NLM’s Online Playground: K-12 Health & Science Information Resources for Librarians, Teachers, Staff, Students & Parents

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Agenda

- Introduction and Overview
- Resources
  - MedlinePlus
  - Career
  - Medicine and Health
  - Environmental
  - Genetics
  - Additional
NIH
NLM
NN/LM

What's the difference?
Pacific Northwest Region

National Network of Libraries of Medicine (NN/LM) Pacific Northwest Region


The mission of the NN/LM is to enhance access to biomedical and health information for researchers, health professionals, and the public. Located at the University of Washington, the Regional Medical Library for the NN/LM Pacific Northwest Region offers education programs, funding, and consultation to support research, health information services, resource sharing, community partnerships, and outreach in the region.

If your institution is not a member learn more about the benefits of membership and join now!

What is LactMed?
The LactMed® database contains information on drugs and other chemicals to which breastfeeding mothers may be exposed. It includes information on the levels of such substances in breast milk and infant blood, and the possible adverse effects in the nursing infant. Suggested therapeutic alternatives to those drugs are provided, where appropriate. All data are derived from the scientific literature and fully referenced.

Updates: LactMed® is updated monthly.
“The school library program provides learning opportunities in multiple literacies that enable students to become efficient and effective in the pursuit of information...”

“As part of the school library program, the school librarian provides leadership in the use of information technologies and instruction for both students and staff in how to use them constructively, ethically, and safely. The school librarian offers expertise in accessing and evaluating information, using information technologies, and collections of quality physical and virtual resources.”
NLM K-12 Science and Health Education Resources
Health Resources
How do you search for health information?
MedlinePlus: Topics of Interest

- Asthma
- Autism
- Disaster Preparation and Recovery
- Bullying
- Child Safety
- Health Occupations
- Domestic Violence
- Drugs and Young People
- Environmental Health
- Teen Development
- Winter Weather Emergencies
- Food Labeling
- Teen Violence
- Safety Issues
- Pet Health
- Lice

...and more
Searching MedlinePlus
Autism Spectrum Disorder

Baby Care see Infant and Newborn Care

Baby Health Checkup

Bedwetting

Birth Injuries see Childbirth Problems

Birth Weight

Body Art see Piercing and Tattoos

Bronchitis see Respiratory Syncytial Virus Infections

Bullying

Cancer in Children
Sertraline

Sertraline is used to treat depression and thoughts that you may go away or in extreme cases, ideas of suicide. Sertraline is in a class of medications called antidepressants. This medication is available in both branded and nonbranded forms.

Common questions about Sertraline

**Why is this medication prescribed?**

**How should this medicine be used?**

Other uses for this medicine

**What side effects can this medication cause?**

**What should I do if I forget a dose?**

**What special dietary instructions should I follow?**

**What other information should I know?**

**Brand names**

**Important Warning**

A small number of children, teenagers, and young adults (up to 24 years of age) who took antidepressants (mood elevators) such as sertraline during clinical studies became suicidal (thinking about harming or killing oneself or planning or trying to do so). Children, teenagers, and young adults who take antidepressants to treat depression or other mental illnesses may be more likely to become suicidal than children, teenagers, and young adults who do not take antidepressants to treat these conditions. However, experts are not sure about how great this risk is and how much it should be considered in deciding whether a child or teenager should take an antidepressant.

You should know that your mental health may change in unexpected ways when you take sertraline or other antidepressants even if you are an adult over 24 years of age. You may become suicidal, especially at the beginning of your treatment and any time that your dose is increased or decreased. You, your family, or your caregiver should call your doctor right away if you experience any of the following symptoms: new or worsening depression, thinking about harming or killing yourself, or planning or trying to do so, extreme worry, agitation, panic attacks, difficulty falling asleep or staying asleep, aggressive behavior, irritability, acting without thinking, severe restlessness, and frenzied abnormal excitement. Be sure that your family or caregiver knows which symptoms may be serious so they can call the doctor if you are unable to seek treatment on your own.

Your healthcare provider will want to see you often while you are taking sertraline, especially at the beginning of your treatment. Be sure to keep all appointments for office visits with your doctor.

The doctor or pharmacist will give you the manufacturer's patient information sheet (Medication Guide) when you begin treatment with sertraline. Read the information carefully and ask your doctor or pharmacist if you have any questions. You also can obtain the Medication Guide from the FDA website: http://www.fda.gov/Drugs/DrugSafety/InformationByDrugClass/ucm095273.htm.

