Thinking Outside the Box: How to Advance Health Equity and Care Quality in the Pediatric Medical Home

A webinar series brought to you by the National Center for Medical Home Implementation

Changing Relationships: How to Foster Effective Communication with Patients and Families

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11- Noon Central

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Changing Relationships: How to Foster Effective Communication with Patients and Families

*brought to you by the National Center for Medical Home Implementation*

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Objectives

- Describe how addressing health literacy and language access can improve delivery of care within the pediatric medical home model.

- Discuss evidence-based and evidence-informed promising practices that leverage effective communication and language access to improve equitable provision of care.

- Identify effective visual, verbal, and written communication tools and resources that can be used in practice for all patients, including those with limited English proficiency and health literacy.
Changing Relationships: How to Foster Effective Communication with Patients and Families

brought to you by the National Center for Medical Home Implementation

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Addressing Health Literacy & Language Access to Improve Care Delivery

- Health literacy & limited English Proficiency (LEP) important factors to consider in improving care delivery within the pediatric medical home

- Pediatric medical home tenets include
  - Family-centered care
    - Developing a trusting partnership with families
    - Sharing clear and unbiased information and options with the family about the child’s medical care and management
  - Comprehensive care
    - Provision of preventive care that includes... patient and parent counseling about health, safety, nutrition, parenting, psychosocial issues
    - Child and family’s medical, educational, developmental, psychosocial, and other service needs identified and addressed
**Addressing Health Literacy & Language Access to Improve Care Delivery**

- **Pediatric medical home tenets include (continued)**
  - Coordinated care
    - When child referred for consultation or other care, **medical home physician helps communicate clinical issues**
  - Compassionate care
    - **Concern for well-being of family expressed** and demonstrated
    - **Efforts made to understand and empathize with feelings and perspectives** of child and family
  - Culturally effective care
    - **Cultural background recognized, valued, respected** and part of care plan
    - **All efforts are made to ensure child and family understand results of the medical encounter and care plan, including provision of translators or interpreters as needed**
    - **Written materials provided in the family’s primary language**
Addressing Health Literacy & Language Access to Improve Care Delivery

- Health literacy & limited English Proficiency (LEP) are commonly encountered issues
  - Low health literacy affects ~1 in 3 US parents

Yin 2009; U.S. Census Bureau, 2011 ACS
Over 21 Million Parents with Basic or Below Basic Health Literacy

Addressing Health Literacy & Language Access to Improve Care Delivery

- Health literacy & limited English Proficiency (LEP) are commonly encountered issues
  - Low health literacy affects ~1 in 3 US parents
  - Limited English Proficiency (LEP) affects ~1 in 10 US adults

- Issues of low health literacy and limited English proficiency closely intertwined
  - Low income and immigrant families disproportionately represented

Yin 2009; U.S. Census Bureau, 2011 ACS
Definition: Limited English Proficiency

“How well do you speak English?”
- Very well = English proficient
- Well
- Not well = LEP
- Not at all

LEP and Pediatric Health

- Worse health knowledge
  - Asthma

- Poor disease management
  - Asthma, medication errors

- Worse quality of life

- Decreased access to quality care
  - Lack of health insurance
  - No medical home, no usual health care provider

- Greater dissatisfaction with care

Eneriz-Wiemer 2014
Definition: Health Literacy

- **Literacy** (Webster dictionary)
  - Quality or state of being literate
    - Literate =
      - Ability to read and write
      - Having knowledge or competence in a specific area (ie. health, financial, computer)

- **Health literacy**
  - “The degree to which individuals have the capacity to **obtain, process, and understand** basic health information and services needed to **make appropriate health decisions**.”
  - Includes ability to **access / navigate** the health care system

*HHS 2000; IOM 2004*
Low Health Literacy and Pediatric Health

- Decreased knowledge
  - Asthma, OCP, immunization

- Worse health behaviors
  - Smoking, less breastfeeding

- Increased use of health services
  - ED visits / hospitalization among asthmatics

- Poorer health outcomes
  - Asthma severity / missed severity, diabetic control

INDIVIDUAL CAPACITY

- Reading Fluency
  - Prose
  - Quantitative
  - Document

Prior Knowledge
- Vocabulary
- Conceptual knowledge of health and healthcare

HEALTH-RELATED PRINT LITERACY
Ability to understand written health information

Other Factors:
Culture and Norms
Barriers to change

New Knowledge,
Positive Attitudes,
Greater Self-Efficacy,
Behavior Change

Improved Health Outcomes

HEALTH-RELATED ORAL LITERACY
Ability to orally communicate about health

Complexity and Difficulty of Spoken Messages

Baker 2006
INDIVIDUAL CAPACITY

Reading Fluency
- Prose
- Quantitative
- Document

Prior Knowledge
- Vocabulary
- Conceptual knowledge of health and healthcare

Complexity and Difficulty of Printed Messages

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Behavior Change

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Complexity and Difficulty of Spoken Messages

HEALTH-RELATED ORAL LITERACY
Ability to orally communicate about health

Baker 2006
Key Strategies to Address Literacy and Language Issues

- Create a **shame-free environment**
- Improve **verbal communication** with parents / patients
- Supplement verbal communication with patient-friendly **written materials or other resources**

Use a **Universal Precautions Approach**
Universal Communication Principles

- Everyone benefits from clear information
- Many patients are at risk for misunderstanding health information, but are hard to identify
  - “You can’t tell by looking”
- Ask patient / family what language they prefer to communicate in
  - “What language would you like us to use today?”
  - **Communicate in their language of preference**
- Assessing health literacy in the clinical setting is NOT recommended
Is where you practice a shame free setting?

- Is it easy for patients to check-in? make appointments? get referrals?
- What are the forms and handouts you give out like?
- Are you able to offer help in a confidential way?
- Have your staff been trained to be sensitive to patients with low health literacy or communication difficulties?
- Can your staff recognize communication “red flags”? 
“Red Flags” for Low Literacy or a Communication Problem...

- Incomplete registration forms
- Frequently missed appointments
- Skipped tests & referrals
- Medication non-adherence
- Excuses – “I forgot my glasses…”
- Difficulty explaining medical concerns
- Difficulty naming medications, or explaining purpose/timing of administration
- No questions
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Clear Verbal Communication Principles to Use in Your Practice

1. Listen.
2. Simplify.
3. Ask for “Teach Back.”

1. Listen

- Ask first for the child’s or parent’s agenda.
- Encourage questions.
  - *Do not say:*
    - Do you understand?
    - Do you have any questions?
  - *Ask:*
    - What questions do you have?

2. Simplify

- Use plain “living room” language
  - Use simple words, short statements
  - Use analogies (arthritis – “creaky hinge on door”)
- Focus on 3 or fewer key action items
- Slow down
- Avoid jargon

Avoid Jargon

**Instead of ...**

- Benign
- Chronic
- Cardiac
- Edema
- Negative test
- Hypertension
- Hydrocephalus

**Use ...**

- Normal
- Happens again and again
- Heart
- Swelling
- Normal result
- High blood pressure
- Fluid buildup in the brain
3. Use Teachback!

