



Instructor's Guide

COMMON CHILDHOOD ILLNESSES: DIAGNOSIS AND TREATMENT

Introduction

This instructor's guide provides information to help you get the most out of *Common Childhood Illnesses: Diagnosis and Treatment*. The film describes typical ailments children experience, with tips on how to recognize, treat, and prevent them.

Learning Objectives

After viewing the program, students will be able to:

- Name common childhood illnesses
- Identify symptoms of common childhood illnesses
- Describe treatments for common childhood illnesses
- Describe strategies/methods for sickness prevention

Educational Standards

HEALTH STANDARDS

The activities in this guide were created in compliance with the following National Health Education Standards, supported by the American Cancer Society:

HEALTH EDUCATION STANDARD 1 — Students will comprehend concepts related to health promotion and disease prevention to enhance health.

HEALTH EDUCATION STANDARD 3 — Students will demonstrate the ability to access valid information and products and services to enhance health.

National Health Education Standards, supported by the American Cancer Society, and conducted by the American Association of Health Education, the American School Health Association, the American Public Health Association, and the Society of Directors of Health, Physical Education and Recreation. Reprinted with permission. Published 2007.

NATIONAL SCIENCE STANDARDS

This program correlates with the National Science Education Standards from the National Academies of Science, and Project 2061, from the American Association for the Advancement of Science.

CONTENT STANDARD F: As a result of activities in grades 9-12, all students should develop understanding of personal and community health

National Science Education Standards, from the National Academies of Science, and Project 2061, from the American Association for the Advancement of Science. Copyright 1996 by the National Research Council of the National Academy of Sciences. Reprinted with permission.

ENGLISH LANGUAGE ARTS STANDARDS

The activities in this guide were created in compliance with the following National Standards for the English Language Arts from the National Council of Teachers of English.

Standard 7: Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

Standard 8: Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

Standards for the English Language Arts, by the International Reading Association and the National Council of Teachers of English. Copyright 1996 by the International Reading Association and the National Council of Teachers of English. Reprinted with permission.

TECHNOLOGY STANDARDS

The activities in this Teacher's Guide were created in compliance with the following National Education Technology Standards from the National Education Technology Standards Project.

Standard 2: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Standard 3: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

Standard 4: Critical Thinking, Problem-Solving & Decision-Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

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Program Overview

At some point in their young lives, children will probably come down with a cold, a stomach upset, an earache, pinkeye, or the flu. Drawing upon the knowledge and insights of two pediatricians, a pediatric nurse, and parents with a lot of hands-on experience, this program will show viewers how to identify and deal with those common childhood illnesses — and reduce the likelihood of future re-infection.

Main Topics

Topic 1: Introduction

This segment grounds the viewer in the film's main goal, which is to guide caregivers of children in ways to recognize and treat common childhood illnesses.

Topic 2: GI Upset

This segment speaks to the stomachache and its accompanying symptoms, like nausea, vomiting, and diarrhea. It explains the difference between stomach pain and gastrointestinal illness, as well as describes how to treat this common childhood ailment.

Topic 3: Ear Infections

Viewers delve into the all too common — and typically painful — earache. It explains what a doctor looks for to determine the infection's severity and the appropriate treatment.

Topic 4: Pinkeye

Pinkeye is contagious, but treatable. This section discusses the common eye ailment, from symptoms to treatment.

Topic 5: The Common Cold

Here, viewers explore the common cold's symptoms and impact, as well as how best to treat it. There is also a look at cold prevention, which includes knowing how to sneeze and cough so the cold is not spread among others.

Topic 6: The Flu

While its symptoms are similar to those of a common cold, the flu is much more damaging. In fact, it can land someone in the hospital, and even lead to death for those with a chronic illness, or the elderly. In this segment, viewers examine the flu's impact and treatment.

Topic 7: Immunization

This segment briefly discusses immunization's role in keeping children healthy, with a look at the flu shot as an example. It goes on to note that caregivers (parents) know best whether their children are sick, and if action should be taken.

