

Board Exam

STUDY GUIDE

Holistic Nutrition Credentialing Board

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**SPECIAL
NOTICE**

**Source materials for the Board Exam in
Holistic Nutrition have been updated!**

**Those taking the Board Exam after June 1, 2020 should study
the following materials.**

New books to study:

- The Encyclopedia of Healing Foods by M. Murray & J. Pizzorno, et al.
- The Pantry Principle by Mira Dessy, NE

Revised editions of books to study:

- Advanced Human Nutrition, 4th Edition by Medeiros & Wildman
- Nutrition Counseling and Education Skill Development 3rd Edition by Bauer, Liou & Sokolik
- Encyclopedia of Natural Medicine, Revised 3rd Edition by M. Murray & J. Pizzorno
- Hole's Essentials of Human Anatomy & Physiology, 13th Edition by Shier, Butler & Lewis
- The Craft of Research, 4th Ed. by Booth, et al.



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The Holistic Nutrition Credentialing Board (HNCB) is the credentialing arm of the National Association of Nutrition Professionals (NANP), a non-profit 501c(6) that was founded in 2003. It is the mission of the HNCB to provide knowledge-based examination and credentialing services to holistic nutrition professionals, thereby promoting a nationally recognized, responsible, and credible body of holistically educated nutrition professionals who serve as the primary holistic and functional nutrition resource for consumers, health care professionals, and the media. Distinct from, but working in an integrative fashion with the allopathic medical community, HNCB certified professionals work to advance the paradigm for creating health by adhering to a holistic perspective and empowerment model of nutrition education and consulting.

Special thanks to the Holistic Nutrition Credentialing Board for their unwavering commitment and many, many hours of dedication to this project. Thanks also to all those who have participated and contributed to the board exam and study guide during the past several years.

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Board Exam Study Guide

By the Holistic Nutrition Credentialing Board (HNCB) & the National Association of Nutrition Professionals (NANP)

Holistic Nutrition Overview

Philosophy of Holistic Nutrition

The philosophy of holistic nutrition is that one's health is an expression of the complex interplay between the physical and chemical, mental and emotional, as well as spiritual and environmental aspects of one's life and being. Professionals who are trained in holistic nutrition view health and healing from a whole-person perspective. Using education as a primary tool, holistic nutrition professionals emphasize the building of health and disease risk-reduction by approaching each person as a unique individual. This requires fully engaging the individual in his/her health recovery process and honoring his/her innate wisdom by working in an empowering and cooperative manner to chart a course to optimal health.

The services offered by those “Board Certified in Holistic Nutrition®” or by a “Certified Nutrition Professional” are grounded in the following principles:

- Biochemical individuality (everyone is unique and has unique nutritional needs)
- Whole, naturally grown foods are the best source for optimal nutrition
- No miracle nutrients that will cure all ills
- Dietary supplementation as health-promoting when used in the appropriate form, dose, and frequency, and is not a substitute for a good diet
- Nutritional well-being coming from the balance between a person's health-promoting diet and lifestyle habits, and the nutritionally negating environmental and lifestyle influences

The following services may be offered by those “Board Certified in Holistic Nutrition®” or by a “Certified Nutrition Professional,” providing they are in accordance with the laws governing nutrition education and consulting within their respective state of business:

- Evaluate food selection, preparation, and intake
- Assess client to determine nutritional imbalances or systemic weaknesses
- Guide clients by providing educational material to assist them in understanding the nature of their imbalance(s) or area(s) of weakness, defining goals, and developing realistic action plans
- Work with clients to design targeted nutritional programs that may include the use of specific foods, menu planning, environmental controls, food preparation techniques, dietary supplements, herbs, and/ or lifestyle modifications that will support the achievement of their health goals
- Guide clients in implementing programs, provide education about various aspects of programs, and offer ongoing assessment and program modifications to create optimal effectiveness in achieving clients' health goals
- Consult and work integratively with other health professionals to determine nutritional needs of clients
- Offer referrals to other health professionals as deemed appropriate
- Act as a community educator, develop curriculum and prepare manuals, visual aids, course outlines, and other materials used in teaching
- Plan and provide educational opportunities for the public and other health professionals
- Promote health discussions in schools, industry, and community agencies
- Prepare and disseminate educational and informational materials
- Engage in research, and write research reports and other publications to document and communicate research findings

Becoming Board Certified in Holistic Nutrition®

Congratulations on choosing to become “Board Certified in Holistic Nutrition®”! The educational standards, code of ethics, and practice parameters set by the National Association of Nutrition Professionals (NANP) and the Holistic Nutrition Credentialing Board (HNCB) are essential to the integrity, credibility, and protection of the holistic nutrition profession; they are also demanded by the sophisticated health consumer of today. National board certification is a responsible first step toward building consumer confidence and gaining wider acceptance among other credentialed health professionals.

Upon successful passage of the Exam, you will earn a certificate officially recognizing you as, “Board Certified in Holistic Nutrition®”. Please use this title, or “BCHN®” in conjunction with the certification or degree granted to you by your school of nutrition study.

As an example, a graduate of a program granting certification as a “Nutrition Consultant,” who also has a master’s degree, would use her designations as such:

**Holly Berry, MS, Nutrition Consultant
Board Certified in Holistic Nutrition®**

NOTE: Before using any title, please check the laws in your state. Use of the titles “nutritionist” and “nutrition counselor” are legislated in some states. To prevent misusing the title, please check your state laws governing the practice of nutrition.

It is also important that you become familiar with your state’s health freedom legislation. An increasing number of states have laws that protect the rights of consumers to choose their health providers and provide guidelines for the legal practice of complementary and alternative health professionals. [Click here](#) to learn more about the legal guidelines for practicing nutrition in your state.

Becoming a Certified Nutrition Professional (CNP)

The NANP also offers the following additional level of certification titled, “Certified Nutrition Professional” or “CNP.” To qualify, ALL the following criteria must be met:

- All requirements of Board Certification (see page 11 for details)
- A bachelor’s degree or higher in nutrition or a nutrition-related field of study from a NANP-approved holistic nutrition program, or an accredited college or university, or an equivalent foreign degree
- 1,200 Supervised Practice Hours

Those who meet these qualifications and who pass the Exam, will earn a certificate officially recognizing them as, “Board Certified in Holistic Nutrition®” AND a “Certified Nutrition Professional” certificate. This title will be used in conjunction with the certification or degree granted by the individual’s school of nutrition study.

As an example, a graduate of a bachelor’s degree in nutrition, or a nutrition-related field of study, would use his designations as such:

**Clark Kent, BS
Board Certified in Holistic Nutrition®
Certified Nutrition Professional**

What does “Board Certified in Holistic Nutrition®” and/or “Certified Nutrition Professional” mean?

Becoming “Board Certified in Holistic Nutrition®” and a “Certified Nutrition Professional” means you have earned professional recognition and validation of your knowledge and experience within the realm of holistic nutrition. To earn such important designations, you must document and demonstrate an exceptional level of knowledge and understanding of holistic nutrition, as well as how to apply it in a credible and responsible manner to help others.

Board certification in holistic nutrition means you understand the therapeutic value of whole foods, a clean and natural food supply, environmental influences on health, and the importance of education and empowerment in helping people make informed choices along their unique paths toward optimal health and healing. Holistic nutrition also recognizes the impact a person’s mindset has on his/her general health and ability to nourish and care for himself/herself.