No matter what your age, before you take an antidepressant, you, your parent, or your caregiver should talk to your doctor about the risks and benefits of treating your condition with an antidepressant or with other treatments. You should also talk to the risks and benefits of not treating your condition. You should know that having depression or another mental illness greatly increases the risk that you will become suicidal. This risk is higher if you or anyone in your family has or has ever had bipolar disorder (mood changes that range from depression).
Vitamin D Fact Sheet for Consumers

What is vitamin D and what does it do?

Vitamin D is a nutrient found in some foods that is needed for health and to maintain strong bones. It does so by helping the body absorb calcium (one of bones' main building blocks) from foods and supplements. People who get too little vitamin D may develop soft, thin, and brittle bones, a condition known as rickets in children and osteomalacia in adults.

Vitamin D is important to the body in many other ways as well. Muscles need it to move, for example, nerves need it to carry messages between the brain and every body part, and the immune system needs vitamin D to fight off invading bacteria and viruses. Together with calcium, vitamin D also helps protect older adults from osteoporosis. Vitamin D is found in cells throughout the body.

Table of Contents
- What is vitamin D and what does it do?
- How much vitamin D do I need?
- Foods provide vitamin D?
- Can I get vitamin D from the sun?
- What kinds of vitamin D dietary supplements are available?
- Am I getting enough vitamin D?
- What happens if I don't get enough vitamin D?
- Are there some effects vitamins D on health?
- Can vitamin D be harmful?
- Are there any interactions with vitamin D that I should know about?
- Vitamin D and healthful eating
- Where can I find more about vitamin D?

Disclaimer: Information on this website is not intended as medical advice. Always consult your healthcare provider before starting any new supplement regimen.
MedlinePlus tour of Videos and Tools section

Health Topics
- Health Videos
  - Find information on health, wellness, disorders, and conditions

Drugs & Supplements
- Learn about prescription drugs, over-the-counter medicines, herbs, and supplements

Videos & Tools
- Discover tutorials, health and surgery videos, and quizzes

Videos & Tools
- Watch health videos on topics such as anatomy, body systems, and surgical procedures.
- Check your health with calculators and quizzes
- View videos of anatomy and body systems, and how diseases and conditions affect them

Surgery Videos
- Find videos of operations and surgical procedures.

Blood, Heart, and Circulation
- Angioplasty
  - Coronary Angioplasty Stent Placement (St. Vincent's Medical Center, Mt. Kisco, NY, 11/15/2009)
  - Transradial Approach for Catheterization: The New Frontier of Coronary Intervention (University of Chicago Medical Center, Chicago, IL, 5/28/2014)

Aortic Aneurysm
- Abdominal Aortic Dissection and Aneurysms (New York-Presbyterian Hospital, New York, NY, 6/24/2009)
- Aortic Aneurysm Repair (Beebe Hospital, Maysville, FL, 5/7/2009)
- Hybrid Arch Debranching (University of Maryland Medical Center, Baltimore, MD, 12/16/2012)
- Innovations in Minimally Invasive and Conventional Therapy for Aortic Dissection and Aneurysms (New York-Presbyterian Hospital, New York, NY, 6/24/2009)
- Repair Options for Abdominal Aortic Aneurysms (Mercy Medical Center, Meriden, CT, 7/10/2003)
- Transesophageal Echoangiogram (TEE) (Shriners Hospital for Children, Chicago, IL, 7/17/2003)

Arrhythmia
- Insertable Cardiac Monitor (Scripps Clinic, La Jolla, CA, 6/16/2014)

Atrial Fibrillation
- Advanced Treatment for Chronic Atrial Fibrillation (Mount Sinai Medical Center, New York, NY, 4/7/2009)
- Insertable Cardiac Monitor (Scripps Clinic, La Jolla, CA, 6/16/2014)
- Percutaneous Ablation of Atrial Fibrillation (Johns Hopkins Hospital, Baltimore, MD, 7/17/2008)
- Total Thoracoscopic Maze (Pinnacle Health, Harrisburg, PA, 7/10/2010)
Information for Librarians and Trainers

The goal of MedlinePlus is to bring appropriate, authoritative health information to those who need it. We appreciate your efforts in training people on how to use MedlinePlus. Here are some training resources which might help you with your classes and health fairs.

Resources for Teaching MedlinePlus

MedlinePlus Tour
- MedlinePlus Tour in English and Spanish - A narrated tour of the main features of MedlinePlus. The video runs about 2.5 minutes.

