## Tylenol or Advil?



A spoonful of sugar or a spoonful of stevia?

What's better to give my child, Tylenol or Advil? Acetaminophen or Ibuprofen?

We really shouldn't be using brand names, but this question

comes up often, and just like Kleenex or Band-aid or Post-it, we more often hear parents refer to the brand names than the generic names.

Tylenol is a brand name for acetaminophen. Sometimes on medicine labels it is listed as APAP.

Motrin and Advil are brand names for ibuprofen.

### Acetaminophen and ibuprofen are the SAME in these two effects:

Both treat pain.

Both lower fever.

### Here is how acetaminophen and ibuprofen are DIFFERENT:

- 1. Acetaminophen is digested by the liver, and ibuprofen is digested by the kidneys.
- 2. The dosing is different. Acetaminophen is dosed at 15mg/kg of your child's weight, with a maximum dose of 650mg (2 adult "regular strength" tablets). Ibuprofen is dosed at 10mg/kg of your child's weight with a maximum dose of 400mg (2 adult tablets), unless your child's doctor directs you otherwise. Some kids can have higher doses.
- 3. Acetaminophen effects last about 4-6 hours, while ibuprofen effects last 6-8 hours. So you can give a dose of acetaminophen every 4 hours and ibuprofen every 6 hours.
- 4. Acetaminophen can be given to babies down to 2 months of age. We generally wait until 6 months to give ibuprofen. This is because studies of safety and usefulness of ibuprofen in younger babies have not been conducted. So if your child needs pain or fever medicine and is younger than 6 months old, give acetaminophen.
- 5. Acetaminophen comes in several forms: as a liquid, pill, and suppository. Ibuprofen comes in liquid and pill form but has no suppository option. Suppositories are useful in kids who cannot or will not take the oral

formulation.

Ibuprofen is an "anti-inflammatory" medicine. That means it decreases inflammation. So if your child has an inflamed throat or ear infection, very sore muscles or a sprained, swollen ankle, ibuprofen is the better choice because you get the pain relief plus the "anti-inflammation" properties of the medicine.

### Should I alternate acetaminophen with ibuprofen?

For treating fever, planned alternation of the two may lead to dosing confusion. To avoid the risk of accidentally overdosing your child, we suggest that parents just pick one medicine and stick with it. Many parents have "fever phobia" and for this we strongly encourage you to check out our post about fever. The goal is not to lower fever but to help your child feel better. In fact, while one study suggests that alternating the two MAY lead to better fever control, there is not enough evidence for the American Academy of Pediatrics to recommend either way.

For treating pain, planned alternation may be helpful. One of Dr. Kardos's patients recently sprained his ankle. To get him through the night, she had the parent give tylenol, then 3 hours later give ibuprofen, then 3 hours later give tylenol, then 3 hours later give ibuprofen. When you break this down, the patient got acetaminophen every 6 hours and ibuprofen every 6 hours, and because they were staggered, the parent could give the next medicine dose before the prior one wore off. In situations of pain, this alternating of medicine plan helped avoid the need for prescription pain medicine.

## How is the liquid medicine formulated? How do I measure out the dose?

In the United States, **Infant Tylenol** and **Children's Tylenol** come as a liquid form in the concentration, or "thickness," of 160mg per 5ml. That means that you get 160mg of acetaminophen

in every 5 ml that you measure out. Yes, both infant and children's Tylenol liquid are 160mg per 5ml. Consumer alert: The "infant" formulation comes in a smaller bottle and the children's form comes in a larger bottle, yet typically the infant form is more expensive. Go figure.

Children's liquid Ibuprofen comes in two different concentrations or "thicknesses." One is for babies and comes with a medicine dropper, and one is for older kids and comes with a cup for dosing. Read the label carefully and use the measuring device (dropper or cup) that comes with the medicine.

#### Are there side effects?

Just like all medicine, acetaminophen and ibuprofen can cause side effects, and in rare instances, allergic reactions. So you should have a valid reason for using them that is more important than the possible side effects. Again, both treat pain and treat discomfort from fever. If your child has a fever but is otherwise comfortable, you do not have to treat the fever just for the sake of lowering it. If your child has a liver or kidney disease, your child's doctor might want you to avoid one or the other medicine, so ask before you dose your child.

Both medicines, even though they are over-the-counter, are toxic if overdosed. Be sure your child can't get into either one by mistake, and if they do, call poison control immediately: 1800-222-1222.