Board certification provides you with:

- Added credibility by indicating to others that you have met and continue to meet the educational and ethical standards required by a professional credentialing body
- Assurance for the public, the insurance companies, the medical community, and other complementary practitioners that you are aware of, and conduct your business in accordance with, your legal scope of service and standards of professional conduct
- Documentation and validation of your educational and professional qualifications
- An organized professional body of peers that govern the holistic nutrition profession through the establishment of educational standards, scope of service, legislative advocacy, and continuing education requirements, that will be recognized by the public, health plans, the government, and the greater healthcare community as a group of qualified, ethical, and professional holistic practitioners

Becoming a “Certified Nutrition Professional” further provides you with the credibility of earning your Board Certification, as well as confirming to your clientele that you have met the required 1,200 supervised practice hours, along with your degree of bachelor’s or higher in nutrition or a nutrition-related field of study.



Professional Conduct

Individuals who sit for the Board Exam will sign the Professional Conduct Agreement of the National Association of Nutrition Professionals (NANP), which is intended to support NANP members individually and collectively in maintaining a high level of professional conduct. The agreement

outlines standards used to determine the propriety of conduct in relationships with clients, patients, colleagues, members of allied professions, and the public. It also serves as a promise to adhere to the defined “scope of service” of a NANP nutrition professional listed below.

Candidates will agree to adhere to the “Scope of Practice and Standard of Care,” which may legally include the following, unless otherwise legislated by their state of residence:

1. Advising individuals, families and groups on how to improve diet, lifestyle, and attitude to prevent disease and promote health. May work with a licensed health provider to help individuals with previously diagnosed illnesses to identify biochemical imbalances and toxicities that contribute to poor health. Advice and support is founded on evidence-based and holistic principles.
2. Encouraging clients to disclose their nutritional programs to other health professionals they may be working with to manage their health.
3. Referring clients to appropriate health professionals for the treatment of disease.
4. Conducting their practice in an ethical, professional, and responsible manner, keeping the well-being and needs of clients above all else.
5. Fulfilling fifteen (15) continuing education units per year, or thirty (30) units per two-year period, as required for renewal of this credential.
6. NOT engaging in any of the following activities unless the legal scope of practice allows the individual practitioner to do so:
 - Attempting to diagnose illness or prescribe therapy to treat disease.
 - Recommending anyone to leave their present medical doctor or stop taking prescribed medications.
 - Claiming or advertising that any substance is a treatment, cure, or preventative for any disease or disorder.
7. Reserving the right to choose whom they will and will not serve.
8. Holding all client information as confidential, unless the client signs an agreement allowing for the release of information to specified parties.
9. Knowing and practicing within the guidelines of state and federal laws, upholding the dignity and honor of the profession, and accepting its self-imposed disciplines.
10. Defending our first amendment right of freedom of speech and press to impart truthful information concerning diet and nutrition, and defending the health freedom right of the public to obtain such data from the sources that they may choose.

Overview of Exam Qualification & Preparation Process

This part of the study guide contains the following sections:

Section 1: Purpose of a Board Exam

Section 2: Eligibility Requirements for Board Certification in Holistic Nutrition

Section 3: Eligibility Requirements for Certified Nutrition Professional

Section 4: Contact Hours

Section 5: Application & Fees

Section 6: Exam Proctor Information

Section 7: Administration of the Exam FAQs

Section 8: Preparing for the Exam – Study Tips

Section 9: Exam Structure/Content Outline/Key Concepts/Sample Questions



1) Purpose of a Board Exam

The purpose of the exam is to serve as an instrument to qualify holistic nutrition professionals to provide nutrition education and consulting services, and serve as a quality indicator for consumers looking to consult with an appropriately trained holistic nutrition professional. This certification offers a consistent and validated method to determine who is eligible to offer holistic nutrition services. The exam serves the profession by increasing its credibility while protecting the public by assuring that holistic nutrition professionals are thoroughly trained and knowledgeable.

The exam has been developed in careful stages by a committee of subject matter experts and then given thorough review and critique by outstanding representatives of the holistic nutrition and psychometric communities. The exam has gone through extensive planning and scrutiny to assure that it examines multiple facets of nutrition expertise, including the fundamentals of diet and nutrition, anatomy, physiology and biochemistry, counseling, nutrition in practice, and research skills. Competencies evaluated by the exam include knowledge, comprehension, application, and analysis of the above fundamentals.



2. Eligibility Requirements for Board Certification in Holistic Nutrition

Individuals wishing to become “Board Certified in Holistic Nutrition®” must provide documentation of the following qualifying criteria:

A. Professional membership in the NANP. Professional membership is a privilege that is extended to those who have completed one of the following:

- Graduated from a NANP-approved post-graduate program
- Graduated from a NANP-approved occupational certificate program
- Hold a Bachelor's, Master's or Doctorate in Nutrition or related field of study from an accredited college or university
- Are board certified by the American College of Nutrition or the Clinical Nutrition Certification Board, or by the Academy of Nutrition and Dietetics, or comparable board certification in nutrition
- Are licensed health care professionals whose scope of practice legally includes nutritional counseling and adheres to a natural or holistic model of nutrition (for example: chiropractors, acupuncturists, nurses, physician's assistants, medical doctors, naturopathic doctors).

B. Having met the NANP's educational standards. This means successful completion of studies in holistic nutrition. A person who has not graduated from a NANP-approved nutrition program may request an Independent Review of his/her education and qualifications, to determine eligibility for professional membership. Requirements for the Independent Review include:

- A cover letter stating the desire to become a professional member
- A two hundred dollar (\$200) review fee
- Official transcripts from all relevant educational institutions
- Course description materials (i.e. catalog, etc.)
- A telephone interview with a representative of the NANP

C. Documentation of 500 hours (includes a minimum of 250 direct contact hours and up to 250 indirect contact hours) of professional experience in holistic nutrition.

Exception for New Graduates*

New graduates from NANP-approved programs may apply to sit for the exam without providing documentation of 500 contact hours. The candidate will be allowed two (2) years from the date of his/her exam in which to provide this documentation. Upon passing the exam and until such time that the documentation requirement is satisfied, the candidate may use the title, “Board Certified in Holistic Nutrition® (Candidate).”

* A new graduate is an individual who graduated from a NANP-approved program within the twelve (12) month period prior to receipt of his/her application by the HNCB to sit for the board exam.

3. Eligibility Requirements for Certified Nutrition Professional

A. To qualify, the following criteria must be met:

- All requirements of Board Certification as outlined
- A bachelor's degree or higher in nutrition or a nutrition-related field of study from a NANP-approved holistic nutrition program, or an accredited college or university, or an equivalent foreign degree
- 1,200 Supervised Practice Hours

B. CNP Candidate Requirements

- Must obtain approval of their Supervisor via the Practice Supervisor Approval Form (see below for Supervisor explanation)
- Submission of the Supervised Practice Hours Documentation Form for approval by the HNCB, upon completion of 1,200 supervised practice hours
- Examples of acceptable venues for obtaining supervised practice hours:
 - Internship, residency, or clinical rotation
 - Clinical practice
 - Institutional setting
 - Community setting
 - Educational setting
- Inclusion in Supervised Practice Hours of a minimum of the following types of experiences:
 - Nutrition services, including the following:
 - Assessment
 - Education, counseling, or management
 - Monitoring or evaluation
- Not all experiences are required to take place within the same setting or under the same supervisor. All supervisors must be HNCB approved (see below for more details).

