

## MEDICINE/PHYSICIAN

This session provides participants with an understanding of medicine and how it fits into the overall health care profession.

### CATEGORY

- Health
- Physician

### OBJECTIVES

By the end of this session, participants will be able to:

- Describe the different roles of physicians, physician assistants, nurse practitioners, and other specialists.
- Understand the educational requirements for physicians including high school and college courses that would be beneficial.
- Identify some of the challenges and benefits of being a physician.
- Learn about some basic physical examination skills.
- Observe basic suturing techniques.
- Tour a physician's office or clinic.

### SUPPLIES

- Laptop computer or equipment to view videos
- Stethoscope, blood pressure cuff, light source, reflex hammer (one for every four participants, if available)
- Suture supplies—one set per participant (optional)
  - Nonsterile latex-free gloves, various sizes
  - 1 or 2 suture packages (2-0, 3-0, 4-0 works best; any material)
  - 1 needle driver or hemostat
  - 1 forceps (optional)
  - 1 raw pig foot or chicken breast with skin
  - Disposable towels
- Cleaning supplies including antibacterial spray, trash bags, and sharps container
- Alcohol-based hand sanitizer

### PREPARATION

- Arrange for a physician or resident physician to speak to the group.
- Additional adult leaders knowledgeable in taking vital signs, completing physical examinations, and suturing are required for this session.
- Familiarize yourself with and review safety and standard precautions for your facility including youth protection guidelines.
- Obtain parent or guardian permission if required.
- Arrange for a tour of a physician's office or clinic (this can be either a specialty or a general medicine facility).
- Secure equipment for physical examination and suturing.

## VIDEOS

**Reminder:** Any time you use an outside source, be sure you follow the content owner's or website's permission requirements and guidelines.

Advisors should preview videos before showing them to make sure they are appropriate for the post.

- [“Physical Exam: Introduction and Vital Signs”](#) (from the University of Wisconsin-Madison School of Medicine and Public Health)
- [“Lung Sounds—Rales, Rhonchi, Wheezes”](#) from TheLungSounds
- [“Assessing Lung Sounds: EMS Paramedic Skills”](#) from EMSSEO.com
- [“Blood Pressure Basics: Audio-Visual Coordination Skills”](#) from AlliedHealthToolsLLC
- [“Instructional Video for Measuring Blood Pressure CNA Skill”](#) from 4yourCNA
- [“Heart Murmurs: Normal Heart Sounds”](#) from iMedicalSchool
- [“Basic Heart Exam With Sounds”](#) from Med School Made Easy
- [“How to Examine Normal Pupils”](#) from Sam Tapsell
- [“Pupil Exam”](#) from Dalhousie University
- [“Lower Extremity Reflexes”](#) from MSK Medicine
- [“Deep Tendon Reflexes”](#) from Standard School of Medicine
- [“Suture–Basic Technique 1”](#) from Stephen Cady
- [“Basic Suturing Techniques”](#) from the Division of Emergency Medicine, Cape Town, South Africa

## RESOURCES

**Reminder:** Any time you use an outside source, be sure you follow the content owner's or website's permission requirements and guidelines.

The following are suggested resources that Advisors may find helpful in planning this session:

[“Osteopathic Physician \(D.O.\)”](#) from the American Dental Education Association

[“Requirements for Becoming a Physician”](#) from the American Medical Association

[“How to Become a Doctor: Step-by-Step Guide”](#) from Study.com

[“Becoming a Doctor: the Pros and Cons”](#) from Medical Resource Group

[“Nurse Practitioner vs. Physician Assistant: Which Career Is Right for You?”](#) from MastersInNursing.com

[“Physical Examination”](#) from Healthline Media

[“The Physical Examination”](#) from the National Center for Biotechnology Information, U.S. National Library of Medicine

**ADVISOR NOTE:** Text in italics should be read aloud to participants. As you engage your post in activities each week, please include comments, discussions, and feedback to the group relating to **Character**, **Leadership**, and **Ethics**. These are important attributes that make a difference in the success of youth in the workplace and in life.

## ACTIVITIES

**ADVISOR NOTE:** If the suggested calendar for health care curriculum has been followed, checking pulse and respirations has been previously practiced by participants. Nonsterile gloving has also been introduced and practiced. A brief review may be all that is required for those skills.

