

Environmental Medicine Fellowship - Core Curriculum

It is expected that many physicians will have knowledge and training that covers some of the following topics within the Core Curriculum of Environmental Medicine; however, the Fellowship will teach and provide experience for the physician within the context of the diagnosis and care of the environmentally ill patient.

The Core Curriculum of Environmental Medicine will include an understanding of the following elements:

1. Inhalant Sensitivity
 - a. Perennial
 - b. Seasonal
2. Food Sensitivity
3. Chemical Sensitivity
4. Endocrinology within Environmental Medicine
5. Nutrition within Environmental Medicine
6. Molds and Mycotoxins
7. Opportunities
8. Constraints
9. Medical/ Legal Aspects of Environmental Medicine

Mastery of Basic Medical Sciences relating to the patient treated by a Environmental Medicine Physician will be incorporated in the Fellowship:

1. Anatomy
2. Physiology
 - a. Cardiovascular
 - b. Neurological
 - c. Musculoskeletal
 - d. Gastrointestinal
 - e. Endocrine
 - f. Renal
 - g. Pulmonary
3. Fluid and electrolyte homeostasis
4. Pathology
5. Biochemistry
6. Pharmacology
7. Microbiology
8. Immunology

Also the following Clinical Medicine Areas will be mastered from the perspective of an Environmental Practice:

1–Family and General Medicine

- 2–Internal medicine
- 3–Allergy/Immunology
- 4–Rheumatology
- 5–Hematology/Oncology
- 6–Infectious disease
- 7–Physical medicine/Rehabilitation
- 8– Neurology
- 9–Radiology
- 10–Anesthesiology.
- 11–Cardiology
- 12–Pulmonary
- 13–Endocrinology
- 14–Surgery and Surgical specialties
- 15–Dermatology
- 16–GYN
- 17–Geriatrics

In addition the Environmental Medicine Fellow will be trained in:

A–Cardiology-

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand Cardiac manifestations of systemic environmental diseases
- 2–Understand the role of somatic dysfunction in Cardiac disease
- 3- Incorporate Osteopathic manipulative treatment into the management of patients with environmental Cardiac disease.

B–Allergies/Immunology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand Allergic/Immunologic manifestations of systemic environmental diseases
- 2–Understand the role of somatic dysfunction in Allergic/immunologic disease
- 3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Allergy/immunology disease

C- Pulmonary–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1– Understand Pulmonary manifestations of systemic environmental diseases
- 2–Understand the role of somatic dysfunction in Pulmonary disease
- 3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Pulmonary disease

D–Endocrine-

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand Endocrine manifestations of systemic environmental diseases
- 2–Understand the role of somatic dysfunction in Endocrine disease

3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Endocrine disease

E–Neurology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand Neurologic manifestations of systemic environmental diseases
- 2–Understand the role of somatic dysfunction in Neurologic disease
- 3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Neurologic disease

F–Rheumatology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand the Rheumatologic manifestations of systemic environmental diseases
- 2–Understand the role of somatic dysfunction in Rheumatologic disease
- 3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Neurologic disease

G–Infectious Diseases

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand and manage Infectious manifestations of systemic environmental diseases
- 2–Understand the epidemiology of Infectious diseases
- 3–Understand the role of antibacterial, and the viral, and antifungal agents in the management of Infectious diseases activated by environmental factors
- 4–Understand the role of somatic dysfunction in Infectious disease
- 5–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Infectious disease

H–Gastroenterology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Recognize and manage GI manifestations of systemic environmental disease
- 2–Understand the role of somatic dysfunction in GI disease
- 3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental GI disease

I– Hematology/Oncology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand hematopoiesis and coagulopathies
- 2–Understand hematologic/oncologic disorders as manifestations of environmental diseases
- 3–Understand the role of somatic dysfunction in Hematology/Oncology disease
- 4–Utilize a team approach in treating the Hematology/Oncology patient with environmental disease
- 5–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Hematologic/Oncology disease, understanding when contraindicated

J–Nephrology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand and diagnose renal disease caused by systemic environmental disease
- 2–Understand electrolyte and acid base disturbances
- 3–Utilize pharmacologic agents with appropriate renal disease adjustments
- 4–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Renal disease

K–Dermatology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand, diagnose and manage dermatologic conditions caused by systemic environmental disease
- 2–Identify allergic etiologies of dermatologic conditions
- 3–Understand the role of somatic dysfunction in Dermatologic disease
- 4–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Dermatologic disease