Fast Facts

- The most prevalent childhood illness is the common cold — there are over 100 viruses that can cause it!
- Gastrointestinal (GI) upset (stomachache) is among the top five reasons children go to the doctor or emergency rooms.
- If a child has diarrhea or is vomiting associated with GI upset, the first course of action is to replace lost fluids with water.
- Viruses or bacteria can cause ear infections. The American Academy of Pediatrics advises “watchful waiting” (and pain relief) for the first few days of an infection. There is a trend away from the routine prescription of antibiotics, as these do not always help, and may eventually decrease resistance to future infections.
- Hand washing is the best prevention against common childhood illnesses.
- Physicians widely consider conjunctivitis to be one of the most contagious diseases a child can get.
- Antibiotics tend to be overused, leading to “antibiotic resistance” — meaning that these drugs can become useless in fighting infections. According to its Web site, antibiotic resistance is among the Centers for Disease Control and Prevention's top concerns.
- The Centers for Disease Control and Prevention recommends that children up to the age of 18 get flu shots.
- Immunization has saved over 20 million lives in the last two decades, and protected countless children from illness and disability.
- Physicians and parents agree that a caregiver's intuition, along with prevention, are the best ways to help a child get well and stay well.

Vocabulary Terms

antibiotic: Any of a large group of chemical substances, as penicillin or streptomycin, produced by various microorganisms and fungi, having the capacity in dilute solutions to inhibit the growth of or to destroy bacteria and other microorganisms.

antibody: Any of a large variety of proteins normally present in the body or produced in response to an antigen that it neutralizes, thus producing an immune response.

bacteria: One-celled spherical, spiral, or rod-shaped organisms that can sometimes cause diseases.

conjunctivitis (pinkeye): Inflammation of the conjunctiva, the transparent mucous membrane that lines the inner surface of the eyelid and covers the front part of the eyeball.

contagious: Capable of being transmitted by bodily contact with an infected person or object.

diagnosis: The process of determining by examination the nature and circumstances of a diseased condition.

droplet infection: Infection spread by airborne droplets of secretions from the nose, throat, or lungs.

electrolyte: A substance that breaks up into electrically charged particles when it is dissolved in body fluids or water. Electrolytes are primarily responsible for the movement of nutrients into cells and the movement of wastes out of cells. Electrolyte drinks are used to treat dehydration when it has occurred due to exercise or illness.

eustachian tube: The tube that connects the middle ear to the back of the throat.

gastrointestinal: Of or relating to the stomach and intestines.

immunization: The fact or process of becoming resistant to a particular disease.

inflammation: An immune response to injury or infection causing pain, redness, heat, and swelling in the affected area.

influenza: The flu; an acute contagious viral infection characterized by inflammation of the respiratory tract and by fever, chills, muscular pain, and fatigue.

otitis media: An infection or inflammation of the middle ear.

otoscope: A lighted instrument that lets the physician see far down into the outer ear canal.

supportive care: Treatment given to prevent, control, or relieve complications and side effects, and to improve the patient's comfort and quality of life.

virus: Parasite of plants, animals, and bacteria that often causes disease.

watchful waiting: Active observation and regular monitoring of a patient without actual treatment.

Pre-Program Discussion Questions

1. What illnesses tend to be most common among children?
2. Which childhood illnesses are contagious?
3. What illnesses did you have as a child? How were they treated?
4. From your experience, what is the best way to tend to a cold?
5. How can you prevent a child from becoming ill?

Post-Program Discussion Questions

1. Can some childhood illnesses be prevented? Discuss.
2. How can a caregiver discern the common cold from influenza?
3. When should antibiotics be used? What happens if they are used too often?
4. Should a caregiver contact a doctor when a child is sick? Explain.
5. Why is handwashing considered good prevention against sickness?
6. What are caregivers' primary concerns when children are sick?

Group Activities

Caregiver Guide

Students create a guide for caregivers (parents, guardians) that helps them best treat common childhood illnesses. Students should expand on the illnesses featured in the film. They might distribute the guide to parents of students in all local schools.

A Visit with the Doctor

Students can visit a local pediatrician to learn more about common and emerging childhood illnesses, as well as to gain the doctor's perspectives on treatment, prevention, etc. (Students might visit different physicians to compare their perspectives.) Students write a school newspaper article — or a piece for the local paper — that reports on the information garnered from the visit.