Don’t forget to chunk and check!

New Concept: Health Information, Advice, or Change in Management

Clinician Explains New Concept

Patient Recalls and Comprehends

Adherence

Clinician Assesses Patient Recall and Comprehension

Clinician Clarifies and Tailors Explanation

Clinician Reassesses Patient Recall and Comprehension

Schillinger 2003
Why Use Teachback?

- Teachback considered one of the top patient safety practices based on strength of scientific evidence (AHRQ, 2001 Report, Making Health Care Safer)

- Teachback associated with improved outcomes
  - Associated with achieving good glycemic control (15x odds)
  - No increased visit time (Schillinger 2007)

- Teachback results in improved informed consent (National Quality Forum)
Common concern:
“Teachback seems condescending. I feel awkward doing it...”

It is all in the way you ask! Some good strategies:

• Put the pressure on yourself, not the parent/patient
  - “I’d like to make sure that I did a good job explaining this to you. Can you tell me how you plan to give the medicine to Christopher when you get home?”

• Ask in a natural way, incorporating another caregiver
  - “What will you tell Jennifer’s father about what to do when her asthma gets bad?”
  - “We talked about a lot of different ways to cut down on giving juice to Joey. What are some things you plan to try that will work for you at home?”
Giving Medication Instructions: A Great Opportunity for Teachback!

- Understanding medication instructions a complex task for parents
  - Involves prose, document, and quantitative literacy
  - How much?
    - mL, tsp, tablespoons; Which dosing tool?
  - When?
    - If 3x per day - divided by 24 hrs? 12 hours?
  - For how many days?
    - How do I keep track of this?
Understanding Primary Rx Label Instructions: “Take two tablets by mouth twice daily.”

Wolf et al, Patient Education & Counseling, 2007; slide from M. Wolf
Using print materials / visuals improves understanding and recall

Patients prefer receiving messages from their health care provider with accompanying print materials / visuals

Print materials and visuals, used as part of verbal counseling.....
- Helps reinforce verbal messages
- Photos/drawings can be especially helpful

Why use written materials?
A Cognitive Science Perspective

- **Cognitive load theory**: account for cognitive limits
  - When possible, bypass limits of “working memory”
    - ‘working memory’ = limited initial processor of information
    - Avoid reliance on patient’s working memory by using written materials
  - Decrease extraneous cognitive load
    - E.g. Use simple drawings rather than complex anatomical drawings

Why use written materials?
A Cognitive Science Perspective (continued)

- **Dual code theory**: Use multiple senses to improve information transfer
  - Separate ‘channels’ for text/audio info vs. visual info/graphics
  - Present words and graphics simultaneously

---

Print Materials Where You Practice....

- How easy is it for your patients to understand (and take action based on) the print materials you use?
  - For counseling
    - Patient education materials
    - Discharge instructions
  - Other communications
    - Patient portal information; test results
    - Letters sent to patients/families
    - Forms

- Could what is being used where you practice be improved?
### Readability Levels of Child Health Information

<table>
<thead>
<tr>
<th>Information Type</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn screening</td>
<td>10th grade (9th-12th)</td>
</tr>
<tr>
<td>AAP / TIPP</td>
<td>10th grade (6th-16th)</td>
</tr>
<tr>
<td>CDC vaccine information</td>
<td>7th grade (5th-10th)</td>
</tr>
<tr>
<td>SCHIP Enrollment</td>
<td>10th grade (7th-12th)</td>
</tr>
<tr>
<td>Web patient education materials</td>
<td>10th grade level (6th-15th)</td>
</tr>
</tbody>
</table>

Recommendation is 6th-8th grade level for general population; 3rd-5th grade for lower literacy.

*References: D'Alesandro 2001; Davis 2006; Arnold 2001; Farrell 2008; Sanders 2007; Davis 1994; Davis 1990*
Readability Formulas

- **FOG index**
  \[
  0.4 \times \left( \frac{\text{total words}}{\text{total sentences}} \right) + 100 \left( \frac{\text{complex words}}{\text{total words}} \right)
  \]

- **SMOG (“Simple Measure of Gobbledygook”)**
  \[
  1.043 \sqrt{\frac{30}{\text{# of sentences}}} \times \left( \frac{\text{# polysyllabic words}}{\text{# of sentences}} \right) + 3.1291
  \]

- **Flesch Reading Ease**
  \[
  206.835 - 1.015 \times \left( \frac{\text{total words}}{\text{total sentences}} \right) - 84.6 \left( \frac{\text{total syllables}}{\text{total words}} \right)
  \]

- **Flesch Kincaid**
  \[
  0.39 \times \left( \frac{\text{total words}}{\text{total sentences}} \right) + 11.8 \left( \frac{\text{total syllables}}{\text{total words}} \right) - 15.59
  \]
Readability Formulas (continued)

- You are not expected to calculate grade level by hand for all the documents in your practice!

- There are free online readability calculators

- Microsoft Word as a tool to assess readability
  - FILE > Options > Proofing > “Show readability statistics”
  - To get readability statistics when working on a document, REVIEW > “Spelling and Grammar”
WARNING: Flesch-Kincaid Tends to Underestimate Reading Level
Plain language print materials....

- Focus only on key points
- Need-to-know vs. Nice-to-know
- Emphasize what the patient should do
- Simple, realistic, purposeful illustrations / images
Plain language print materials…. (continued)

- Simple words (1-2 syllables)
- Short sentences (4-6 words)
- Short paragraphs (2-3 sentences)
- Headings and bullets
- Lots of white space
- Medical jargon avoided when possible
Beyond Readability:
Assessing Patient Education Materials

- Patient Education Materials Assessment Tool (PEMAT) - AHRQ
  - Focus on
    - Understandability
    - Actionability
  - Can be used for print and A/V materials
  - Excel for automatic calculation

## Beyond Readability: Assessing Suitability

**UNDERSTANDABILITY**

<table>
<thead>
<tr>
<th>Item</th>
<th>Response Options</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOPIC: CONTENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The material makes its purpose completely evident.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>2. The material does not include information or content that distracts from its purpose.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td><strong>TOPIC: WORD CHOICE &amp; STYLE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The material uses common, everyday language.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>4. Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>5. The material uses the active voice.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td><strong>TOPIC: USE OF NUMBERS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Numbers appearing in the material are clear and easy to understand.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>7. The material does not expect the user to perform calculations.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td><strong>TOPIC: ORGANIZATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The material breaks or “chunks” information into short sections.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>9. The material’s sections have informative headers.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>10. The material presents information in a logical sequence.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>11. The material provides a summary.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td><strong>TOPIC: LAYOUT &amp; DESIGN</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td><strong>TOPIC: USE OF VISUAL AIDS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>16. The material’s visual aids reinforce rather than distract from the content.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>17. The material’s visual aids have clear titles or captions.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>18. The material uses illustrations and photographs that are clear and uncluttered.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>19. The material uses simple tables with short and clear row and column headings.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td><strong>ACTIONABILITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. The material clearly identifies at least one action the user can take.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>21. The material addresses the user directly when describing actions.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
<tr>
<td>22. The material breaks down any action into manageable, explicit steps.</td>
<td>Disagree = 0   Agree = 1</td>
<td></td>
</tr>
</tbody>
</table>

