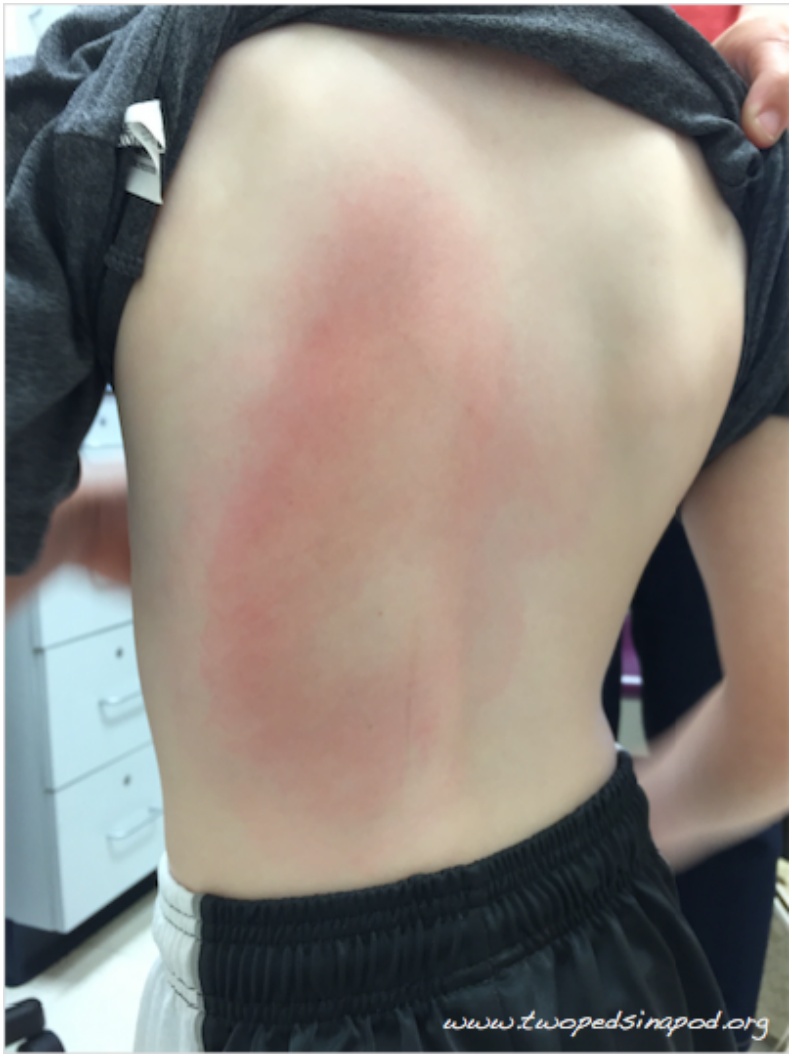
Lyme Disease…it's back



The classic bullseye rash of Lyme

Just like last year, experts are predicting more Lyme disease. While it used to be a pesky disease only in our midatlantic/Lyme Connecticut area of the world, Lyme continues to appear across the northeast and has been reported on the west coast of the United States. According to the American Academy of Pediatric's Redbook, about fifty percent of reported Lyme disease is during June and July. We've already had children come to our office with tick bites concerns, so here's an update:

Lyme disease is spread to people by blacklegged ticks. Take heart- even in areas where a high percentage of blacklegged

ticks carry the bacteria that causes Lyme disease, the risk of getting Lyme from any one infected tick is low. Most of the little critters **DON'T** carry Lyme disease… but there are an awful lot of ticks out there. Blacklegged ticks are tiny and easy to miss on ourselves and our kids. In the spring, the ticks are in a baby stage (nymph) and can be as small as a poppy seed or sesame seed. To spread disease, the tick has to be attached and feeding on human blood for more than 36 hours, and engorged.

In areas in the United States where Lyme disease is prevalent (New England and Mid-Atlantic states, upper Midwest states such as Minnesota and Wisconsin, and California), parents should be vigilant about searching their children's bodies daily for ticks and for the rash of early Lyme disease. Tick bites, and therefore the rash as well, especially like to show up on the head, in belt lines, groins, and armpits, but can occur anywhere. When my kids were young, I showered them daily in summer time not just to wash off pool water, sunscreen, and dirt, but also for the opportunity to check them for ticks and rashes. Now that they are older I call through the bathroom door periodically when they shower: "Remember to check for ticks!" Read our post on how to remove ticks from your kids.

"I thought that Lyme is spread by deer ticks and deer are all over my yard." Nope, it's not just Bambi that the ticks love. Actually, there are two main types of blacklegged ticks, *Ioxdes Scapularis* and *Ioxdes Pacificus*, which both carry Lyme and feed not only on deer, but on small animals such as mice. (Fun fact: *Ioxdes Scapularis* is known as a deer tick or a bear tick.)

Most kids get the classic rash of Lyme disease at the site of a tick bite. The rash most commonly occurs by 1-2 weeks after the tick bite and is round, flat, and red or pink. It can have some central clearing. The rash typically does not itch or hurt. **The key is that the rash expands to more than 5 cm**, and can become quite large as seen in the above photo. This

finding is helpful because if you think you are seeing a rash of Lyme disease on your child, you can safely wait a few days before bringing your child to the pediatrician because the rash will continue to grow. The Lyme disease rash does not come and then fade in the same day, and the small (a few millimeters) red bump that forms at the tick site within a day of removing a tick is not the Lyme disease rash. Knowing that a rash has been enlarging over a few days helps us diagnose the disease. Some kids have fever, headache, or muscle aches at the same time that the rash appears.

If your child has early localized Lyme disease (just the enlarging red round rash), the diagnosis is made by having a doctor examine your child. Your child does not need blood work because it takes several weeks for a person's body to make antibodies to the disease, and blood work checks for for antibodies against Lyme disease, not actual disease germs. In other words, the test can be negative (normal) when a child does in fact have early localized Lyme disease.

Other symptoms of early Lyme disease may accompany the rash or can occur even in the absence of the rash. This stage is called Early Disseminated disease. Within about one month from the time of the tick bite, some children with Lyme develop a rash that appears in multiple body sites all at once, not just at the site of the tick bite. Each circular lesion of rash looks like the rash described above, but usually is smaller. Additional symptoms include fever, body aches, headaches, and fatigue without other viral symptoms such as sore throat, runny nose, and cough. Some kids get one-sided facial weakness. Blood testing at this point is more likely to be positive.