Immunization: The Debate

In recent years, vaccines have become a point of contention. There are those who feel strongly that all children should be immunized; but there are others who argue that certain vaccines cause childhood illnesses, or that they might inhibit the body's ability to fight off diseases later in life. Divide students into pro- and con- immunization camps to debate the issue. Have them arrive at a consensus on the best way to educate caregivers about vaccines. Sites to jumpstart research include:

Cookie

Calling the Shots (The Vaccination Debate)

<http://tinyurl.com/419ttx>

NaturoDoc

Immunization — Pros and Cons

www.naturodoc.com/library/children/immunizations.htm

BNET Business Network

The Immunization Debate: What's a Parent to Do?

<http://tinyurl.com/6foymo>

Scholastic

The Vaccine Debate

<http://tinyurl.com/3k8phj>

USA Today

Vaccine Debate Simmers

<http://tinyurl.com/4meh3x>

The Children's Hospital of Philadelphia (www.chop.edu)

Vaccine Education Center

<http://tinyurl.com/4m9yz6>

Individual Student Projects

A Game of Strategy

Students design a game, targeted to caregivers or to children, that allows players to find the best ways to treat and prevent common childhood illnesses.

Influenza

Students research influenza's impact on humanity over time. They create a dramatic informational script that reflects the virus' history and the efforts to create a vaccine against the flu. Students might write in the voices of those who have invented vaccines for various flu mutations. Other students might want to research over-the-counter flu medications, holistic prevention and treatments, and even home remedies, comparing and contrasting the efficacy of each.

Immunization Timeline

Students can create a print or digital annotated immunization timeline. They may record common childhood immunizations from the time they were invented to their present day status (to determine how they have changed over time). They may center on one immunization to chart its history. They might examine an immunization from a "before and after" perspective. For example, a look at how polio affected America in the 1920s and beyond, and then what occurred with the advent of the polio vaccine.

Internet Activities

Viruses in Action

Students can learn how viruses function through online interactive graphics. They then create a storyboard for an interactive feature that focuses on a virus-related childhood illness to demonstrate how the virus functions in the specific illness. Web sites that jumpstart student ideas include:

Discovery Channel

Anatomy of a Virus

www.discoverychannel.co.uk/anatomiesof/virus

NESCent: National Evolutionary Synthesis Center

Influenza Virus: A tiny moving target

www.nescent.org/eog/curriculum.php

Kid-Friendly

Students design a kid-friendly Web site focused on common childhood diseases. The following sites provide potential models:

Centers for Disease Control: BAM! Body and Mind
www.bam.gov

U.S. Department of Health and Human Services.
www.healthfinder.gov/kids

FDA Kids' Site
www.fda.gov/oc/opacom/kids

Childhood Illness: What Do You Know?

Students can create a design for an interactive, virtual quiz (or an actual online quiz) on childhood illnesses. Online quizzes that can serve as models include:

Quiz: Childhood Illnesses
<http://tinyurl.com/3jylwg>

Children's Health Quiz
<http://tinyurl.com/46kyuv>

Assessment Questions

Q1: What value do mild over-the-counter products have in the treatment of mild GI upset?

Q2: What causes ear infections?

Q3: Which of the following is NOT correct about pinkeye?

- a) Bacteria can cause pinkeye.
- b) A cold comes before or accompanies pinkeye.
- c) A virus cannot cause pinkeye.

Q4: Why would a parent be concerned about a child going back to school with pinkeye?

Q5: Which of the following is a common cold treatment?

- a) Sneezing into a piece of fabric
- b) Recommended dose of over-the counter medicine
- c) Antibiotics

Q6: Who is most vulnerable to the flu?

Q7: How does the flu vaccine work against the flu?

Q8: What is supportive care?

Q9: What is the benefit of watchful waiting?

Q10: What do doctors see as the best way for a child to get well?

Assessment Questions Answer Key

Q1: What value do mild over-the-counter products have in the treatment of mild GI upset?