*Note: For items 6 and 7, if there are no numbers, the response is NA.*

<table>
<thead>
<tr>
<th>Topic: Layout &amp; Design</th>
<th></th>
<th></th>
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<td>12. The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
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<table>
<thead>
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<th>Topic: Use of Visual Aids</th>
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<td>15. The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
<tr>
<td>16. The material's visual aids reinforce rather than distract from the content.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
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<td>17. The material's visual aids have clear titles or captions.</td>
<td>Disagree = 0</td>
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<td>21. The material addresses the user directly when describing actions.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
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<tr>
<td>22. The material breaks down any action into manageable, explicit steps.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
<tr>
<td>23. The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
<tr>
<td>24. The material provides simple instructions or examples of how to perform calculations.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
<tr>
<td>25. The material explains how to use the charts, graphs, tables or diagrams to take actions.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
<tr>
<td>26. The material uses visual aids whenever they could make it easier to act on the instructions.</td>
<td>Disagree = 0</td>
<td>Agree = 1</td>
</tr>
</tbody>
</table>

*A very short print material is defined as a material with two or fewer paragraphs, and no more than 1 page in length.*
Suitability Assessment of Materials (SAM)

- Content
- Literacy Demand (including Readability)
- Images / Graphics
- Layout / Typography
- Learning Stimulation / Motivation
- Cultural Appropriateness

Book and assessment tool available online for free:
http://www.hsph.harvard.edu/healthliteracy/resources/teaching-patients-with-low-literacy-skills/
1. Reduced Medical Jargon
2. Need-to-Know Information Up Front
3. Pronunciation Guide
4. User-Friendly Layout
5. Lower Reading Level
6. Simple, Purposeful Illustrations

Available in English and Spanish
Most diarrhea in children is caused by one of several diarrhea-causing viruses and gets better by itself within a week. Although there can be many causes of diarrhea, the treatment suggested here is appropriate for acute illness (sudden onset, short lasting), which occurs most commonly.

A child with viral diarrhea has a fever and often starts the illness with some vomiting. Shortly after these symptoms appear, the child develops diarrhea. Often children with viral diarrhea “feel bad,” but do not act ill.

Diarrhea (loose poop) and vomiting, or “throwing up,” are why many parents call the doctor. Your child’s doctor may call this gastroenteritis (Gastro-en-tur-EYE-tis). These symptoms are often caused by a virus*. Your child may first have a fever and some vomiting. Diarrhea often starts later. The symptoms usually go away in a day or two. But they can last a week before getting better.
**Words to Know**

**allergic** (uh-LER-jik)—to have a bad reaction to something that doesn’t bother most people. For example, some people may get hives if they are stung by a bee.

**pharmacist** (FARM-uh-sist)—a person who has special training to fill prescriptions and teach people about their medicines.

**side effects**—symptoms that come from taking a drug and are not part of the treatment. For example, some medicines can make you feel sick to your stomach.

**Words to Know**

**acetaminophen** (uh-set-tuh-MIN-uh-fin)—a medicine for pain and fever. Tylenol is one brand of acetaminophen.

**ibuprofen** (eye-byoo-PROH-fin)—a medicine for pain and fever. Advil and Motrin are brands of ibuprofen.
Ear Infections

Ear infections (in-FEK-shuns) in children are common. Most kids get at least one ear infection by the time they are 3 years old. Most ear infections clear up without any lasting problems. Your child’s doctor may also call an ear infection otitis (oh-TYE-tis) media.

Ear infections usually hurt. Older kids can tell you that their ears hurt. Little children may only cry and act fussy. You may notice this more when your child eats. That’s because sucking and swallowing can make the pain worse. Children with an ear infection may not want to eat. They may have trouble sleeping. Ear infections also can cause fever.

What to Do for Ear Pain

Give your child acetaminophen* or ibuprofen* for pain. They work well for pain with or without fever.

* Be sure to get your child the right kind for your child’s age. Follow what the label says. Ask your child’s doctor how much to give if your child is younger than 2 years.
* The pain may last up to 3 days. So it’s fine to give medicine at the right dose during the day and at night for 3 days. Follow the label to see how often you can give it.
* There are also ear drops that can help with pain. Ask the doctor before you try them.

Call the Doctor If...

...your child has ear pain and any of these signs:

* Your child is younger than 2 years.
* Yellowish-white or bloody fluid is coming out of your child’s ear.
* Your child is in a lot of pain.
* Your child is acting sick or can’t sleep.
* Your child has trouble hearing. This could be from an ear infection. But it might be something else. It’s important to get help if your child has a hearing problem.

What About Antibiotics?

The doctor may prescribe medicine for your child. This medicine will probably be an antibiotic (ant-uh-by-AH-tik). Antibiotics kill the germs that cause some infections.

Some ear infections will get better on their own. It’s best for your child not to take an antibiotic unless it is needed. So the doctor may ask you to wait 1 or 2 days to see if your child gets better without medicine.

So when is an antibiotic needed? The doctor may prescribe an antibiotic if your child:

* Is very sick.
* Is younger than 2 years.
* Does not feel better 2 days after the ear pain began.

Make sure your child takes all the antibiotics. This may mean finishing the bottle. Or it may mean taking the medicine for a certain number of days.

* Words to Know

acetaminophen (uh-set-tuh-MIN-uh-fin)—a medicine for pain and fever. Tylenol® is one brand of acetaminophen.
ibuprofen (eye-byeoo-FOHCH-fin)—a medicine for pain and fever. Advil® and Motrin® are brands of ibuprofen.

Continued on back

Plain Language Pediatric Patient Education: Handbook for Common Pediatric Topics 41
How Your Child Can Get an Ear Infection

The ear has 3 parts—the outer ear, middle ear, and inner ear. A small tube, called the middle ear tube, connects the middle ear to the back of the throat. It’s called the eustachian tube (yoo-STAY-shin tooob). This tube can get blocked when a child is sick. Then fluid builds up in the middle ear. If germs get into the fluid, it can cause an infection. The inside of the ear may swell up and hurt.

How to Prevent Ear Infections

Here are some ways to lower your child's risk of an ear infection:

- Breastfeed instead of bottle-feed. Breastfeeding may help prevent colds and ear infections.
- If you bottle-feed, hold your child's head higher than the stomach during feedings. This helps keep the ear tubes from being blocked.
- Keep your child away from tobacco smoke, especially in your home and car.
- Some vaccines may help your child get fewer ear infections. These include vaccines to prevent flu and pneumonia (muh-MOH-nuh).

Other Causes of Ear Pain

Here are some other things that can make your child's ears hurt:

- An infection of the outer ear canal, often called “swimmer's ear” (Ask your child's doctor about home treatment for swimmer's ear.)
- Blocked or plugged middle ear tubes from colds or allergies
- A sore throat
- Teething or sore gums

What Not to Do

- Don’t give your child aspirin. It’s dangerous for children younger than 18 years.
- Don’t give your child over-the-counter cold medicines. They don’t help clear up ear infections.
- Don’t let your child swim or travel by plane right after an ear infection. Check with the doctor first.

