Getting back to basics: How do vaccines work?



Recent comments by politicians have brought vaccines back into the public eye. In this post, we get down to basics.

Did you ever wonder how a vaccine works?

To understand how vaccines work, I will give you a brief lesson on the immune system. Trust me, it is interesting. Let me give you an example of me. When I was eight, I had chicken pox. It was a miserable week. I started out with fever and headache, then suffered days of intense body itching from blister-like spots, and ultimately, because I scratched off some scabs, ended up with scars. During this time, my immune system cells worked to battle off the chicken pox virus. Immune cells called memory cells also formed. These cells have the unique job of remembering (hence the name "memory cells")

what the chicken pox virus looks like. Then, if ever in my life I was to contact chicken pox again, my memory cells could multiply and fight off the virus WITHOUT MY HAVING TO GET SICK AGAIN WITH CHICKEN POX. So after I recovered, I was able to play with my neighbor even while he suffered with chicken pox. I returned to school where other children in my class had chicken pox, but I did not catch chicken pox again. Even now, as a pediatrician, I don't fear for my own safety when I diagnose a child with chicken pox, because I know I am immune

This is an amazing feat, when you think about it.

to the disease.

So enter vaccines. A vaccine contains some material that really closely resembles the actual disease you will protect yourself against. Today's chicken pox vaccine contains an altered form of chicken pox that is close to but not actually the real thing. However, it is so similar to the real thing that your body's immune system believes it is, in fact, real chicken pox. Just as in the real disease, your body mounts an immune response, and makes memory cells that will remember what the disease looks like. So, if you are exposed to another person with chicken pox, your body will kill off the virus but YOU DON'T GET SICK WITH THE CHICKEN POX. What a beautiful system! Rather than thinking about a vaccine as a foreign substance, think of it as a substance that is able to strengthen your body's natural immune system.

Before chicken pox vaccine, about 100 children per year in the US died from complications of chicken pox disease. Many thousands were hospitalized with pneumonia, skin infections, and even brain damage (encephalitis) from chicken pox disease. Now a small injection into the arm can prevent a disease by creating the same kind of immunity that you would have generated from having the disease, only now you have one second of pain from the injection instead of a week of misery and possible permanent disability or death. I call that a Great Deal!

I used the example of chicken pox because the vaccine was invented during my own lifetime. However, I could have used the example of polio, which, prior to its vaccine development in 1955, paralyzed 10,000 children per year in the United States, or measles, which infected 4 million children per year and killed 3000 per year in the United States before doctors began to give children a vaccine against measles in 1963.

All vaccines operate by this principle: create a safe environment for your immune system to make memory cells against a potentially deadly disease. Then when you are exposed to someone who actually has the disease, you will not "catch" it. Your body will fight the germs, but you do not become sick. If everyone in the world were vaccinated, then the disease itself would eventually be completely eradicated. Even if MOST people were vaccinated, this disease eradication can occur, because the majority of immunized people protect the few who are too young or too ill to receive vaccines themselves. This happened with small pox, a disease that killed 50 percent of infected people. There is no longer small pox because nearly everyone on earth received the small pox vaccine. Now we do not need to give small pox vaccine because the disease no longer exists. This is a huge vaccine success story.

Friedrich Nietzsche said "What doesn't kill us makes us stronger." We pediatricians feel this is unacceptable risk for children. We would rather see your child vaccinated against a disease in order to become immune rather than risking the actual disease in order to become immune. The vaccines that we give children protect against diseases that can cause serious, lifelong disability or death.

Hopefully this blog post answers your questions about how vaccines work. For more details or more in-depth explanations, I refer you to the AAP (American Academy of Pediatrics) website www.aap.org, the Immunization Action Coalition, Children's Hospital of Philadelphia's Vaccine

Education Center, and the book *Vaccines: What You Should Know*, by pediatricians Dr. Paul Offit and Dr. Louis Bell.