A: These are products that ease symptoms to provide comfort; thus, they enable doctors and care-givers to monitor the symptoms to see what the child is really experiencing and suffering from.

Feedback: The products calm the symptoms but do not necessarily eradicate them, thus allowing for better observation of the illness to ensure that nothing more serious is occurring.

Q2: What causes ear infections?

A: Viruses and bacteria both cause infections.

Feedback: Viral and bacterial ear infections have the same symptoms. Some bacterial infections get worse over time and may require antibiotics, but most ear infections clear up on their own.

Q3: Which of the following is NOT correct about pinkeye?

- a) Bacteria can cause pinkeye.
- b) A cold comes before or accompanies pinkeye.
- c) A virus cannot cause pinkeye.

A: (c)

Feedback: Bacteria and viruses can cause pinkeye. Cold germs will travel up to the eye area, resulting in pinkeye.

Q4: Why would a parent be concerned about a child going back to school with pinkeye?

A: Pinkeye is highly contagious and children cannot go back to school until it has been treated.

Feedback: Pinkeye, or conjunctivitis, is considered to be one of the most contagious viruses a child can get. Usually, it takes 24 hours after treatment for there to be no threat of contagion. Schools will typically readmit students when the eyes are no longer red and there is no more drainage.

Q5: Which of the following is a common cold treatment?

- a) Sneezing into a piece of fabric
- b) Recommended dose of over-the counter medicine
- c) Antibiotics

A: (b)

Feedback: A common cold is a virus, which antibiotics cannot cure. Sneezing/coughing into a sleeve or piece of fabric is a way to prevent colds. Over-the-counter remedies can ease common cold symptoms.

Q6: Who is most vulnerable to the flu?

A: Infants, the elderly, and those with an already compromised immune system.

Feedback: The flu takes a toll on its victims, but hits little babies and the infirm elderly the hardest; they can actually die as a result of complications arising from the flu.

Q7: How does the flu vaccine work against the flu?

A: It builds up antibodies against the illness.

Feedback: The flu vaccine can greatly increase your immunity to the sickness and may prevent you catching this year's flu. The greater the number of people immunized against the flu, the less the chance of it infecting a broad base of the population. However, there are new strains of flu every year, and simply getting the vaccine does not guarantee you will not catch the flu (the vaccines are often prepared *before* the new flu-strain hits). Strengthening your immune system with healthy lifestyle choices is always a good idea.

Q8: What is supportive care?

A: Care to the sick that is not related to medicine but to physical attention that speeds recovery and relieves complications; this includes providing fluids, making sure someone who is ill rests and eats properly, etc.

Feedback: Supportive care helps to improve a sick person's quality of life: it eases complications, prevents escalation of illness, provides comfort, and allows for keeping an eye on the sickness' progression.

Q9: What is the benefit of watchful waiting?

A: The process allows the doctor and the caregiver to see if a child's condition gets worse over a set period of time without first prescribing a remedy.

Feedback: Watchful waiting avoids unnecessary administering of medical treatment to see if new symptoms appear or existing symptoms change (get worse, get better).

Q10: What do doctors see as the best way for a child to get well?

A: A caregiver's intuition.

Feedback: Usually, caregivers are familiar with their children and can recognize which sicknesses will resolve on their own, which ones need mild treatment, and which are serious and need critical care.

Additional Resources

American Academy of Pediatrics

www.aap.org

Centers for Disease Control and Prevention

www.cdc.gov

American Academy of Family Physicians: Family Doctor.org

<http://familydoctor.org>

Keep Kids Healthy: Guide to Immunizations

www.keepkidshealthy.com/WELCOME/immunizations.html

KidsHealth

<http://kidshealth.org>

Kids' Health Matters

<http://www.kidshealthmatters.org>

Mayo Clinic — Children's illness: Top 5 causes of missed school

www.mayoclinic.com/health/childrens-conditions/CC00059

Medline Plus — Children's Health

www.nlm.nih.gov/medlineplus/childrenshealth.html

National Institutes of Health

www.nih.gov

Nova — Making Vaccines

www.pbs.org/wgbh/nova/meningitis/vaccines.html

Additional Resources at www.films.com • 1-800-257-5126

Preventing Flu and Pneumonia

- DVD/VHS/On Demand
- Preview clip online at www.films.com
- Order # 38793

This program outlines the science behind influenza and pneumonia and the conditions, both hygienic and environmental, which contribute to the spread of dangerous viruses and bacteria. Engaging animation sequences, compelling case studies, and interviews with prominent physicians create a framework for improving viewer comprehension of flu and pneumonia. Detailed physician recommendations highlight the best ways to prevent these illnesses. (28 minutes) © 2006