What to Expect

With any ear infection:

- After 1 to 2 days, pain and fever should start getting better.
- After 3 days, pain and fever should go away.
- Call the doctor if your child doesn’t start feeling better in 2 days.

Your child might feel a “popping” in the ears as the infection starts to clear up. This is a sign of healing.

Children with ear infections don’t need to stay home if they feel OK. Just make sure your child keeps taking any medicine he or she needs.

To learn more, visit the American Academy of Pediatrics (AAP) Web site at www.aap.org.

Your child’s doctor will tell you to do what’s best for your child. This information should not take the place of talking with your child’s doctor.

Note: Brand names are for your information only. The AAP does not recommend any specific brand of drugs or products.

Adaptation of the AAP information in this brochure into plain language was supported in part by McNeil Consumer Healthcare.
A Guide to Your Child’s Medicines

If you are confused or have questions about your child’s medicines, you are not alone. The instructions that come with medicines can be hard to read and understand. For your child’s health and safety, it’s important that you understand this information. Read on to find out more about your child’s medicines.

Ask questions

Before you give your child any medicines, be sure you know how to use them. The following are questions you can ask your pediatrician or pharmacist:

- What is the name of the medicine?
- How will it help my child?
- Do I need to do anything before I give this medicine to my child?
- How much medicine do I give my child? When?
- Should my child avoid certain activities or not eat certain foods while using this medicine?
- Should my child take other medicines, herbal products, or supplements?
- Are there any side effects?
- Is there anything special I need to know? (For example, is the dose larger than usual?)
- Is there any written information you can give me?
- What do I do if my child misses a dose?
- What do I do if I give my child too much?
- What if my child spills it out?
- Does it come in chewable tablets or liquid?
- Can you show me how to measure this medicine?
- (If it’s a prescription) Can this prescription be refilled? How many times?

Prescription medicines

Medicines that only a doctor (and some other health professionals) can order are called prescription medicines. They may be generic or brand name. Generic medicines cost less than brand-name medicines but aren’t always available. Sometimes it’s more important to use the brand name. Ask your pediatrician what’s best for your child.

The following are common prescription medicines for children:

- Antibiotics. Used for some bacterial infections like strep throat. Also used for some types of infections of the ear, lungs, urinary tract, and skin. Antibiotics usually don’t cause problems but can have some side effects. Side effects may include skin rash, loose stools, upset stomach, diarrhea of the urine, or allergic reactions. Antibiotics don’t work on viral infections like colds and the flu. The overuse of antibiotics has caused some bacteria to become resistant to them. This is why your pediatrician may not always treat a bacterial infection with an antibiotic.

If your child goes to the hospital, do the following:

- Bring your child’s health records.
- If your child is taking any medicines, including supplements, vitamins, herbal products, or home remedies, bring them to the hospital in their original containers. Write down when your child last took the medicines, and bring the note with you.
- Ask about any medicines your child is given while in the hospital. Keep a diary of what types of medicines are given to your child and when. Make sure to note any allergic reactions.

- Ear drops. Used for infections and inflammations of the ear canal. Side effects may include itching, feeling like the ears are dug out, or a “popping” sound in the ear.
- Eyedrops or ointment. Used for eye infections, allergies, or vision problems. Some children may get itchy eyes or say the drops hurt their eyes.
- Inhalers. Used to treat asthma and inflammation of the lungs. Your pediatrician will show you how to use an inhaler.
- Nasal sprays. Used to treat sinus problems or allergies. Certain types of sprays should only be used for a short time. Check with your pediatrician about how to use your nasal spray.
- Skincare products. Used for skin infections, burns, parasites/mites, rash, and more. In general they are well-tolerated, but if your child’s skin may get irritated. Also, special care is needed when using medicines that contain steroids or medicines for lice and scabies. They can have serious side effects if used too long.
- All medicines have the potential to cause allergic reactions. Remember to let your pediatrician know if your child has any side effects to any medicines. Side effects may include vomiting or hives or other skin rashes.

Read the label

The following information is found on a prescription label:

- Prescription number. Your pharmacy will ask for this number when you call in for a refill. You may also need this number when filling out insurance forms.
- Your child’s name. Never give your child’s medicine to another child even if the other child has similar symptoms.
- Name of the medicine or the main ingredient. Make sure this matches what your pediatrician told you. The strength of the medicine (for example, 10 mg tablets) may also be listed.

A Warning about aspirin

Never give aspirin or other salicylates (a type of medicine used to reduce pain or fever) to your child unless your pediatrician tells you it’s safe. Aspirin has been linked to Reye syndrome, a serious and sometimes fatal liver disorder, especially when given to children with the flu or chickenpox. For more information on Reye syndrome or a list of medicines that contain aspirin, contact the National Reye’s Syndrome Foundation at 1-800-233-7795 or www.reyessyndrome.org.

Acetaminophen and ibuprofen have few side effects and are quite safe if the right dose is given. They come in drops for infants, liquid (syrup or elixir) for toddlers, and chewable tablets for older children. Acetaminophen also comes in suppositories if your child is vomiting and can’t keep down medicine taken by mouth. Never give a child aspirin (see “A warning about aspirin”).

High fevers can lead to convulsions in children under 3 months. Keep in mind that infants are stronger (more concentrated) than syrup for toddlers. Some parents make the mistake of giving higher doses of infant drops to a toddler thinking the drugs are not on strong. Be sure the type you give your child is appropriate for his weight and age.

Ibuprofen tends to work better than acetaminophen in treating high fevers (103°F or higher). However, ibuprofen should only be given to children older than 6 months. Never give it to a child who is dehydrated or vomiting.

If your child has a kidney disease, asthma, an ulcer, or other chronic illness, ask your pediatrician if ibuprofen is safe for your child. Don’t give your child ibuprofen or acetaminophen if he is taking any other pain reliever or fever reducer, unless your pediatrician says it’s OK.

Athlete’s foot can help your child feel better when he has a sore, itchy nose, itchy eyes, and sneezing due to allergies (but not colds). They can also help relieve itching from chickenpox or insect bites. They can even control the drugs of other allergies. Antihistamines can make some children sleepy. Other children may become irritable, nervous, or restless.

For that reason, don’t give an antihistamine at bedtime unless you know your child will have no trouble sleeping.

Cough syrup. Coughing helps clear the lungs of mucus and germs. A cough is “productive” if it sounds like mucus is coming up. This type of cough usually doesn’t need to be treated. However, some coughs may be very dry and keep your child up at night. A humidifier may help loosen your child’s cough. (Be sure to clean the humidifier often to prevent mold and bacteria buildup.) Some cough medicines, called expectorants, may also help loosen mucus. Cough suppressants, which help calm a cough, should be avoided as coughing helps clear the lungs. Current studies question the effectiveness and safety of cough suppressants, so you should check with your pediatrician before giving your child cough medicines or expectorants. Cough medicine isn’t usually recommended to relieve cough caused by asthma.