MedlinePlus Brochures
- MedlinePlus PDF Brochure - in English (updated May 2015) and Spanish (updated May 2015)
- MedlinePlus PDF Brochure in Greek (updated October 2019)
- MedlinePlus for Health Professionals PDF Brochure (updated July 2015)
- MedlinePlus Connect PDF Brochure (updated June 2014)
- MedlinePlus XML Data Sources PDF Brochure (updated December 2013)

About MedlinePlus
- Articles about MedlinePlus
- Citing MedlinePlus FAQ
- E-mail Updates - Sign up to receive emails containing links to new topics, new sites, and health news.
- MedlinePlus FAQs
- MedlinePlus Quality Guidelines
- MedlinePlus Search Tips

Resources for Teaching How to Find Health Information Online

General
- Evaluating Internet Health Information: A Tutorial from the National Library of Medicine (download)
- Finding Accurate and Reliable Health Information on the Internet - PDF (University of Minnesota Health Sciences Library)
- Finding Quality Health Information on the Web: A Tool Kit (University of Washington Center for Public Health Nutrition)
- MedlinePlus Guide to Healthy Web Surfing
- MedlinePlus Page: Evaluating Health Information
- MedlinePlus Page: Understanding Medical Research
Consumer Health Resources
NLM Gallery of Mobile Apps and Sites
People 60 years or older should get the #shingles vaccine. Learn more details from @CDCgov: 1.usa.gov/1JylDcl

New study suggests using tanning beds at a young age significantly raises risk of skin cancer.
NLM K-12
Twitter
School Health

Summary
Your child spends more time at school than anywhere else except home. Schools can have a major effect on children's health. Schools can teach children about health, and promote healthy behaviors. Physical education classes give children a chance to get exercises.

Schools work to
• Prevent risky behaviors such as alcohol and tobacco use, or bullying
• Encourage healthy habits like exercise and healthy eating
• Deal with specific health problems in students, such as asthma, obesity and infectious diseases

The school building and environment should be a safe and healthy place for your child.

Start Here
• Safe Youth: Safe Schools (Centers for Disease Control and Prevention)
• Student Health and Academic Achievement (Centers for Disease Control and Prevention)

Latest News
• Schools Must Do More to Combat Obesity Among Hispanic Kids: Report (01/26/2016, HealthDay)
• "Standing Desks" in Classrooms May Kickstart Kids Activity (01/22/2016, HealthDay)
• Schools Offering Drinking Water May Have Slightly Slimmer Students (01/19/2016, HealthDay)
• More News on School Health
Using This Information

Immunizations
Using This Information

Food Allergies
Using This Information
Athletic Injuries
Using This Information

Internet Safety

Summary
For most kids and teens, technology is an important part of their lives. They browse the Web for information, use social networking sites, text, and chat. But there can also be dangers, and it is important for parents to monitor their children's use and teach them how to be safe online.

- Never give out personal information, such as your full name, address, phone number, or school name.
- Tell an adult if any communication (chat, text, e-mail message) makes you feel threatened or uncomfortable.
- Never send sexually explicit photographs or messages.
- On social networking sites, use privacy controls and only friend people that you know.

Of course, some of this advice is good for adults, too.

Latest News
- Kids Find Help for Anorexia More Often Than 'Pro-Ana' Posts on YouTube (12/16/2010, HealthDay)

Resources
- Chat, E-Mail, Web, and Chat Room Stang and Acronyms (American Academy of Pediatrics)
- Cyberbullying (health Resources and Services Administration)
- Cyberbullying (National Crime Prevention Council)
- Friend Finder (Federal Trade Commission)
- Net Cetera: Chatting with Kids about Being Online (Federal Trade Commission)

Parent's Guide to Internet Safety (Federal Bureau of Investigation)
- Sexting: What Parents Need to Know (Nemours Foundation)
- Talking to Kids and Teens About Social Media and Sexting (American Academy of Pediatrics)
- Teaching Kids to Be Smart About Social Media (Nemours Foundation)
- Understanding Mobile Apps (Federal Trade Commission)

Journal Articles
References and abstracts from MEDLINE/PubMed (National Library of Medicine)
Using This Information

Bullying
Using This Information

Nutrition
Using This Information

Teen Mental Health
Using This Information
Disaster Planning
Using This Information

Current Concerns

- E-Cigarettes
  - E-cigarettes are being marketed as a safe alternative to smoking. But they're not, because e-cigarettes are still putting nicotine — a highly addictive drug — into the body.

  - Electronic cigarettes are battery-powered smoking devices often designed to look and feel like regular cigarettes. They use cartridges filled with a liquid that contains nicotine, flavorings, and other chemicals. A heating device in the e-cigarette converts the liquid into a vapor, which the person inhales. That's why using e-cigarettes is known as "vaping."