Julie Kardos, MD and Naline Lai, MD

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For more information about vaccines, please see our prior posts: Should I vaccinate my child?, Closure: there is no link between the MMR vaccine and autism, Fact or Fiction: a flu vaccine quiz for all teachers, babysitters, parents, and anyone else who breathes on children, Do vaccines cause autism?, Measles outbreak: would you recognize measles in your child?, A vaccine parable , and Are my teen's vaccines up to date?

Does my baby have GERD or spit-up?



Baby spew doesn't always require reflux medications

In our office, two-month-old Max smiles ear to ear, naked except for a diaper and a bib. His worried mom asks me about the large amounts of spit up Max spews forth daily. "He spits up after every feeding. It seems like everything he eats just comes back up. It even comes out of his nose!" she says. Max gained the expected amount of weight, an average of one ounce per day, since his one-month check-up. He breastfeeds well and accepts an occasional bottle from his dad. Even after spitting up and drenching everything around him, he remains comfortable and cheerful. He is well hydrated, urinates often, and poops normally.

In short, Max is a "happy spitter" Other than creating piles of laundry, he acts like any healthy baby.

Contrast this to two-month-old "Mona." She also spits up frequently. Sometimes it's right after a feed and sometimes an hour later. She seems hungry, yet she'll cry, arch her back, and pull off the nipple while feeding. She cries before and after spitting up. Her weight gain is not so good— she averaged one-half ounce of gain per day since her one-month visit. She seems more comfortable when upright and more cranky lying down.

Mona is **not** a "happy spitter."

Last story and then the lesson:

"Chloe" is a two-month-old baby who cries. Often. Loudly. Although most of the wailing occurs in the late afternoon and early evening, she also cries other times. She eats great and in fact, seems very happy while she feeds. She smiles at her parents mainly in the morning. She also smiles at her ceiling fan and the desk lamp. Movement calms her and her parents worry that she spends excessive time rocking in their arms or in her swing. Her cries pierce through walls and make her parents feel helpless. She often spits up during crying jags, and erupts with gas. She gained weight well since her last visit.

Here's the lesson:

All babies cry. All babies pee and poop. All babies sleep (at times). AND: all babies spit up. The muscle in the lower esophagus that keeps our food and drink down in our stomachs and prevents it from sloshing upwards, called the "lower esophageal sphincter," is loose in all babies. The muscle naturally tightens up and becomes more effective over the first year of life, which is why younger babies tend to spit up more than older babies.

Max has **GER** (gastroesophageal reflux), Chloe has **GER**/ **colic** and Mona has **GERD** (gastroesophageal reflux disease). Max and Chloe have physiologic, or normal, reflux. Mona has reflux that interferes with her mood, her feedings, and her growth.

GER, GERD and colic (excessive crying in an otherwise healthy baby) improve by three to four months of age. If your baby cries often (enough to make you cry as well) then you should see your baby's pediatrician to help determine the cause. It helps, before your visit, to think about when the crying occurs (with feedings? At certain times of the day?), what soothes the crying (feeding? walking/rocking?) and other symptoms that accompany the crying such as spitting up, fever, or coughing. Keeping a three day diary for trends can help pinpoint a diagnosis. We worry a lot when the babies are not "spitting up" but are actually "vomiting." Spit blobs onto the ground. Vomit shoots to the ground. Vomit which is yellow, is accompanied by a hard stomach, is painful, is forceful (think Exorcist), or enough to cause dehydration, all may be signs of blockage in the belly such as pyloric stenosis or vovulus. Seek medical attention immediately.

The treatment for Max, the happy spitter with GER? Lots of bibs for baby and extra shirts for his parents.

Treatment for Chloe, the crier? Patience and tincture of time. You can't spoil a young baby, so hold, rock and sway with her to keep her calm. Enlist a baby sitter or grandparents to help.

The treatment for Mona, the baby with GERD? Small, frequent feedings to prevent overload of her stomach, adding cereal any bottle feeds to help thicken the milk and weigh down the liquid, thus preventing some of the spit up (ask your doctor if this is appropriate for your baby), and holding her upright after feeds for 15-20 minutes. Physicians no longer advocate inclining the crib. To prevent Sudden Infant death Syndrome, she should still be placed on her back to sleep on a flat, firm surface. Sometimes, pediatricians prescribe medication that decreases the acid content of the stomach to help relieve the pain of stomach contents refluxing into the esophagus.