Cold medicines. Many cold medicines contain acetaminophen or ibuprofen. Always check the ingredients, especially if you’re giving your child more than one medicine at the same time. If you’re not careful, you could give your child too much of a certain kind of medicine, and it could lead to an overdose.

A Warning about aspirin

Never give aspirin or other salicylates (a type of medicine used to reduce pain or fever) to your child unless your pediatrician tells you it’s safe. Aspirin has been linked to Reye syndrome, a serious and sometimes fatal liver disorder, especially when given to children with the flu or chickenpox. For more information on Reye syndrome or a list of medicines that contain aspirin, contact the National Reye’s Syndrome Foundation at 1-800-233-7795 or www.reyessyndrome.org.
**Liquid medicines**

Many children’s medicines come in liquid form because they are easier to swallow than pills. But they must be used the right way. Parents often misread the directions and give their children too much medicine. This can be very dangerous, especially if given over a period of several days. Always read the instructions carefully. Call your pediatrician if you aren’t sure how much medicine to give your child or how often or for how long to give the medicine to your child. Use the measuring device that comes with the medicine (your tablespoon or teaspoon at home are usually not accurate).

- **Dosing spoons.** Works well for older children who can open their mouths and “drink” from the spoon.
- **Medication cups.** These often come as caps on liquid cold and flu medicines. Make sure to use the cup that comes with the medicine—don’t mix and match cups to other products.
- **Syringes and oral droppers.** Works well for infants. Simply squirt the medicine between your child’s tongue and the side of her mouth (not the back of the throat). This makes it easier for her to swallow. If you have a syringe with a plastic cap, throw the cap into the trash so that it does not fall off in your child’s mouth. Studies have shown that many parents think that the entire syringe or dropper needs to be filled with the medicine. This is not always true. Read the directions carefully and look at the numbers on the side of the dosing device.

**Taking medicines safely**

You can help prevent overdose or poisoning. The following are important safety tips:

- **Always use good light.** If the room is poorly lit, you may take the wrong medicine or give the wrong dose by mistake.
- **Check the label.** Read the label before you open the bottle and again before you give the medicine. Remember, “TISP” is not the same as “T.” TISP is a tablespoon; T or TSP is a teaspoon.
- **Use safety caps.** Always use child-resistant caps. Medicines should be stored in a locked, child-proof cabinet.
- **Give the right dose.** Never guess how much to give your child. Also, extra medicine won’t make your child feel any better any faster.

**What if my child is poisoned?**

If you think your child has swallowed any medicines or substances that might be harmful, stay calm and act fast. If your child is unconscious, not breathing, or having convulsions or seizures, call 911 or your local emergency number right away. If your child doesn’t have these symptoms, call the poison center at 800/222-1222. A poison expert in your area is available 24 hours a day, 7 days a week. Don’t use syrup of ipecac. If you have syrup of ipecac in your home, flush it down the toilet and throw away the bottle. Syrup of ipecac is a drug that was used in the past to make children vomit if they swallowed poison. You shouldn’t make a child vomit in any way.
Prescription Medicines and Your Child

There are two types of medicines you can buy: 1) over-the-counter (OTC) medicines and 2) prescription medicines. OTC medicines are those you can buy without a doctor’s order. Prescription medicines are those you can only buy with a doctor’s order (a prescription). This handout is about prescription medicines.

Ask the Doctor or Pharmacist

Many parents have questions about their children's prescription medicines. Labels can be hard to read and understand. But it's important to give medicines the right way for your child’s health and safety. Before you give your child any medicine, be sure you know how to use them. Here are some questions you can ask the doctor or pharmacist:

- How will this medicine help my child?
- How much medicine do I give my child?
- For how long?
- How much medicine should I give if my child misses a dose?
- Can this medicine be taken with food or an empty stomach?
- Are there any side effects from this medicine?
- How can I learn more about this medicine?
- When will the medicine begin to work?
- What side effects can my child expect?
- What if my child skips a dose?
- Can this prescription be refilled? If so, how many times?
- Also, always tell your child’s doctor:
  - If your child is taking any other medicines (even OTC medicines)
  - If your child has any reactions to the medicines.

Words to Know

Allergic (uh-LEER-ik)—to have a bad reaction to something that doesn’t bother most people. For example, some people may get hives if they are stung by a bee.

Pharmacist (FARM-uh-shts)—a person who has special training to fill prescriptions and teach people about their medicines.

Side effects—symptoms that come from taking a drug and are not part of the treatment. For example, asthma medicine can make you feel short of breath.

Call the Doctor Right Away If…

- Your child throws up a lot or gets a rash after taking any medicine. Even if a medicine is safe for other children, your child may be allergic to it.
- Your child may or may not have side effects with any drug. Be sure to tell the doctor if your child has any side effects with a medicine.

Read the Label

Here is what parts of a prescription label mean. (See example on second page of this handout.)

a. Prescription number. Your pharmacy will ask for this number when you call for a refill.

b. Your child’s name.

c. Name of the medicine. Make sure this matches what your child’s doctor told you. The strength of the medicine may also be listed (for example, 10 mg tablets).

d. QTY. “Quantity” or how much is in the package.

e. Expiration date (Mfr Exp). The medicine in this package will only work until this date. Throw away any medicine left after this date.

Using Over-the-Counter Medicines With Your Child

“Over-the-counter” (OTC) means you can buy the medicine without a doctor’s prescription. This doesn’t mean that OTCs are harmless. Like prescription medicines, OTCs can be dangerous if not taken the right way. Talk with your child’s doctor before giving your child any medicine, especially the first time.

All OTC medicines have the same kind of label. The label gives important information about the medicine. It says what it is for, how to use it, what is in it, and what to watch out for. Look on the box or bottle, where it says “Drug Facts.”

Ask the Doctor or Pharmacist

Check the chart on the label to see how much medicine to give. If you know your child’s weight, use that first. If not, go by age. Check the label to make sure it is safe for infants and toddlers younger than 2 years. If you are not sure, ask your child’s doctor.

Before you give your child any medicines, be sure you know how to use them. Here are some questions you can ask the doctor or pharmacist:

- How will this medicine help my child?
- Can you show me how to use this medicine?
- How much medicine do I give my child?
- Where do I store this medicine?
- Are there any side effects from this medicine?
- How can I learn more about this medicine?
- What if my child skips a dose?
- Does it come in chewable tablets or liquid?

Words to Know

Allergy (uh-LEER-ee)—allergy (uh-LAIR-ee)—to have a bad reaction to something that doesn’t bother most people. For example, some people may get hives if they are stung by a bee.

Chewable tablets—a flavored pill that a child can chew instead of swallowing an adult pill.

Pharmacist (FARM-uh-shts)—a person who has special training to fill prescriptions and teach people about their medicines.

Side effects—symptoms that come from taking a drug and are not part of the treatment. For example, some medicines may make you feel sick to your stomach.

You child will not understand this handout. Your child will understand the words used by his or her doctor. This information should not take the place of talking with your child’s doctor.

Adaptation of the AAP information in this handout into Plain Language was supported in part by MCW Consumer Healthcare.