  - Because e-cigarettes don't burn tobacco, people don't inhale the same amounts of tar and carbon monoxide as with a regular cigarette. But anyone using an e-cigarette still gets an unhealthy dose of nicotine and other chemicals.

  - Electronic cigarettes started out being marketed to smokers as a way to help them quit. Now that e-cigarettes have become mainstream, regulators and scientists are taking note. Expect to see more information coming out about e-cigarettes and their health effects.

- The Risks
  - E-cigarettes don't kill the lungs with harmful smoke, but that doesn't make them a healthy alternative to regular cigarettes.

  - Anyone who uses ("vapes") an e-cigarette is still putting nicotine — which is absorbed through the lungs — into his or her system. Besides being an addictive drug, nicotine is also toxic in high doses. It was once even used as an insecticide.
Careers
Health Careers: MedlinePlus
Enviro-Health Links
GeneEd

Careers in Genetics

The study of genetics and genomics is improving our understanding of the biology of health and disease, and that of our biological world in ways that was never before possible. These advancements have wide applications to biology, health, and society. Opportunity to use training in genetics and genomics exists in a range of fields, including in medicine, academic research, law, journalism, agriculture, commercial industries, and education to name a few.

Becoming a Scientist
Description: Detailed articles, video interviews with various scientists, and additional information resources for students curious about becoming a scientist.
Source: Cold Spring Harbor Laboratory | URL: http://library.cshl.edu/resource/article/science-experience/becoming-scientist

Careers in Human Genetics
Description: Information on careers in human genetics

Genetic Counselling
Description: Genetic counselors are health professionals who help people faced with the possibility of a genetic disease to make informed decisions about their futures.
Source: Genome Research Limited and Wellcome Trust Sanger Institute | URL: http://www.yourgenome.org/about/designed/counselling

GeneticsCareers.org
Description: Explore real genetics career job postings on this site developed by The American Society of Human Genetics and the Genetics Society of America.
Source: GeneticsCareers.org | URL: http://geneticscareers.org

Genomic Careers - Find Your Future
Description: Video interviews with genomic professionals, information on genomic careers, a tool for rating your favorite genomic careers, and an opportunity to test your knowledge of careers in this field.
Source: National Human Genome Research Institute | URL: http://www.genome.gov/GenomicCareers/index.cfm

Genomics: Towards a Healthier You
Description: Webcasts presenting information on why genetics is important to health, plus information on genetic counseling as a career. The skier and performer T-Bisc shares her personal story about living with active celiac disease as one example of genetic health issues.
Source: National Human Genome Research Institute | URL: http://www.youtube.com/watch?v=QwYJ9opcU1Q
NLM Traveling Exhibit: Changing the Face of Medicine
High School

American Indian Science and Engineering Society (AISES) Pre-College Programs
http://www.aises.org/what/programs/precollege
AISES offers a variety of programs for Native high school students, including annual national and international science and engineering fairs, summer math and science camps, and technology-based initiatives.

ASPIRINGDOCS.ORG® by the Association of American Medical Colleges (AAMC)
http://www.aspiringdocs.org
ASPIRINGDOCS.ORG® is supported by AAMC to increase diversity in medicine. The FAQs & Resources section will help high school students consider a career in medicine, as well as how they navigate through the process of getting into and paying for medical school.

Association of American Indian Physicians (AAIP) Patty Iron Cloud National Native American Youth Initiative
http://aaiip. sites-yrm.com/?pages=NNAYI
This annual conference takes place in Washington, D.C. and is designed for American Indian and
Peer Tutor Project
Medicine/Health
Gas
Also called: Belch, Burp, Eructation, Flatulence, Flatus

Summary
Everyone has gas. Most people pass gas 13 to 21 times a day. Passing gas through the mouth is called belching or burping. Passing gas through the anus is called flatulence. Most of the time gas does not have an odor. The odor comes from bacteria in the large intestine that release small amounts of gases that contain sulfur.

Gas in the digestive tract comes from two sources: air that you swallow and the breakdown of undigested food by bacteria in the large intestine. Certain foods may cause gas. Foods that produce gas in one person may not cause gas in another.

You can reduce the amount of gas you have by
- Drinking lots of water and non fizzy drinks
- Eating more slowly so you swallow less air when you eat
- Avoiding milk products if you have lactose intolerance

Medicines can help reduce gas or the pain and bloating caused by gas. If your symptoms still bother you, see your health care provider.

NIH: National Institute of Diabetes and Digestive and Kidney Diseases
KidsHealth: Information on Body
Inside your body

Your body is fantastic! It's a great idea to learn how your body works. That way, you can help protect it from problems and appreciate it when all goes well.

