Preparing for the NASM Certified Personal Trainer Exam

Designed to help candidates prepare for the NASM CPT Certification Exam
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INTRODUCTION:

Welcome to the National Academy of Sports Medicine’s Essentials of Personal Fitness Training home-study course. At NASM, our mission is to revolutionize the health and fitness industry by providing education, solutions, and tools that produce remarkable results. We aim to give Health and Fitness Professionals an integrated approach to health, allowing them to guide others toward healthier lifestyles. Our educational continuum employs an easy-to-use, systematic approach in order to apply scientific and clinically accepted concepts.

Getting Help:

At NASM, your success is our success. We want to help you in every way we can. The NASM staff is available to offer any assistance you may need throughout the course of your program. Whether you have technical or educational questions, we are available by phone and email 8:00 A.M to 5:00 P.M (PST) Monday through Friday. Please call our toll free number at 1-800-460-6276 or email us questions at www.nasm.org.

Study Tips:

The most important characteristic for students to possess is a deep and passionate desire to learn. That said, the following tips should help you maximize the time spent on the course materials. ***This is not an exhaustive list.

Note:

Although use of the Essentials of Personal Fitness Training Textbook and home-study course materials is not a requirement for certification exam eligibility, the purpose of this manual is to maximize your learning experience if you are utilizing those reference materials to prepare for the exam. Utilization of the information in this manual does not guarantee an individual to pass the NASM-CPT exam.
Preparing for the NASM Certified Personal Trainer Exam

UTILIZING THE NASM ESSENTIALS OF PERSONAL FITNESS TRAINING MATERIALS

1. Use all the tools- Textbook, Videos, Study Guide. Hint- The 45 day planner located in the Study Guide will help keep you on track.
   a. Step 1: Read a chapter in the text.
   b. Step 2: Watch the corresponding video presentations for that chapter.
   c. Step 3: Quiz yourself by filling out the Study Guide for that chapter.
   d. Step 4: Review any topics from that chapter you find difficult.

2. Practice exam. Once you've completed all 18 chapters, take the online practice exam.
   a. Take the online practice exam strictly from memory (close your book).
   b. Mimic the exam conditions as best as you can. For example, take the practice at a scheduled date and time and from another location (such as the library).
   c. Also, don’t bother memorizing the specific questions on the practice exam (they won’t be on the test) - instead get to know the “concepts”. If the practice exam asks about X then maybe the final will ask about Y.
   d. If you need help accessing the online practice exam please call 1-800-460-6276.

3. Attend a live workshop. The workshop is a great place to meet other trainers (maybe form a study group), ask questions, and gain hands-on experience.

4. Call NASM (800-460-6276) with any questions. We are here to help you succeed!

5. Ask a friend/relative/mentor to quiz you. This is a great chance to test your knowledge and show others how much you’ve learned.

6. Take your time at the testing center and read each question thoroughly.

7. Highlight important sentences in the text as you read and make notes on the side of the page. Once you’re finished with the book, re-read your notes and highlights.

8. Study away from distractions.

9. Practice- Take what you learn and apply it in the gym with your own workouts.

10. Understanding vocabulary is essential to understanding the questions on the final. If you don’t know what the question is asking, it’s hard to choose the right answer. Highlight key vocabulary terms as you read the text and try to use them in a sentence.
## EXAM BREAKDOWN

<table>
<thead>
<tr>
<th>Performance Domain</th>
<th># Questions</th>
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<tbody>
<tr>
<td>Assessment</td>
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<tr>
<td>Exercise Technique</td>
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<td>Program Design</td>
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<td>Nutrition</td>
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<tr>
<td>Professional Development &amp; Responsibility</td>
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<td><strong>Total Exam Questions</strong></td>
<td><strong>120</strong></td>
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</table>

*Research questions are questions undergoing analysis to determine if they can be used for future exams. Research questions do not count against the candidates score. The candidate will not be advised as to which questions are research questions. Research questions are an important part of developing fair and statistically valid examinations.*