The treatment of early Lyme disease is straightforward. The child takes 2-3 weeks of an antibiotic that is known to treat Lyme disease effectively such as amoxicillin or doxycycline. Your pediatrician needs to see the rash and evaluate other symptoms to make the diagnosis. Treatment prevents later

complications of the disease. Treated children fortunately do not get “chronic Lyme disease.” Once treatment is started, the rash fades over several days and other symptoms, if present, resolve. Sometimes at the beginning of treatment the child experiences chills, aches, or fever for a day or two. This reaction is normal but you should contact your child’s doctor if it persists for longer.

Later stages of Lyme disease may be treated with the same oral antibiotic as for early Lyme but for 4 weeks instead of 2-3 weeks. The most common symptom of late stage Lyme disease is arthritis (red, swollen, mildly painful joint) of a large joint such as a knee, hip, or shoulder. Some kids just develop joint swelling without pain and the arthritis can come and go.

For some manifestations, IV antibiotics are used. The longest course of treatment is 4 weeks for any stage. Again, children do not develop “chronic Lyme” disease. If symptoms persist despite adequate treatment, sometimes one more course of antibiotics is prescribed, but if symptoms continue, the diagnosis should be questioned. No advantage is shown by longer treatments. Some adults have lingering symptoms of fatigue and aches years after treatment for Lyme disease. While the cause of the symptoms is not understood, we do know that prolonged courses of antibiotics do not affect symptoms.

For kids eight years old or older, if a blacklegged tick has been attached for well over 36 hours and is clearly engorged, and if you live in an area of high rates of Lyme disease-carrying ticks, your pediatrician may in some instances choose to prescribe a one time dose of the antibiotic doxycycline to prevent Lyme disease. The study that this strategy was based on and a few other criteria that are considered in this situation are described here. Your pediatrician can discuss the pros and cons of this treatment.

Bug checks and insect repellent. Protect kids with DEET containing insect repellents. The Centers for Disease

Control recommends 10 to 30 percent DEET- higher percent stays on longer. Spray on clothing and exposed areas and do not apply to babies under two months of age. Grab your kids and preform daily bug checks- in particular look in crevices where ticks like to hide such as the groin, armpits, between the toes and check the hair. Ticks can be tough to spot. Dr. Lai once had a elementary school patient who had a blacklegged tick in the middle of his forehead. The mother noticed it at breakfast, tried to brush it off, thought it was a scab and sent the boy to school. Later that day the teacher called saying, “I think your son has a bug on his face.”

Misinformation about this disease abounds, and self proclaimed “Lyme disease experts” play into people’s fears. While pediatricians who practice in Lyme disease endemic areas are usually well versed in Lyme disease, if you feel that you need another opinion about your child’s Lyme disease, the “expert” that you should consult would be a pediatric infectious disease specialist.

For a more detailed discussion of Lyme disease, look to the Center for Disease Control website: www.cdc.gov.

Julie Kardos, MD and Naline Lai, MD

Mother’s Day 2017: The Mother

Warns the Tornado

Today we bring you a fierce depiction of maternal love, written by poet Catherine Pierce PhD- who is Dr. Kardos's sister-in-law.
We hope your Mother's Day is full of flowers and free of tornados.
—Drs. Lai and Kardos

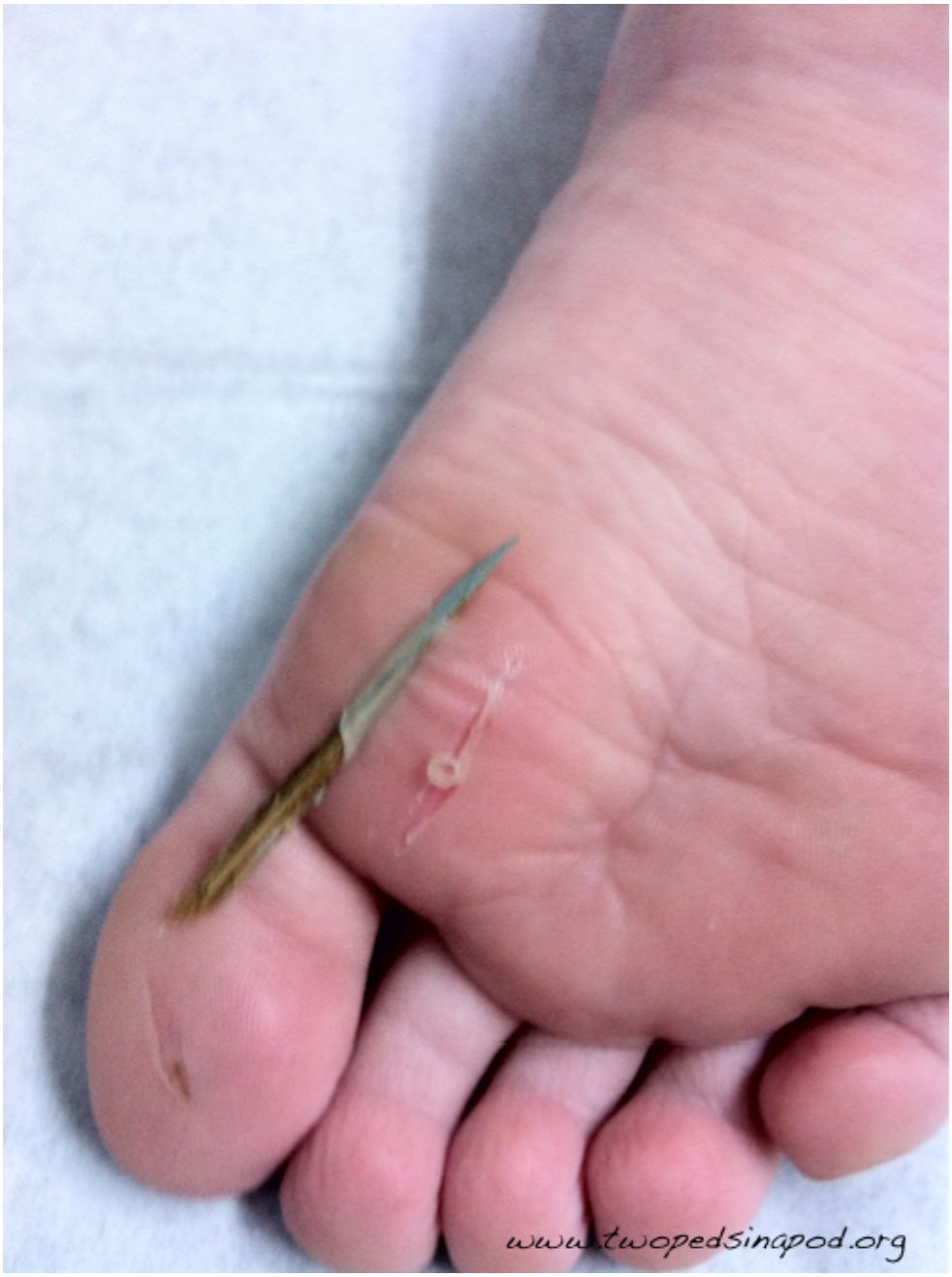
The Mother Warns the Tornado
I know I've had more than I deserve.
These lungs that rise and fall without effort,
the husband who sets free house lizards,
this red-doored ranch, my mother on the phone,
the fact that I can eat anything—gouda, popcorn,