What are the major systems of your body? Check them out here:

- Cardiovascular
- Musculoskeletal
- Nervous
- Digestive
- Respiratory
- Endocrine
- Reproductive

How much do you know about your body?

Your body can do some amazing things, it can walk and chew gum at the same time — and clean the air you breathe, heal wounds, digest food, fight germs, and more. If you understand how it works, you can help keep your body from having problems and appreciate it when it all goes well.

Click on the system names at the top to uncover the mysteries of many of the body’s major systems.
PubMed Central
PubMed Health focuses on finding answers to the question “What works?” in medical and health care. Includes a section on ‘How to Read Health News’ and Behind the Headlines section (from England's National Health Service).
Understanding research results

Studies, numbers and health claims—we're flooded with them every day. Don't be misled or confused. Use the lively and interesting books on this page to make sense of it all.

One of these books has even been clinically proven to increase readers' data interpretation skills! See the Know Your Chances randomized trials.

The books are all complete and online free here.

Know your chances

Understanding health statistics
How to see through hype

Testing treatments
Better research for better healthcare
How we can know if a treatment works

Smart health choices
Making sense of health advice

Things you need to know

How to read health news
What to know about screening
Why randomization is important

PubMed Health Blog...

Swedish health and social care assessment agency SBU joins PubMed Health. We are delighted to welcome the Swedish Council on Health Technology Assessment (SBU) to PubMed Health.
Against the Odds

Against the Odds highlights stories of communities who, in collaboration with scientists, advocates, governments, and international organizations, are taking up the challenge to prevent disease and improve quality of life around the world.

Online Exhibition includes:

• Activities & Resources
• Lesson plans and online activities (Grades 3-12)
• ‘Get Involved’ section where students can view different perspectives and share thoughts on global health issues.
Environmental Health
Hazardous Waste

On this page
- Basics
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- Children
- Voices and Tutorials
- Journal Articles
- Patient Handouts
- Environmental Protection Agency
- Environmental Health
- Hazardous Waste
- Latest News
- Clinical Trials

Summary
Even if you use them properly, many chemicals can still harm human health and the environment.

When you throw these substances away, they become hazardous waste. Some hazardous wastes come from products in our homes. Our garbage can include such hazardous wastes as old batteries, bug spray cans and paint thinner. U.S. residents generate 1.6 million tons of household hazardous waste per year. Hazardous waste is also a by-product of manufacturing.

You may have hazardous wastes in your basement or garage. How do you get rid of them? Don’t pour them down the drain, flush them, or put them in the garbage. See if you can donate or recycle. Many communities have household hazardous waste collection programs. Check to see if there is one in your area.

Environmental Protection Agency

Start Here
- Environmental Health Topics for Available in Spanish
- Toxic Substances and Disease Registry
- Toxics Data Network
- Household Products Database (National Library of Medicine)
- Best Way to Get Rid of Used Needles and Other Sharps (Food and Drug Administration)
- Volatile Organic Compounds (VOCs) (Environmental Protection Agency, Indoor Environments Division)
- Related Issues
- Specifics

Resources
- Find an Expert
- Children
- Patient Handouts
- Environmental Protection Agency
- Environmental Health
- Hazardous Waste
- Latest News
- Clinical Trials

Notes
- Latest News
- Clinical Trials
- Journal Articles

MedlinePlus
Arctic Health
Haz-Map is an occupational health database designed for health and safety professionals and for consumers seeking information about the adverse effects of workplace exposures to chemical and biological agents.
Toxie the Cat helps children find the hazards hidden in each room and offers hints when needed.

- Available in English and Spanish
- “For Teachers” section includes 3 lesson plans with student worksheets/activities
- Parent Resources
- Suitable for ages 7-11
The Environmental Health Student Portal provides a safe and useful resource for students and teachers to learn how the environment can impact our health.

Suitable for Grades 6-8
ToxTown provides information on:

- Everyday locations where you might find toxic chemicals and how the environment can impact human health.
- Non-technical descriptions of chemicals
- Available in English and Spanish
- Suitable for ages 6-12+
ToxTown After School Club

Unit 1: Water Quality
Unit 2: Air Quality
Unit 3: Chemicals in Your Home
Unit 4: Food Safety
Unit 5: Runoff, Impervious Surfaces, and Smart Development
Unit 6: The Great Debate: Bottled Water vs. Tap Water in Our Schools
TOXinvaders game, by the National Library of Medicine (NLM), engages young adolescents in a fast-paced attack on toxic chemicals in the environment. The game supports middle school science concepts about environment and health.
Collect 20 coins to beat each level. Each level has a different type of coin. Coins can also be used in the Store.
Bohr Thru
Household Products Database (HPD)