## Details of NASM-CPT Examination

<table>
<thead>
<tr>
<th>Details</th>
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<tbody>
<tr>
<td>Time given to complete exam</td>
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<tr>
<td>Score required to pass exam</td>
<td>70 scaled score</td>
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<td>Format of exam questions</td>
<td>Multiple choice</td>
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<td>Location of exam</td>
<td>Lasergrade testing facilities</td>
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## Eligibility Requirements

- 18 Years of Age
- NASM exam enrollment paid in full
- Current CPR and AED certification
**EXAM BREAKDOWN - ASSESSMENT:**

Certified Personal Trainers must realize that an effective training program begins with the identification of the client’s training history, PAR-Q, medical history, goals, current and past medications, physiological statistics (body composition, heart rate, anthropometric measurements), posture, and the observation of movement dysfunctions. This domain includes:

<table>
<thead>
<tr>
<th>Fundamentals of Human Movement Science (Chapters 1-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nervous System, Skeletal System, Muscular System, Cardiorespiratory System</td>
</tr>
<tr>
<td>Biomechanics</td>
</tr>
<tr>
<td>Exercise Physiology</td>
</tr>
</tbody>
</table>

**Fitness Assessment: Subjective Information (Chapter 5)**

**General and Medical History:**

Occupation, Lifestyle, Medical, and Personal Information

**Fitness Assessment: Objective Information (Chapter 5)**

**Physiological Assessments:**

Heart Rate, Pulse, Blood Pressure

**Body Composition Testing:**

Body Fat Measurements, Circumference Measurements, Waist to Hip Ratio, BMI

**Cardiorespiratory Assessments:**

Step Test, Rockport Walk Test

**Static and Dynamic Postural Assessments:**

Overhead Squat, Single-Leg Squat, Pushing/Pulling Assessment

**Performance Assessments:**

Davies Test, Shark Skill Test, Bench Press Strength, Squat Strength
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**Important Tables/Figures:**

<table>
<thead>
<tr>
<th>Table/Figure</th>
<th>Page</th>
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<tbody>
<tr>
<td>Table 2.3 (pg 34) Muscle Fiber Types</td>
<td></td>
</tr>
<tr>
<td>Table 2.4 (pg 35) Muscles as Movers</td>
<td></td>
</tr>
<tr>
<td>Table 3.1 (pg 43) Functions of the Heart</td>
<td></td>
</tr>
<tr>
<td>Table 3.5 (page 52) The Bioenergetic Continuum</td>
<td></td>
</tr>
<tr>
<td>Table 4.1 (pg 61) Examples of Planes, Motions, and Axes</td>
<td></td>
</tr>
<tr>
<td>Table 4.2 (pg 68) Muscle Action Spectrum</td>
<td></td>
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<tr>
<td>Table 5.2 (pg 107) Common Medication by Classification</td>
<td></td>
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<tr>
<td>Table 5.3 (pg 108) Effects of Medication of Heart Rate and Blood Pressure</td>
<td></td>
</tr>
<tr>
<td>Figure 5.25 (pg 123) Overhead Squat Checklist</td>
<td></td>
</tr>
<tr>
<td>Table 6.6 (pg 169) **very important Compensations, Muscle Imbalances, and Corrective Strategies</td>
<td></td>
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</tbody>
</table>

**Key Points:**

- Evidence of Muscular Dysfunction and Increased Injury (chapter 1, pg 5)
- Integrated Training and the OPT™ Model (chapter 1, pg 7)
- Anatomy of the Nervous System (chapter 2, pg 17)
- Overview of the Skeletal System (chapter 2, pg 21)
- Overview of the Muscular System (chapter 2, pg 29)
- The Cardiovascular System (chapter 3, pg 40)
- The Respiratory System (chapter 3, pg 46)
- The Bioenergetic Continuum (chapter 3, pg 51 & 52)
- Anatomic Locations (chapter 4, pg 59)
- Planes of Motion, Axes, and Joint Motions (chapter 4, pg 60)
- Muscle Actions (chapter 4, pg 62)
- Motor Behavior (chapter 4, pg 91)
- PAR-Q = Physical Activity Readiness Questionnaire (chapter 5, pg 102)
- Subjective Assessments (chapter 5, pg 102)
- Objective Assessments (chapter 5, pg 108)
EXAM BREAKDOWN - EXERCISE TECHNIQUE:

Proper application and execution of the chosen exercise(s) is one of the most critical success factors for clients to reach their goal and reduce the risk of injury while training and performing activities of daily living. The Certified Personal Trainer plays an important role not only as a facilitator of exercise, but as an educator of health and fitness.