C. Supervisor Qualifications

- Must be approved by the Holistic Nutrition Credentialing Board (HNCB). A signed Practice Supervisor Approval Form must be submitted to the HNCB.
- Supervisor Credentials must consist of one or more of the following with a minimum of three (3) full-time years of clinical experience in nutrition care:
 - Masters of science or doctoral degree in nutrition or nutrition-related field of study (state licensed or certified); or
 - Other licensed healthcare professional whose scope of practice legally includes the dispensation of nutrition education/counseling services
- Certified Nutrition Professional or

D. Supervisor Requirements

- The Supervisor must:
 - Sign the Practice Supervisor Approval Form
 - Meet with the candidate twice monthly
 - Provide written & signed confirmation of completion of the supervised practice hours

E. CNP "Grandfathering" parameters for veteran practitioners

- A practitioner may avoid the supervised practice hours if he/she can provide documentation for the following:
 - 1,500 combined direct & indirect contact hours (may exclusively be direct contact hours; must be a minimum of 750 direct contact hours). Use Contact Hours Documentation Form to document these hours
 - Minimum of five (5) years in nutrition practice
 - Two additional professional letters of reference

Exception for New Graduates*

New graduates may apply to sit for the exam without providing documentation of 1,200 Supervised Practice Hours. The candidate will be allowed three (3) years from the date of his/her exam in which to provide this documentation. Upon passing the exam and until such time that the documentation requirement is satisfied, the candidate may use the title, "Certified Nutrition Professional (Candidate)."

* A new graduate is an individual who graduated with a bachelor's degree or higher in one of the subjects described above within the twelve (12) month period prior to receipt of his/her application by the HNCB to sit for the board exam.

Those who meet the requirements above will use both titles, "Board Certified in Holistic Nutrition®" and "Certified Nutrition Professionals."

4. Contact Hours

Direct contact hours:

Definition: Working directly with customers, clients, or students providing nutrition education and/or consulting services.

A. Internship or externship approved by either the NANP/HNCB or your school of study.

Required documentation: a letter from supervisor validating successful completion of intern/externship.

B. Independent (self) employment providing nutritional consulting services.

Required documentation: (please provide the following):

- A copy of your business license
- Three (3) case studies (500 word summaries, each)
- Two (2) letters of support from mentors or peers who are aware of your active private practice and can attest to your professionalism
- A log that includes a list of client names (to protect confidentiality, client initials may be used in lieu of name), date(s) of sessions, and start/end times, to document reported direct contact hours. See "Contact Hours Documentation Form: Client Log."

C. Employment as a Nutrition Consultant or Teacher of holistic nutrition.

Required documentation: a letter from employer verifying employment, including number of hours worked per month, and a copy of your job description.

Indirect contact hours:

Definition: Research, writing, or developing educational materials or programs (in holistic nutrition) to be conducted in a community, business, academic, or clinical environment.

A. Acting as a research intern.

Required documentation: a letter from supervisor validating successful completion of internship and a copy of internship job description.

B. Performing independent research (e.g., interviews, reading, internet and literature searches) for a publication or educational presentation.

Required documentation: a copy of the article, report, or other format (e.g., PowerPoint presentation, etc.) providing the results of your research.

C. Non-research preparation for the creation of a publication or educational presentation, be it public, recorded, or both (e.g., actual writing and other types of material preparation, locating and creating dialogue with key individuals, venues, consultants, assistants, publishers, printers, and publication representatives).

Required documentation: a copy of the article, report, or other format (e.g., PowerPoint presentation, etc.) providing the actual publication or educational presentation.

Activities conducted as a required part of an educational program, with the explicit exception of internships and externships, do not qualify toward the 500-hour requirement. The Holistic Nutrition Credentialing Board will determine applicability of unusual experience in individual cases.

NOTE: Please submit all documentation via email, flash drive, or paper format with a self-addressed, stamped envelope if you wish it to be returned. Use Contact Hours Documentation Form to assist in recording your contact hours.

5. Application & Fees

To apply to sit for the Board Exam, please submit the following (materials provided must be adequate to allow an evaluation of the eligibility of the applicant):

1. Your completed application along with a non-refundable \$129 application fee and \$300 examination fee. Voluntary withdrawals will be honored up to four (4) weeks before the examination date, and the examination fee will be refunded up to that point.
2. Documentation of Contact Hours professional experience in holistic nutrition. Please submit required documentation as outlined in Sections 2 or 3 above (Eligibility Requirements) of this study guide, along with the "Contact Hours Documentation Form" provided with purchase of exam application.
3. Copy of diploma(s) and/or certificate(s)
4. Signed and dated copy of the Professional Conduct Agreement
5. Photo or Headshot (electronic and paper submissions accepted)
6. Copy of your driver's license
7. Resume or Curriculum Vitae
8. Copy of any professional license(s) you hold
9. Proof of existing liability insurance is required for all persons providing nutrition consulting services. Liability insurance is NOT required if you work in an educational or research setting and are not providing consulting services (please provide documentation indicating that you do not provide consulting services).
10. Official transcripts from graduating institutions (must be mailed directly from the school to the NANP/HNCB at the address below).
11. Two (2) Letters of Reference (must be sent by person providing reference). One letter must testify to the nature of your personal character from someone who has known you a minimum of three (3) years.
12. The other letter must be from a different person and about your academic or professional performance. Letters must include: telephone number, fax number, e-mail address, business address (including zip code) of persons providing the reference. You may provide your references with copies of our template, Academic or Professional Letter of Reference, provided with purchase of exam application.

NOTE: Incomplete applications will not be considered.

To apply to become a CNP, please also submit:

1. A non-refundable \$75 processing fee
2. Copy of diploma (bachelor's or higher)
3. Practice Supervisor Approval Form (provided with purchase of exam application)
4. Supervised Practice Hours Documentation Form (provided with purchase of exam application) - waived for new graduates

NOTE: Veteran Practitioners may avoid the supervised practice hours by submitting the following:

- 1,500 combined Direct & Indirect Contact Hours (may exclusively be direct contact hours; must be a minimum of 750 direct contact hours). Use Contact Hours Documentation Form to document these hours (provided with purchase of exam application); and:
- Minimum of five (5) years in nutrition practice
- Two (2) additional professional letters of reference

All fees must be submitted at least six (6) weeks prior to the examination date. [Click here to pay fees.](#)

Once the exam application fee has been paid, complete the application and submit. The following forms will be included via links in the application confirmation and in your email confirmation.

- Contact Hours Form - waived for 2 years for new grads
- Personal & Professional Letters of Reference

If you are applying for the CNP credential, you will also receive:

- CNP Practice Supervisor Approval Form
- CNP Supervised Practice Hours Forms

Mail or email supporting documents to:

Holistic Nutrition Credentialing Board
P.O. Box 348028, Sacramento, CA 95834-8028
exam@hncb.org

NOTE: Applications are good for a twelve (12) month period. If you do not sit for the exam within twelve (12) months of applying, you MUST re-apply and pay the application and/or processing fee(s) again.

6. Exam Proctor Information

The Board Exam in Holistic Nutrition is offered online only. The HNCB uses ProctorU exclusively for exam proctoring.