#### Which one do we recommend over the other?

Tylenol or Advil? The answer: it depends what you are treating, how long you want the symptoms controlled, and which medicine your child tolerates better.

Julie Kardos, MD and Naline Lai, MD ©2019 Two Peds in a Pod®

## Toddler meal ideas



Having trouble figuring out what to feed your toddler? Read our post for easy, healthy, and economical toddler meal ideas, featuring finger food suggestions. Spoiler alert: you can stay out of the "baby and toddler food aisle" of your local food market!

Julie Kardos, MD and Naline Lai, MD

## What to do when your child has an earache



Does your child have an earache?

In the aftermath of flu and croup season, we are diagnosing a fair share of ear infections. But not all earaches are due to ear infections.

Read our post about ear pain and what to do about it.

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## Update on Gardasil vaccine: yes, it is safe and effective



"Sh

ould I give my kid the Gardasil® vaccine?" Friends and relatives, as well as our patients' parents, continue to ask us this question.

Our answer is always: "Yes."

Gardasil® vaccine is the current HPV vaccine on the United States market. The vaccine prevents cancer-causing strains of human papillomavirus from infecting a person's body. HPV cancers include cervical cancer in women, penile cancers in men, and cancers of the mouth and throat in everyone. The vaccine also protects against genital warts.

According to the Centers for Disease Control report, nearly 90 million HPV vaccines were distributed from June 2006 through March 2016. That's a lot of vaccinations. In the US, the large majority of HPV vaccine given was the Gardasil® vaccine.

You can read a detailed report of the way the safety of the vaccine was studied here.

### Here are the updates:

- 1. The vaccine prevents cancer-causing strains of HPV from infecting teens and young adults. You can read the latest study about this here.
- 2. The vaccine is still safe. The HPV vaccine has still NOT caused any deaths, has NOT caused cases of premature ovarian failure, and has NOT caused any new chronic pain syndromes or neurologic diseases. If you read on the internet or on Facebook any gory tales about Gardasil, you can check those stories on "Snopes." This website determines whether a popular internet story is a myth or a fact.
- 3. Your child may need only two doses of HPV vaccine instead of three. We now know that younger teens achieve immunity with fewer doses than older teens. So, if your child gets the FIRST dose of this vaccine prior to his 15th birthday, then he needs only one more dose of vaccine 6 months later. Those starting the Gardasil® vaccine on or after their 15th birthday still need 3 doses of vaccine for maximum protection against the disease.
- 4. If your child has a weak immune system, they also might need three doses. Children with weakened immune systems (check with your child's pediatrician) should get 3 doses of Gardasil®.
- 5. Teens and tweens are more likely to feel dizzy or to faint after all vaccinations, not only after the HPV vaccine. There are reports that HPV vaccine causes kids

to faint, but fainting may occur with any teen vaccine. It is well known that surges of anxiety can cause fainting. Although they are older, teens are often very apprehensive about getting vaccines. Babies and toddlers rarely faint. Although a toddler may be mad about a vaccine injection, they are not anxious. To prevent any light headedness, your teen's doctor may have them sit for a few minutes after a vaccine.

There's a reason why we give the vaccine "so young." Once people are infected, the vaccine does not work as well. Even though it may be difficult to imagine your child needing protection from a sexually transmitted disease, prevention of cancer-causing strains of human papillomavirus is most effective when HPV immunization is given well before your kids have had any exposure to the virus.

Yes, the HPV vaccine is safe, and yes, we gave it to our own kids.

Julie Kardos, MD and Naline Lai, MD □2019 Two Peds in a Pod□

# Another measles outbreak: recognize measles in your child



A typical measles rash, courtesy of the public health library, Centers for Disease Control and Prevention

It saddens us that we need to post about how to recognize measles, but the recent measles outbreaks in the United States force parents to be vigilant for a disease that was nearly

eradicated in this country.

Both an increase in international travel and a decrease in parents vaccinating their kids is thought to be responsible for the increase in measles cases.

Measles typically starts out looking like a really bad cold — kids develop cough, runny nose, runny bloodshot eyes, fever, fatigue, and muscle aches.

Around the fourth day of illness, the fever spikes to 104 F or more and a red rash starts at the hairline and face and works its way down the body and out to arms and legs, as shown here at the Immunization Coalition site. Just before the rash, many kids develop Koplik spots on the inside of the mouth: small, slightly raised, bluish-white spots on a red base.