You need to know how to:

1. Categorize every exercise
2. Regress every exercise
3. Progress every exercise
4. Perform every exercise

Example: A “single-leg balance reach” is what type of exercise?

**A. Balance Stabilization**
B. Balance Strength
C. Core Stabilization
D. Reactive Stabilization

Example: What is the appropriate regression of the “Prone Iso-Ab”

**A. Prone Iso-Ab with hands on a bench**
B. Prone Iso-Ab with Hip Abduction
C. Side-lying Iso-Ab
D. Short-lever floor crunch

Example: Which chest exercise is appropriate for a client training in Phase 1 of the OPT Model?

**A. Bench Press**
B. Medicine Ball Chest Pass
**C. Stability Ball DB Chest Press**
D. Speed Bench Press
Flexibility Training Concepts (Chapter 6)

**Important Concepts/Definitions:**
- Relative Flexibility (pg 142)
- Muscle Imbalance (pg 142)
- Synergistic Dominance (pg 144)
- Altered Reciprocal Inhibition (144)
- Autogenic Inhibition (pg 146)

**Anatomy & Physiology:**
- Muscle Spindle (pg 145)
- Golgi Tendon Organs (pg 146)
- Cumulative Injury Cycle (147)
- Davis’s Law (pg 148)

**Acute Variables:**
- Self-Myofascial Release (SMR): Hold tender area for 20-30 seconds
- Static Stretch: Hold stretch for 20-30 seconds
- Active-Isolated Stretching: Hold stretch for 1-2 seconds for 5-10 repetitions
- Dynamic Stretching: 10-15 repetitions, 3-10 exercises

*Study the pictures of the stretches in the textbook.*
**Cardiorespiratory Training Concepts (Chapter 7)**

**Important Terms:**
- General & Specific Warm-up (pg 174)
- EPOC: Excess Postexercise Oxygen Consumption (pg 183)

**Important Concepts:**
- F.I.T.T.E Factors (Frequency, Intensity, Time, Type, Enjoyment) (pg 179-181)
- Myth of “fat burning zone” (pg 182)
- Stage training **very important** (184-189)
- Circuit training (pg 189)
- Postural considerations during cardio training (pg 191-193)

**Important Tables:**
- Table 7.1 (pg 174)
- Table 7.5 (pg 178)
- Table 7.6 (pg 180)
- Table 7.7 (pg 181)
- Table 7.9 (pg 184)

**Important Figures:**
- Figure 7.2 (pg 178)
- Figure 7.3 (pg 179)
Core-Training Concepts (Chapter 8)

Important Table:

| Table 8.1 (pg 199) |

Important Terms:

| Core (pg 198) |
| Intramuscular Coordination (pg 203) |
| Intermuscular Coordination (pg 203) |
| Drawing-in Maneuver (pg 201-202) |

Important Concepts:

| Core musculature (stabilization system vs. movement system) (pg 198) |
| Importance of properly training the stabilization system (pg 199) |
| Designing a core-training program (core-stabilization, core-strength, core-power) (pg 203-214) |

Study the pictures of the exercises. You need to know how to:

1. Categorize every exercise
2. Regress every exercise
3. Progress every exercise
4. Perform every exercise
Balance-Training Concepts (Chapter 9)

**Important Progressions:**

**Important Figure:**
Figure 9.3 (pg 225)

**Important Terms:**
- Dynamic Joint Stabilization (pg 221)
- Multisensory Condition (pg 221)
- Controlled Instability (pg 222)