Treatment for parents? Knowing that someday your baby will grow up, no longer need a bib, and probably have a baby who spits up too.

Julie Kardos, MD with Naline Lai, MD ©2015, 2012 Two Peds in a Pod® updated 2019

Tender red dots- spotted in the summer



What is it? Pictured below are the toes of one of my best friend's toddler. She is happy, has no fever, and plays nearly everyday in the neighborhood pool. The round shiny pink bumps and dots on her toes appeared yesterday morning and haven't changed much in a day. They don't seem to bother her very much... answer below.

It's Swimming pool pulpitis- a fancy word for a reaction of the pulp (the meaty tip) of fingers or toes. Mostly seen on the finger tips, the pulpitis is usually caused by irritation of the fingers by the rough side of the swimming pool as kids pull themselves in and out. Kids are sometimes annoyed by the dots, but they go away on their own as soon as the kids decide to use the ladder. In this case, this little swimmer irritated her toes, not her fingers, while "monkey walking" along the side of the swimming pool in the water.

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The natural medicine cabinet in your kitchen



You may not think of your kitchen as a convenient pharmacy, but parents used common kitchen items successfully to treat various maladies long before CVS and Walgreens were invented.

Crisco— May not be healthy to eat, but smeared on skin, it's an old fashioned but effective treatment for eczema or <u>dry skin</u>.

Oatmeal— Crush and put into the end of a hosiery sock. Float the sock in the bathtub for a natural way to moisturize skin.

Olive Oil-

- Put a couple drops into the ear three times a day to loosen ear wax (don't put in if your child has a hole in their ear drum eg. myringotomy tubes).
- For cradle cap, rub into your baby's scalp and use your fingernail or a soft brush to loosen the greasy flakes.
- Also use to kill <u>lice</u>. Work the oil through the scalp,

tuck hair into a shower cap and wash off in the morning. Although studies are unclear on how well this method works on lice, it certainly is worth a try.

White vinegar-If <u>swimmer's ear</u> is suspected, mix rubbing alcohol one to one with vinegar and drop a couple drops in the ear to stop the swimmer's ear from progressing (don't put in if your child has a hole in their ear drum eg. myringotomy tubes).

Ginger— Boil ginger to make a tea to take the edge off nausea

Honey— Shown to soothe coughs-give a teaspoon of dark (buckwheat, for example) honey three times a day. However, NEVER give honey to a child who is younger than one year of age because it may cause infant botulism

Lemon— An old singer's trick—combine lemon juice with honey in tea to alleviate hoarseness

Salt— Mixed into lukewarm water, gargling with salt water will help ease sore throat pain

Baking soda:

- Mix with water to make a paste to help soothe itchy skin, from maladies such as <u>poison ivy</u>.
- Can also be mixed with water to make toothpaste if you run out of your usual minty whitener.
- Another use of baking soda: one part baking soda with 4 parts corn starch makes a natural underarm deodorant.

Sugar: Mix sugar into weak tea (or your ginger tea from above) and give small amounts frequently to soothe your **older** child's nausea and help rehydrate after vomiting.

Ice: Ice not only decreases swelling when applied to injuries, it can also be used to combat the itch of bug bites and poison ivy.

Kitchen sink: This is an excellent place to wash any <u>cut</u>, <u>scrape</u>, <u>or bleeding wound</u> under running water with soap. Immediately after a burn, rinse the burned skin under cold water for several minutes to limit the extent of the heat injury. Contrary to popular lore, DO NOT put butter on a burn. You may, however, put butter on your toast. In small amounts.

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Teething warnings and tall tales



Amber bead necklace

About five years ago, we started noticing Amber Bead Necklaces

adorning the necks of infants. We also noticed a plastic giraffe named Sophie. These relative newcomers are the latest in a long line of treatments that claim to soothe the discomfort of teething. Some work. Some don't. And some are dangerous.