L– Otorhinolaryngology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Diagnose and manage ENT conditions caused by systemic environmental disease
- 2–Understand the role of poor dentition caused by a systemic environmental illness and tooth diseases role in physical health
- 3–Understand the role of somatic dysfunction in ENT disease
- 4–Incorporate Osteopathic manipulative treatment into the management of patients with environmental ENT disease

M–Urology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Diagnose and manage Urologic conditions caused by systemic environmental disease
- 2–Understand the role of somatic dysfunction in Urologic disease
- 3–Incorporate Osteopathic manipulative treatment into the management of patients with environmental Urologic disease

N–Geriatrics–

Objectives

The Fellow will demonstrated competency in his/her ability to:

- 1–Understand the role of aging as a normal physiologic process and thereby recognize the special needs of the Geriatric environmental patient.
- 2–Differentiate between normal age related pathology and environmental disease pathology
- 3–Understand and recognize atypical presentations of environmental illness in a geriatric population.
- 4–Understand pharmacokinetics in the elderly environmental disease patient

5–Incorporate Osteopathic manipulative treatment into the management of geriatric patients with environmental disease with special attention to myofascial release, muscle energy, and strain/counterstrain treatments.

O–Radiology

Objectives

The Fellow will demonstrate competency in his/her ability to:

1–Understand and utilize appropriate imaging studies to diagnose and manage medical and surgical disease is caused by environmental illness

P–General surgery–

Objectives

The Fellow will demonstrate competency in his/her ability to:

1–Recognize and refer environmental patients requiring surgical care.

2–Incorporate Osteopathic principles and manipulative treatment as indicated in the management of surgical patients with environmental illness

Q–Ophthalmology–

Objectives

The Fellow will demonstrate competency in his/her ability to:

1– Diagnosis and manage, and Ophthalmologic conditions due to systemic environmental disease.

2–Incorporate Osteopathic principles and manipulative treatment as indicated in the management of Ophthalmology patients with environmental illness

R–GYN/Women’s Health-

The Fellow will demonstrate competency in his/her ability to:

1–Understand and evaluate as appropriate the effect of environmental illness on menstruation, birth control, menopause, sexual health in general, breast self and disease, female reproductive health, pregnancy, cancer of the female reproductive system, cancer in general as it impacts women, women’s mental health issues, women’s endocrine disorders, autoimmune disorders as it disproportionately affects women, teenage women’s health, heart disease in women, vaginal infections, sexually transmitted diseases, weight control and maintenance, polycystic ovarian syndrome, osteoporosis, endometriosis, uterine fibroids, HIV and other infectious diseases in women.

2-Incorporate Osteopathic principles and manipulative treatment as indicated in the management of GYN/Women’s Health patients with environmental illness.

Electives–

All electives must be approved by the Program Director in advance of the start of the rotation

Objectives-

To provide the Fellow with clinical and didactic experiences in outpatient settings which provide additional opportunities for special interest experiences relevant to his/her plans for future practice.

These areas of special interest may includes but not be limited to:

- 1–Mold and Mycotoxins
- 2–Inhalant sensitivity
- 3–Food sensitivity
- 4–Nutrition
- 5–Chemical sensitivity
- 6–Medical/Legal issues in Environmental medicine
- 7–Chelation
- 8–Neurotoxicity

Procedures-

The Fellow will receive training towards these competencies in the outpatient setting :

- 1–Mold and Mycotoxin testing
- 2–Endocrine testing in environmental illness
- 3–Spirometry
- 4–Interpreting a resting EKG
- 5–Environmental toxin testing
- 6–Allergy testing

Research and Scholarly Activity Requirements

A– Synopsis–The Environmental Fellowship program will provide opportunities for Fellows to participate in research and other scholarly activity. Opportunities will be provided for critical evaluation of medical literature including study validity assessment. Each Fellow is required to participate in an active research activity.

B–Goal

1–To provide the Fellow with research opportunities that will allow for learning research study design, performance, analysis, and reporting. Also the relevance of research in improving patient care will be discussed.

C–Objectives

The Fellow will demonstrate competency in his/her ability to:

- 1–Understand the concepts and principles behind evidence-based medicine
- 2–Critically evaluate medical literature and its relationship to and application in clinical practice
- 3–Participate in research/scholarly activities and communicate findings to his/her peers.