Answers questions such as:

- What’s under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room?
- Do these household products pose a potential health risk to you and your family?
- What are the chemical ingredients and their percentages in specific brands?
- Which products contain specific chemical ingredients?
- Suitable for ages 6-12+
Genetics
Genetics Home Reference

Topics Covered:
- Condition Summaries
- Gene Summaries
- Gene Family Summaries
- Chromosome Summaries
- Handbook
- Glossary
- Resources
GeneEd
Genes and Diseases

- Organized by the parts of the body that genetic disorders affect.
- Over 80 genetic disorder summaries.
- Images and interesting facts.
- PDF downloads of chapters.
- Links to related research literature and pertinent websites.
Links from PubMed
Base Chase
Other Genetic Resources
Interdisciplinary Resources
William Shakespeare (1564–1616) created characters that are among the richest and most humanly recognizable in all of literature. Yet Shakespeare understood human personality in the terms available to his age—that of the now-discarded theory of the four bodily humors—blood, bile, melancholy, and phlegm. These four humors were thought to define peoples’ physical and mental health, and determined their personalities, as well.

The language of the four humors pervades Shakespeare’s plays, and their influence is felt above all in a belief that emotional states are physically determined. Carried by the bloodstream, the four humors bred the core passions of anger, grief, hope, and fear—the emotions conveyed so powerfully in Shakespeare’s comedies and tragedies.

Today, neuroscientists recognize a connection between Shakespeare’s age and our own in the common understanding that the emotions are based in biochemistry and that drugs can be used to alleviate mental suffering.

If all the elements, the earth, the sea, Air, and fire, so merry be,

Why is man’s mirth so seldom and so small,
Who is compounded of them all?

Abraham Cowley, "Love’s Riddle," 1638
Traveling Exhibits
The perspectives of surgeons, physicians, and nurses are richly documented in the history of American Civil War medicine, which highlights the heroism and brutality of battlefield operations and the challenges of caring for the wounded during wartime. Yet the experiences of injured soldiers during the conflict and in the years afterwards are less well-known. Life and Limb: The Toll of the American Civil War focuses on disabled veterans and their role as symbols of the fractured nation.

Explore the experiences of Civil War veterans in the online exhibition, use education resources in middle-school, high-school and undergraduate classes, take a closer look at Civil War-era texts in Digital Documents, or find out if the traveling exhibition is coming to a library near you.

Pictured on the right: Soldiers at Armory Square Hospital, Washington, D.C., 1863
Courtesy National Library of Medicine
NLM Traveling Exhibits

For All the People presents the following classroom resources for K-12 and undergraduate educators and their students. These resources are designed to be starting points for exploring historical perspectives and existing tools and services for considering people’s access to health care in the United States. Educators are welcome to adapt them in whole or in part as appropriate for their students’ interests and learning goals.
NLM
Traveling Exhibits
Additional Resources/Services
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<td><strong>High School</strong>&lt;br&gt;• Evolution and Medicine&lt;br&gt;• Exploring Bioethics&lt;br&gt;• Cell Biology and Cancer&lt;br&gt;• Emerging and Re-emerging Infectious Diseases&lt;br&gt;• Human Genetic Variation&lt;br&gt;• The Brain: Understanding Neurobiology Through the Study of Addiction&lt;br&gt;• Sleep, Sleep Disorders and Biological Rhythms&lt;br&gt;• Using Technology to Understand Cellular and Molecular Biology</td>
<td>The NIH curriculum supplements are teacher's guides to two weeks of lessons on the science behind selected health topics. They combine cutting-edge biomedical discoveries with state-of-the-art instructional practices. HTML and PDF versions of each supplement are online and accessible to all. Print versions are FREE upon request to educators in the U.S. The NIH Curriculum Supplements&lt;br&gt;• Are consistent with National Science Education Standards&lt;br&gt;• Promote critical thinking, teamwork, and problem-solving and communication skills&lt;br&gt;• Incorporate real scientific data to engage and challenge students&lt;br&gt;• Are aligned to state education standards</td>
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<td><strong>Middle School</strong>&lt;br&gt;• Rare Diseases and Scientific Inquiry&lt;br&gt;• The Science of Healthy Behavior&lt;br&gt;• Doing Science: The Process of Scientific Inquiry&lt;br&gt;• Leaking Gas, Feeling Gas: From the Inside Out&lt;br&gt;• Chemists, the Environment and You&lt;br&gt;• How Your Brain Understands What Your Ear Heats&lt;br&gt;• The Brain: Our Sense of Self</td>
<td>The curriculum supplements project was a collaboration with the Institutes and Centers at NIH and BSCS and EDC.</td>
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<td><strong>Elementary School</strong>&lt;br&gt;• Open Wide and Take Inside</td>
<td>Have questions? Contact us</td>
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**NIH/UNSTA Webinars**<br>NIH and the National Science Teachers Association offer free webinars on selected NIH curriculum supplements. Check them out now at the NSTA Learning Center.<br>Evolution and Medicine - A New Approach for High School Biology<br>Using Rare Diseases to Teach Scientific Inquiry<br>Understanding the Brain - What Drugs Can Tell Us<br>Ethical Considerations, State Vaccination Policies and Challenges in Teaching Bioethics<br>Biomedicine, Genetic Testing, and Bioethics
NLM Traveling Exhibits
Peggy Cummings: Engaging Teachers and Students with the History of Medicine