If you look at the consumer product safety commission recalls over the years, recalled teething devices and other baby products usually have a two things in common: they have small pieces that can come off and become a choking hazard, or they can cause a baby's neck to become caught and cause strangulation.

We worry about Amber Beads necklaces. They fit all the potential safety hazard criteria. Although they are not to be chewed on (they purportedly work by excreting a mysterious substance into the skin of an infant), you never know when a bead will pop off and pose a choking hazard or the necklace will get caught and cause strangulation. Besides, we find it odd that parents would be willing to let an unknown substance seep into their baby's skin.



Sophie the giraffe

Also, the FDA has repeatedly warned against the use of topical anesthetics. Benzocaine gels can lead to methhemoglobinemia,

a rare but serious and potentially fatal condition. Adults will sometimes use viscous lidocaine prescribed for themselves on a baby's gums, but any numbness extending to the back of the throat can make it difficult for babies to swallow.

Ultimately, the best cure for teething discomfort is the emergence of a tooth. Until then, chewing on a safe toy or cool wash cloth and an occasional dose of acetaminophen or ibuprofen (if over six months old) can be helpful.

Be patient with teething. "Curing" teething does not cure all maladies. In fact, parents should be aware of these symptoms which are **NOT** caused by teething:

- Teething does not cause fever. Fever usually indicates infection somewhere: maybe a simple viral infection such as a cold, or maybe a more severe infection such as pneumonia, but parents should NOT assume that their baby's fever is caused by teething. These babies could be contagious. Parents should not expose them to others with the false sense of security that they are not spreading germs
- Teething does not typically occur in four-month-olds. Usually the first teeth erupts at around six months of age. Some don't get a tooth until their first birthday. Most drooling and mouthing behavior prior to six months, such as babies putting hands in their mouths, is developmental. Although you may not see a tooth erupt for a few months, babies at this age still enjoy gnawing on a toy.
- Teething does not cause diarrhea severe enough to cause dehydration. If a child has severe diarrhea, then he most likely has a severe stomach virus or another medical issue.
- Teething does not cause a cough severe enough to increase work of breathing. Babies make more saliva around four months of age and this increased production

does result in an occasional cough. But babies never develop problems with breathing or a severe cough as a result of teething. Instead, suspect a cough virus or other cause of cough such as asthma.

• Teething does not cause pain severe enough to trigger a change in mental state. Some children get more cranky as their gums swell and redden with erupting teeth. But, if parents cannot console their crying/screaming child, the child likely has another, perhaps more serious, cause of pain and needs an evaluation by her pediatrician.

From a logic standpoint, if teething causes symptoms as babies get their primary teeth, shouldn't incoming permanent teeth cause the same symptoms? Yet we've never heard a parent blame teething for a runny nose, rash, cough, fever, or general bad mood in an eight, nine, or ten-year-old child who is growing permanent teeth.

Maybe these parents are too busy bemoaning the cost of early orthodontal work.

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Soothe the itch of poison ivy



Recently we've had a parade of itchy children troop through our office. The culprit: poison ivy.

Myth buster: Fortunately, **poison ivy is NOT contagious**. You can catch poison ivy ONLY from the plant, not from another person.

Also, contrary to popular belief, you can not spread poison ivy on yourself through scratching. However, where the poison (oil) has touched your skin, your skin can show a delayed reaction- sometimes up to two weeks later. Different areas of skin can react at different times, thus giving the illusion of a spreading rash.

Some home remedies for the itch :

- Hopping into the shower and rinsing off within fifteen minutes of exposure can curtail the reaction. Warning, a bath immediately after exposure may cause the oils to simply swirl around the bathtub and touch new places on your child.
- Hydrocortisone 1%. This is a mild topical steroid which decreases inflammation. We suggest the ointment- more staying power and unlike the cream will not sting on open areas, use up to four times a day
- Calamine lotion a.k.a. the pink stuff. This is an active ingredient in many of the combination creams.
 Apply as many times as you like.
- Diphenhydramine (brand name Benadryl) take orally up to

every six hours. If this makes your child too sleepy, once a day Cetirizine (brand name Zyrtec) also has very good anti itch properties.