**Important Concepts:**
- Importance of properly training the balance mechanism (pg 220)
- Benefits of balance training (pg 221)
- Balance and joint dysfunctions (pg 222)
- Designing a balance-training program (balance-stabilization, balance-strength, balance-power) (pg 224-236)

**Study the pictures of the exercises. You need to know how to:**
1. Categorize every exercise
2. Regress every exercise
3. Progress every exercise
4. Perform every exercise
**Reactive (Power) Training Concepts (Chapter 10)**

**Important Terms:**
- Reactive training (pg 242)
- Integrated Performance Paradigm (pg 243)
- Rate of force production (pg 243)

**Important Figures:**
- Figure 10.1 (pg 242)
- Figure 10.2 (pg 245)

**Important Concepts:**
- The Importance of Reactive Training (pg 242)
- Designing a reactive training program (reactive-stabilization, reactive-strength, reactive-power) (pg 244-257)

**Study the pictures of the exercises. You need to know how to:**
1. Categorize every exercise
2. Regress every exercise
3. Progress every exercise
4. Perform every exercise
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**Speed, Agility, and Quickness (Chapter 11)**

**Important terms:**
- Speed (pg 260)
- Agility (pg 260)
- Quickness (pg 261)

**Important Concepts**
- Frontside Mechanics (pg 260)
- Backside Mechanics (pg 260)
- Average stride length (pg 260)
- Kinetic chain checkpoints during running mechanics (pg 261)
- SAQ drills and programming strategies (pg 262-269)

**Important Tables**
- Table 11.1 (pg 261)
- Table 11.2 (pg 262)

**Study the pictures of the exercises. You need to know how to:**

1. Identify Ladder Drills
2. Identify Cone Drills
Resistance-Training Concepts (Chapter 12)

**Important Principles:**
- General Adaptation Syndrome (Table 12.1) (pg 272-274)
- SAID Principle (Principle of Specificity) (pg 274-276)

**Important Terms:**
- Mechanical Specificity (pg 275)
- Neuromuscular Specificity (pg 275)
- Metabolic Specificity (pg 275)
- Strength (pg 277)
- Muscular Endurance (pg 278)
- Stability (pg 278)
- Strength Endurance (pg 279)
- Hypertrophy (pg 279)
- Maximal Strength (pg 279)
- Power (pg 280)

**Resistance-Training Systems:**
- Table 12.3 (pg 281-285)
- Study the pictures of the exercises
EXAM BREAKDOWN - PROGRAM DESIGN:

Developing comprehensive, progressive training and conditioning programs is fundamentally critical for the success of the Certified Personal Trainer.

**Important Terms: (Chapter 13 – Program Design Concepts)**

<table>
<thead>
<tr>
<th>Term</th>
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<tbody>
<tr>
<td>Program design</td>
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<tr>
<td>Acute variables</td>
<td>327</td>
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<tr>
<td>Repetition</td>
<td>328</td>
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<tr>
<td>Set</td>
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<td>Training Intensity</td>
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<tr>
<td>Repetition Tempo</td>
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<td>Rest Interval</td>
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<td>Training Volume</td>
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<td>Training Frequency</td>
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<td>Training Duration</td>
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<tr>
<td>Exercise Selection</td>
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</table>

**Important Concepts:**

The beginning of chapter 13 discusses research of different training variables (max strength, power, hypertrophy, and endurance). *Learn the bullet point's • on pages 329-332.*

The second half of chapter 13 (pages 341-353) discusses the OPT™ Model. There are five phases of the OPT™ Model. Make sure you know the names of all five phases, the goals of each phase, and the acute variables (sets, reps, tempo, etc).

**Important Tables:**

<table>
<thead>
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<tbody>
<tr>
<td>Table 13.14</td>
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<td>Table 13.17</td>
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<td>Table 13.20</td>
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**Important Figure:**

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<tr>
<td>Figure 13.7</td>
<td>341</td>
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</table>
Special Populations (Chapter 14)

Up to this point, the information studied has been based on the assumption that the clients being worked with are apparently healthy adults. However, in some cases, application of exercise principles for the apparently healthy adult could be potentially dangerous for certain populations.