Call your child's doctor if you suspect that your child has measles. Parents should be most suspicious if their children have not received MMR vaccine and were exposed to a definite case of measles or visited an area with known measles.

In the US, one in 10 kids with measles will develop an ear infection and one in 20 will develop pneumonia. Roughly one in 1000 kids develop permanent brain damage, and up to two in 1000 who get measles die from measles complications. Kids under age 5 years are the most vulnerable to complications. These statistics are found here. For global stats on measles, please see this World Health Organization page.

Check that your child is up to date on their MMR (measles) vaccine. The first dose is given between ages 12-15 months and the second dose is given at school entry, typically at 4-6 years of age. If you are traveling internationally with your baby between the ages of 6-12 months, ask your pediatrician about getting an early dose of vaccine.

Preventing measles is key because there is no cure.

## How to burp a baby

Wondering how to burp a baby? We decided that words just didn't convey what to do. So we introduce baby Emma in her first, and our first, how-to-video.

Any other video requests, send them our way.

Julie Kardos, MD and Naline Lai, MD ©2019 Two Peds in a Pod®

## Four month sleep regression



"I think we just hit the four month sleep regression. My baby used to sleep better, and now at four months, she is waking up every hour! What happened?"

#### Sound familiar?

The term "four month sleep regression" did not appear on Google searches in the United States until 2006 and has been on the rise ever since.

It is not clear how the term came about. After all, babies existed well before 2006. Oddly, most of the search requests come from the state of California. Unfortunately, the term sleep regression has put many a parent into a panic. Do not worry. Sleep is not a developmental milestone, you do not need to move from California, and your baby is not regressing. Rather, your baby is changing. Just like eating and poop patterns change, sleep patterns also change.

## Sleep in the beginning

In the beginning... there is newborn sleep. Newborns can fall asleep anywhere at any time: while feeding, in a stroller, on

your chest, in your arms, in the car or on the floor. Sometimes they sleep for minutes, sometimes they sleep for a few hours.

For the first three months, babies are in a feeding frenzy mode. Babies this age gain about one ounce per day (a huge feat) so therefore they eat to sustain growth. So they eat, and eat, at a pace of every one and one-half to three hours. They are hungry but their bellies are small, so they must eat frequently. Sometimes they cluster feed every hour. Because they spend so much time feeding, chances are they often fall asleep while sucking either a breast or a bottle. Some babies, by the end of the third month, are sleeping longer at night and making up for missed feedings during the day.

### The plot thickens...

Between three and four months, babies slow in the pace of their growth. From three to six months they gain only about one-half an ounce per day. Because they are not quite so ravenous and because their bellies are bigger now, they can wait longer between feedings. You will notice that a more discernible pattern to their day emerges and you can now tell the difference between "hungry" and "tired" cries.

Another change occurs around four months. You will notice that when your baby is hungry, they get excited when they either hear or see you preparing a bottle or positioning to breastfeed. They become AWARE that a feeding is about to happen and recognize events that immediately precede a meal.

That same awareness occurs around sleep. When she feels sleepy, your baby becomes aware of events that lead up to sleep. If that event is eating, then she will believe that EATING precedes SLEEPING. If that event is rocking with a parent to sleep or laying in a parent's arms, then they learn that rocking or being held is the key to falling asleep.

## The final piece of the puzzle

This increased awareness of sleep associations is likely the origin of the four month sleep regression. You see that the 4 month sleep regression actually is not a regression, but rather an AWARENESS of how to fall asleep. If you always put your baby down in the crib when tired, they will learn that resting in a crib is how to fall asleep. If you play music and put the baby in the crib, the baby will expect music and a crib to fall asleep. And if you always feed your baby to sleep, then feeding becomes the key to falling asleep.

Unlike when they were newborns, if you always put your four-month-old baby in the crib AFTER they fall asleep, they will eventually sense that something is different, and they will wake up. Imagine if you fall asleep in your bed and then wake up to find yourself on the front lawn. You will think to yourself, "WHAT ON EARTH JUST HAPPENED?" Then you will stomp back into the house and find your bed in order to go back to sleep.

If your baby falls asleep breastfeeding, and then you put them down in a crib, your baby may realize that the breast is no longer there. The realization will jolt them out of sleep (WHAT ON EARTH JUST HAPPENED?) and they will cry until you comply with your baby's demand to breastfeed in order to fall back asleep. All understandable.