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American Academy of Pediatrics

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DEDICATED TO THE HEALTH OF ALL CHILDREN
Choosing Over-the-Counter Medicines for Your Child

"Over-the-counter" (OTC) means you can buy the medicine without a doctor’s prescription. Talk with your child’s doctor or pharmacist* before giving your child any medicine, especially the first time.

All OTC medicines have a label. The label gives important information about the medicine. It says what it is for, how to use it, what is in it, and what to watch out for. Look on the box or bottle, where it says "Drug Facts.”

Check the chart on the label to see how much medicine to give. If you know your child’s weight, use that first. If not, go by age. Check the label to make sure it is safe for infants and toddlers younger than 2 years. If you are not sure, ask your child’s doctor.

Over-the-Counter Medicines

<table>
<thead>
<tr>
<th>Type of Medicine</th>
<th>What It’s Used For</th>
<th>What Else You Need to Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antihistamines (m-te-HIS-tah-mine)</td>
<td>Helps with runny nose, itchy eyes, and sneezing from allergies. Also helps with itching from bug bites, hives, or other allergy reactions.</td>
<td>May make some children sleepy. Other children may become very nervous or restless.</td>
</tr>
<tr>
<td>Aspirin</td>
<td>Helps lower fever and pain.</td>
<td>Never give aspirin to your child unless your child’s doctor tells you to. Aspirin can cause a very serious liver disease called Reye syndrome. This is especially true when given to children with the flu or chickenpox.</td>
</tr>
<tr>
<td>Cough medicine</td>
<td>Helps loosen mucus and phlegm (phlem) in your child’s lungs.</td>
<td>Sore throat: Ask your child’s doctor or pharmacist if your child needs a cough medicine and which kind to use. Doctors don’t recommend cough medicine for coughs caused by asthma.</td>
</tr>
</tbody>
</table>

Call the Doctor Right Away If...

...your child throws up a lot or gets a rash after taking any medicine. Even if a medicine is safe, your child may be allergic to it. Your child may or may not have side effects with any drug. Be sure to tell the doctor if your child has any side effects with a medicine.

Using Liquid Medicines

Many children’s medicines come in liquid form. Liquid medicines are easier to swallow than pills. But they must be used the right way.

Types of Liquid Medicines

There are 2 types of liquid medicines:

- OTC Medicines
- Prescriptions

OTC Medicines

All OTC medicines are the same kind of label. The label gives important information about the medicine. It says what it is for, how to use it, what is in it, and what to watch out for. Look on the box or bottle, where it says "Drug Facts.”

Check the chart on the label to see how much medicine to give. If you know your child’s weight, use that first. If not, go by age. Check the label to make sure it is safe for infants and toddlers younger than 2 years. If you are not sure, ask your child’s doctor.

Prescription Liquid Medicines

Your child’s doctor may prescribe a liquid medicine. These medicines will have a different label than OTC medicines. Always read the label before you give the medicine to your child.

With OTC or prescription medicines, be sure to call your child’s doctor or pharmacist* if you have any questions:

- How much medicine to give.
- How often to give it.
- How long to give it.

A Word About Infant Drops

Infant drops are stronger than syrup for toddlers. Parents may make the mistake of giving higher doses of infant drops to a toddler, thinking the drops are not as strong. Be sure the medicine you give your child is right for him or her weight and age.

How to Give Liquid Medicines

Follow the directions exactly. Some parents give their children too much medicine. This will not help them get better faster. And it can be very dangerous, especially if you give too much for several days. Always read the label carefully.

How to Measure Liquid Medicines

Use the dropper, syringe (syr-in), medicine cup, or dosing spoon that comes with the medicine. If nothing comes with your medicine, ask your pharmacist for help. Kitchen tablespoons or teaspoons are usually not the right size.

Words to Know

OTC (oh-tee-see) — medicines you can buy without a doctor’s prescription.

Pharmacist (farms-aht) — a person who has special training to fill prescriptions and help people about their medicines.

Side effects — symptoms that come from taking a drug and are not part of the treatment. For example, some medicines can make you feel sick to your stomach.

*In this handbook, the terms "doctor" and "pharmacist" are used to refer to health professionals who can help you decide whether your child’s medicine is safe to use.

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DEDICATED TO THE HEALTH OF ALL CHILDREN*
Respiratory Syncytial Virus

Respiratory syncytial virus (RSV) infects almost all children at least once before they are 2 years old. Most of the time this virus only causes minor cold-like symptoms. However, for some babies infection can be more devastating.

For certain infants who are extremely preterm (less than 32 weeks before pregnancy) or who are born with severe heart disease or severe lung disease, RSV infection can be especially severe. Preterm infants often have underdeveloped lungs and may have difficulty fighting off RSV infection once they become infected.

Each year about 125,000 children are hospitalized in the United States with RSV infection, and approximately 500 of these children will die. In the first 2 years of life, RSV is the leading cause of pneumonia and bronchiolitis (a swelling of the small airways), and may be associated with wheezing.

Who is at risk?
Infants born prematurely and term infants younger than 6 weeks of age are at increased risk for developing serious RSV infection. Young children with medical conditions, such as chronic lung disease, serious heart conditions, or problems with their immune system, including problems due to cancer or organ transplants, also are at risk.

When and how is RSV spread?
Respiratory syncytial virus infection occurs most often from late fall to early spring. Most illness occurs between November and April, although there may be a seasonal variation by region. Respiratory syncytial virus occurs only in humans and is highly contagious. The virus can live for several hours on a surface such as a countertop, table, or playpen, or on unwashed hands. Respiratory syncytial virus is spread by direct or close physical contact, which includes touching or kissing an infected person, or contact with a contaminated surface.

What are the symptoms of RSV?
For most healthy children, the symptoms of RSV resemble the common cold and include:
- Runny nose
- Coughing
- Low-grade fever
However, signs of more serious infection may include:
- Difficult or rapid breathing
- Wheezing
- Irritability and restlessness
- Poor appetite

How can I protect my child from RSV?
There are important steps you can take to prevent exposure to RSV and other viruses, especially in the first few months of your child's life. These precautions include:
- Make sure everyone washes their hands before touching your baby.
- Keep your baby away from anyone who has a cold, fever, or runny nose.
- Keep your baby away from crowded areas like shopping malls.
- Keep your baby away from tobacco smoke. Parents should not expose their infants and young children to secondhand tobacco smoke, which increases the risk of and complications from severe viral respiratory infections.
- For high-risk infants, participation in child care should be restricted during RSV season whenever possible.
- All high-risk infants and their contacts should be immunized against influenza beginning at 6 months of age.

There are medications that your pediatrician may prescribe that could reduce the risk of developing serious RSV infection. These medications are used only for the small number of babies who are in the highest risk groups for hospitalization. The American Academy of Pediatrics has developed specific criteria for use of these medications. You should consult with your pediatrician regarding specific details on who is at highest risk and which high-risk infants are most likely to benefit from receipt of these medications.

How is RSV infection treated?
Most cases of RSV infection are mild and disappear on their own within 5 to 7 days. However, if your baby is experiencing severe respiratory symptoms, your pediatrician may use a nasal secretion test to determine the cause of the infection. If your child needs to be hospitalized, your pediatrician will discuss the best management for your child.

