Cell phones, routers and electromagnetic radiation

At college drop off last week, my husband noticed an object that looked suspiciously like a router in our kid's dorm room. Vaguely aware that routers emit some sort of radiation, I turned to environmental medicine expert Dr. Alan Woolf for information, here is what he shared:

Q: My daughter has a wireless router within 2 feet of where she sleeps. Is this a problem?

A: The answer to the question is unfortunately not a straightforward ‘no problem’. Routers are one of a number of devices, including tablets, cell phones, and cell towers, that give off electromagnetic radiation (EMR) or radiofrequency radiation (RFR). In 2013 more than 6.8 billion mobile phones were registered.

Animal studies of EMR/RFR shows some biological effects, but it is uncertain whether these are applicable to humans. Human studies (and there have been many) have been either inconclusive or negative and are frequently confounded by problems with their design. However one well-controlled, blinded 2015 study of 31 adult females (average age: 26 years) holding 3G mobile phones near their heads for 15 minutes showed evidence of changes in their brain waves on EEG. Whether these changes were long-lasting or of any health import are unanswered questions. The International Agency for Research on Cancer (IARC), part of the United Nations’ World Health Organization, said in June 2011 that a family of frequencies that includes mobile-phone emissions is “possibly carcinogenic to humans.”

Federal agencies, such as the NIOSH, FCC and FDA, have set safety standards for mobile phones, routers, cell towers, etc. that are inclusive of safety factors for EMR/RFR emissions for humans; no commercial devices can be sold in the U.S. that do not comply with such standards. RFR energy levels from Wi-Fi equipment in all areas accessible to the general public, including school settings, are required to meet Federal exposure guidelines. The limits specified in the guidelines are based on an ongoing review of thousands of published scientific studies on the health impacts of RFR energy. Levels of RFR energy emitted from Wi-Fi equipment are typically well below these exposure limits. As long as exposure is below these established limits, there is no convincing scientific evidence that emissions from this equipment are dangerous to schoolchildren or to adults. There is no scientific evidence

of long-term or cumulative health effects of RFR in children.

Wireless routers in commercial use are very low energy devices and are not a safety concern. Still, It seems prudent to keep some distance away from EMR/RFR emitters when chronic exposure is likely. The strength (and therefore dose) of EMR/RFR is exponentially inversely proportional to distance from the emission. Apple Inc. itself recommends, for example, that mobile phones be held at least 5/8 inch away from the body, or that Bluetooth-type headphone devices be used to keep the head away from the phone emitter.

In reality, EMR/RFR waves are all around us (just see what happens when your cell phone is 'searching' for a signal—sometimes it finds half a dozen or more in your vicinity). Unfortunately the medical safety science has not kept up with advances in the technology and so there continue to be uncertainty and unanswered health questions concerning their safety.

Alan Woolf, MD, MPH

We thank Dr. Woolf for his insight, and Dr. Lai is happy to report that her daughter gets great wi-fi reception. Alan Woolf, MD, MPH is Professor of Pediatrics, Harvard Medical School (HMS), attending physician at Boston Children's Hospital (BCH) and has authored over 250 original reports, scientific reviews, chapters, and other publications, many of them on topics concerning children's poisoning and toxic environmental exposures. Among other accolades he is a past-president of the American Association of Poison Control Centers (AAPCC), and immediate past-president of the American Academy of Clinical Toxicology (AACT). Dr. Woolf has also served as external consultant to the World Health Organization's International Program in Chemical Safety and as a member of the National Advisory Committee for Acute Exposure

Guideline Levels for Hazardous Substances, EPA. He was recently chosen as a member of the General Hospital & Personal Use Device Panel of the Food & Drug Administration (FDA) and also serves as a consultant to the Medical Devices Advisory Committee of the Center for Devices and Radiological Health of the FDA.

What's new with the flu vaccine 2017-2018

“What? The flu vaccine again? We JUST got it,” our kids groaned when we told them it was time to get their flu vaccines. In fact, they “just got it” a year ago, which we pointed out to them. Read on to see updates on this year’s flu vaccine and why it should be on your child’s back to school to do list.

This year’s flu vaccine is slightly different from last year’s– it’s been changed to cover a different strain of circulating H1N1 influenza. Several flu vaccines have been FDA approved for this year’s flu season and all of them will give

similar protection for your child. Make sure your child receives a flu shot and NOT the FluMist/spray-in-the-nose kind of vaccine. Unfortunately for those who are needle phobic, the FluMist has not been shown to be effective and therefore, while still licensed, is NOT recommended for use this year.

The flu vaccine is recommended for **all kids six months of age and older**, with very few exceptions. Even pregnant moms safely can receive the flu vaccine.

Too early for flu vaccine? Nope! Older adults might lose some immunity if vaccinated "too soon" in the season, but this observation is not born out in kids. The threat of incomplete or forgotten vaccine outweighs theoretical risk of delaying flu vaccine (even for older adults), so best to get it now.