- Oatmeal baths Crush oatmeal, place in old hosiery, tie it off and float in the bathtub- this will prevent oat meal from clogging up your bath tub. Alternatively buy the commercial ones (e.g. Aveeno)
- Do not use alcohol or bleach— these items will irritate the rash more than help

The biggest worry with poison ivy rashes is not the itch, but the chance of infection. With each scratch, your child is possibly introducing infection into an open wound. Unfortunately, it is sometimes difficult to tell the difference between an allergic reaction to poison ivy and an Both are red, both can be warm, both can be However, infections cause pain - if there is pain associated with a poison ivy rash, think infection. Allergic reactions cause itchiness— if there is itchiness associated with a rash, think allergic reaction. Because it usually takes time for an infection to "settle in," an infection will not occur immediately after an exposure. Infection usually occurs on the 2nd or 3rd days. If you have any concerns take your child to her doctor.

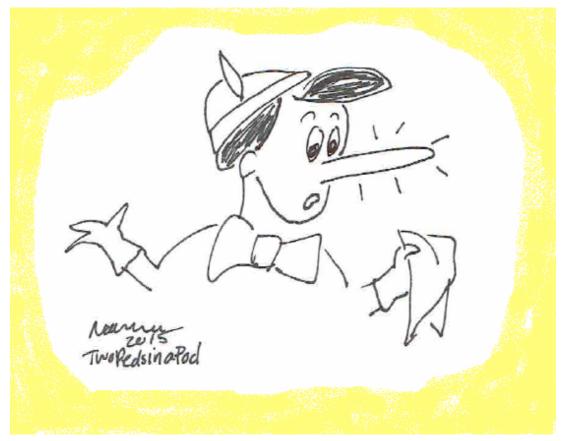
Generally, any poison ivy rash which is in the area of the eye or genitals (difficult to apply topical remedies), appears infected, or is just plain making your child miserable needs medical attention.

When all else fails, comfort yourself with this statistic: up to 85% of people are allergic to poison ivy. If misery loves company, your child certainly has company.

Naline Lai, MD and Julie Kardos, MD

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The best allergy medicines for kids



Gepetto always said his son had allergies, but the villagers knew better

Recently, Dr. Lai was so excited to see Flonase in the local pharmacy that she texted all of the providers in our practice with the news. Flonase (fluticasone), a nose spray allergy treatment, is the latest allergy medication to go over-the-counter. Now, nearly every allergy medication that we wrote prescriptions for a decade ago is now available to kids over-the-counter.

As you and your child peer around the pharmacy through itchy blurry eyes, the displays for allergy medications can be

overwhelming. Should you chose the medication whose ads feature a bubbly seven-year-old girl kicking a soccer ball in a field of grass, or the medication whose ads feature a bubbly ten-year-old boy roller blading? Its it better to buy a "fast" acting medication or medication that promises your child "relief?"

A guide to sorting out your medication choices:

Oral antihistamines: Oral antihistamines differ mostly by how long they last, how well they help itchiness, and their side effect profile. During an allergic reaction, antihistamines block one of the agents responsible for producing swelling and secretions in your child's body, called histamine. Prescription antihistamines are not necessarily "stronger." In fact, at this point there are very few prescription antihistamines. The "best" choice is the one that alleviates your child's symptoms the best. As a good first choice, if another family member has had success with one antihistamine, then genetics suggest that your child may respond as well to the same medicine. Be sure to check the label for age range and proper dosing.

- First generation antihistamines work well at drying up nasal secretions and stopping itchiness but don't tend to last as long and often make kids very sleepy:
 - Diphenhydramine (brand name Benadryl) is the best known medicine in this category. It lasts only about six hours and can make people so tired that it is the main ingredient for many over-the-counter adult sleep aids. Occasionally, kids become "hyper" and are unable to sleep after taking this medicine. Opinion from Dr. Lai: dye-free formulations of diphenhydramine are poor tasting. Other first generation antihistamines include Brompheniramine (eg. brand names Bromfed and Dimetapp) and Clemastine (eg. brand name Tavist).
- The newer second and third generation antihistamines cause less sedation and are conveniently dosed only once

a day:

Cetirizine (eg. brand Zyrtec) causes less sleepiness and it helps itching fairly well. Give the dose to your child at bedtime to further decrease the chance of sleepiness during the day. Loratadine (brand name Alavert, Claritin) causes less sleepiness than cetirizine. Fexofenadine (brand name Allegra) causes the least amount of sedation. The liquid formulations in this category tend to be rather sticky, the chewables and dissolvables are favorites among kids. For older children, the pills are a reasonable size for easy swallowing.