**Important Terms:**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Obesity</td>
<td>382</td>
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<tr>
<td>Diabetes</td>
<td>385</td>
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<tr>
<td>Hypertension</td>
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<td>Osteopenia</td>
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<td>Osteoporosis</td>
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<td>Restrictive Lung Disease</td>
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**Important Tables:**

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</table>

Pay particular attention to the “Special Considerations” section of each table.
EXAM BREAKDOWN – NUTRITION:

Exercise alone is not enough for clients to maintain general health, gain lean body mass, decrease stored body fat, and improve athletic performance. Certified Personal Trainers must facilitate and educate the value of a balanced diet and general recommendations to maintain general health, alter body composition, and improve performance.

Important Terms: (Chapter 15 – Nutrition & 16 - Supplementation)

<table>
<thead>
<tr>
<th>Term</th>
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<tbody>
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<td>Nutrition</td>
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<td>Carbohydrates</td>
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<tr>
<td>Lipids</td>
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<tr>
<td>Dietary Supplement</td>
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<td>Estimated Average Requirement</td>
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<tr>
<td>Recommended Dietary Allowance</td>
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<tr>
<td>Adequate Intake</td>
<td>452</td>
</tr>
<tr>
<td>Tolerable Upper Intake Level</td>
<td>452</td>
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</table>

Important Concepts:

- **Protein**: Know the properties (essential and non-essential amino acids), function, and recommendations of protein. (pg 428)
- **Carbohydrates**: Know the properties (monosaccharide, disaccharides etc), function, and recommendations of carbohydrates. (pg 435). Also know Fiber and its role in health (pg 431)
- **Lipids (fat)**: Know the properties (saturated, unsaturated, fat soluble vitamins etc), function, and recommendations of lipids. (pg 439-440)
- **Water**: Know the recommendations for water (pg 440-442)
- **Altering body composition** (pg 442-443)
- **Vitamin and Mineral Supplements** (458-460)

Important Tables:

- Table 15.1 (pg 421)
- Table 15.2 (pg 426)
- Table 15.5 (pg 441)
EXAM BREAKDOWN - CLIENT RELATIONS AND ADMINISTRATION

This performance domain identifies the unique role of the personal trainer and the wide array of quality services they provide. Fundamental success as a Certified Personal Trainer balances on their ability to manage the administration of quality services, generate and follow up on service opportunities, and complete the sales process.

**Important Concepts:**

Five steps to help your clients achieve more. (chapter 17)

1. Vision
2. Strategy
3. Belief
4. Persistence
5. Learning

Vision Questions (pg 467)

Goal Setting (pg 468)

Effective Communication (pg 482)

Directive and Nondirective Questions (pg 485-486)

READ System (pg 482-486)

Asking for the Sale (pg 489-493)

**Important Terms:**

Root cause analysis (pg 467)

Rapport (pg 482)

Empathy (pg 483)

**Important Figure:**

Figure 18.1 (pg 482)
### EXAM BREAKDOWN - PROFESSIONAL DEVELOPMENT & RESPONSIBILITY

This domain ensures that the entry-level Certified Personal Trainer has the knowledge and skills that are necessary to maintain competence in the latest educational and regulatory issues in the profession.

<table>
<thead>
<tr>
<th>Important Concepts:</th>
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<tbody>
<tr>
<td>NASM Standards of Professional Practice &amp; Code of Ethics</td>
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<tr>
<td>Compliance with NASM Standards of Professional Practice &amp; Code of Ethics</td>
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<tr>
<td>Recognizing confidential information</td>
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<td>Accepted CPR/AED procedures</td>
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<td>NASM Continuing Education Recertification requirements</td>
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<tr>
<th>Important Documents to Read:</th>
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<tbody>
<tr>
<td>CPT Textbook Appendix</td>
</tr>
<tr>
<td>Code of Ethics (located in front of the textbook)</td>
</tr>
<tr>
<td>NASM CPT Certification Candidate Handbook <strong>very important</strong></td>
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