In case you forgot, the flu is a week of misery, consisting of high fevers, cough and other respiratory symptoms, body aches, and headaches. Younger kids are prone to some diarrhea or vomiting or both along with these bad cold symptoms. The flu can cause dehydration and pneumonia, and sometimes death, even in previously healthy kids. Simply limiting your child's exposure to people showing flu symptoms is not an effective way of preventing illness because people are the most contagious right before they show any symptoms.

Booster dose As in previous years, children under nine years of age need a booster dose the first year they receive the vaccine. If your young child should have received a booster dose last year, but missed it, they will receive two doses of this year's vaccine spaced one month apart (the primary dose plus a booster dose).

This prior post teaches you how to tell if your kid has flu vs "just" a cold. We invite you to read more about this year's flu vaccine on the Centers for Disease Control website here.

Julie Kardos, MD and Naline Lai MD

First day of kindergarten-a letter to your child

Whether your child is about to start kindergarten or college, we invite you to read Dr. Lai's letter she wrote to her first born the night before she started kindergarten. Spoiler: You might want to grab a tissue.

My Child,

As we sit, the night before kindergarten, your toes peeking out from under the comforter, I notice that your toes are not so little anymore.

Tomorrow those toes will step up onto to the bus and carry you away from me. Another step towards independence. Another step to a place where I can protect you less. But I do notice that those toes have feet and legs which are getting stronger. You're not as wobbly as you used to be. Each time you take a step you seem to go farther and farther.

I trust that you will remember what I've taught you. Look both ways before you cross the street, chose friends who are nice to you, and whatever happens don't eat yellow snow. I also trust that there are other eyes and hearts who will watch and guide you.

But that won't stop me from worrying about each step you take.

Won't stop me from holding my breath.

Just like when you first started to walk, I'll always worry when you falter.

I smile because I know you'll hop up onto the bus tomorrow, proud as punch, laughing and disappearing in a sea of waving hands. I just hope that at some point, those independent feet will proudly walk back and stand beside me. Maybe it will be when you first gaze into your newborn's eyes, or maybe it will be when your child climbs onto the bus for the first time.

Until then, I hold my breath each time you take a step.

Love,
Mommy

Naline Lai, MD

Get your child back on a school sleep schedule

Great-horned owl, NPS Photo, Big Bend National Park

Okay, we admit it: our kids are still in their summertime sleep mode of stay up late/sleep late. With school starting soon, many of us now have to shift our children from summer to school year sleep schedules. Because school start times are constant (and early), the kids will have an easier time if you help them shift their bedtimes gradually over the period of a week or two toward the desired earlier bedtime. Remember, the average school-aged child needs 10-11 hours of sleep at night and even teenagers function optimally with 9-10 hours of slumber per night.

Here are some straight forward ways to help ensure good quality sleep for your child:

1. **Keep sleep onset and wake up times as consistent as possible 7 days a week**. If you allow your child to

"sleep in" during the weekends, she will have difficulty falling asleep earlier on Sunday night, have difficulty waking up Monday morning, and start off her week over-tired, more cranky, and less able to process new information—not good for learning. That said, you can allow your teens, who generally have a much earlier school start time than their biological clocks desire, to sleep in an hour or so on weekends to catch up on sleep.

2. **Limit or eliminate caffeine intake**. Often teens who feel too sleepy from lack of sleep drink tea, coffee, "energy drinks" or other caffeine laden beverage in attempt to self-medicate in order to concentrate better. What many people don't realize is that caffeine stays in your body for 24 hours so it is entirely possible that the caffeine ingested in the morning can be the reason your child can't fall asleep later that night. Know also that kids who drink "pre-work out" drinks may not realize that caffeine is one of the ingredients. Better to pre-hydrate with water. Caffeine can have side effects of jitteriness, heart palpitations, increased blood pressure, and gastro-esophageal reflux (heartburn). If your child already has a daily ice-tea, coffee, or other caffeine containing drink, let her wean down gradually- abrupt caffeine withdrawal can cause headaches.
3. **Keep a good bedtime routine**. Just as a soothing, predictable bedtime ritual can help babies and toddlers settle down for the night, so too can a bedtime routine help prepare older kids for sleep. Prevent your child from doing homework on his bed- better to associate work with a desk or the kitchen table and his bed with sleep.
4. **Avoid TV/computer/ screen time/smart phones just before bed**. Although your child may claim the contrary, watching TV is known to delay sleep onset. We highly recommend no TV in a child's bedroom, and suggest that parents confiscate all cell phones and electronic toys, which kids may otherwise hide and use without parent

knowledge, by one hour prior to bedtime. Quiet activities such as taking a bath, reading for pleasure, and listening to music are all known to promote falling asleep. Just be sure your kids put down the book, turn off the music, and turn off the light to allow time to relax in their beds and fall asleep. Many use this time for prayer or meditation.