“When school librarians collaborate with classroom teachers to enrich curriculum content, they help create more authentic learning experiences.”

—Dr. C. Bath Fitzsimmons, National Commission on Libraries and Information Science Chairperson (2004-2008)

Douglas County High School (DOCHS) in Castle Rock, Colorado recently served as host to the National Library of Medicine’s (NLM) Every Necessary Care and Attention: George Washington and Medicine exhibit. The only high school west of the Mississippi to receive the 6-week exhibit, Peggy Cummings, the school’s Library Media Specialist, had to make a strong case to NLM to bring the exhibit to her site.

Cummings, who has been with DOCHS for eleven years, was no stranger to planning exhibits and programming. She worked closely with the school’s social studies teaching staff to bring the Gilder Lehman Looking at Lincoln: Political Cartoons from the Civil War Era exhibit to the library, and she has hosts an annual two-day event, “Remembering Our Veterans” — in conjunction with the Douglas County public library archival staff. Cummings interest in hosting the George Washington exhibit was piqued with a library posting announcement, noting that resources like this can serve as a bridge between the classroom and the library. “There so many facets to George Washington that were not as well known as they should be. This would provide a way to work with different academic departments.”

Peggy Cummings, Library Media Specialist
Images from the History of Medicine (IHM) provides access to over 70,000 images dated from the 15th to the 21st century in the collections of the History of Medicine Division (HMD) of the U.S National Library of Medicine (NLM).

The collection includes:

- Postcards
- Portraits
- Photographs
- Caricatures
- Posters

Copyright and Permissions do apply
Viewer discretion is advised
<table>
<thead>
<tr>
<th>Biological Science</th>
<th>Environmental Health Science</th>
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</thead>
<tbody>
<tr>
<td>Against the Odds: Making a Difference in Global Health (Grades 9-12+)</td>
<td></td>
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<tr>
<td>MedlinePlus® (Grades 6-12+)</td>
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<tr>
<td>Easy to read health information. An excellent source for all ages. Also available in Spanish. <a href="http://medlineplus.gov">medlineplus.gov</a></td>
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<tr>
<td>Rewriting the Book of Nature: Charles Darwin and the Rise of Evolutionary Theory (Grades 9-12+)</td>
<td></td>
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<tr>
<td>PubMed®/MEDLINE® (Grades 11-12+)</td>
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<tr>
<td>A citation index for articles from medical and life science journals. View the PubMed tutorial for site navigation. <a href="http://pubmed.gov">pubmed.gov</a></td>
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<tr>
<td>Visible Human Project® (Grades 6-12+)</td>
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<tr>
<td>Complete, anatomically detailed, 3D representations of the normal male and female human bodies. <a href="http://nim.nih.gov/research/visible/visible_human.html">nim.nih.gov/research/visible/visible_human.html</a></td>
<td></td>
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<td>Environmental Health Science</td>
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<tr>
<td>Engaging Educational Animations (Grades 6-8)</td>
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<tr>
<td>Environmental Health Student Portal (Grades 6-8)</td>
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<tr>
<td>Connects middle school students to environmental health information. <a href="http://kidsenvirohealth.nlm.nih.gov">kidsenvirohealth.nlm.nih.gov</a></td>
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<tr>
<td>Household Products Database (Grades 6-12+)</td>
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<tr>
<td>Learn about the potential health effects of chemicals in common household products. <a href="http://hpd.nlm.nih.gov">hpd.nlm.nih.gov</a></td>
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<tr>
<td>TOXMAP® (Grades 9-12+)</td>
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<tr>
<td>Uses maps of the United States to visually explore Superfund and Toxic Release Inventory data from the EPA. Includes classroom materials. <a href="http://toxmap.nlm.nih.gov/toxmap">toxmap.nlm.nih.gov/toxmap</a></td>
<td></td>
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<tr>
<td>ToxMystery™ (Grades 1-5)</td>
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<tr>
<td>Interactive site teaching elementary school students about toxic substances in the home. Includes lesson plans and activities. <a href="http://toxmap.nlm.nih.gov/toxmap">toxmap.nlm.nih.gov/toxmap</a></td>
<td></td>
</tr>
</tbody>
</table>
• A quarterly publication of the Friends of the National Library of Medicine.