## The solution: how to overcome the four month sleep regression

Herein lies the key to overcoming the four month sleep regression. Teach your baby that she wants to be in the CRIB to fall asleep. Now is the time to change up the bedtime routine so it ends with your baby in the crib AWAKE and then your baby will fall asleep on her own in the crib. Then, if she wakes up later in the night, she will think to herself: "Ok, I am in the crib, just where I was before. I am still tired and will go back to sleep now." Same at nap time. When your baby gets drowsy, put her in her crib. It is not necessary to feed her first.

We do not advocate letting your baby "cry it out" yet— four months is too young. Developmentally, a four-month-old does not understand cause and effect. Anytime you show up, it's a happy surprise. They do not realize that they have the power to "make you come." However, you can allow for a bit of crying (say, five minutes maximum) because some babies need to unwind before they fall asleep. Remember, if you last fed your four-month-old within the hour, they are not hungry. They are just fussy. Do you remember stomping your foot as a child, rubbing your eyes and crying to your parents, "I am not tired! I do not want to go to bed now."

If, however, your baby is not showing signs of self-soothing after a couple minutes, then go to them and pat them gently or pick them up for a cuddle. But, as soon as they calm down, put them back into the crib so they can learn to fall asleep in the crib, not on you. Allow them to learn that their crib is coming when they are tired, just as they learn that a breast or bottle is coming when they are hungry.

Once babies learn to fall asleep in the crib, many night time awakenings just stop happening. Keep in mind, most four-montholds do not sleep for eight hour stretches overnight. Many still wake up once or twice to feed. Keep the feedings brief, and put your baby back into the crib BEFORE they drift off to sleep. Also, many babies are ready for additional solid food at this point. Discuss with your pediatrician if it's time to give solid sustenance during the day along with liquids.

## A parenting truth

The bottom line? The four month sleep regression is not a regression. Rather, it's a sign of your baby's emerging awareness of her environment and her readiness to learn how to fall asleep.

Julie Kardos, MD and Naline Lai, MD ©2019 Two Peds in a Pod®

## How to dress baby (and big kids) for winter



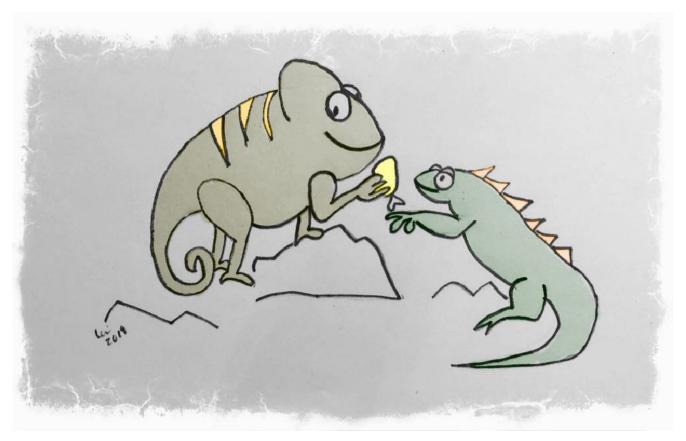
Dr. Kardos's fourth child wears her coat without fuss in cold weather.

Now that the weather has turned "freezy," parents ask us how to dress their baby (and big kids) for cold weather. Even Dr. Kardos's teenaged kids allow her to thrust winter coats on them as they head out to the bus stop. Wondering how to know if your baby, toddler, or older child are dressed correctly for the weather? Read our post on this topic.

### Stay warm!

Naline Lai, MD and Julie Kardos, MD ©2019 Two Peds in a Pod®

# Lizard hands: what to do about dry, chapped, winter hands



Larry the lizard squirmed, but still put his lotion on in the winter.

Does your child have dry, chapped hands? We can help with that. Read here for prevention and treatment tips.

Naline Lai, MD and Julie Kardos, MD

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## Happy New Year 2019! Read our top three posts of 2018



photo from pixabay

Happy 2019! As 2018 comes to a close, we invite you to read our most popular three posts of the year.

Here they are, in order of number of hits:

#1: It's a gas! your young infant's burps and farts

#2: It's no laughing matter: another tween game in town

#3: Kids with "pink eye" CAN attend daycare, and other updated school exclusion recommendations

We wish all of our Two Peds readers and all of your children a Happy, Healthy, and Peaceful 2019.

Sincerely,

Julie Kardos, MD and Naline Lai, MD