5. **Encourage regular exercise**. Kids who exercise daily have an easier time falling asleep at night than kids who don't exercise. Gym class counts. So does playing outside, dancing, walking, and taking a bike ride. Participating in a team sport with daily practices not only helps insure better sleep but also has the added benefit of promoting social interactions

Getting enough sleep is important for your child's academic success as well as for their mental health. We pediatricians have had parents ask about evaluating their children for attention-deficit hyperactivity disorder because of an inability to pay attention, only to find that their youngster's focusing issues stem from tiredness. Teens are often so over-involved in activities that they average 6 hours of sleep or less per night. Increasing the amount of sleep in these kids can alleviate their attention problems and resolve their hyperactivity.

Additionally, sleep deprivation can cause symptoms of depression. Just recall the first few weeks of having a newborn: maybe you didn't think you were depressed but didn't you cry from sheer exhaustion at least once? A cranky kid or sullen teen may become much more upbeat and pleasant if they get an extra hour of sleep each night.

Unfortunately for children, the older they get, their natural circadian rhythm shifts them toward the "night owl" mode of staying up later and sleeping later, and yet the higher-up years in school start earlier so that teens in high school start school earliest at a time their bodies crave sleeping

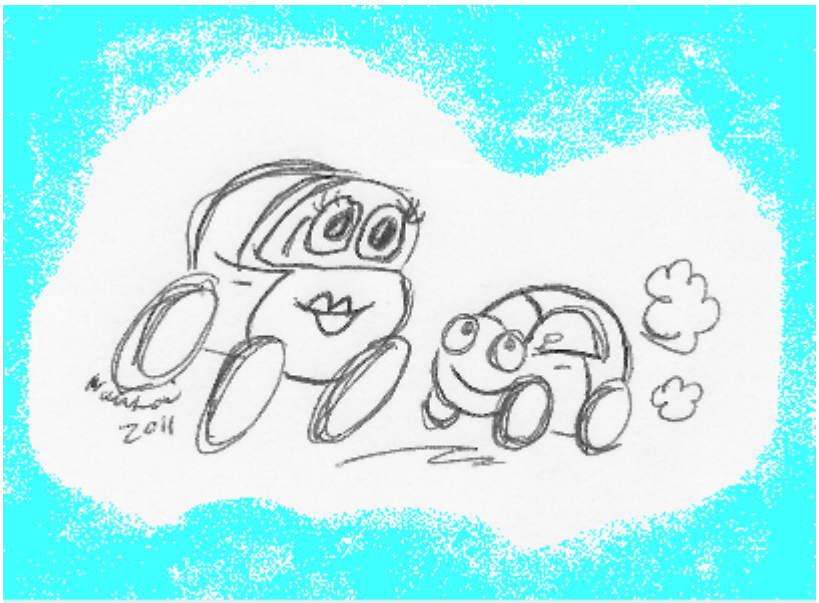
late. A few school districts in the country have experimented with starting high school later and grade school earlier and have met with good success. Unless you live in one of these districts, however, your teens need to conform until they either go to college and when they can choose classes that start later in the day or choose a job that allows them to stay up later and sleep later in the day.

For kids of all ages, a night time ritual of “tell me about your day” can help kids decompress, help them fall asleep, and keep you connected with your child.

Julie Kardos, MD and Naline Lai, MD

Got gas? About baby burps and farts

Gas is another topic most people don’t think much about until they have a newborn. Then suddenly baby burps and farts become a huge source of parental distress, even though parents are not the ones with the gas. It’s the poor newborn baby who suffers, and as all parents know, our children’s suffering



"My, my you are a little gassy today"

becomes OUR suffering.

So what to do?

First, please be reassured that ALL young babies are gassy. Yes, all. But some newborns are not merely fussy because of their gas. Some babies ball up, grunt, turn red, wake up from a sound sleep, and scream because of their baby burps and farts. In other words, some babies really CARE about their gas.

Remember, newborns spend nine months as fetuses developing in fluid, and have no experience with air until taking their first breath. Then they cry and swallow some air. Then they feed and swallow some air. Then they cry and swallow some more air. Eventually, some of the air comes up as a burp. To summarize: Living in Air=Gas Production.

Gas expelled from below comes from a different source. As babies drink formula or breast milk, some liquid in the intestines remains undigested, and the normal gut bacteria "eat" the food. The bacteria produce gas as a byproduct of their eating. Thus: a fart is produced.

The gas wants to escape, but young babies are not very good at getting out the gas. Newborns produce thunderous burps and farts. I still remember my bleary-eyed husband and I sitting on the couch with our firstborn. On hearing a loud eruption, we looked at each other and asked simultaneously, "Was that YOU?" Then we looked at our son and asked "Was that HIM?"