ProctorU is a live online proctoring service available 24/7 that allows test takers to take exams from anywhere using a webcam and Internet connection. This service uses live proctors who monitor exams by observing the student (via webcam) and his/her computer screen in real time. The cost of proctoring via ProctorU is included in the examination fee. There is no extra charge.

Watch this short video to learn how ProctorU works:

<https://player.vimeo.com/video/75513179>

Once your application is approved, you will receive additional information about ProctorU, including technical specifications and information that will allow you to test your system for compatibility.



7. Administration of the Exam FAQs

How should I study and prepare for the exam?

Joining or forming a study group is a very effective way to prepare and study for the Board Exam. Members of NANP can [join the Board Exam Study Group Circle](#) to find others who are looking for study partners.

When can I take the exam?

Please allow a minimum of six (6) weeks for the HNCB to process your application. All documents must be received at least six (6) weeks prior to the date of your exam. This gives us time to review your documents. Exam applicants who do not allow the requested six (6) weeks may be required to reschedule the exam for a later date.

How much time is allotted to take the exam?

Will there be a break?

You will have three (3) hours to complete the exam. Bathroom breaks will be allowed by ProctorU, but you will only be allowed 5 minutes. If you have a medical need for a break, please provide advanced notice in the designated area on your exam application and one will be scheduled for you.

Know your needs. You are encouraged to have water and a small snack to sustain you during the exam.

What is a passing grade?

An overall exam grade of 70% correct is required to pass the exam.

How long will it take to get exam results?

Exam results will be available within two to four (2-4) weeks. The HNCB will contact each exam candidate with test results via U.S. Mail.

Will I be given grades by exam domain so I know which areas I did well or poorly in?

If you pass your exam results will include one overall grade. For those who fail the exam, you will receive an email in which we will provide a percentage grade for each domain of the exam. This email will also include suggestions for additional educational content to study.

Can I retake the exam if I fail?

If you fail the exam, you may retest within six (6) months. If you fail two (2) times you will be required to document additional education prior to taking the exam a third time. If you fail three (3) times, you will not be allowed to sit for the exam again. A re-test fee of \$250 will apply for each re-take.

If I fail the exam, do I need to retake the entire exam or just the domains I failed?

You will need to retake the entire exam.

What title do I use after passing the exam?

Please continue to use the title granted you by your school of study. In addition, you may use "Board Certified in Holistic Nutrition®" or "BCHN®." Always check your state laws to ensure you are practicing legally. Please see "Becoming Board Certified in Holistic Nutrition®" in the beginning of this study guide.

Those who also meet the requirements for the CNP may use the additional title, "Certified Nutrition Professional" or "CNP." Please see "Becoming a Certified Nutrition Professional" in the beginning of this study guide.

Do I need to renew my certification? What are the requirements for maintaining board certification and (if I qualify) my CNP status?

You will NOT need to sit for the exam again. However, you will be required to provide the following every two (2) years to renew and maintain your board certification and (if applicable) your CNP status:

- Completion of thirty (30) continuing education units per two (2) year term. (50% of CEUs MUST be Category I; the other 50% can be Category II – see [NANP CEU Guidelines](#).)
- Remain a Professional member in good standing with the NANP. As a reminder - NANP Professional Members are required to earn ten (10) CEUs annually for membership renewal. Members can combine Category I and Category II CEUs to achieve the required ten (10) CEUs; a minimum of five (5) CEUs must be Category I.

8. Preparing for the Exam – Study Tips

Join or Form a Study Group

Study groups can be a helpful way to break up the monotony of studying for a board exam. This exam offers five (5) distinct domains which can be assigned to various members of a study group. Some domains are much larger than others, so the larger domains could easily be split in half. A study group of five (5) or more is ideal.

Members of NANP can join or organize a study group via the NANP website's Social Community. To access the Social Community, log into your NANP Member Account and [join the Board Exam Study Group Circle](#).

Eight Helpful Tips for Studying for the Board Exam

1. Review reading materials from your holistic nutrition education program. The HNCB exam is based on the NANP's rigorous educational standards, which our approved schools have met. Going back to your school's materials as a refresher for this exam is a great first step toward success.
2. Study the textbooks recommended in this study guide thoroughly. The exam questions and answers are pulled directly from the recommended textbooks. **It's essential to study this material.**
3. Review questions and answers from past exams. Exam questions are usually important information that your teachers want you to remember for a reason. Going back and reviewing those questions and answers can be a great strategy for reminding you what was important.
4. Review your old case studies, essays, research papers, projects, etc. Looking back at your own work can often jar your memory about specific information, resources, and tools. Using what you have already is a great strategy for success!
5. Focus on your personal areas of weakness. We all have them, and there's no shame... only if you don't learn from your weaknesses will they remain your weaknesses. Take the time to really delve deeply and determine what you need to work on more closely. Doing this hard work can often make or break any daunting task.
6. Study at the best time of day for your unique self. Everyone has their own time clock, and many of us find we are significantly more productive at certain times of day. If you know this to be true for you, then plan your study times (and perhaps even you exam!) at your own optimum peak hours to maximize the benefits of your study time.
7. Take excellent care of yourself. As holistic nutrition professionals, no one knows this better than we do! Yet, we sometimes find it easier to help others take good care than we do for ourselves. Make the commitment to treat yourself with special care while studying for your board exam. Get plenty of good nutrition – you are an expert in this area after all! Get plenty of sleep and do your favorite exercise regimen, so you can relieve some stress and maximize your brain power and stay focused.
8. Don't compare yourself to others. Talk about a slippery slope! Forget what others are doing, what they're good at, and how well they may perform. This time is about YOU and you alone. Do your best to focus only on yourself and your needs, so you can put your best foot forward.

8. Preparing for the Exam – Study Tips (continued)

Strategies for Exam Preparation

The following provides a general strategy to aid you in preparing for the exam. Remember that this board exam is intended to test for entry-level knowledge and skill in holistic nutrition.

Types of Exam Questions

Exams of all types typically have questions that test your knowledge but also your critical thinking ability. The types of questions you will encounter on the exam include:

	Examples
Knowledge	vocabulary, key ideas, 5Ws (Who, What, When, Where, Why)
Comprehension	find meaning, transfer, interpret facts, infer cause & consequence
Application	use information in new situations, solve problems
Analysis	recognize and explain patterns and meaning, see parts and wholes
Synthesis	discuss “what if” situations, create new ideas, predict, and draw conclusions
Evaluation	make recommendations, assess value and make choices, critique ideas

When & How to Study

Preparation for the exam can start as early as the day you enter a nutrition education program. Maintaining a compilation of key concepts as you progress through your education creates a simple means of reviewing the basics of holistic nutrition. However, due to time constraints, many people begin their more targeted exam preparation immediately following graduation. Two to three months of focused study time provides adequate preparation for most people.