massaman curry—without worry. Sometimes
I feel like I've been overlooked. Checks
and balances, and I wait for the tally to be evened.
But I am a greedy son of a bitch, and there
I know we are kin. Tornado, this is my child.
Tornado, I won't say I built him, but I am
his shelter. For months I buoyed him
in the ocean, on the highway; on crowded streets
I learned to walk with my elbows out.
And now he is here, and he is new, and he
is a small moon, an open face, a heart.
Tornado, I want more. Nothing is enough.
Nothing ever is. I will heed the warning
protocol, I will cover him with my body, I will
wait with mattress and flashlight,
but know this: If you come down here—
if you splinter your way through our pines,
if you suck the roof off this red-doored ranch,
if you reach out a smoky arm for my child—
I will turn hacksaw. I will turn grenade.
I will invent for you a throat and choke you.
I will find your stupid wicked whirling
head and cut it off. Do not test me.
If you come down here, I will teach you about
greed and hunger. I will slice you into palm-
sized gusts. Then I will feed you to yourself.

Catherine Pierce
From *The Tornado is the World* (Saturnalia Books, 2016)

An associate professor and co-director of the creative writing program at Mississippi State, Dr. Pierce has authored three books of poems and won the Mississippi Institute of Arts and Letters Poetry Prize. She is a mom of two young boys.

A shred of advice: How to remove splinters



Sometimes a photo is worth a 1,000 words

Hopefully a splinter of the size in the photo is not lurking on your deck this weekend. The only redeeming feature of a splinter this size is that it is easy to yank out.

More often than not, splinters are teensy-weensy and too small

to grab with tweezers. If the splinters in your child's foot are tiny, seem near the surface of the skin, and do not cause much discomfort, simply soak the affected area in warm soapy water several times a day for a few days. Fifteen minutes, twice a day for four days, works for most splinters. Our bodies in general dislike foreign invaders and try to evict them. Water will help draw out splinters by loosening up the skin holding the splinter. This method works well particularly for multiple hair-like splinters such as the ones obtained from sliding down an obstacle course rope. Oil-based salves such as butter will not help pull out splinters. However, an over-the-counter hydrocortisone cream will help calm irritation and a benzocaine-based cream (for kids over two years of age) can help with pain relief.

If a splinter is "grab-able", gently wash the area with soap and water and pat dry. Don't soak an area with a "grab-able" wooden splinter for too long because the wood will soften and break apart. Next, wash your own hands and clean a pair of tweezers with rubbing alcohol. Then, grab hold of the splinter and with the tweezers pull smoothly. Take care to avoid breaking the splinter before it comes out.

If the splinter breaks or if you cannot easily grab the end because it does not protrude from the skin, you can sterilize a sewing needle by first boiling it for one minute and then cleaning with rubbing alcohol. Wash the area with the splinter well, then with the needle, pick away at the skin directly above the splinter. Use a magnifying glass if you have to, make sure you have good lighting, and for those middle-age parents like us, grab those reading glasses. Be careful not to go too deep, you will cause bleeding which makes visualization impossible. Continue to separate the skin until you can gently nudge the splinter out with the needle or grab it with your tweezers.

Since any break in the skin is a potential source of infection, after you remove the splinter, wash the wound well

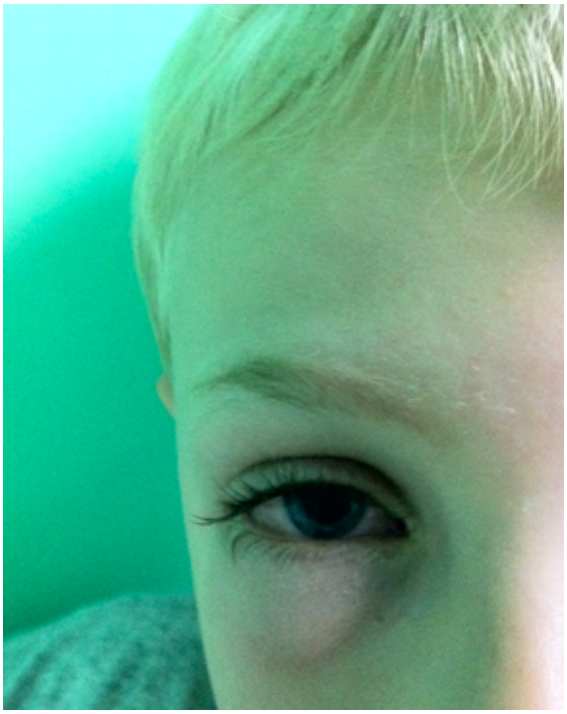
with soap and water. Flush the area with running water to remove any dirt that remains in the wound. See our post on wound care for further details on how to prevent infection. If the splinter is particularly dirty or deep, make sure your child's tetanus shot is up to date. Also, watch for signs of infection over the next few days: redness, pain at the site, or thick discharge from the wound are all reasons to take your child to his doctor for evaluation.

Some splinters are just too difficult for parents to remove. If you are not comfortable removing it yourself of if your child can't stay still for the extraction procedure, head over to your child's doctor for removal.

Now you can add "surgeon" to your growing list of parental hats.

Julie Kardos, MD with Naline Lai, MD

Allergy eyes: When spring rubs you the wrong way



allergy eyes: note the dark circles, heavy lids and slight redness of the white of the eyes.