Gas is a part of life. If your infant is feeding well, gaining weight adequately, passing soft mushy stools that are green, yellow, or brown but NOT bloody, white, or black (for more about poop, see our post The Scoop on Poop), then the grunting, straining, turning red, and crying with gas is harmless and does not imply that your baby has a belly problem or a milk or formula intolerance. However, it's hard to see your infant uncomfortable.

Here’s what to do if your young baby is bothered by gas:

- **Start feedings before your infant cries a long time from hunger**. When infants cry from hunger, they swallow air. When a frantically hungry baby starts to feed, they will gulp quickly and swallow more air than usual. If your infant is wide awake crying and it’s been at least one or two hours from the last feeding, try to quickly start another feeding.
- **Burp frequently**. If you are breastfeeding, watch the clock, breastfeed for five minutes, change to the other breast. As you change positions, hold her upright in attempt to elicit a burp, then feed for five more minutes on the second breast. Then hold your baby upright and try for a slightly longer burping session, and go return her to the first breast for at least five minutes, then back to the second breast if she still appears hungry. Now if she falls asleep nursing, she has had more milk from both breasts and some opportunities to burp before falling asleep.
- If you are bottle feeding, **experiment with different nipples and bottle shapes** (different ones work better for different babies) to see which one allows your infant to feed without gulping too quickly and without sputtering. Try to feed your baby as upright as possible.
- **Hold your infant upright for a few minutes after feedings** to allow for extra burps. If a burp seems stuck, lay her back down on her back for a minute and then bring her upright and try again.
- To help expel gas from below, lay her on her back and pedal her legs with your hands. When awake, give her plenty of tummy time. Unlike you, a baby can not change position easily and may need a little help moving the gas out of their system.
- **If your infant is AWAKE after a feeding, place her prone (on her belly) after a feeding.** Babies can burp AND pass

gas easier in this position. PUT HER ONTO HER BACK if she starts to fall asleep or if you are walking away from her because she might fall asleep before you return to her. Remember, all infants should SLEEP ON THEIR BACKS unless your infant has a specific medical condition that causes your pediatrician to advise a different sleep position.

- Parents often ask if **changing the breast feeding mother's diet or trying formula changes** will help decrease the baby's discomfort from gas. There is no absolute correlation between a certain food in the maternal diet and the production of gas in a baby. However, a nursing mom may find a particular food "gas inducing." Remember that a nursing mom needs nutrients from a variety of foods to make healthy breast milk so be careful how much you restrict. Try any formula change for a week at a time and if there is no effect on baby gas, just go back to the original formula.
- **Do gas drops help**? For flatulence, if you find that the standard, FDA approved simethecone drops (e.g. Mylicon Drops) help, then you can use them as the label specifies. If they do not help, then stop using them.
- **Do probiotics help?** Unfortunately there is not a lot of data about probiotics to treat gas in infants. Probiotics can help other pediatric conditions such as the duration of acute diarrhea, and while deemed mostly harmless in otherwise healthy infants, they have not been shown to affect gas. A 2010 American Academy of Pediatrics summary of the use of probiotics in kids can be found here. A 2016 review of use of probiotics used for colic (but not specifically gas) in breast fed infants showed that probiotics MIGHT decrease crying, but concluded that more research is needed before probiotics can be recommended. Now, if you actually do have a REAL little piggy (not just a nickname for your baby), animal studies show that probiotics may cut down on gas.

The good news? The discomfort from gas will pass. Gas discomfort from burps and farts typically peaks at six weeks and improves immensely by three months. At that point, even the fussiest babies tend to mellow. The next time your child's gas will cause you distress won't be until he becomes a preschooler and tells "fart jokes" at the dinner table in front of Grandma. Now THAT is a gas.

Julie Kardos, MD and Naline Lai, MD

When can kids "go it alone?"

photo by Lexi Logan www.LexiLogan.com

Dr. Lai was shocked when she saw her first child, at age 2 ½ years, pour water out of a small pitcher into her own cup at daycare. At home it never occurred to Dr. Lai to let her try.

When can you start letting your kids do things for themselves? While there is not a lot of hard data on this, developmentally your kids may be more capable than you think.

Eating/self feeding:
-with hands: 9 months

-with spoon/fork: 18 months
—with chopsticks: 4 years

Pour own cereal and milk: 5 years but expect some spills

Cook a meal or at least start to cook a meal on their own: around age 12 +/- 2.5 years per 2007 survey of American pediatricians. In fact, kids are allowed to participate in the TV show *Chopped Junior* at age nine.

Brush teeth:
Toddlers: kids take a turn, then parents take turn.
Preschool/early school aged kids: parents continue to inspect and may continue to take a turn
Again, according to the 2007 pediatrician survey, around age 8 years is when kids can do complete oral care on their own.