General Exam Preparation Tips

1. Budget your time; make sure you have sufficient time to study so you are well prepared for the exam.
2. Use "Section 9: Exam Structure/Content Outline" in this study guide to help direct your studies.
3. [Join the study group circle or take an exam preparation course.](#)
4. Review the sample problems, source books, and resources listed in this section.
5. Have your study material readily available: lecture notes, course textbooks, study guides, and any other relevant material.
6. Find a comfortable and quiet place to study with good lighting, airflow, and little distraction (try avoiding your own bed; it is very tempting to just lie down and take a nap).
7. Begin by studying the most important information first.
8. Learn the general concepts first; don't worry about learning the details until you have learned the main ideas.
9. Take short breaks frequently, as your memory retains the information that you study at the beginning and the end better than what you study in the middle.
10. Spread out your studying; you'll learn more by studying a little every day or every week instead of waiting to cram at the last minute. By studying daily, the material will stay in your long-term memory, but if you try to study at the last moment, the material will only reside in your short-term memory and you may easily forget.
11. Make sure you understand the material well; don't just read through the material and try to memorize everything.
12. Test yourself or have someone test you on the material to determine your weak and strong areas. Using the review questions at the end of a chapter is helpful.
13. For some, listening to relaxing music such as classical or jazz on a low volume can help keep you focused and energized.
14. Avoid studying past the time you usually go to sleep, as you may be tempted to go to sleep. Instead, study in the afternoon or early evening. If you are a morning person try studying in the morning.
15. Create note cards or summary sheets that consolidate key ideas or information onto a page that can be quickly reviewed many times. Rewriting your notes can also be helpful.
16. Maintain a positive attitude while preparing for the exam and during the exam.

Prepare a Study Schedule

Whether studying alone or with a group, have a study schedule and stick to it. By preparing ahead, you will save time, cover more topics, and retain more. The study group will work best if all participants follow the same board review material (see "Suggested Materials to Study").

Strategies for Answering Exam Questions

1. Read the directions slowly and carefully before beginning the exam.
2. Read the question in its entirety before answering. Make sure you understand what the question is asking, and anticipate the answer before looking at your options.
3. Answer the simple questions first to help build up your confidence for the harder questions.
NOTE: You will be able to bookmark and skip questions within each domain of the exam. However, skipped and bookmarked questions must be addressed before you can move to the next domain.
4. Eliminate answers you know are not right.
5. Read all the choices completely and carefully before choosing your answer.
6. If you are uncertain of the correct answer, move on to the next question and return later.
7. Ultimately, if you don't know the correct answer, always take an educated guess and select an answer.
8. Avoid repeatedly changing your answer; usually your first choice is the right one, unless you misread the question.
9. Stay relaxed. If you begin to get nervous take a few deep breaths slowly to relax yourself, and then resume.

Being well prepared for the exam is the best way to reduce exam-taking anxiety!

Materials to Study

A good place to start is with a thorough review of your training materials, books, class notes, seminar handbooks, and case records. Additionally, “Section IV: Exam Structure/Content Outline” in this study guide may help focus your studies.

The following texts were used to source the questions and answers in the exam:

- The Encyclopedia of Healing Foods by M. Murray & J. Pizzorno, et al.
- The Pantry Principle by Mira Dessy, NE
- Advanced Human Nutrition, 4th Edition by Medeiros & Wildman
- Nutrition Counseling and Education Skill Development 3rd Edition by Bauer, Liou & Sokolik
- Encyclopedia of Natural Medicine, Revised 3rd Edition by M. Murray & J. Pizzorno
- Hole’s Essentials of Human Anatomy & Physiology, 13th Edition by Shier, Butler & Lewis
- The Craft of Research, 4th Ed. by Booth, et al.

One approach to studying includes an exhaustive review of these materials, utilizing chapter summaries to help highlight key concepts, and answering questions at the end of the chapter (where provided) to assure comprehension of the material.

NOTE: Be advised that to keep this exam up-to-date with current industry studies and information, the study materials may change from time to time. If you have purchased the study guide well in advance of sitting for the exam, please be sure to confirm that the texts remain the same.

Exam Structure/ Content Outline/Key Concepts/Sample Questions

The exam is comprised of 151 multiple-choice questions that assess an individual’s grasp of the competencies and facets of expertise in holistic nutrition. The exam is only available online via [ProctorU](#).

Core exam content areas include:

Domain I:	Food & Nutrition
Domain II:	Fundamentals of Anatomy, Physiology, & Biochemistry
Domain III:	Nutrition Counseling Skills
Domain IV:	Nutrition in Practice
Domain V:	Research

The following domains, tasks, and knowledge statements were delineated by the Holistic Nutrition Credentialing Board (HNCB) and validated through a role delineation study. The number of exam items allotted to each domain was determined through analysis and discussion of the results of the role delineation study conducted through the NANP by the HNCB.

Each of the major areas (“domains”) of holistic nutrition practice noted below will be tested. Please note that this exam will SAMPLE candidates’ general knowledge rather than trying to test ALL of their knowledge.

Domain I: Food & Nutrition Key Concepts

35% of total exam questions

Guide and educate clients on safe and effective use of whole foods, targeted nutritional support, and holistic nutrition modalities to build health.

Tasks:

1. Guide and educate clients on the principles of holistic nutrition to create optimal health using whole food nutrition.
2. Guide and educate clients on environmental influences that may contribute to or negate optimal health.
3. Interview clients to obtain a full-spectrum history to assess nutritional imbalances and systemic weaknesses, including verbal interview, written questionnaires, and visual assessment.
4. Evaluate subjective and objective data to identify risks for interactions between medications, foods, and nutritional supplements.
5. Analyze food intake records for areas of nutrient imbalance.
6. Educate clients on macronutrient balance, food selection and preparation, and fluid requirements.
3. Components of a nutritionally balanced diet
4. Nutrient composition of foods, including vitamins, minerals, proteins, carbohydrates, fats, antioxidants and phytonutrients.
5. Therapeutic use of whole foods: whole vs. refined, fresh vs. processed, organic vs. conventional, therapeutic properties of specific whole foods
6. Dietary systems/philosophies/schools of thought including, vegan, vegetarian, and macrobiotic
7. Food safety guidelines and the safe and effective use of nutrient-dense foods, including, culinary herbs and herbal teas and whole foods-based supplements

Knowledge:

1. Guiding principles of holistic nutrition:
 - Understanding nutrition as the nourishment of an individual's physical, emotional, and spiritual well-being
 - Biochemical individuality
 - Whole/natural foods as the best sources for optimal nutrition
 - No miracle nutrients that will cure all ills
 - Dietary supplementation as health-promoting when used in the appropriate form, dose, and frequency, but not a substitute for a good diet
 - Nutritional well-being as the balance between a person's health-promoting diet and lifestyle habits, and the nutritionally negating environmental and lifestyle influences
 2. Components of holistic nutrition and holistic nutrition modalities: seasonal, whole, organic foods; biochemical individuality; conceptual/web-like thinking; conscious eating; environmental toxins; belief systems; cleansing/detoxification programs, fasting, juicing, and nutritional supplements
- ### Key Concepts to Study for Domain I:
- | | |
|--|---|
| • Acid/alkaline forming foods | • Glycemic index/load |
| • Amino acids/proteins | • Histamines |
| • Anti-inflammatory foods | • Lectins |
| • Anti-nutrients/phytic acid | • Minerals |
| • Antioxidants | • Organic foods |
| • Carbohydrates | • Oxalates |
| • Culinary herbs | • Phytonutrients |
| • Detoxification | • Prebiotics |
| • Digestive & elimination support/gut microbiome | • Probiotics/fermented foods |
| • Electrolytes | • Salicylates |
| • Environmental toxins | • Special nutrient needs in different life stages |
| • Enzymes | • Sweeteners |
| • Fatty acids/ketones/lipids | • Total load |
| • Fiber | • Toxic metals |
| • Food additives | • Types of diets |
| • Food composition | • Vitamins |
| • Food sensitivity/allergy | • Water |
| • Food-based supplements | • Whole foods |
| • Free radicals | |

Domain I: Food & Nutrition Sample Questions

[answers provided on Page 34]

1. Coenzyme Q10 plays a central role in which of the following functions?

- a. mitochondrial function and cellular energy production
- b. mitochondrial function and cell membrane fluidity
- c. bone formation and density
- d. vitamin E synthesis

2. Which one of the following statements about carbohydrates is false?

- a. High intake of carbohydrates in the form of fiber is characteristic for the Western diet.
- b. Carbohydrates in the form of glucose serve as the most basic energy source for all cells in the body.
- c. Organic whole grains, fruits, and vegetables are good sources of carbohydrates.
- d. Refined carbohydrates lack fiber and many other beneficial nutrients.