It seems like all of the patients we saw this past week had “allergy eyes.” Their eyes looked watery and red, some had crusty stuff in their eyelashes, their eyelids looked mildly swollen, and the kids spent at least half of the office visit rubbing their eyes.

So what to do? Pollen directly irritates eyes, so start with washing the pollen off. One parent told me they applied cool compresses to their child’s eyes. This is not enough- get the pollen off. Plain tap water works as well as a saline rinse. Have your child take a shower. Filter the pollen out of your house by running the air conditioning and close the windows. Pollen counts tend to be higher in the morning, so plan outdoor activities for later in the day. Some people will leave shoes outside the house and wipe the paws of their dogs in order to keep the green stuff (pollen) from tracking into the house.

Oral medications do not help the eyes as much as topical eye

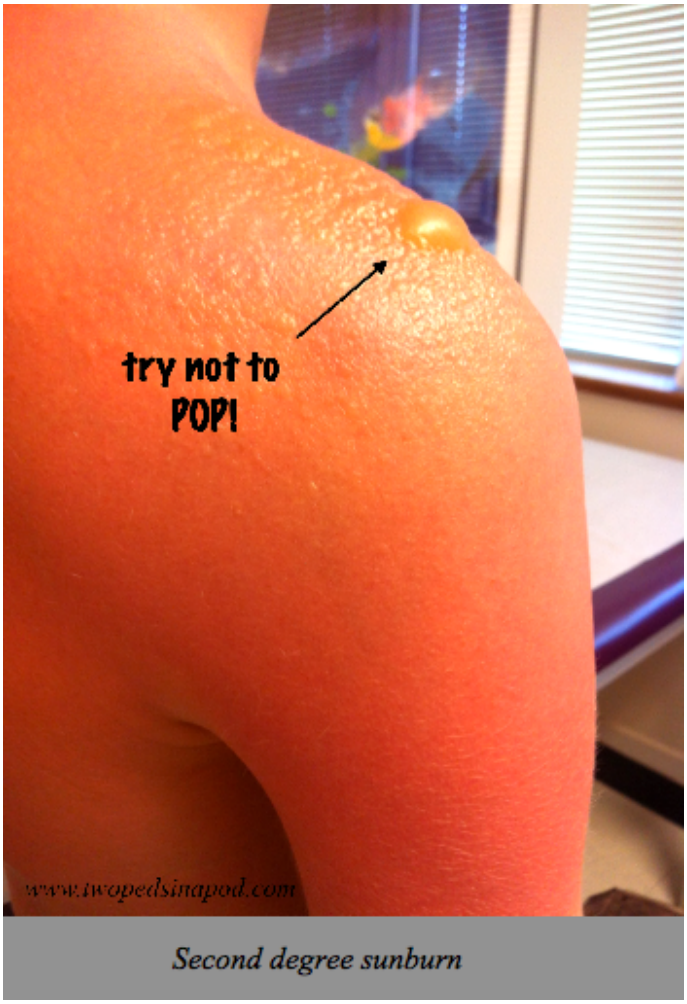
drops. Over-the-counter antihistamine drops include ketotifen fumarate (eg. Zatidor and Alaway). Prescription drops such as olopatadine hydrochloride (brand names Pataday and Patanol) add a second ingredient called a mast cell stabilizer. Avoid use of a product which contains a vasoconstictor (look on the label or ask the pharmacist) for more than two to three days to avoid rebound redness. Contacts can be worn with some eye drops– first check the package insert. Place drops in a few minutes before putting in contacts and avoid wearing contacts when the eyes are red.

If your child's eyes lids seem tender and red, especially if their eyes are not itchy, consider that they may not have "allergy" eyes. Perhaps they have an infection in the skin around the eye (periorbital cellulitis), or a stye. Infections in the skin around the eye are particularly worrisome because infection can spread back into the eye socket. Ask your child's doctor if you are not sure.

Hopefully allergy season will blow through soon. After all, as a couple teens pointed out-prom is around the corner and allergies can make even the young look haggard. One teen male told his mom that he shaved one morning during allergy season because having a beard and blood shot eyes made him look THIRTY years old. Miserable allergies!

Naline Lai, MD with Julie Kardos, MD

Mom guilt: the sunburn



Second degree sunburn

Mom guilt! After a day at the beach with my teenage kids over spring break, ALL THREE of them had some sunburn. Gone are the days when my kids were small squirming toddlers whom I distracted as I reapplied sunscreen to them every two hours. Gone are the days when wearing bright-colored rash guard t-shirts on the beach was cool. I was duped by the "Mom, I'm good!" response when I passed them the sunscreen after the ocean romp and again after they played a sweaty round of beach football. For the first time in my 17 years of Momhood, I found myself giving my kids ibuprofen for sunburn pain.

Don't fall for the, "Mom, I'm good," trick—especially in the spring when the sun is strong but the temperature is cool. But in case your kids do get a sunburn, here's what to do. Remember, a sunburn is still a burn, as you can see in the

picture above, which shows a kid with a second degree burn caused from the sun.

Treat sunburn the same as you would any burn:

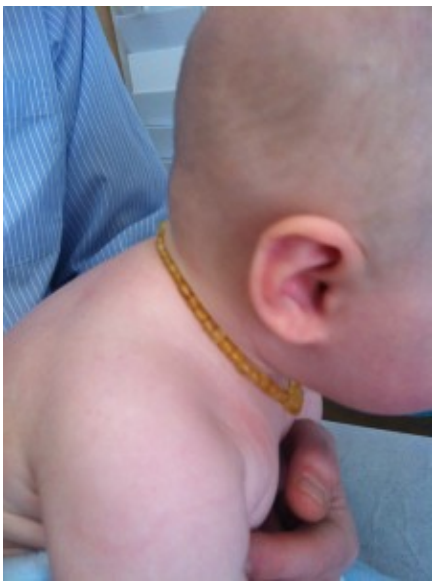
- Apply a cool compress or soak in cool water.
- Do NOT break any blister that forms- the skin under the blister is clean and germ free. Once the blister breaks on its own, prevent infection by carefully trimming away the dead skin (this is not painful because dead skin has no working nerves) and clean with mild soap and water 2 times per day.
- You can apply antibiotic ointment such as Bacitracin to the raw skin twice daily for a week or two.
- **We worry about infection, infection and infection**. The skin serves as a barrier to germs, so burned damaged skin is prone to infection. Signs of infection include increased pain, pus, and increased redness around the burn site.
- A September 2010 *Annals of Emergency Medicine* review article found no best method for dressing a burn. In general, try to minimize pain and prevent skin from sticking to dressings by applying generous amounts of antibiotic ointment. Look for non adherent dressings in the store (e.g. Telfa™). The dressings look like big versions of the plastic covered pad in the middle of a Band aid®.
- At first, the new skin may be lighter or darker than the surrounding skin. You will not know what the scar ultimately will look like for 6-12 months.
- If the skin peels and becomes itchy after a few days, you can apply moisturizer and/or over-the-counter hydrocortisone cream to soothe the itch.
- Treat the initial pain with oral pain reliever such as acetaminophen or ibuprofen.