Pee/Poop:
5 years-Kindergarteners should be able to independently go to the bathroom. That includes undressing, using toilet/wiping, redressing, and washing hands. Unfortunately, they may still not be great at wiping- this is one reason for daily baths/showers at this age.

Completely dress/undress including zippers and buttons: 5 years. But don't necessarily expect matching colors – some adults never even learn this skill!

Tie shoes: 4-6 years.

Medical and emergency care

Self-injectable epinephrine (brand names Epi-pen, AuviQ): 12-14 years – per survey of 88 allergists.

Diabetes self care: kids around age 7 have the fine motor coordination needed to inject insulin and check blood sugar under supervision of an adult.

Come home to an empty house:

According to the American Academy of Pediatrics, 11-12 year olds can come home to an empty house after school if:
-Daytime
-Not alone for longer than 2-3 hours
-Depends on safety of neighborhood
-Depends on other neighbors nearby who could help in an emergency
-Child should know how to answer phone, what to do in the event of fire, knows how to access the home's water shut-off, can handle a medical emergency, knows where first aid kit is, and knows the name of pediatrician, preferred hospital, insurance, and how to contact parent

Babysit:
Recommendations vary and while there are no specific laws, there are plenty of state guidelines and recommendations. Ultimately, parents are responsible for who cares for their kids when the parents are not present. The American Red Cross offers an on-line babysitting course for kids starting at age 11 years.

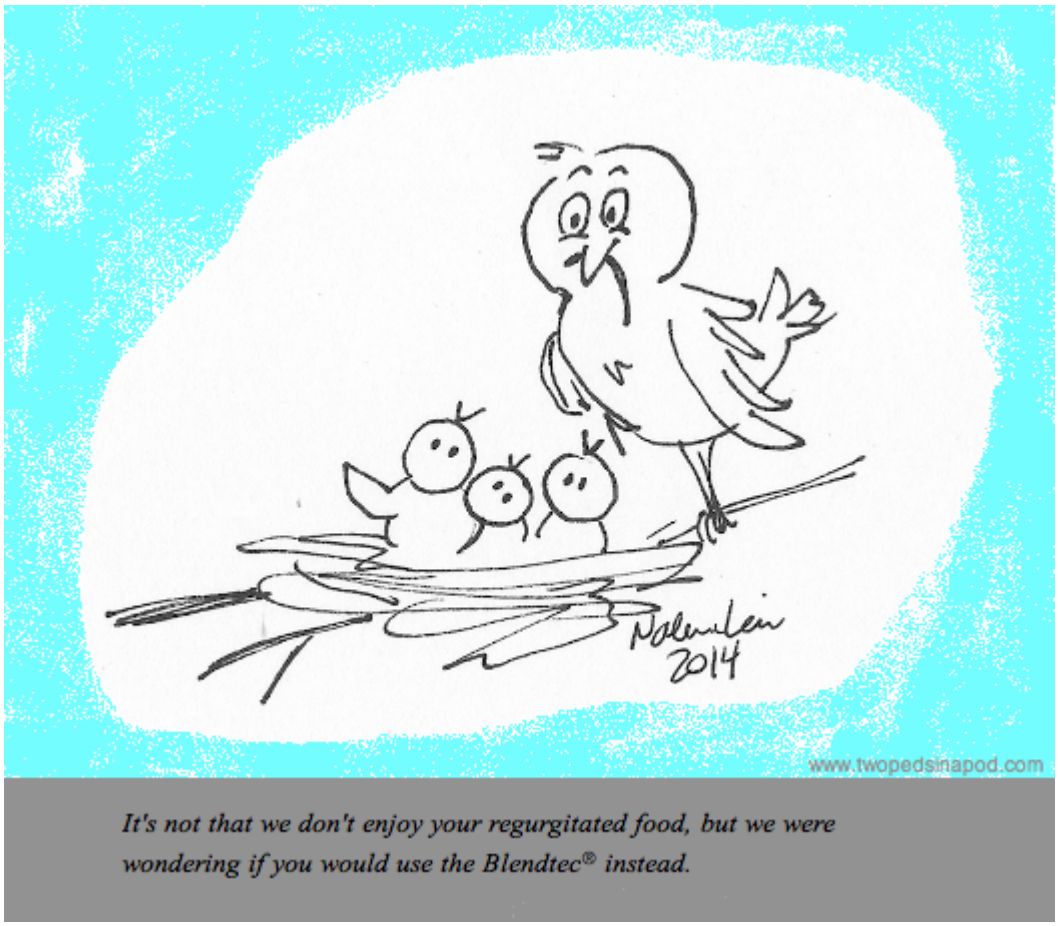
So teach your children how to take care of themselves well, for their own sake and for yours. Remember, they will be the ones caring for you in your old age.