Call your pediatrician right away if your infant shows any of the signs of serious RSV infection. Prompt supportive treatment is especially important if your child is at high risk for developing serious RSV infection.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

From your doctor
RSV, Bronchiolitis, and Your Baby

RSV is the short name for respiratory syncytial virus (RES-pruh-tor-ee sin-SISH-ul VYE-ris). Almost all children get RSV at least once before age two. Usually, healthy children get very sick in 5 to 7 days. They would recover the same way you would. However, some children get very sick and bronchiolitis* is common in them. It is very common in children. It is very common in children. It is very common in children. It is very common in children.

Call 911 or an Ambulance If...

- Your baby’s lips and fingertips start to turn blue.
- Your baby stops breathing.

What Will the Doctor Do?
The doctor will check to see what the infection is. Then the doctor will talk with you about the best way to care for your baby. If your baby is very sick, the doctor may need to keep him or her in the hospital for a few days.
Asthma (AZZ-muh) is a disease of the breathing tubes that carry air to the lungs. The linings of the tubes swell, and they fill up with mucus (MYOO-kus). This is called inflammation (in-fluh-MAY-shun). It makes the tubes get narrow. This makes it hard to breathe.

Asthma can cause sickness, hospital stays, and even death. But children with asthma can live normal lives.
How to Take Your Child’s Temperature

Your temperature (TEM-pruh-chur) is how warm or cold your body is. Normal temperature for a child is 98°F to 99°F or 37°C. The small circle (°) means “degrees.” Anything over 100.4°F or 38°C is a fever. (See “Words to Know” for “F” and “°.”)

There are many ways to check your child’s temperature. Always use a digital (DIJ-uh-tul) thermometer (thur-MOM-uh-tur). These show the temperature in numbers in a little window.

Don’t use a-mercury thermometer (the kind with silver liquid inside). They are dangerous if they break.

This is how you read and say the temperature:

100.2° This means “One hundred point two degrees.”
102° This means “One hundred and two degrees.”

Be sure to read it carefully. There is a big difference between 100.2° and 102°.

In Child’s Bottom (Rectal)

1. Turn on the thermometer.
2. Put some lubricating (LOO-bruh-kay-ting) jelly on the small end to help it slide in. KY Jelly, Surgilube, and Vaseline are brands of lubricating jelly.
3. Lay your child across your lap or on

If the child is face up, bend your child’s legs to his or her chest. Rest your free hand against the backs of the thighs. This will help your child hold still.

5. Gently put the small end of the thermometer in your child’s bottom where poop comes out (rectum). Put it in

1/2”
1 teaspoon (tsp) is the same as 5 mL.

Fill the dosing spoon while holding it upright.
Read Food Labels

Check for “Dietary Fiber” on the Nutrition Facts label. Look for foods with at least 2 grams of fiber per serving.

This food has 3 grams of fiber per serving.

Some foods are high in fiber. Try beans, vegetables, fruits, and whole grains.
**HELPix Medication Instruction Sheets**

- Patient- and medication-specific pictogram-based instruction sheets
- Used as part of provider counseling
  - Plain language pictographic instruction sheets as framework for counseling
  - Dose demonstration
  - Teachback/showback of dose
  - Standardized dosing tool
  - ~2 minutes
HELPix Evaluation

- RCT, NYC ED (n=245)
  - English / Spanish-speaking parents of children prescribed a liquid medication (either short course (<14d) or prn)
  - Dosing Errors
    - HELPix vs. control: 5% vs. 48%; p=0.0002
  - Non-adherence
    - HELPix vs. control: 9% vs. 38%; p=0.002
Where to find HELPix??

- AAP Plain Language Pediatrics book (generic sheets)
- Online (generic sheets)
  - [http://www.med.nyu.edu/helpix/helpix-intervention/instructions-providers](http://www.med.nyu.edu/helpix/helpix-intervention/instructions-providers)
  - Available in English and Spanish
“What to Do” series

- Institute for Healthcare Advancement
  - https://www.iha4health.org/our-products/

- Parents given books and taught to use them
  - ~60% fewer ED visits
  - ~40-60% fewer visits to doctor / clinic
  - ~40-60% fewer schools days missed due to child’s illness or injury
Multimedia Theory

- Use **visual modalities** to present **visual concepts**
  - For print materials…. drawings, photos
  - And beyond… eg. videos

GREENLIGHT Toolkit

- Obesity prevention intervention targeting children in the first 2 years of life
  - Low literacy materials to facilitate effective provider-parent communication at each well-child visit (2, 4, 6, 9, 12, 15-18m)
  - Health communication training for pediatric residents

- NIH-funded R01 R01 HD049794

- 4 sites: NYU, Vanderbilt, UNC, and University of Miami
Have tummy time with your baby – everyday!

- Lie on your back and put the baby on his stomach on top of you. Can he lift his head for a few seconds? Talk to him and have him look at you.

- Put him on his tummy on a blanket on the floor. Soon he’ll be holding up his head for 10 seconds! Put a toy in front of him to look at.

- Have tummy time for 2 minutes at a time. Try this 3 times a day.

- Remember, when he sleeps, he should always be on his back, NOT on his tummy.

Put your baby on her tummy to play every day. Help keep your baby growing strong!

TV time is not active time.
Choose active things to do with your baby!
Plan The Dinner Plate – for your 15-18 month old

It's easy to do – just split the plate into 3 parts, the largest part for vegetables.

This dinner plate has:
- 2 servings vegetables
- 1 serving rice & beans
- 1 serving fish

Start with 1 tablespoon of each food and let your toddler ask for more!

breakfast:
- 2% Milk – 4 ounces
- Cereal – ¼ cup
- Pear – ¼ of a pear, small bite-sized pieces

lunch:
- 2% Milk – 4 ounces
- Soup with:
  - Carrots and peas – ¼ cup
  - Potatoes – ¼ cup
  - Chicken – ¼ cup
Try these finger foods with your baby... a little each time!

Remember: It is still important to feed your baby pureed foods with a spoon. Give him a spoon too so he can learn to feed himself.

Your baby is learning to feed himself! Give him small amounts of healthy, soft “finger foods.”

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A sample menu for a 9 month old...