Of course, prevention is easier than burn treatment. Always apply sunscreen with an SPF of at least 15 to your children,

and reapply often even if it is labeled “waterproof.” Encourage your kids to wear hats and sunglasses. Clothing can protect against sunburn, but when the weather is hot, your kids may complain if you dress them in long sleeves and long pants. For my own kids, I’m hoping their experience over spring break will prompt them to apply sunscreen in the upcoming months.

Julie Kardos, MD and Naline Lai, MD

Teething tablet recall and safe alternatives for teething



Amber bead necklace

In light of the recent recall of all lots of Hyland’s teething tablets because of safety concerns, we thought it was time to

update parents about how to relieve teething pain.

About seven years ago, we started noticing amber bead necklaces adorning the necks of infants. We also noticed a plastic giraffe named Sophie. These relative newcomers were 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.

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.

Safety Concerns

It’s not only the ingredients of teething tablets that we worry about. Many teething devices can turn into choking hazards. If you look at the consumer product safety recalls over the years, many toys are recalled because they have small pieces that can cause gagging or can come off and become a choking hazard.

We worry about amber bead necklaces and maternal teething jewelry. They fit all the potential safety hazard criteria. You never know when a bead will pop off and pose a choking hazard. A general rule of thumb is that anything that can easily fit through a toilet paper tube is small enough to get stuck in a baby’s airway. Additionally, any necklace on a baby could get caught and cause strangulation.

Sophie the giraffe

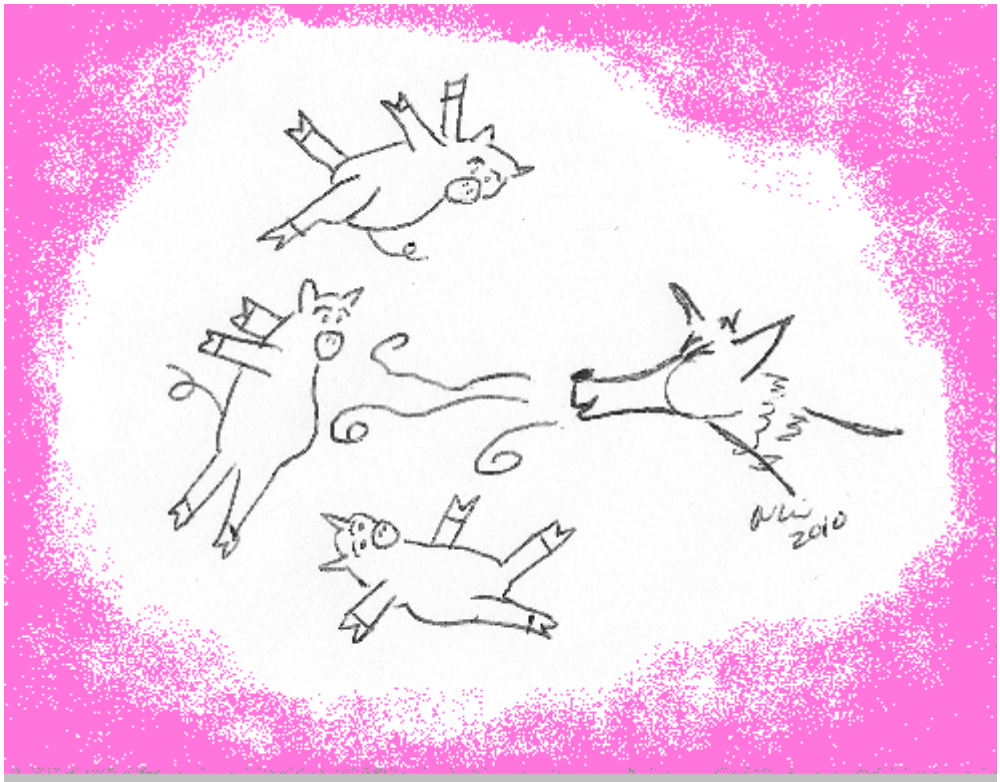
Also, the FDA has repeatedly warned against the use of topical anesthetics. Benzocaine gels can lead to methhemoglobinemia, a rare but serious and potentially fatal condition. Adults will sometimes use viscous lidocaine prescribed for themselves on a baby's gums, but any numbness extending to the back of the throat can make it difficult for babies to swallow.

Interestingly, nearly every babyhood malady in the past has been blamed on teething, including seizures, meningitis, and tetanus. According to a 2009 article in *Pediatrics in Review*, teething was listed as the official cause of death in about five thousand infants in England in the early 1800s. In France from 1600 to 1900, fifty percent of all infant deaths were blamed on teething!

This truth we know for sure: teething causes teeth.

Julie Kardos, MD and Naline Lai, MD

Don’t hold your breath! Understand your child’s asthma medications



Few people, and no pigs, knew B.B. Wolf had asthma

Now that spring is finally here, many kids are experiencing the start of spring allergy season, and those allergies are triggering their asthma symptoms.

Perfecting a treatment regimen for a child with asthma can be initially tricky and confusing for parents. But don’t panic. There are simple medication schedules and environmental changes which not only thwart asthma flare ups, but also keep lungs calm between episodes. The goal is to abolish all symptoms of asthma such as cough, wheeze, and chest tightness.

For asthma flares

Albuterol (brand names Proair, Proventil, Ventolin) or levalbuterol (brand name Xopenex): These are the “quick fix” medications. When inhaled, this medicine works directly on the lungs by opening up the millions of tiny airways constricted during an attack. Albuterol is given via nebulizer or inhaler.

A nebulizer machine areosolizes albuterol and pipes a mist of medicine into a child's lungs through a mask or mouth piece.

For kids who use inhalers, we provide a spacer. A spacer is a clear plastic tube about the size of a toilet paper tube which suspends the medication and gives the child time to breathe in the medication slowly. Without a spacer, the administration technique can be tricky and even adults use inhalers incorrectly.