Naline Lai, MD and Julie Kardos, MD

The latest in how to start baby food

As we said to Robin Young on NPR's *Here and Now*, "A lot of life's issues all boil down to the essentials of life…eat,

sleep, drink, pee, poop and love.” Here’s our update on baby food: WHEN, HOW, and WHAT to start feeding your baby.



Remember:

1) **It’s not just about the food**. It’s about teaching your child to eat when hungry and to stop when not hungry.

2) **Eating a meal with family is social as well as nutritious**. Keep eating pleasant and relaxed. Avoid force-feeding or tricking your child into eating. Feed your baby along with other family members so your baby can learn to eat by watching others eat.

3) **Babies start out eating pureed foods on a spoon between 4-6 months** and progress to finger foods when physically capable, usually between 7-9 months. Teeth are not required; hand to mouth coordination is required.

The first feeding: Babies expect a breast or a bottle when

hungry. So make sure your baby is happy and awake but **NOT** hungry the first time you feed her solid food because at this point she is learning a skill, not eating for nutrition. Wait about an hour after a milk feeding when she is playful and ready to try something new. Keep a camera nearby because babies make great faces when eating food for the first time. Many parents like to start new foods in the morning so that they have the entire day to make sure it agrees with their baby. Watch for rash or stomach upset.

WHAT should you feed your baby first? There is no one right answer to this question.

- **The easiest food to offer** is one that is already on the breakfast, lunch, or dinner table that is easy to mush up.
- In some cultures, a baby's first food is a smash of lentils and rice. In other cultures it's small bits of hard-boiled egg or a rice porridge. **The bottom line: it doesn't matter much what you start with**, as long as it's nutritious. Dr. Kardos is proud to say that she fed her nephew his first solid food: watermelon! (He loved it).
- **Avoid honey** before one year of age because honey can cause botulism in infants.
- **Add iron-containing food sooner** rather than later. Pediatricians recommend a diet with iron-containing solid foods because a baby's iron needs will eventually outstrip what she stored from her mother before birth as well as what she can get from breast milk or formula. Iron-containing food include iron-fortified baby cereal (such as oatmeal), pureed meats (such as chicken, beef or fish) or smashed lentils or black beans.
- **If feeding baby cereals**, make them with formula or breast milk, not water or juice, for more nutritional "oomph."
- **If your baby has eczema and/or an egg allergy**, your baby may be predisposed to a peanut allergy. Ask your doctor

if your baby is a candidate for daily peanut protein feedings in order to prevent a peanut allergy. Read the guidelines here and instructions for the feedings here. Otherwise, you can start peanut butter whenever you want- it's really yummy mixed into oatmeal.

- **Variety is the spice of life**: you do not need to feed the same food day after day. In particular, because of concerns of arsenic, avoid over indulgence in rice cereal. No need to avoid certain foods because of the fear of inducing food allergies. This is a change from recommendations issued about 15 years ago. Focus more on avoiding choking hazards than on avoiding theoretically allergenic foods.
- **Not all kids like all foods.** Don't worry if your baby hates carrots or bananas. Many other choices are available. At the same time, you can **offer a previously rejected food multiple times** because taste buds change.

HOW to feed:

Sit your baby in a high chair at the table where your family eats meals.

Some babies will learn in just one feeding to swallow without gagging and to open their mouths when they see the spoon coming. Other babies need more time. If your baby becomes upset, end the meal. Some babies take several weeks to catch on to the idea of eating solids. Try one new food at a time. Then, if your baby has a reaction to the food, you'll know what to blame.

Some babies just never seem to like mushed up foods and prefer to suck on foods at first (like Dr. Kardos's nephew did with his watermelon). One practice called baby-led weaning describes another way of introducing solids.

If you prefer to buy "baby food," know that stage one and stage two baby foods are similar. No need to test all stage

one foods before going onto stage two. The consistency of the food is the same. The stages differ in the size of the containers. Some stage two foods combine ingredients. Combinations are fine as long as you know your baby already tolerates each individual ingredient (i.e. “peas and carrots” are fine if she’s already had each one alone). Avoid the dessert foods. Your baby does not need fillers such as cornstarch and concentrated sweets.

Be forewarned: **poop changes with solid foods**. Usually it gets more firm or has more odor. Food is not always fully digested at this age and thus shows up in the poop. Wait until you see a sweet potato poop!

By six months, babies replace at least one milk feeding with a solid food meal. Many babies are up to three meals a day by 6 months, some are eating one meal per day. Starting at six months, for cup training purposes, you can offer a cup with water at meals. Juice is not recommended. Juice contains a lot of sugar and very little nutrition.

WHAT ABOUT FINGER FOODS? WHEN CAN MY BABY PICK UP HIS OWN FOOD?