## **Introduction**

Tell participants: *A physician, or medical doctor, is a professional who practices medicine. The field of medicine is concerned with promoting, maintaining, and restoring human health through the study, diagnosis, and treatment of disease, injury, and other physical and mental impairments. Some physicians specialize in specific disease categories, types of patients, or methods of treatment. Others, known as primary care physicians, provide continuing and comprehensive medical care to individuals, families, and communities. Medical practice is both a science and an art. Medical practice requires a detailed knowledge of academic disciplines (such as anatomy and physiology), underlying diseases, and treatments—the science of medicine—and also competence in its applied practice—the art or craft of medicine.*

## **ACTIVITY 1**

### **Speaker**

Have the speaker address these topics:

- Overview of roles and duties of physicians, nurses, and physician assistants and the differences between them
- Training path of physicians, with an emphasis on high school and college requirements
- A typical day for a physician

## **ACTIVITY 2**

### **Physical Exam**

- Watch [“Physical Exam: Introduction and Vital Signs”](#) (from the University of Wisconsin-Madison School of Medicine and Public Health) and address any participant questions.
- Provide a brief overview of a basic physical exam with an emphasis on vital signs.
- Give a basic physical exam—check a pulse, measure blood pressure, listen to heart and lung sounds, and check pupil reactivity and reflexes (this may be optional depending upon the facility and access to equipment).
- Show [“Blood Pressure Basics: Audio-Visual Coordination Skills”](#) from AlliedHealthToolsLLC or [“Instructional Video for Measuring Blood Pressure CNA Skill”](#) from 4yourCNA and address any participant questions.
- Show [“Lung Sounds—Rales, Rhonchi, Wheezes”](#) from TheLungSounds or [“Assessing Lung Sounds: EMS Paramedic Skills”](#) from EMSSEO.com and address any participant questions.
- Show [“Heart Murmurs: Normal Heart Sounds”](#) from iMedicalSchool and/or [“Basic Heart Exam With Sounds”](#) from Med School Made Easy and address any participant questions.
- Show [“How to Examine Normal Pupils”](#) from Sam Tapsell and/or [“Pupil Exam”](#) from Dalhousie University and address any participant questions.
- Show [“Lower Extremity Reflexes”](#) from MSK Medicine or [“Deep Tendon Reflexes”](#) from Standard School of Medicine and address any participant questions.

### **Vital Signs and Brief Physical Exam**

- Divide participants into groups of four or fewer.
- Instruct participants, after obtaining permission from their fellow group members, to take blood pressure and pulse, listen to heart sounds, and check pupil reaction on each other.
- All examinations must be done with clothing on; there may be no exams under clothing.
- Trained adult leaders must be provided for each group during this activity.

**ADVISOR NOTE:** This must be a voluntary process. If a participant objects or feels uncomfortable with the vital sign or exam portion, he or she must be allowed to opt out of the activity. Please review and adhere to any youth protection policies.

### ACTIVITY 3

#### Suturing

- Show [“Suture–Basic Technique 1”](#) from Stephen Cady and [“Basic Suturing Techniques”](#) from the Division of Emergency Medicine, Cape Town, South Africa, and address any participant questions.
- Demonstrate a simple interrupted suture (optional).
  - Emphasize and demonstrate all safety measures including personal protective equipment and proper needle and scissor techniques.
  - Explain sterile technique and why preparing the area and a sterile environment is not necessary for this exercise.
  - Focus on grabbing the needle, placing one stitch, and tying.
  - Briefly discussing skin layers, depth, technique, etc., for this activity is not necessarily required.

#### Basic Suturing Technique

- Divide participants into pairs or singles.
- Provide each pair or single with a suture setup.
- Demonstrate a single interrupted suture step by step for the group as each participant follows along and sutures simultaneously.
- Provide 10 to 15 minutes for participants to practice suturing.
- Dispose of supplies properly.

**ADVISOR NOTES:** Properly trained adult leaders must be present for monitoring each participant during this optional suturing activity. There must be strict adherence to safety and personal protection equipment guidelines.

Activities 2 and 3 may be difficult to complete in one session.

### ACTIVITY 4

#### Tour

- Tour a physician’s office or clinic.

#### ADVISOR NOTE

Some sample questions are below. They are designed to help the participants apply what they have learned to their own interests. You are welcome to use these questions or develop your own questions that relate to your post or specific focus area.

#### REFLECTION

##### Focusing Questions

- *What did you learn about being a physician?*
- *Which specialty interests you the most?*
- *What did you learn about the training required?*
- *What was most difficult about the physical exam? How difficult would it be to examine an infant or an uncooperative patient?*

- *What do you think it would be like to suture a real patient?*
- Analysis Questions
- *Discuss feedback from the videos or hands-on practice.*
  - *What types of ethical issues do you think could arise related to being a physician?*
- Generalization Questions
- *What can you do now, during your time as a student, to prepare yourself for this or a similar career in the medical field?*
  - *Why is this topic important?*

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