3. The following is an ingredient label from a typical store-bought, boxed breakfast cereal:

Puffed rice, whole grain wheat, whole grain spelt flakes, millet, almonds, sunflower seeds, honey, raisins (sulfites), cornstarch, dextrose, high fructose corn syrup, caramel color, niacinamide, thiamine hydrochloride, pyridoxine hydrochloride, folate, tocopherol. (BHT added to package material to maintain product freshness).

How many added chemical preservatives and/or colors are listed on the cereal label?

- a. 1 b. 2 c. 3 d. 4

4. The Solanaceae (nightshade) food family includes:

- a. eggplant, peppers, and squashes
- b. tomatoes, potatoes, and peppers
- c. lemons, oranges, and grapefruits
- d. broccoli, cauliflower, and Brussels sprouts

5. Which of the following dairy foods contain low levels of lactose, and is less likely to cause adverse effects for people suffering from lactose intolerance?

- a. cottage cheese
- b. milk
- c. cream cheese
- d. ice cream

6. EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) are _____ fatty acids.

- a. omega 3
- b. omega 6
- c. omega 9
- d. omega 12

7. Heme iron is found in _____, and is absorbed better than other iron forms.

- a. plant tissue
- b. animal tissue
- c. synthetic supplements
- d. cast iron pans

Domain I: Food & Nutrition Sample Questions (continued)

8. The cruciferous vegetable most closely associated with healing ulcers is:
- a. cabbage
 - b. kale
 - c. glutamine
 - d. broccoli sprouts
9. The mineral _____ is the major component in glucose tolerance factor.
- a. magnesium
 - b. calcium
 - c. potassium
 - d. chromium
10. Vitamin K is a water-soluble vitamin.
- a. True
 - b. False
11. In relation to athletic performance, caffeine can influence performance by the following means except:
- a. Caffeine may increase plasma epinephrine levels.
 - b. Caffeine may have direct action on skeletal muscle performance.
 - c. Caffeine may possibly prolong glycogen stores.
 - d. Caffeine consumption in minuscule amounts prior to competition may approach the legal limitation.
12. A client seeks to obtain his vitamins and minerals through a whole foods diet. Which food is a rich source of calcium?
- a. collard greens
 - b. raspberries
 - c. kiwi
 - d. black beans

Domain II: Fundamentals of Anatomy, Physiology, & Biochemistry Key Concepts

15% of total exam questions

Demonstrate proficiency in the understanding and application of anatomy, physiology, and biochemistry as they relate to human health.

Tasks:

1. Describe the function of bodily systems
2. Understand cellular function

Knowledge:

1. Structure
2. Function
 - Digestive, absorptive, and microbiological imbalances
 - Detoxification and biotransformation imbalances
 - Oxidation-reduction imbalances
 - Hormonal and neurotransmitter imbalances
 - Immune and inflammatory imbalances
 - Structural imbalances, from cellular membrane function to musculoskeletal system
3. Anatomical structure and function of all bodily systems

Key Concepts to Study for Domain II

- Acid/alkaline balance
- Cardiovascular/circulatory systems
- Cellular structure & metabolism
- Detoxification
- Digestive system
- Endocrine system
- Genito-urinary system
- Immune system
- Integumentary system
- Lymphatic system
- Musculoskeletal system
- Nervous system
- Reproductive system
- Respiratory system



Domain II: Fundamentals of Anatomy, Physiology, & Biochemistry Sample Questions

[answers provided on Page 34]

- 1. What are the three metabolic pathways that involve macronutrient catabolism and ATP production?**
 - a. glycolysis, oxidative phosphorylation, citric acid cycle
 - b. methylation, sulfation, glucoronidation
 - c. transamination, glycation, oxidative phosphorylation
 - d. glycolysis, glycation, glucoronidation
- 2. Which best describes a bolus of “chyme?”**
 - a. the digestive secretions from the pancreas
 - b. the fecal material found in the colon
 - c. the semifluid mass of food particles and gastric juice
 - d. the lymphatic fluid contained in the lymph nodes
- 3. Cholesterol:**
 - a. slows down fat absorption in the small intestine
 - b. initiates catabolism of osteocytes
 - c. is used to synthesize steroid hormones
 - d. increases the rate of liver detoxification
- 4. The aggregation of lymph nodules located throughout the mucosal lining of the ileum region of the small intestine is called:**
 - a. lymphocytes
 - b. Peyer's patches
 - c. lacteals
 - d. lysosomes
- 5. Amenorrhea is:**
 - a. unusually heavy menstruation
 - b. a female's first menstrual cycle
 - c. painful menstrual cycles
 - d. an absence of menstrual flow due to hormonal imbalances
- 6. Enzymes are regarded as catalysts because they:**
 - a. only act on a specific substrate
 - b. speed the rate of metabolic reactions without being consumed in the process
 - c. never trigger oxidative damage to surrounding cells
 - d. are complex proteins
- 7. Adequate secretion of HCl and intrinsic factor are required for the absorption of:**
 - a. vitamin D
 - b. vitamin B12
 - c. essential fatty acids
 - d. protein
- 8. Which one of the following hormones has the least effect on glucose metabolism?**
 - a. cortisol
 - b. epinephrine
 - c. aldosterone
 - d. glucagon

Domain III: Counseling Skills Key Concepts

10% of total exam questions

Provides a foundation of knowledge about nutritional counseling goals and skills. Presents behavior change models and effective counseling strategies commonly used in lifestyle change education.

The focus when reviewing this text, Basic Nutrition Counseling Skill Development, should be on the counseling skills development rather than the nutritional aspects.

Tasks:

1. Build client/counselor relationships which result in successful lifestyle change outcomes in a professional manner.
2. Assist clients to define health goals; work with clients to develop and implement realistic nutritional support programs; apply the learned strategies and techniques for behavior modification and improving client communication and adherence to the nutrition program.
3. Understand the logistics of counseling across cultures and in group settings.

Knowledge:

1. How your own traits and life experience impact the client/counselor relationship.
2. How to apply the learned counseling skills and use assessment tools to build a clear picture of each client's unique situation and nutritional needs to increase positive outcomes.
3. How to assess client readiness to make lifestyle and behavior changes.
4. How to identify and address barriers to change; client resistance to change; and lapse/relapse episodes.