Allergy eye drops: Your choices for over-the-counter antihistamine drops include ketotifen fumarate (eg. Zatidor and Alaway). For eyes, drops tend to work better than oral medication. Avoid products that contain vasoconstrictors (look on the label or ask the pharmacist) because these can cause rebound redness after 2-3 days and do not treat the actual cause of the allergy symptoms. Contact lenses can be worn with some allergy eye drops- check the package insert, and avoid wearing contacts when the eyes look red.

Allergy nose sprays: Simple nasal saline helps flush out allergens and relieves nasal congestion from allergies. As we mentioned above, Flonase, which used to be available by prescription only, is a steroid allergy nose spray that is quite effective at eliminating symptoms. It takes about a week until your child will notice the benefits of this medicine. Even though this medicine is over-the-counter, check with your child's pediatrician if you find that your child needs to continue with this spray for more than one allergy season of the year. Day in and day out use can lead to thinning of the nasal septum. Avoid the use of nasal decongestants (e.g., Afrin, Neo-Synephrine) for more than 2-3 days because a rebound runny nose called rhinitis medicamentosa may occur.

or pseudoephedrine can help decrease nasal stuffiness. This is the "D" in "Claritin D" or "Allegra D." However, their use is not recommended in children under age 6 years because of potential side effects such as rapid heart rate, increased blood pressure, and sleep disturbances.

Some of the above mentioned medicines can be taken together and some cannot. Read labels carefully for the active ingredient. Do not give more than one oral antihistamine at a time. In contrast, most antihistamine eye drops and nose sprays can be given together along with an oral antihistamine.

If you are still lost, call your child's pediatrician to tailor an allergy plan specific to her needs.

The best medication? Get the irritating pollen off your child. Have your allergic child wash her hands and face as soon as she comes in from playing outside so she does not rub pollen into her eyes and nose. Rinse outdoor particles off your child's body with nightly showers. Filter the air when driving in the car and at home by running the air conditioner and closing the windows to prevent the "great" outdoors from entering your child's nose.

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Prepare your child for a younger sibling



A thrilling moment in the office is when a mom of a patient shares with me that she is pregnant again. I say, "Wonderful!" What better gift to give your firstborn than a sibling! And I love being a part of good news! As an older sister myself, as a mother of three children, and as a pediatrician, I know the net result of adding another child to the family is positively fabulous.

Although the news is good, sometimes parents are anxious. Here are some suggestions of how to prepare your child for a younger sibling:

For most kids under the age of three to four years, time literally has no meaning.

At best, everything in the past occurred yesterday, and everything in the future will occur tomorrow. So in general, there is no magic moment to announce a forthcoming new baby. A few weeks ahead of time, simply start talking about "when a baby comes to live with us." Don't expect your child to really

believe you until you walk into the house with the baby. And don't be surprised if your firstborn asks, "When is it leaving?" Kids this age do not understand the idea of "forever" or "permanent."

Believe it or not, your second newborn might not be all that demanding.

Parents often feel guilty about bringing a second baby into the home. They worry they will not have as much time for their firstborn. Well, here's one secret. Newborns aren't all that demanding. Unlike with your first born, you will never have the time or urge to stare endlessly at your second born while she sleeps.

By the second time around, you will realize that feeding, changing, and washing a newborn take up relatively little time. Your firstborn will likely continue to be the center of attention. She is, after all, much more interesting now that she can pretend and play simple games. Believe me when I tell you that you CAN play <code>Candyland®</code> and breastfeed an infant at the same time. You CAN burp an infant while reading aloud to a toddler. You CAN change a diaper while pretending you and your toddler are wild jungle animals. You CAN make a formula bottle while telling a terrifically exciting story to your toddler.