Prednisone/prednisolone (brand names include Prelone, Orapred): Given orally in the form of pills or liquid, this prescription steroid medicine acts to decrease inflammation inside the lungs. This kind of steroid is not the same kind used illegally in athletics. While steroids in the short term can cause side effects such as belly pain and behavior changes, the advantages of improving breathing greatly outweigh these temporary and reversible side effects. However, if your child has received a couple rounds of steroids in the past year, talk to your pediatrician about preventative measures to avoid asthma flares and to avoid the long term side effects of continual steroid use.

Quick environmental changes: One winter a few years ago, a new live Christmas tree triggered an asthma attack in my patient. The only way he felt comfortable breathing in his own home was for the family to get rid of the dusty tree. Smoke and perfume can also spasm lungs. If you know Aunt Mildred smells like a flower factory, run away from her suffocating hug. Kids should avoid smoking and avoid being around others who smoke. And have your kids wash hands and face well or shower off after playing outside to keep the outside allergy triggers, such as pollen, off of your child's face. The goal is to alleviate allergy symptoms, which can in turn avoid triggering asthma symptoms.

For asthma prevention

Taking preventative, or **controller** medicines for asthma is like taking a vitamin. They are not “quick fixes” but they can calm lungs and prevent asthma symptoms when used over time.

Inhaled steroids (For example, Flovent, Pulmicort, Qvar) work directly on lungs and do not cause the side effects of oral steroids because they are not absorbed into the rest of the body. These medicines work over time to stop mucus buildup inside the lungs so that the lungs are not as sensitive to triggers such as cold viruses and allergens.

Combination inhalers (such as Advair, Symbicort) contain both a steroid and a longer acting version of the above-mentioned quick fix medications, and are sometimes prescribed to prevent asthma flares.

Monteleukoclast (brand name Singulair), also used to treat nasal allergies, limits the number and severity of asthma attacks by decreasing inflammation. It comes as a tiny pill kids chew or swallow once daily.

Avoid allergy triggers and respiratory irritants such as smoke. Even if you smoke a cigarette outside, smoke clings to clothing and your child can be affected. Treating allergy symptoms with appropriate medication will help avoid asthma attacks as well.

Treat acid reflux appropriately. Sometimes asthma is triggered by reflux, or heartburn. If stomach acid refluxes back up into the food pipe (esophagus), that acid could tickle your child’s airways which lie next to the esophagus.

Avoid respiratory viruses and the flu. Teach your child good hand washing techniques and get yearly flu shots. Parents should schedule their children’s flu vaccines as soon as the vaccines are available.

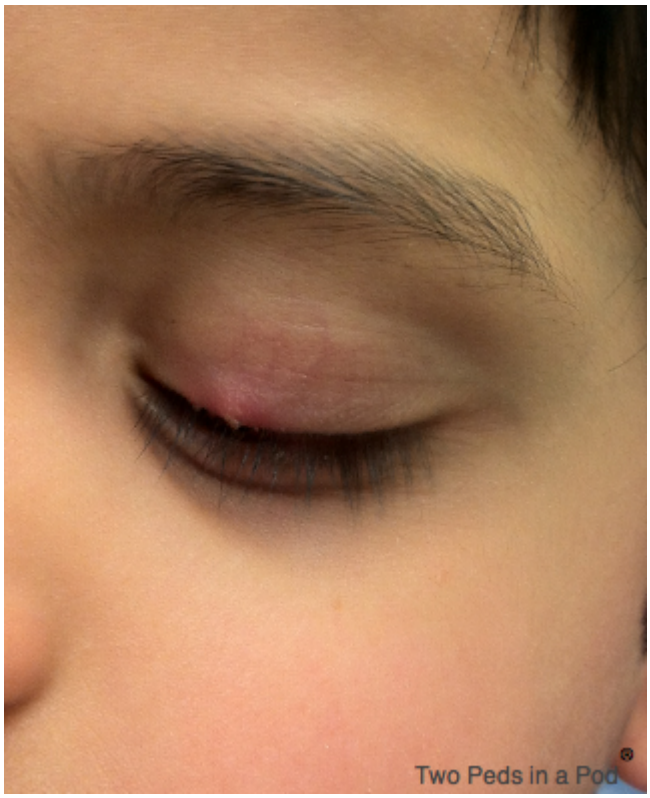
Some parents are familiar with asthma because they grew up with the condition themselves, but these parents should know

that health care providers treat asthma in kids differently than in adults. For example, asthma is one of the few examples where medicine such as albuterol can be dosed higher in young children than in adults. Also, some treatment guidelines have been improved upon recently and may differ from how parents managed their own asthma as children. For example, a doctor friend now in his 50's said his parent used to give him a substance to induce vomiting during his asthma attacks. After vomiting, the adrenaline rush would open up his airways! Please don't do that. We can do better.

Hopefully now that allergy season has descended upon us, this information helps you to keep your child's asthma under good control and helps you to know which medicine to reach for when it flares up.

Julie Kardos, MD and Naline Lai, MD

Today's Picture Puzzler- What's causing this eyelid swelling?



What’s causing this child’s eyelid swelling?

“When the moon hits your eye like a big pizza pie…”
Actually, that’s not amore, but that’s a stye on this child’s upper eyelid.

A stye (medical term = hordeolum) pops up seemingly overnight, although sometimes the child feels some tenderness at the eyelashes a day or two before it appears. Styes are tiny infections of eyelid glands that are self-limited and easily treated with warm wet compresses. We instruct patients to apply a clean, warm, wet cloth to the stye for 5-10 minutes four times per day.

Styes tend to improve after a few days but can take up to two weeks to completely resolve.
Persistent styes may actually be chalazions. Chalazions, the result of a dysfunctional eyelid gland, are firm and are not tender. They tend to “point” toward the inside of the eyelid rather than outward.

Insect bites may also masquerade as styes. However, insect

bites are itchy rather than painful.

stye: the view from the inside

Reasons to call your child’s doctor:
-the entire eyelid is red, painful, and swollen
-pain is felt inside the eye itself
-child is sensitive to light
-child has vision changes
-the inside white part of your child’s eye becomes red
-stye lasts more than two weeks despite treatment with warm compresses

Julie Kardos, MD and Naline Lai, MD

With special thanks to Dean Martin

Kids with “pink eye” CAN attend daycare, and other updated school exclusion recommendations

It’s 6 a.m., you are running late for work and your kid is “kinda” sick. Can you send him to daycare?