Offer finger foods when your baby can sit alone and manipulate a toy without falling over. When you see your baby delicately picking up a piece of lint off the floor and putting it into his mouth, he’s probably ready! Usually this occurs between 7-9 months of age. Even with no teeth your baby can gum-smash a variety of finger foods. Examples include “Toasted Oats” (Cheerios), which are low in sugar and dissolve in your mouth eventually without any chewing, ½ cheerio-sized cooked vegetable, soft fruit, ground meat or pieces of baked chicken, beans, tofu, egg yolk, soft cheese, small pieces of pasta. Start by putting a finger food on the tray while you are spoon feeding and see what your child does. They often do better feeding themselves finger foods rather than having someone else “dump the lump” into their mouths.

Finger food sample meals: Breakfast: cereal, pieces of fruit, egg. Lunch: pasta or rice, lentils or beans, cooked vegetables in pieces, pieces of cheese. Dinner: soft meat such as chicken or ground beef, cooked veggies and/or fruit, bits of potato, or cereal. Need other ideas? Check out this post on finger foods. **By nine months, kids can eat most of the adult meal at the table,** just avoid choking hazards such as raw vegetables, chewy meats, nuts, and hot dogs. You can use breast feedings or formula bottles as snacks between meals or with some meals. By this age, it is normal for babies to average 16-24 oz of formula daily or 3-4 breast feedings daily.

Avoid fried foods and highly processed foods. Do not buy "toddler meals" which are high in salt and "fillers." Avoid baby junk food- if the first three ingredients are "flour, water, sugar/corn syrup", don't buy it. We are amazed at the baby-junk food industry that insinuate that "fruit chews," "yogurt bites" and "cookies" have a place in anyone's diet. Instead, feed your child eat REAL fruit, ACTUAL yogurt, and healthy carbs such as pasta, cous-cous, or rice.

Other important food-related topics:

Organic and conventional foods have the same nutritional content. They differ in price, and they differ in pesticide exposure, but no study to date has shown any health differences in children who consume organic vs conventional foods. For more information, see this American Academy article and this study as well as our own prior post about organic vs conventional foods.

About fish: For years, experts fretted about pregnant women and children exposing themselves to high mercury levels by eating contaminated fish. However, the realization that fish is packed with nutrition, and the emergence of data showing that only a few types of fish contain significant mercury levels, led the FDA to encourage fish intake in young children and pregnant women. Please check this FDA advice for specific

information about which fish to offer your child.

SAFETY ALERT:

Children should always eat while sitting down and not while crawling or walking in order to AVOID CHOKING. Also, you don't want to create a constantly munching toddler who will grow into a constantly munching ten year old.

Bon appetite,

Julie Kardos, MD and Naline Lai, MD

Updated from our original 2009 post

Itching to know: how to treat poison ivy

Teach your child to recognize poison ivy: "leaves of three, let'em be!"

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.

Another myth buster: 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 the chance of infection. Just like with an itchy insect bite, 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 infection. Both are red, both can be warm, both can be swollen.

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 to poison ivy. Infection usually occurs on the 2nd or 3rd day of scratching. 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

Eight is Great! All about eight-year-olds

Photo by Lexi Logan

Happy 8th Birthday Two Peds in a Pod!

If our blog had a “face” we would put a party hat on a smiling head with disproportionately large emerging adult teeth and a body with gangly legs and arms. In honor of our blog’s eighth birthday (read our very first post here) today’s post celebrates your eight-year-olds.

Typical eight-year-olds are no longer squishy-faced babies and no longer adoring young elementary school students who still think of their parents as heroes. Now you have an emerging friend-seeking, active child.

Eight-year-olds understand logic and are less apt to believe in “real” magic but are interested in spotting the “trick.” Parents may find that eight is the year that their child stops believing in Santa or the tooth fairy. If they do believe in Santa, expect them to question how Santa reaches all the children in one night, or how he can fit down a chimney.

This is an academic leap year. There is less hand holding in school. The switch-over from “learning how to read” to “reading in order to learn” begins. Instead of rote memorization of individual words, reading comprehension increases and children now gain knowledge from books. Some eight-year-olds may prefer to read to themselves before bedtime because they can read to themselves faster than you can read to them. Even if they are reading on their own, continue to share books together at bedtime. For many kids, this is the age when they begin to struggle academically if they have a previously unrecognized learning disability.

Eight-year-olds begin to notice kids who stand out, especially kids who act or look different from the other kids, and can be cruel with their observations and exclusions. Teach your child about differences and the importance of tolerance. As Dr. Lai

tells her kids, “You don’t have to be friends with everyone, you just have to be nice.”

The long march through adolescence starts now. Some girls start to show the initial sign of puberty called breast-budding (chest development). Teach your daughters about periods at this age because some girls begin to menstruate in the next couple of years, and girls who are caught unawares can become quite frightened by unexpected blood coming out of them. You can refresh your memories and check your facts about periods from our prior post on this subject.