Key Concepts to Study for Domain III

Assessment tools, including:

- 24 Hour Recall
- Client Assessment Questionnaire
- Assess Client Readiness to Change
- Client/Consultant Relationships

Effective Counseling Skills, including:

- Characteristics of effective counselors
- Listening Skills
- Nonverbal Counseling Skills
- Recognizing Professional Boundaries & Limitations
- Behavior Modification
- Client Resistance
- Barriers to change
- Intercultural Counseling
- Group Counseling

Motivational Counseling, including:

- Role of Empathy
- Building self-confidence
- Use of Rewards
- Lapse/Relapse Prevention
- Setting Goals
- Cognitive Restructuring
- Professionalism

Domain III: Nutrition Counseling Skills

Sample Questions

[answers provided on Page 34]

1. **Which one of the following is least effective as a strategy for setting dietary change goals?**
a. easily achievable b. under the client's control c. modifiable d. chosen by the counselor
2. **One of the challenges of nutrition consulting is recognizing the boundaries between nutrition counseling and psychotherapy. Which one of the following is an appropriate response when a client begins talking about serious psychological issues?**
a. listen respectfully and change the topic as soon as appropriate
b. listen attentively, acknowledge the client's feelings, and offer practical advice
c. inform the client that such issues are beyond your scope of practice and suggest she see a therapist qualified to deal with her problem
d. deal with the issue by providing nutrition information related to the problem and give examples of how it has helped other clients with similar problems
3. **Which one of the following would be least successful as a nutrition and lifestyle counseling strategy?**
a. listen to your client's story without passing judgment on his thoughts, behaviors, or physical self
b. encourage your client to identify and resolve barriers to change
c. support negative self-talk to change destructive lifestyle habits, e.g., "I am going to die of a heart attack if I keep eating these potato chips."
d. help your clients identify solutions that have worked for them in the past that may be helpful now to make successful lifestyle changes
4. **An effective behavior intervention strategy is to reinforce successful dietary changes with a reward. Which one of the following is not a major factor to consider when establishing rewards?**
a. Rewards should be planned to come as soon as possible after the improved behavior.
b. Rewards should be food related when the change is diet related.
c. Rewards should be timed to come after the successful behavior change; not before.
d. Rewards should be well defined – what and how much
5. **The education component of nutrition consulting should address the needs of the client to facilitate behavior changes. To support different learning styles, varied approaches and learning experiences can be incorporated into counseling sessions. The following would be acceptable approaches except:**
a. Take the client on a grocery store tour.
b. Examine and interpret actual food labels.
c. Practice selecting items from real menus – circle the higher fiber choice.
d. Give the client several handouts and tell them they will be quizzed on them at the next consultation.
6. **Referral to an appropriate qualified health professional may be necessary when the needs of the client are outside the scope of a nutrition consultants training and expertise. Identify in which situation the consultant need not refer to another health professional, if the nutrition consultant does not have training in any other health field.**
a. when the client discloses past unresolved sexual abuse
b. when the client confides that they have suicidal tendencies
c. the client has a current serious eating disorder
d. the client relates a history of yo-yo dieting

Domain IV: Nutrition in Practice Key Concepts

30% of total exam questions

Practical application of the principles of holistic nutrition in prevention and support during all stages of life.

Tasks:

1. Educate and consult with individuals or groups on whole food nutrition principles, biochemical individuality, and diet and lifestyle habits toward achieving optimal health with a strong focus on preventative dietary strategies.
2. Provide educational material to assist clients in understanding nature of imbalance(s) or area(s) of weakness, defining goals, and developing realistic action plans.
3. Identify potential for interactions between medical therapies and holistic nutrition approaches.
4. Guide clients to define health goals and means of achieving them nutritionally through implementation of an individualized nutritional program that may include the use of specific foods, menu planning, environmental controls, dietary supplements, herbs, and/or lifestyle modifications.
5. Consult with, work with, and refer to other health professionals to provide ongoing assessment and program modifications to create optimal effectiveness in achieving clients' health goals.

Knowledge:

1. Relationship between food choices and nutritional well-being
2. Nutrient ingestion, digestion, absorption, metabolism, and excretion
3. Effects of common disease states, clinical conditions, or altered metabolism on nutritional well-being
4. How diet, lifestyle, and nutritional supplementation can be used to effectively and safely prevent or support health imbalances
5. When and how to use basic herbal support safely
6. How clients' health history and symptomology relates to nutrient deficiencies or excesses
7. Which assessment tools holistic nutrition consultants can legally use, and understanding their implementation and value
8. Basic understanding of the most common laboratory tests (cholesterol, thyroid function, etc.)
9. Understanding that successful resolution or prevention of health imbalances depends on identifying and addressing underlying causes



Domain IV: Nutrition in Practice (continued)

Key Concepts to Study for Domain IV

NOTE: The question bank for this domain is very large. The questions you will be asked while taking the exam will contain some, but not all of the key concepts listed for this domain.

Common imbalances & diseases of the circulatory/ cardiovascular system

- Anemia
- Angina
- High/low cholesterol
- Hypo/hypertension
- Varicose veins

Endocrine system

- Adrenal fatigue
- Diabetes
- Hypo/hyperglycemia
- Hypo/hyperthyroidism

Gastrointestinal system

- Candidiasis
- Celiac disease
- Crohn's disease
- Constipation
- Diarrhea
- Diverticulitis/diverticulosis
- Dysbiosis
- Gallstones
- Hemorrhoids
- Hypo/hyperchlorhydria
- Irritable bowel syndrome
- Leaky gut syndrome
- Ulcer

Immune system

- Allergies (food & environmental)
- Influenza

Integumentary system

- Acne
- Dermatitis
- Eczema
- Hives
- Psoriasis
- Rosacea

Musculoskeletal system

- Gout
- Osteoarthritis
- Osteopenia/osteoporosis
- Rheumatoid arthritis

Neurological system

- ADD/ADHD
- Alzheimer's/dementia
- Carpal tunnel syndrome
- Insomnia
- Migraines
- Mood disorders – depression, anxiety
- Multiple sclerosis
- Restless leg syndrome
- Seasonal affective disorder (SAD)

Reproductive system

- Benign prostate hyperplasia
- Fibrocystic breast disease
- Infertility
- Menopause
- Premenstrual syndrome

Respiratory system

- Asthma
- Bronchitis
- Common cold
- Ear infections
- Sinusitis

Urinary system

- Cystitis
- Kidney stones

Vision

- Cataracts
- Glaucoma
- Macular degeneration

Multiple system imbalances

- Chronic fatigue syndrome
- Fibromyalgia

Assessment tools

- Basal body temperature
- Body mass index
- Client questionnaires
- Dietary intake records
- Lab assessments
- Personal case history
- pH testing

Commonly used concepts

- Biochemical individuality
- Drug/herb/nutrient interactions
- Total load

Other

- Nutrient supplementation
- Stress management
- Weight management

Domain IV: Nutrition in Practice Sample Questions

[answers provided on Page 34]