Dr. Kardos and Dr. Lai and a little friend talk about “Too Sick for School? The Latest Guidelines for Staying Home” at DVAEYC’s annual conference for early childhood educators

Yesterday we reviewed with an audience of early childhood education teachers the latest medical guidelines* for excluding children from early childhood education centers. Here are some of the updates we shared with the teachers attending the annual DVAEYC conference held at University of Pennsylvania:

When should a child go home from daycare? Remember the overriding goals for exclusion:

To expedite the child’s recovery

To prevent undue burden on teachers

To protect other children and teachers from disease

Following are the guidelines that most surprised our audience, as well as other highlights from our talk.

Pink eye (conjunctivitis)– most kids can remain in school

- “Pink eye” is like a “cold in the eye” and can be caused by virus, bacteria, or allergies.
- Just as kids with runny noses can still attend school, so too can kids with runny eyes.
- A child with pink eye does not need to be on antibiotic eye drops in order to attend school. The presence or absence of treatment does not factor into letting a child attend school.
- Any child with pink eye who suffers eye pain, inability to open an eye, or has so much discharge that she is uncomfortable, needs to go home.
- If there is an outbreak (two or more kids in a room), the center’s health care consultant or the department of health can give ideas on how to help prevent further spread
- Good hand washing technique prevents the spread of the contagious forms of pink eye (viral or bacterial).

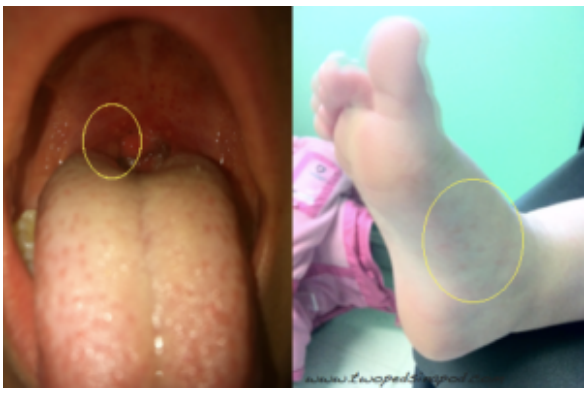
Fever – by itself, is not an automatic exclusion

- For practical purposes, a fever (no matter how it is taken) in a child who is over 8 weeks old is a temperature of 101 degrees F. Therefore, 99 degrees F is NOT a fever, even if that number is higher than the child's baseline temperature.
- If a child with a fever acts well and does not require extra attention from teachers, then that child is medically safe to stay in school. Sending him home is unlikely to protect others. Kids are contagious the day before a fever starts, so febrile kids most likely already exposed their class to the fever-proking illness the day before the fever came.
- If the fever causes the child to become dehydrated or makes the child too sleepy or miserable to participate in class, then that child should go home.
- Any baby two months of age or younger with a fever of 100.4 or higher needs immediate medical attention, even if he is not acting sick.
- If a child has not received the recommended immunizations for his age, then he needs to be excluded for fever until it is known that he does NOT have a vaccine preventable illness.
- If a child goes home with a fever, he does not need

medical clearance to return to school.
- Read more details about fever and “fever phobia” here.

Head lice, while icky and make our heads itch just to think about them, carry no actual disease.

- The child with live lice should go home *at regular dismissal time*, receive treatment that night, and be allowed back in school the next day.
- By the time you see lice on a child’s head, they have been there for likely at least a month. So sending him home early from school only punishes the child, causes the parent to miss work needlessly, and does nothing to prevent spread.
- Lice survive off of heads for 1-2 days at most (they need blood meals, and die without them), so a weekend without people in school kills any lice left behind in the classroom by Monday morning.
- Lice do not jump or fly and thus need close head-to-head contact to spread, hence the reasons behind why your child’s center spaces matts at nap time a certain amount distance apart, and do not allow kids to share personal objects such as combs.



The mouth ulcers and foot rash of Hand Foot Mouth

Hand-foot-mouth disease- not an automatic exclusion

- This common virus, spread by saliva, causes a blister-

like rash that can appear on hands, feet, in the mouth and in the diaper area, sometimes in all of these locations. Hand washing limits spread, and kids can attend school with this rash.

- The child who refuses to drink because of painful mouth lesions should go home so the parent can help improve hydration. In addition the child who refuses to participate in activities should stay home. You can read more about this virus here.

Poison ivy rash is not contagious to other people. The rash of poison ivy is an allergic reaction/irritation from wherever the oil of a poison plant touched the skin. The ONLY way to "catch" poison ivy is from the poison ivy plant itself. But if the itch from poison ivy makes a child too miserable to participate in class activities, she may need to go home. Read more about poison ivy here.

Vomiting more than twice, associated with other symptoms (such as fever, hives, dehydration or pain), or with vomit which is green-yellow or bloody are all reasons a child should leave school. Recent history of head injury warrants exclusion and immediate attention since vomiting can be a sign of bleeding in the head. See our post about vomiting.

Diarrhea, meaning an increase in stool frequency, or very loose consistency of stools, is a reason to go home if the diarrhea

- cannot be contained in a diaper,
- causes potty accidents in the toilet trained child
- contains blood, is bloody or black
- results in more than two stools above baseline for that child—too many diaper changes compromises the teacher's ability to attend to other children.
- is with other symptoms such as fever, acting very ill or jaundiced (yellow skin/eyes)
- Read more about poop issues here.

Molluscum contagiosum is a benign “only skin deep” illness similar to warts—direct vigorous contact or sharing of towels or bath water can spread the virus among kids but the rash itself is harmless and not a reason to stay home from school. Read our prior post for More on this little rash with the big name.

MRSA is a skin infection that looks red and pus filled and is typically painful for the child. Treatment involves draining the infection and/or taking oral antibiotics. If the infected area is small and can be covered completely, a child may stay in school.

Measles This illness causes high fever, cough, runny nose, runny eyes, and cough and a total body rash. Your local Department of Public Health will provide recommendations about how long to exclude a child with measles as well other precautions a school should take. So they are safe, unvaccinated children will have to be excluded for period of time as well.

Also note, at times, the department of public health will exclude even children who are acting well from school for outbreak management of a variety of infectious diseases.