Many eight-year-olds, even those who seem years away from puberty, become stinky. Trust us, you will notice, and so will others, so encourage them to wash their entire body, INCLUDING ARMPITS, every day WITH SOAP and to use deodorant daily. We do not have a favorite brand but you could look initially for a deodorant alone rather a deodorant/antiperspirant combination product as they may irritate young skin. Note that even though they may smell like adults, their brains are only eight years old, so you will have to remind your eight-year-olds to use the deodorant. One trick is to keep the deodorant next to the toothbrush so when they brush their teeth every morning, they will remember to incorporate deodorant into their morning routine.

Other self-care tasks also will need reminders. After years of tracking your child’s pee and poop pattern, you now probably don’t know when the last time your child moved her bowels. No need to follow your child into the bathroom, but every once in a while ask about their bowel and bladder habits. During the school year, be aware that eight-year-olds may avoid school bathrooms and don’t urinate all day, which can lead to problems with leaking urine (accidents) and urinary tract infections.

Eight-year-olds continue to improve their concentration spans and have a greater interest in learning new skills. For many,

this is the age of active sport participation (playing “real” sports games), the start of learning a musical instrument or foreign language, and club participation such as 4H or scouts. Some eight-year-olds begin to spend many hours a week in a chosen activity such as gymnastics (however, please note that the American Academy of Pediatrics recommends against home trampolines for all kids). Eight years is when they can handle the toys and art equipment that are labeled “for eight and above.” You will be impressed at the attention to detail that an eight-year-old can display in art projects.

Children this age often prefer to spend time with a friend rather than a younger sibling or parents. It is fun and also good for self-esteem for your child to host a friend at your home and to spend time with friends at their homes. While eight-year-olds are fully capable of entertaining themselves, they still require adult supervision, even if that supervision is from another room or floor of the house. Eight-year-olds do not yet need their own phones: an adult should always be present in case trouble arises. However, it is appropriate to teach your eight-year-old to use a phone and to arrange a get-together or a car pool after first checking with parents. Screen-addiction (to television, computers, and hand-held devices) starts early; set screen time rules now so that you won’t be frustrated later.

Speaking of self-reliance, by all means teach your eight-year-old to cook a simple meal, use the microwave and toaster oven, set and clear the table, do dishes, load and unload a dishwasher and washing machine, and take out the trash. Again, parents should supervise, but the goal is to create an independent adult. Eight-year-old egos enjoy a good boost when you acknowledge their increased sense of responsibility and contributions to running the household.

Last tip: if you are driving your child and an eight-year-old friend, be sure to have enough booster seats in the car for everyone (US law requires booster seats through age 8 years-

see our post on car safety).

Yes, eight is great, and Two Peds is thrilled to celebrate this birthday. Your eight-year-old celebrates this birthday smack dab in the middle of the "golden years" of parenting. During these years, they are too young to drive and too old to take a nap. The typical blog lasts less than 6 months, so keep us going by reading, sharing, sending us your post ideas, and inviting us to speak (twopedsinapod@gmail.com). Our information is only good if others read it and share it! Please "follow" us on Facebook, tweet about us, email subscribe, and continue to get the word out. Pediatric colleagues: we welcome guest bloggers, so if you have something to share that we haven't already said, please contribute.

Cheers,
Julie Kardos, MD and Naline Lai, MD

Is your car seat up to snuff? And how about planes?

NOTE: Recommendations about rear facing car seats have been updated since the publication of this post. Please link here.

This photo above is a horrific yet terrific reminder of why we strap our kids into car seats. This child was buckled into a car seat when the unthinkable happened– a potentially lethal car accident. As you can see, the child's bruises directly line up with properly-applied car seat restraints. Thankfully, the injuries to this child are only skin-deep. On the other hand, the photo below shows what happened to the car.

Please remember always to travel with your children properly restrained.

For maximum safety in cars:

- Keep children in rear facing car seats until age two years. Usually they will outgrow the baby car seat that you brought them home in and you will need to install a new rear facing car seat before they reach two years. Check the weight/height limits for the seat.
- Keep them in the car seat until age five years, or until they outgrow the weight or height limits set forth by the car seat manufacturer.
- Use a booster until your children are 4 feet 9 inches or until the car's shoulder seatbelt falls naturally across the chest (not the neck) and the lap belt lies low across their hip bones (some kids are in boosters to age 10 years and beyond).
- Keep infants and children in the **back seat** until at least age 13 years.
- Don't drive while distracted or sleep deprived. Children learn from watching their parents. Emulate now the way you want your 16-year- old to drive.

Your can read more details on car seats and seat belts on the CDC (Centers for Disease Control) website here.

Read about guidelines for child safety restraints on airplanes here.

Julie Kardos, MD and Naline Lai, MD