Synopsis–

The Fellow will recognize that certain diseases and chief complaints are more commonly seen in an Environmental practice than in any other clinical practice. The Fellow will participate in the care of patients with these disease I will be provided with the opportunity to manage these disease entities.

Objectives

The Fellow will demonstrate competency in his/her ability to diagnose, treat, and care for patients complaining of and suffering from:

- 1–Chronic Fatigue
- 2–Acute and chronic intoxications
- 3–Endocrine dysfunction
- 4–Mold and Mycotoxin illness
- 5–Opportunistic and reactivated chronic infections in immunocompromised patients
- 6–Chemical sensitivity
- 7–Neurologic manifestations of environmental illness
- 8–Psychiatric manifestations of environmental illness

At the completion of the training program the Environmental Medicine Fellow graduate will:

A–

- 1–Demonstrate professionalism and be characterized as empathetic, competent, and conscientious.
- 2–Develop empathetic leadership capacities when dealing with residents, students, or ancillary staff

B–

- 1–Accurately identify and diagnose environmental medical problems.
- 2–Record information accurately in the patient records which relate to the medical problems
- 3–Elicit and record medical history defining the problem
- 4–Perform a competent physical examination to identify and confirm the problems
- 5–Order, utilize, and interpret laboratory and other diagnostic testing to define or diagnose the medical problems

C–

- 1–Accurately diagnose medical conditions
- 2–Describe potential environmental as well as other etiologies for each problem
- 3–Prioritize history and physical findings with respect to potential diagnoses
- 4–Rank differential diagnoses based on the presence or absence of history and physical findings.

D–

- 1–Confirm the medical diagnosis
- 2–Describe the diagnostic tools used for each medical problem
- 3–Formulate a diagnostic plan to confirm the medical diagnosis
- 4–Accurately interpret results of testing taking into account the sensitivity and specificity of tests
- 5–Perform diagnostic procedures appropriately
- 6–Understand cost effectiveness of diagnostic testing

E–

- 1– Demonstrate competence in treating medical problems
- 2–Recognize the needs and physical as well as economic constraints of the patient
- 3–Consider the conventional and environmental as well as complementary therapies for each medical problem
- 4–Formulate cost-effective treatment plans
- 5–Evaluate response to initial treatment plan and order further testing as indicated
- 6–Evaluate follow-up treatment and continue to modify treatment as indicated

F–

- 1–Communicate effectively in standard English or the patients language of origin
- 2–Develop appropriate listening skills for the patient, family, staff and other providers
- 3–Use standard medical terminology and accepted abbreviations only
- 4–Answer patient’s questions with sensitivity and understandable language and respond empathetically to their concerns and misgivings
- 5–Record history and physical reports, data reports impression and plan reports summary reports an testing reports clearly and thoroughly in the patient’s record
- 6–Respond appropriately and promptly to patient and other staff requests for explanations or further information
- 7–Demonstrate ability to utilize computerized medical records and information technology.

G–

- 1–Develop a strong work practice
- 2–Perform all record keeping promptly and thoroughly
- 3–Demonstrate commitment to continuing medical education including use of computerized instruction, attendance at conferences both as a student and as a presenter, review of journals, and other published sources of medical information
- 4–Understand cost-effective medical practice and learn how to maximize efficiency.
- 5–Understand the medical/legal aspects of care and manage risks appropriately

The Fellow’s schedule is designed to meet the requirements of the curriculum including:

- 1–18 months of outpatient clinic training in Environmental medicine
- 2–6 months research experience including 3 months of possible elective rotations at other sites of practice of Diplomates of the American Board of Environmental Medicine

Evaluation of Fellows

There will be ongoing evaluation of the skills and knowledge of each Fellow. This will consist of evaluation of each Fellow at the time of application to the fellowship as well as periodic testing and assessment of the Fellows performance while in the outpatient clinic setting and during the research and elective rotations.

- 1–During the training the Fellow must follow the schedule set forth by the Program Director and complete all assignments in a timely fashion
- 2–Keep a log of each patient seen in de- identified form.
- 3–At the completion of each month the residential B evaluated by the appropriate faculty. These evaluations shall be signed by the Fellow and by the Program director.
- 4–The Program Director will review the performance of each fellow orderly to ensure that educational objectives of being metastases
- 5–The Fellow should be advanced 2 positions of our responsibility on the basis of their satisfactory progressive professional growth only

6-The program must maintain the permanent record of evaluation of each Fellow. This must be available to the Fellow, the American Osteopathic Association Committee on Evaluation and Education, the assigned inspector and other authorized personnel.

