. Medical Legal Aspects	Communicate with coaches	4.20	3.16	7.36	13.26
68	K. Diagnostic Imaging	Interpret radiographs	4.20	3.13	7.33	13.16
51	G. Diagnosis of a Sports Injury	Perform pre-participation examinations	4.33	3.04	7.36	13.13
80	M. Special Clinical Considerations	Evaluate and manage special populations (pregnant, ultra, geriatric, pediatric, female, etc.)	4.25	3.07	7.32	13.05
10	A. Team Physician and Events	Review health histories of players including unusual conditions	4.26	2.95	7.22	12.59
62	I. Adjunctive Therapies	Create training programs	4.00	3.09	7.09	12.37
66	K. Diagnostic Imaging	Take/order radiographs	4.11	2.98	7.09	12.26
25	D. Sports Nutrition	Advise athletes about sports nutrition	4.03	3.04	7.06	12.23
19	C. Clinical Biomechanics	Perform gait analysis	3.92	3.10	7.02	12.16
13	A. Team Physician and Events	Triage injured patients	4.23	2.86	7.09	12.11
49	G. Diagnosis of a Sports Injury	Order and interpret laboratory and/or special tests	3.99	3.04	7.02	12.10
16	B. Evaluate and Manage Concussions	Perform evaluations on concussed athletes	4.35	2.78	7.13	12.09

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
33	E. The Environment and the Athlete	Observe and treat heat-related conditions	4.19	2.80	6.98	11.70
18	B. Evaluate and Manage Concussions	Make return to play decisions for concussed athletes	4.37	2.67	7.05	11.69
35	F. Medical Legal Aspects	Communicate and meet with families	3.90	2.88	6.78	11.22
67	K. Diagnostic Imaging	Take/order advanced imaging studies	4.13	2.71	6.84	11.20
5	A. Team Physician and Events	Ensure emergency services are available	4.15	2.58	6.73	10.69
15	B. Evaluate and Manage Concussions	Perform baseline concussion testing	4.30	2.47	6.77	10.63
12	A. Team Physician and Events	Perform on-field examinations	4.01	2.56	6.57	10.25
69	K. Diagnostic Imaging	Interpret advanced imaging studies	3.86	2.65	6.51	10.22
79	M. Special Clinical Considerations	Identify and refer for psychological counseling when appropriate	4.28	2.39	6.67	10.22
71	L. Emergency Procedures	Respond to emergent situations (spectators, team staff, athletes, mass casualties)	4.36	2.30	6.66	10.04
81	M. Special Clinical Considerations	Evaluate, manage, and accommodate athletes with physical, developmental or learning disabilities	4.25	2.35	6.60	9.98
76	L. Emergency Procedures	Communicate with EMS personnel	4.54	2.16	6.70	9.81
72	L. Emergency Procedures	Activate EMS	4.67	2.09	6.76	9.76
78	M. Special Clinical Considerations	Counsel athletes about sports psychology	3.93	2.46	6.39	9.68
24	C. Clinical Biomechanics	Make individualized footwear and orthoses recommendations	3.49	2.71	6.20	9.45
6	A. Team Physician and Events	Review emergency action plans for venue or event and communicate with other event personnel	4.02	2.33	6.35	9.37
34	E. The Environment and the Athlete	Assess environment specific risks (e.g., severe temperature, lightning, altitude)	3.87	2.41	6.27	9.31
8	A. Team Physician and Events	Have knowledge of infectious diseases	3.78	2.43	6.21	9.19
7	A. Team Physician and Events	Have knowledge of and access to medications (e.g., inhalers/epi-pens)	3.95	2.29	6.25	9.06
64	J. Prevention of Sports Injuries	Direct and perform warm-ups and cool-downs	3.66	2.44	6.10	8.93
82	M. Special Clinical Considerations	Identify and manage chronic diseases in sport (e.g., sickle cell anemia, diabetes)	4.09	2.17	6.26	8.88
73	L. Emergency Procedures	Perform CPR and utilize an AED	4.73	1.86	6.59	8.80
26	D. Sports Nutrition	Advise coaches about sports nutrition	3.64	2.38	6.02	8.67
74	L. Emergency Procedures	Apply cervical collar, splinting, and spine boarding as necessary	4.58	1.89	6.47	8.64

Task Num.	Domain	Task Statement	Imp	Freq	I+F	I x F
3	A. Team Physician and Events	Observe competition and practice areas for safety issues	3.64	2.31	5.95	8.42
75	L. Emergency Procedures	Evaluate and manage shock	4.49	1.81	6.30	8.14
1	A. Team Physician and Events	Travel/Attend sporting events to provide care	3.40	2.34	5.74	7.95
32	E. The Environment and the Athlete	Observe and treat cold-related conditions	3.69	2.06	5.75	7.60
30	D. Sports Nutrition	Provide advice on ergogenic aides	3.17	2.39	5.56	7.56
9	A. Team Physician and Events	Attend pre-season meetings with players and administrators	3.51	2.12	5.63	7.43
4	A. Team Physician and Events	Evaluate athlete's equipment (footwear, helmets, etc.)	3.35	2.06	5.41	6.90
2	A. Team Physician and Events	Create and inventory sports medicine supplies	3.12	2.13	5.26	6.67
29	D. Sports Nutrition	Know and educate athletes on NCAA/USADA/WADA drug regulations	3.28	1.95	5.23	6.41
28	D. Sports Nutrition	Consult and educate athletes on drug & alcohol awareness	3.27	1.93	5.20	6.31
27	D. Sports Nutrition	Perform body composition analysis	2.57	1.63	4.20	4.19