Common Childhood Illnesses

- DVD/VHS/On Demand
- Preview clip online at www.films.com
- "Brings a refreshing approach to educating those involved in child care about the serious subject of childhood illnesses. 4 Stars."—*Video Rating Guide*
- Gold Apple, National Educational Film & Video Festival
- Order # 8149

This program addresses common childhood illnesses, their symptoms, possible at-home and professional medical treatments, and how to decide if a doctor should be consulted. School-age children describe how each illness feels, what it looks like, and how it's treated. Viewers learn about the symptoms and treatments for ear infections, common colds, mumps, tonsillitis, appendicitis, chicken pox, fevers, asthma, croup, measles, German measles, and abnormal bowel movements. A Cambridge Educational Production. (33 minutes) © 1991

When to Call the Doctor If Your Child Is Ill

- DVD/VHS
- "Highly recommended."—*Video Rating Guide*
- Order # 14662

It's 3:00 A.M. and your four-month-old child has developed a rash and a low fever. Should you call the doctor now or wait until morning? Every parent faces this situation with concern. Describes what to look for when deciding the seriousness of medical conditions for both infants and children of all ages, and teaches what information to gather prior to calling the doctor. Common illnesses of infants and children are explored, warning signs described, and possible treatments explained. A Cambridge Educational Production. (41 minutes) © 1991

Childhood Illnesses

- DVD/VHS
- Order # 25016

This program explores how good hygienic practices, frequent cleaning, and providing ample space contribute to healthy children. Keeping accurate health and immunization records is also stressed as well as recognizing the most common symptoms. A Meridian Production. (9 minutes) © 1991

Children's Medicine

- DVD/VHS
- Order # 6161

This program examines the use of over-the-counter medicines for children. Pharmacy and supermarket shelves are filled with choices for distressed parents, from decongestants and cough syrup to antihistamines, even though tests have proven that most of these remedies are no more effective than placebos. The program examines the use of these medications and the serious concerns of the medical community about their possible misuse. (13 minutes) © 1993

Early Childhood Health Issues

- DVD/VHS/On Demand
- Preview clip online at www.films.com
- Correlates to all applicable state and national standards
- Viewable/printable teacher's guide online
- Order # 11106

Preventive healthcare is crucial to the well-being of young children. This program covers vital health issues including vaccinations and immunizations, as well as how to recognize symptoms of serious illness. Recently developed vaccines for chicken pox and Hepatitis B are examined, and the myths that polio and diphtheria have been eradicated are addressed. Foundation health habits such as proper diet, exercise, rest, and cleanliness are also discussed. A Meridian Production. (16 minutes) © 2000

The Encyclopedia of Children's Health and Wellness

- Available from Facts on File, www.factsonfile.com, 1-800-322-8755
- Hardcover book, 2 volumes
- "... outstanding ... very complete ... Highly recommended." —*Choice*
- "...up-to-date, accessible information on the physical, emotional, and intellectual aspects of child development and health...a good resource for public and consumer health library collections." — *American Reference Books Annual*
- "...a recommended title for public libraries and consumer-health collections." —*Booklist*
- ISBN 978-0-8160-4821-2

Offers more than 600 entries covering all the key aspects of childhood health — from infancy to age 18. Explaining diseases, conditions, general health, safety issues, learning, growth and development, medications, treatments, and much more, this encyclopedia is a comprehensive reference to the health issues facing children today. Completing this invaluable reference is a series of appendixes providing resources, organizations specializing in major childhood diseases, hotlines, useful books, a glossary, a guide to choosing a pediatrician, and much more. © 2004