<table>
<thead>
<tr>
<th>Time</th>
<th>1st breast milk or formula feeding</th>
<th>2nd breast milk or formula feeding</th>
<th>3rd breast milk or formula feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 AM</td>
<td>breastfed</td>
<td>or 6 ounces formula</td>
<td></td>
</tr>
<tr>
<td>8:30 AM</td>
<td>Rice Cereal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Peach – cut up (¼ cup)</td>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>11 AM</td>
<td>2nd breast milk or formula feeding</td>
<td>Pasta, blueberries – cut up (¼ cup each)</td>
<td></td>
</tr>
<tr>
<td>12:30 PM</td>
<td>Peas – pureed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 PM</td>
<td>3rd breast milk or formula feeding</td>
<td>Cheese and toasted bread – cut up (¼ cup each)</td>
<td></td>
</tr>
<tr>
<td>5 PM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 PM</td>
<td>Meatball, green beans cut up (¼ cup each)</td>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>10 PM</td>
<td>4th breast milk or formula feeding</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Greenlight **Toolkit**: Tangible tools

2 months: onesie

9 months: sippy cup

12 months: portion size snack cups

15 months: placemat
“Greenlight Study”: A Controlled Trial of Low-Literacy, Early Childhood Obesity Prevention

abstract

Children who become overweight by age 2 years have significantly greater risks of long-term health problems, and children in low-income communities, where rates of low adult literacy are highest, are at increased risk of developing obesity. The objective of the Greenlight Intervention Study is to assess the effectiveness of a low-literacy, primary-care intervention on the reduction of early childhood obesity. At 4 primary-care pediatric residency training sites across the US, 8S infant-parent dyads were enrolled at the 2-month well-child checkup and are being followed through the 24-month well-child checkup. Two sites were randomly assigned to the intervention, and the other sites were assigned to an attention-control arm, implementing the American Academy of Pediatrics’ The Injury Prevention Program. The intervention consists of an interactive educational toolkit, including low-literacy materials designed for use during well-child visits, and a clinician-centered curriculum for providing low-literacy guidance on obesity prevention. The study is powered to detect a 10% difference in the number of children overweight (BMI > 18%) at 24 months. Other outcome measures include observed physician-parent communication, as well as parent-reported information on child dietary intake, physical activity, and injury-prevention behaviors. The study is designed to inform evidence-based standards for early childhood obesity prevention, and more generally to inform optimal approaches for low-literacy messages and health literacy training in primary preventive care. This article describes the conceptual model, study design, intervention content, and baseline characteristics of the study population. Pediatrics 2014;133:e1724-e1737

AUTHORS: Lee M. Sanders, MD, MPH, Elaina M. Perrin, MD, MPH, H. Shonna Yin, MD, MS, Andrea Bronough, and Russell L. Rothman, MD, MPH on behalf of the Greenlight Study Team

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KEY WORDS: health literacy, obesity prevention, injury prevention, early childhood, primary care, resident education

ABBREVIATIONS
AAP—American Academy of Pediatrics
PI—principal investigator
RA—research assistant
SCET—social cognitive theory
STFFI—Short Tool for Functional Health Literacy
TIPP—The Injury Prevention Program
WCC—well-child checkup

Dr Sanders conceptualized and designed the study and measures, supervised data collection and entry at the Miami University site, and drafted the original manuscript. Dr Perrin designed the study and measures, supervised data collection and entry at the University of North Carolina at Chapel Hill site, helped draft parts of the original manuscript, and reviewed and revised the original manuscript. Dr Yin designed the study and measures, supervised data collection and entry at the New York University site, helped draft parts of the original manuscript, and reviewed and revised the original manuscript. Dr Rothman conceptualized and designed the study and measures, supervised data collection at the Vanderbilt site, helped draft parts of the original manuscript, and reviewed and revised the original manuscript, and all authors approved the final manuscript as submitted.

This trial has been registered at www.clinicaltrials.gov (identifier NCT01540987).

(Continued on next page)
HELPix
Asthma Action Plan

- **Features**
  - Patient and regimen-specific
  - Plain language
  - Pictograms / Photos
  - Links to videos on use of inhaler with spacer, specific to dose

- **4 key issues**
  1) Medication instructions
  2) Spacer use
  3) Importance of daily preventive medicine
  4) Symptom recognition
HELPix
Asthma Action Plan

- RCT: Low literacy vs. AAAAI plan (n=119)
- Improved provider communication re:
  - Timing of medications
  - Reinforcement of spacer use
  - Need for daily preventive medicine
  - Symptom recognition
- No increased time burden

BACKGROUND AND OBJECTIVES: The use of written asthma action plans (WAAPs) has been associated with reduced asthma-related morbidity, but there are concerns about their complexity. We developed a health literacy-informed, pictogram- and photograph-based WAAP and examined whether providers who used it, with no training, would have better asthma counseling quality compared with those who used a standard plan.

METHODS: Physicians at 2 academic centers randomized to use a low-literacy or standard action plan (American Academy of Allergy, Asthma and Immunology) to counsel the hypothetical parent of a child with moderate persistent asthma (regimen: Flovent 110 µg 2 puffs twice daily, Singular 5 mg daily, Albuterol 2 puffs every 4 hours as needed). Two blinded raters independently reviewed counseling transcriptions. Primary outcome measures: medication instructions presented with times of day (e.g., morning and night vs. number of times per day) and inhaler color; spacer use recommended; need for everyday medications, even when sick, addressed; and explicit symptoms used.

RESULTS: 119 providers were randomly assigned (61 low literacy, 58 standard). Providers who used the low-literacy plan were more likely to use times of day (e.g., Flovent morning and night, 96.7% vs. 51.7%, P < .001; odds ratio [OR] = 27.5; 95% confidence interval [CI], 6.1–123.4), recommend spacer use (eg, Albuterol, 83.6% vs 43.1%, P < .001; OR = 6.7; 95% CI, 2.9–15.8), address need for daily medications when sick (93.4% vs 34.5%, P < .001; OR = 27.1; 95% CI, 6.6–85.4), use explicit symptoms (eg, "ribs show when breathing," 54.1% vs 3.4%, P < .001; OR = 33.0; 95% CI, 7.4–147.5). Few mentioned inhaler color. Mean (SD) counseling time was similar (3.9 [2.5] vs 3.8 [2.6] minutes, P = .8).

CONCLUSIONS: Use of a low-literacy WAAP improves the quality of asthma counseling by helping providers target key issues by using recommended clear communication principles.
Do you need specific patient education resources for a particular content area?

- Search on-line
- Talk to colleagues about what print materials / visuals they have seen and liked
- Reach out to content experts, health literacy experts
- Health literacy listserv
  - http://listserv.ahahealthliteracy.org/
Resources

- **AHRQ Universal Precautions Toolkit**
  - List of resources within toolkit

- **Plainlanguage.gov**
  - Tips for designing documents
  - Word suggestions

- **Health Literacy Tool Shed**
  - Database of health literacy measures
Resources – Environmental Scan

- Environmental scan
  - AHRQ Toolkit TOOL #2
  - Rima Rudd’s Environmental scan
Resources – Provider Training

- Pediatric-specific
  - AAP Pedialink Health Literacy Module
  - ABP Health Literacy Project Improvement Module (PIM) – get Part 4 MOC credit

- General training
  - CDC training for Public Health Professionals
    - Includes section on Using Numbers and Explaining Risk
Additional Resources

- National Center for Medical Home Implementation
  - www.medicalhomeinfo.org
  - www.pediatricmedhome.org

- National Center for Family Professional Partnerships
  - www.fv-ncfpp.org; http://www.familyvoices.org/work/diversity

- National Center for Cultural Competence (information for providers)
  - http://nccc.georgetown.edu/information/providers.html

- Culture, Language, and Health Literacy (HRSA)
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Changing Practice: How to Understand and Address Social Factors that Shape Child Health

June 8, 2016 11 – Noon Central Time

For more information and registration visit the NCMHI Web site.