A word about visitors and gifts:

The best part of a gift, to a toddler, is opening it, NOT what's in it. So don't worry about trying to make sure your older child gets a gift for every gift the new baby gets. Just allow your toddler to open all the baby's gifts (if she wants to) because "babies don't know how to open presents, but big kids do!" Also, newborns don't care who holds them so visitors are a perfect chance to hand off the baby and get on the floor and play with your toddler. To a toddler, parents are the most important and interesting people in the world. Even if ten people walk in to visit the baby, your toddler will not be

jealous if YOU are the one playing with her.

By three years old, kids understand taking turns.

In addition to the above tips, if your eldest asks why you need to hold/feed/care for the baby "so much," just explain that it's the baby's turn. Then reinforce how glad you are that your eldest is able to talk, feed herself, play with toys, and maybe use the potty. Remind her that her ability to be independent make her more similar to Mommy and Daddy than to a baby.

You have plenty of love to go around.

Finally, realize whether your firstborn embraces her younger sibling with open arms or pretends that the new baby does not exist, you will have plenty of love to go around. Your heart is big enough for everyone. Dr. Lai tucks each of her three children in at night with the words, "I love you more than anyone in the universe."

Truth be told, no one will make your younger child laugh as loud and long as her older sibling. Also, older babies are much more interesting than newborns. Even "luke warm" older siblings will warm up as time progresses and the baby becomes more interactive. You will appreciate this the most when your younger child becomes a toddler. He will find his older brother or sister so entertaining that he will generally stay near his older sibling. Your younger child will not be as apt to wander out of a room if his sibling is around. While you will not have a baby sitter for a while, you will have a tattle-teller.

In the meantime, tell lots of "when you were a baby" stories to your older child. Toddlers are egocentric (they all think the world revolves around them) and they will LOVE being the main character in your stories. Bring out baby pictures and videos of your firstborn to share. Be sure to point out how far she has come and all the great things she can do now as a

big kid.

Don't feel pressure to "get everything done" before the new baby arrives. Potty training for the oldest can wait (it's not that glamorous anyway). You don't have take your oldest child out of the crib (the baby is in a bassinet for a couple months) and your oldest's teeth won't pop out because you haven't weaned the pacifier.

I end with a personal story:

When I was pregnant with my twins, many of our friends commented to us about our firstborn son, "Boy, you are really going to rock his world."

HIS world, I would think to myself. How about OUR world?

In order to prepare him for his transition from "only child" to "big brother" we emphasized to our son (who was three at the time) that most older brothers get only ONE baby. Our son would be getting TWO babies! He was excited about having two instead of one. For years afterwards, whenever he heard about a pregnant aunt, friend, or neighbor, his first question was always, "Oh, how many babies is she having?"

Out of the mouths of babes....

Julie Kardos, MD and Naline Lai, MD

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Toddler Discipline Tips:

tantrums and tranquility



As we prepare for a session on child development and behavior at Homefront: Family Preservation Center, a center for temporary emergency housing in Mercer County, New Jersey, we realize that we haven't shared with you in a little while one of our most popular podcasts.

Join us as we talk about tips on toddler discipline:

https://www.twopedsinapod.org/wp-content/uploads/2009/09/Episode-8-Toddler-Discipline.mp3

Julie Kardos, MD and Naline Lai, MD

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Deception in Packaging: Navigating the Nutrition Information Highway



Today, we welcome Health Coach Mary McDonald's insight on how to read food labels for nutritional content...

Have you ever stood in the cereal aisle staring at the rows and rows of choices and feeling like a deer in headlights? You know that you want to select a cereal that is healthy for your family, but you are not sure which one to choose. So, you start reading the nutrition claims on the front of the box. "Multi-grain. Low fat. Good source of vitamins and minerals. No high fructose corn syrup." You select a cereal that you

think is a good option, only to find out later that the first two ingredients are sugar and grains that are void of nutrition. Navigating the nutrition information highway can be extremely complex, even for an educated person.