1. **A client's health history, indicating long-term use of birth control pills, several courses of broad- spectrum antibiotics for chronic bladder infections, allergies or sensitivity reactions to numerous foods and chemicals, chronic fatigue, depression, and chronic gas and bloating, may benefit most from which dietary approach?**
 - a. weight loss diet
 - b. candida control diet
 - c. diabetes diet
 - d. celiac diet
2. **Which one of the following is not a helpful question in differentiating between symptoms related to seasonal allergies and the common cold?**
 - a. is there a fever?
 - b. is fatigue a predominant symptom?
 - c. is there clear evidence of a respiratory infection?
 - d. is there a history of environmental allergies during this time of year?
3. **Which of the following is not associated with developing a peptic ulcer?**
 - a. high fiber diet
 - b. smoking
 - c. low gastric acid production
 - d. milk allergy
4. **Which of the following foods are most likely to aggravate rheumatoid arthritis?**
 - a. fish and olive oil
 - b. tomatoes and potatoes
 - c. turmeric and ginger
 - d. blueberries and strawberries
5. **Some of the most common lab test results brought in by clients are for TSH and thyroid hormones, which help determine thyroid function. If the TSH levels are elevated and thyroid hormone levels are lowered in the blood, it usually indicates a compromise in hormone production by the _____.**
 - a. thyroid
 - b. pituitary
 - c. adrenals
 - d. hypothalamus
6. **Causative factors of PMS are primarily related to dysfunction of the following except:**
 - a. liver
 - b. kidneys
 - c. brain chemistry
 - d. thyroid

Domain IV: Nutrition in Practice Sample Questions (continued)

7. The following conditions are related to obesity except:

- a. sleep apnea
- b. osteoarthritis
- c. Addison's disease
- d. cancer

8. The ELISA (enzyme-linked immunosorbent assay) is a laboratory test used to determine:

- a. gluten sensitivity levels
- b. intestinal pH
- c. antibodies to food
- d. nutrient deficiencies

9. The following are important components of a heart-healthy regimen except:

- a. regular exercise
- b. calcium supplementation
- c. nuts and seeds
- d. optimal vitamin D levels

10. Which of the following is not recommended for the improvement of depression?

- a. identifying and removing food allergens
- b. diet high in animal protein
- c. vitamin D
- d. saffron

11. _____ is a natural stimulant laxative often found in formulas to relieve chronic constipation.

- a. senna
- b. psyllium
- c. berberine
- d. peppermint oil

12. Dietary support for type II diabetes should emphasize:

- a. oligosaccharides
- b. moderately high intake of saturated fatty acids
- c. primarily fresh fruit and some meats
- d. high-fiber foods and complex carbohydrates

Domain V: Research Key Concepts

10% of total exam questions

Understand and apply the basic guidelines of performing and reporting research, using convincing arguments.

Tasks:

- Retrieve, evaluate, and compile in writing scientific data regarding nutrition to:
 - assist in education of client;
 - assist in development of safe and effective nutritional programs to promote clients' nutritional well-being;
- provide supporting documentation for nutritional program to clients' other health professionals;
- promote the benefits of holistic nutrition by writing articles for magazines, newspapers, and organizations.

Knowledge:

1. How to access and understand existing scientific literature and other relevant resources
2. How to employ critical thinking to assist in research and determine validity of research studies
3. How to identify reliable resources for research
4. How and why thinking like your readers helps you be a better writer
5. How to organize your research: use convincing arguments, write clearly and concisely, and maintain integrity

Key Concepts to Study for Domain V

- Abstract
- Bibliography
- Citation guidelines
- Context
- Critical reading
- Internet sources
- Keywords
- Plagiarism
- Reliability of sources
- Trailhead
- Types of source material
- Warrant
- Writing up your research
 - Choosing topics
 - Documenting research
 - Introductions and conclusions
 - Making good arguments
 - Note taking
 - Organization
 - Quoting and paraphrasing
 - Sentence revision
 - Using tables and charts
 - Writing for your reader(s)

Domain V: Research Sample Questions

[answers provided on Page 34]

1. **Which one of the following is least helpful in determining whether a source is reliable and worth considering?**
 - a. the publisher is a university press
 - b. article is peer reviewed
 - c. author is a reputable scholar
 - d. article includes several quotes from a well-known author
2. **Doing your own research helps you judge the research reports you read. For instance, you read a newspaper article that states that per The American Journal of Cardiology, vitamin E supplementation increases coronary episodes in the elderly. Which one of the following questions, in this case, is least helpful in analyzing this report for accuracy?**
 - a. Is the American Journal of Cardiology a peer-reviewed journal?
 - b. What were the specific methods used to collect the information and how were the original studies conducted?
 - c. Is this claim based on the primary source?
 - d. Is there a complete citation or bibliography list so I can look up the original research?
3. **A basic guideline of research is to look at your argument as your reader would, since they may have a lot at stake in a different solution. Your reader is judging not just what you say but how you say it. Which of the following statements is false?**
 - a. while you may criticize the conclusions of your source, don't downgrade the author
 - b. anticipate that your readers will question the accuracy of your research
 - c. take note of alternative positions in your sources (a different solution, cause, or line of reasoning) and choose those you need to address to keep a strong argument
 - d. conceding that you don't have all the answers to your research question is never a good approach as it will cause readers to question all your arguments
4. **The following are important guidelines to follow when considering quotations in your research report except:**
 - a. Block quotes are only necessary if your report has quotes from more than one primary source.
 - b. Use direct quotes rather than paraphrase when you use the work of others as primary data or when their words are particularly significant to your claim.
 - c. Work towards a balance; if you quote too often your reader may feel you offer too little of your own work, but quote too little and they may think your claims lack sufficient evidence.
 - d. When quoting use square brackets to indicate insertions and ellipses to indicate dropped words.
5. **Which of the following statements about plagiarism is false?**
 - a. Most writers who plagiarize do so inadvertently because they fail to take careful notes.
 - b. Using someone's ideas, but not exact words, without giving them credit is plagiarism.
 - c. If you paraphrase closely but do not quote exactly you do not need to cite the source.
 - d. You risk appearing to have plagiarized, even though you didn't, if you come up with an idea on your own, but then discover that someone else thought of it first and you don't cite the prior source.
6. **Which of the following represents the best topic for a research report considering the basic principle of neither choosing a topic that is too broad or one that is too narrow?**
 - a. the benefits of probiotic supplementation in food allergy
 - b. probiotics and intestinal health
 - c. probiotics and immunity
 - d. lactobacillus acidophilus response to dietary fiber after antibiotic treatment in those with low HCl

Answers to sample questions

Domain I: Food & Nutrition

Answers:

- | | |
|------|-------|
| 1. a | 7. b |
| 2. a | 8. a |
| 3. c | 9. d |
| 4. b | 10. b |
| 5. a | 11. d |
| 6. a | 12. a |

Domain II: Fundamentals of Anatomy, Physiology & Biochemistry

Answers:

- | | |
|------|------|
| 1. a | 5. d |
| 2. c | 6. b |
| 3. c | 7. b |
| 4. b | 8. c |

Domain III: Nutrition Counseling Skills

Answers:

- | | |
|------|------|
| 1. d | 4. b |
| 2. c | 5. d |
| 3. c | 6. d |

Domain IV: Nutrition in Practice

Answers:

- | | |
|------|-------|
| 1. b | 7. c |
| 2. b | 8. c |
| 3. a | 9. b |
| 4. b | 10. b |
| 5. a | 11. a |
| 6. b | 12. d |

Domain V: Research

Answers:

- | | |
|------|------|
| 1. d | 4. a |
| 2. a | 5. c |
| 3. d | 6. a |