7-The program Director is responsible for final evaluation of each Fellow upon completion of the program. This evaluation must include a review of the Fellow's performance during the final period of training and should verify that the Fellow has demonstrated sufficient professional ability to practice competently and independently. This final evaluation shall be part of the Fellow's permanent record maintained by the program. The competency based evaluation document must be part of the final evaluation. A copy of the final evaluation shall be placed on file at the central office of the American College of Osteopathic Medicine.

8- In cases of early termination of a Fellow contract, the Program Director shall provide the Fellow with documentation regarding which rotations, if any were completed satisfactorily. The AOA Division of Postdoctoral Training must be promptly notified and the terminated contract submitted to the AOA. A copy of this documentation shall be forwarded to and kept on file at the central office.

A-Academic and Disciplinary dismissals

The Department of Environmental Medicine must have clearly defined procedures for academic and disciplinary action. Academic dismissals result from failure to obtain a proper level of scholarship or non-cognitive skills, including clinical abilities, interpersonal relations, and/or personal and professional characteristics. Institutional standards to conduct include such issues as cheating, plagiarism, falsifying records, stealing, alcohol and/or substance abuse, or any other inappropriate actions or activities.

In cases of academic dismissal, the Department will inform Fellows orally and in writing, of inadequacies and their effects on academic standing. The Fellow will be provided a specified period in which to implement specified actions required to resolve academic deficiencies.

Following this period, if academic deficiencies persisted, the Fellow may be placed on probation for a period of up to three (3)-six (6) months. The Fellow may be dismissed following this period, if deficiencies remain and are judged to be irremediable.

In accordance with institutional policy, the Fellow will be provided an opportunity to meet with appropriate program supervisors to appeal decisions regarding probation or dismissal. Legal counsel's earnings concerning academic issues will not be allowed to participate. In cases of disciplinary infractions that are judged irremediable, the Department will provide the Fellow with adequate notice, including, on specific ground(s) and the nature of the evidence on which the disciplinary actions are based. The Fellow will be given an opportunity for a hearing and the disciplinary authority will provide a fair opportunity for the Fellow's position, explanations and evidence. Finally, no disciplinary action will be taken on grounds which are not supported by substantial evidence. The Department or other appropriate committees will act as the disciplinary authority.

Fellows may be allowed counsel at hearings concerning disciplinary issues. Pending procedures on such disciplinary action, the program in its sole discretion may suspend the Fellow when it is believed that such suspension is in the best interests of the Department or of patient care.

Immediate dismissal without hearing will be allowed where patient or staff safety is judged by the Program Director to be an imminent risk.

B–Evaluation Of Faculty

All teaching faculty must be evaluated annually. This should include evaluation of teaching ability, clinical knowledge, attitudes, and communication skills. There should be a mechanism for anonymous input by the Fellows.

C–Evaluation Of The Program

Each program must incorporate all elements of these basic standards. The Educational effectiveness of a program must be evaluated in the systemic manner. This shall include regular self evaluation within the context of the educational goals and objectives of the needs of the Fellow's, teaching responsibilities of the faculty, the availability of administrative and financial support, and of the availability of healthcare resources within the program. This evaluation must examine the balance between education, research, and service. The teaching faculty must hold regular meetings to accomplish these reviews. At least one Fellowship anticipated in these reviews, and written Fellow evaluations should be utilized.

At the completion of each rotation, the Fellow Cherelle evaluate the rotation. He is evaluation she'll be reviewed by the Program Director and remain on file at the institution.

The program Director, in conjunction with the institutions Department or its equivalent shall evaluate the Fellowship program annually.

D- Evaluation Of Patient Care

There must be an place a mechanism to evaluate the care provided by the Fellow's in the outpatient clinic settings. There should be evidence that this information is used to improve education and patient care.

E–Evaluation Of Graduates

Each program shall maintain a system of evaluation of its graduates. Feedback on demographic and practice profiles, licensure and board certification, the graduates perceptions of the relevant C of training to practice and ideas for improved training and new areas of interest shall be obtained. A suggested format is a survey after one year and every 5 years thereafter.