One of the reasons for the confusion is the mass influx of marketing from major food manufacturers. According to the Federal Trade Commission, the 44 major food and beverage marketers spent \$2.1 billion marketing food to youth in 2006. A second report in 2012 compared data from 2006 to 2009 and found that total spending on food marketing to youth dropped 19.5% to \$1.79 billion. But, spending on new media, such as online and viral marketing, increased 50%. The report found that the overall picture of how marketers reach children did not change significantly.

With the major food manufacturers sending constant messaging about the health benefits of their products, a consumer can get very confused about what is healthy to eat. Couple this with the fact that most formal nutrition education ends when a person graduates from high school. Therefore, the major food manufacturer, whose purpose is to sell food, has become the nutrition education for our society. This creates a perfect storm and makes it really difficult to know what is healthy to purchase and consume. So, how we fix this problem? Here are a few quick tips that can help you navigate the nutrition hype:

- 1. Don't look at the front of the packaging to determine if a product is nutritionally sound. Remember, the claims on the packaging are designed to sell more products. In our fast-paced society, it's easy to fall into this trap, but ignore the marketing because there is more reliable information in the ingredient list. Which brings me to my next point.
- Read the ingredient list. You may be surprised if you open your pantry and start to read the labels on the food sitting on your shelves. Many products contain ingredients that are difficult to pronounce, let alone

know what they are. What is more concerning is the fact that some ingredients are deceptive in the way that they are represented. For example, enriched wheat flour sounds like a nutritious ingredient, but in reality it is a refined grain that is very similar to white flour. Enriched wheat flour is milled to strip the bran and germ and then some vitamins and minerals are added back in. When reading your labels, don't be fooled into thinking that you are eating something packed with nutrition when you see enriched wheat flour. If you are looking for a nutritious grain, then look for labels that say whole-wheat flour, and make sure that it is one of the first ingredients on the label.

- 3. Five is the magic number. Michael Pollan, the author of Omnivore's Dilemma, suggests that you should not eat anything with more than five ingredients, or with ingredients you don't recognize or can't pronounce. In my opinion, this is singularly one of the best pieces of advice. When you use this rule of thumb, it will naturally lead you towards healthier foods with less additives and preservatives. For example, compare labels on snack bars. According to Eat This Not That, the "coating" on Special K Double Chocolate Protein Meal Bar is made with trans fats, soy, and sugar with a little processed with alkali, artificial flavor, polysorbate 60 and other artificial ingredients. And that's just the outside! Then there are the "Chocolatey Chips," which is market slang for "not real chocolate." Instead they are just more sugar, soy, trans fats, and artificial flavors mixed with a little cocoa that's been "alkalized," a type of processing that destroys up to 75 percent of the healthy nutrients in the chocolate. Compare that snack bar to Clif Kit's Organic Peanut Butter bar that has only four (yes, 4) ingredients: Organic Dates, Organic Peanuts, Organic Almonds, Sea Salt. I recognize all of those ingredients!
- 4. Positive nutrition messaging. One of the best ways to

achieve success in any goal is to surround yourself with positive messaging. I have connected with a variety of websites that provide great nutrition education. Eatright.org, a division of the Academy of Nutrition and Dietetics, and Nutritionaction.com, a division of Center for Science in the Public Interest, are two credible sources. Search for a site that fits your needs and sign up for free newsletters. The information will come to you and you can choose when and what to read. It's that simple.

5. Cook more at home. Yes, cooking at home can be one of the most effective ways to navigate the nutrition information highway. I realize that this is not always easy considering work, school, and sports schedules. But, it is important to make time for the things that matter most. What can be more important than the health of you and your family? Just like a major roadway, navigating the nutrition highway is complex. Fortunately, we live in a time when there are a variety of ways to receive information.

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If you live in Bucks County, PA, the Doylestown Food Co-op will be hosting a screening of the documentary, *Fed Up*, hosted by Katie Couric. This is an eye-opening account of how we view the food that we consume. The screening takes place Thursday 3/26/15 at 7 pm at the County Theatre in Doylestown, PA.