• Get a free subscription!

• Organizations can order in bulk

• Spanish available also
Other government resources
Bureau of Labor Statistics-K-12 Games
National Science Foundation (NSF)

Resources for STEM Education

K-12 Resources for Science, Technology, Engineering and Mathematics Education

Resources and findings generated through educational research and development projects funded in part by the National Science Foundation can help inform states and school systems that are developing strategies for improving K-12 STEM (science, technology, engineering and mathematics) education.

Topics

Teacher Development  Instructional Materials  Assessment  Research Syntheses

This site contains an initial sampling of resources and findings from NSF-funded projects. Their proposals underwent merit review; subsequent annual and final project reports were reviewed and approved. The resulting research-based resources have been pilot- or field-tested in schools or with teachers. The websites identified may offer additional information derived from their development and use with students, teachers, or other stakeholders. These resources and websites represent the work, findings, and conclusions of the Principal Investigators and do not necessarily reflect the views of the NSF.
# National Science Digital Library

![NSDL Logo](image)

The National Science Digital Library (NSDL) is a comprehensive online resource designed to serve science, technology, engineering, and mathematics (STEM) education. It offers a vast array of educational materials, tools, and services to help educators and students. The NSDL provides free, high-quality resources to support STEM education at all levels, from preschool to adult education.

### Find a Resource

Enter a keyword or search terms...

### Education Level

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Middle School</th>
<th>College / Upper Division</th>
<th>Adult Education</th>
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<tbody>
<tr>
<td>Lower Primary</td>
<td>High School</td>
<td>Graduate / Professional</td>
<td>Career / Technical</td>
</tr>
<tr>
<td>Upper Primary</td>
<td>Community College / Lower Division</td>
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</tbody>
</table>

### Search Collections

Get started with the organizations that share their resources with NSDL.

### Search By Provider

Browse an alphabetical list of all participating providers.
Learning and Teaching about the Environment

K-12 students and educators need access to quality homework resources, lesson plans and project ideas to learn and teach about the environment. Environmental education (EE) is a multi-disciplinary approach to learning about environmental issues that enhances knowledge, builds critical thinking skills and helps students make informed and responsible decisions.

Homework Help, Awards and Activities for K-12 Students

- Homework resources
- Student awards and contests, including the President’s Environmental Youth Award
- Games, quizzes, and more
- Videos about the environment

Classroom Resources and Project Ideas

- Lesson plans, teacher guides and online resources for educators
- Community service project ideas
- Science fair project ideas

Additional Resources for Educators and Education Professionals

- Find more information about grants, professional development, EE publications, educator awards and more

Healthy Schools, Healthy Kids

- Find EPA programs to help support healthy, productive learning environments
- Learn about children’s health and the environment, and reduction risks at school

News and Deadlines

- Apply by January 31 for the President’s Environmental Youth Award.
- The Visualize Your Watershed Challenge is now open.

Find Local Resources

To find local resources or more information on inviting EPA staff to visit your school, talk to your Regional Environmental Education Coordinator.

Order Materials

- Our National Service Center for Environmental Publications offers over 66,000 digital and 1,500 print materials free of charge. Order online or call 1-866-490-9198 for more information.
FDA U.S. Food and Drug Administration
Welcome to the Teachers and Students page, your destination for all things educational! We have exclusive tools and resources and you won’t find anywhere else. Take a tour with S.K. Worm, learn about conservation and agriculture or even watch fun videos! New content is added regularly, so keep checking back!

LEARN

Learn tons of exciting agricultural facts from your pal S.K. Worm!

TEACH

Use our education resources to help make any classroom session great!

WATCH

Take a peek inside our multimedia library and watch some cool videos!
The Smithsonian
Support Your Institution

- Help your students/parents/coworkers be informed health and science information searchers
- Provide health/science resources for parents, kids, youth
- Connect with the community through collaboration and information
- Look to NLM for great resources!
Join NN/LM PNR

NN/LM PNR

MEMBERSHIP - FREE

OUTREACH & TRAINING

FUNDING
Thank You!

Questions?