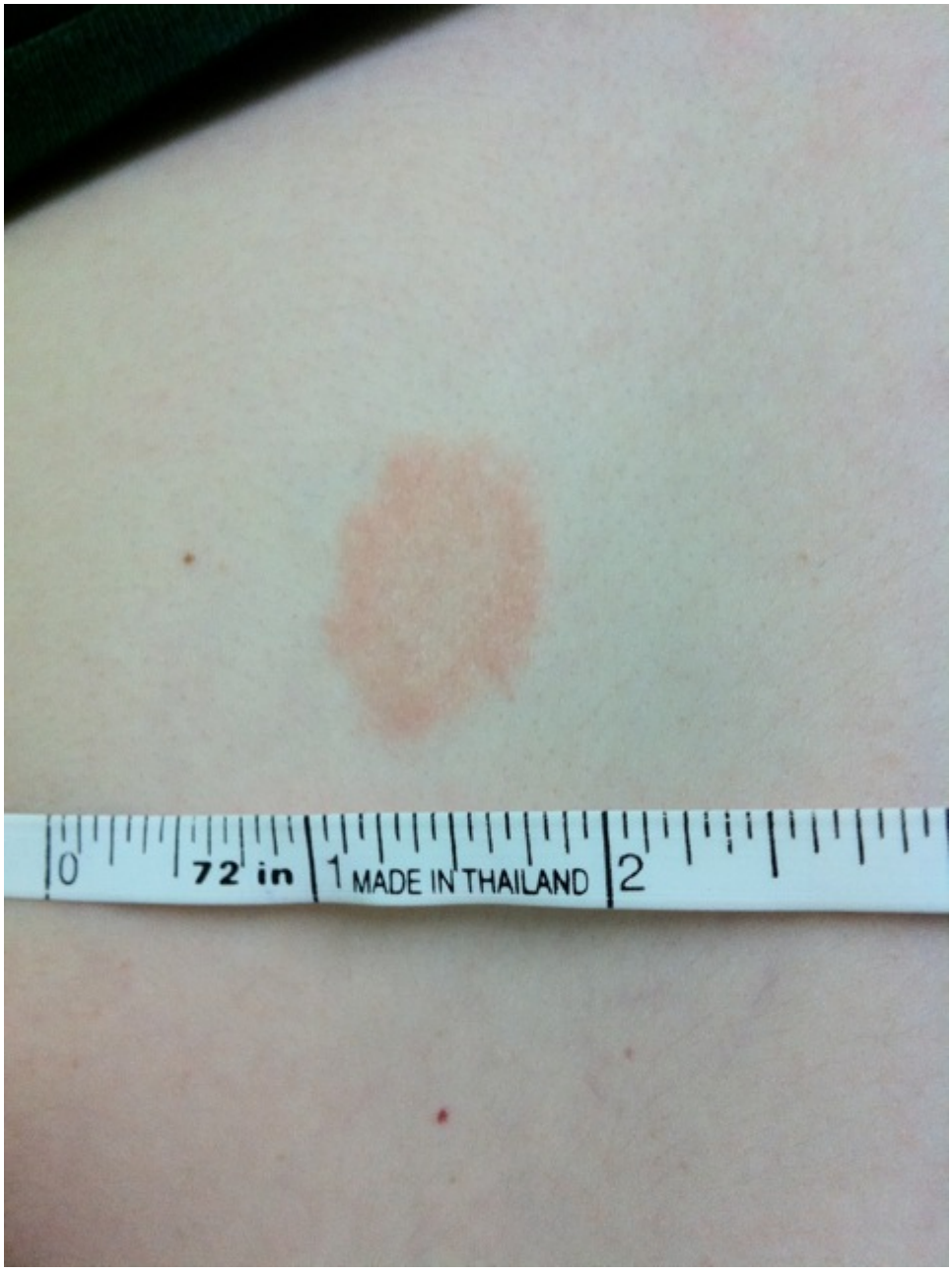
Surprised? As you can see, there are few medical reasons to keep your child home from daycare for an extended period of time. As Dr. Lai often says to the big kids, “If there is nothing wrong with your brain, you can go to school and learn.” Bottom line- no matter the reason, if you realize at six in the morning that your child will not be able to learn and function at baseline, keep him home and seek the advice of your child’s pediatrician.

Julie Kardos, MD and Naline Lai, MD

*A straight-forward, comprehensive guide to the guidelines can

be found in *Managing Infectious Diseases in Child Care and Schools, 4th edition,* Editors: Susan S. Aronson, MD, FAAP and Timothy R. Shope, MD, MPH, FAAP, published by the American Academy of Pediatrics.

Spot the rash of ringworm



Although it's called ringworm, this rash isn't caused by a worm. In fact, it barely looks like a worm. Otherwise known as tinea corporis, the patch of ringworm is usually a flesh or light-pink colored, slightly scaly oval with raised, red edges.

Caused by a fungus, sometimes the patch is itchy. The same

organism also causes athlete's foot (tinea pedis), jock itch (tinea cruris), and scalp infections (tinea capitis).

Ringworm falls into the mostly-harmless-but-annoying category of skin rashes (cover it up and no one will notice). Your child's doctor will diagnose the rash by examining your child's skin. To treat the rash, apply antifungal medication until the rash is gone for at least 48 hours (about two to three weeks duration). Clotrimazole (for example, brand name Lotrimin) is over-the-counter and is applied twice daily. You will find it in the anti-athlete's foot section.

On the scalp, ringworm causes hair loss where the rash occurs. Treatment is not so straight forward. Ringworm on the scalp requires a prescription oral antifungal medication for several weeks. The fungus on the scalp lives not only on the skin, but also in hair follicles. So, topical antifungals fail to reach the infection.

Ringworm spreads through direct contact. Wrestling teams are often plagued with this infection. Cats may carry ringworm. If your family cat has signs of feline ring worm such as patches of hair loss, take him to the vet for diagnosis.

If your child's "ringworm" fails to improve after a week of applying antifungal medication, have your child's doctor examine (or re-examine) the rash. Other diagnoses we keep in mind include eczema and granuloma annulare. If the rash continues to enlarge we consider Lyme disease.

Kids are allowed to attend school and daycare with ringworm once treatment is started. Wrestlers are advised to cover the rash for the first three days of treatment.

The sooner you start to treat ringworm, the more quickly it resolves. Just remember, "the early bird catches the…" oh, never mind.

Naline Lai, MD and Julie Kardos, MD