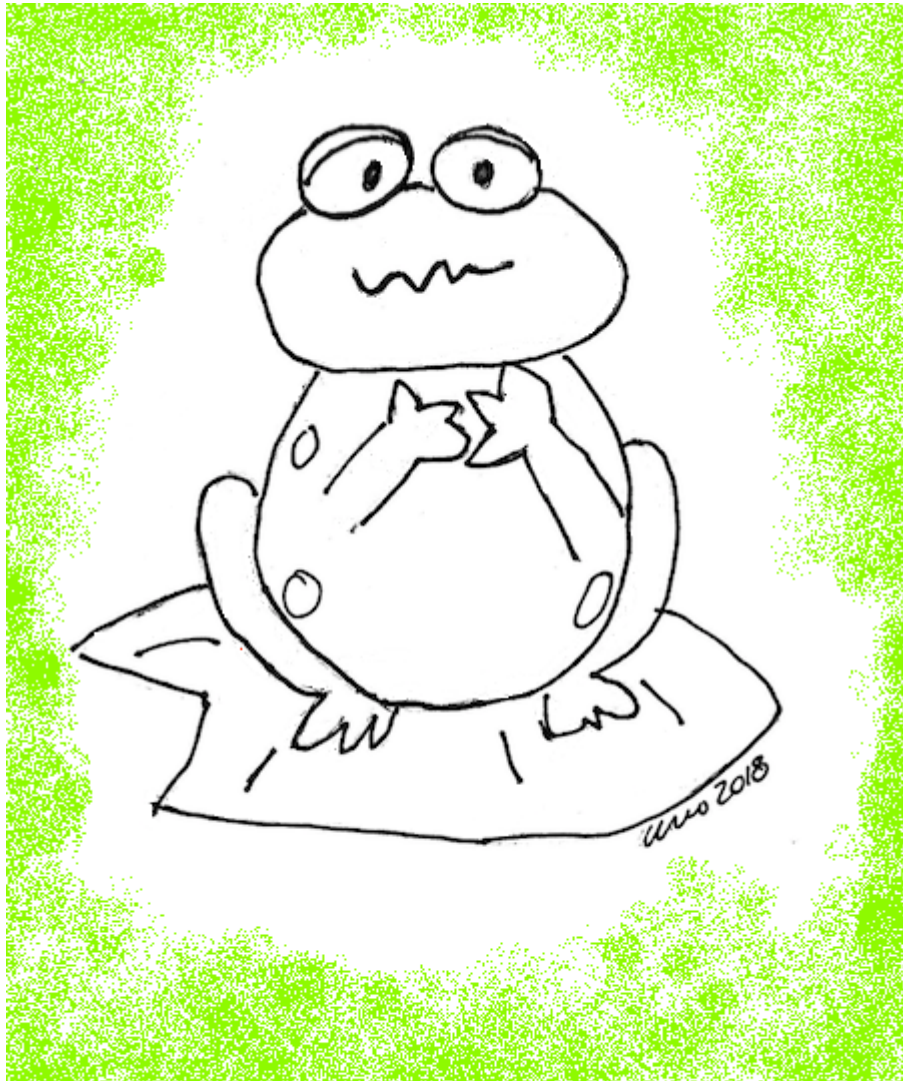


All about strep throat



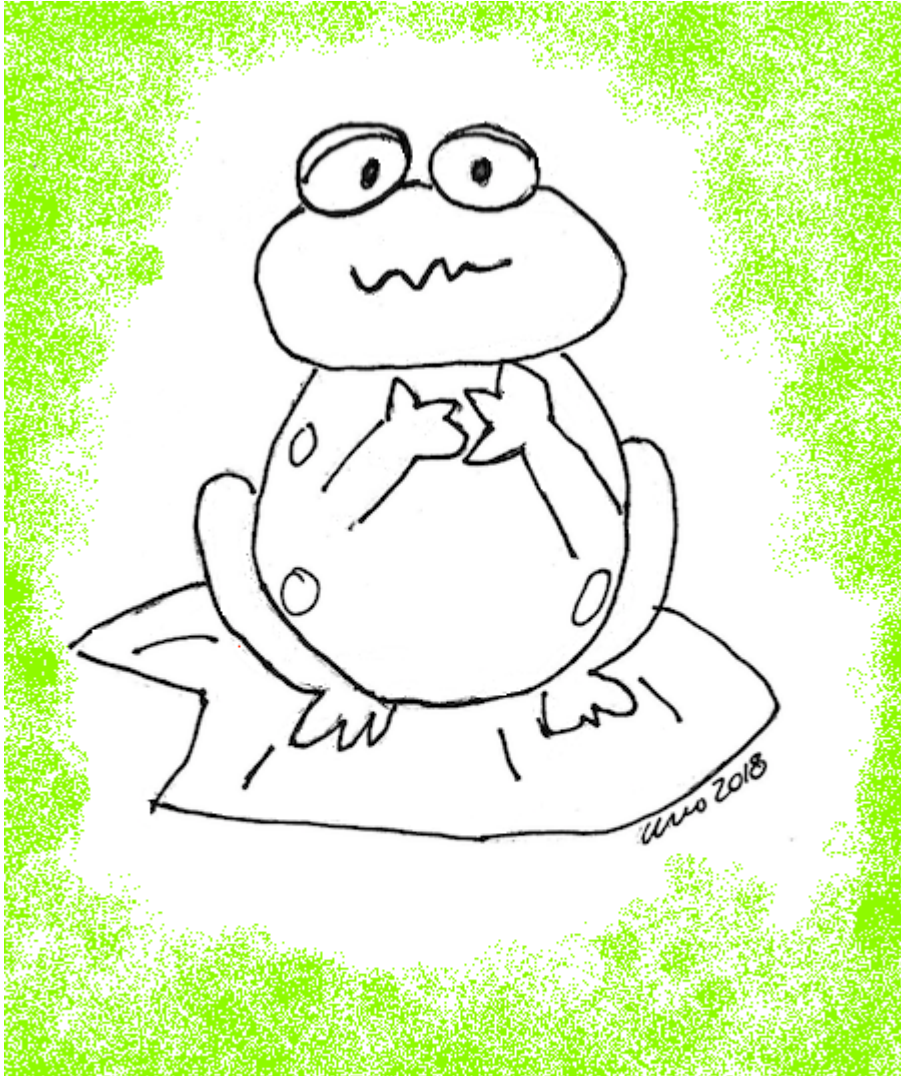
Freddy the Frog didn't quite know how to describe the uncomfortable sensation in his throat.

Now that school has been in session for over a month, it's not too early for you to learn all about strep throat. It might even save you a trip to the doctor's office!

Julie Kardos, MD and Naline Lai, MD

©2019 Two Peds in a Pod®

Does my child have strep throat?



Freddy the Frog didn't quite know how to describe the uncomfortable sensation in his throat.

The school nurse calls to say, "I have your child here with me and she has a sore throat. I think you should take her to the doctor to see if it's strep throat."

What IS strep throat?

Strep throat is a throat infection caused by Group A streptococcus (*Strep pyogenes*) bacteria. Symptoms can include

sore throat, fever, pain with swallowing, enlarged lymph nodes (glands) in the front of the neck, headache, belly pain, vomiting, and rash. Not all symptoms are present in all kids with strep throat. Some kids look fairly ill and others with strep don't look too bad.

Kids with strep throat do NOT typically have cough, profuse runny nose, or diarrhea. Only about 15 percent of all kids coming to our offices with a main concern of "sore throat" actually have strep throat. That means that MOST kids with sore throats turn out to have something else, most commonly a virus.

Why do we care about strep throat?

Most children's immune systems are really good at fighting the strep germ. In fact, most kids would recover even if they were not treated. However, some kids' immune systems go a little haywire when fighting the strep germ. In addition to making antibodies (germ-fighting cells) to fight the strep, they make antibodies against their own heart valves (immune system gets confused). When antibodies attack the heart valve, kids can get rheumatic fever.

Treating strep throat with antibiotics shortens the duration of the illness by only about one day, but more importantly, treatment prevents the body from making the wrong kind of immune cells, or antibodies, against the heart valves. Fortunately, treating strep is not an emergency: starting antibiotics within NINE DAYS of symptoms is good enough to prevent rheumatic fever.

Strep throat can also lead to other complications such as scarlet fever (strep throat plus sandpaper-like rash on the skin), peritonsillar abscesses (pus pocket in the tonsils) and kidney inflammation (first symptom can be cola-colored urine).

How do we know if your child has it?

To definitively diagnose strep throat , we use a long cotton swab to gently swipe the sore throat and obtain a sample of the germs. This sample goes to the laboratory to culture for Group A strep. In other words, we wait to see if the germ grows from the sample.

Doctors cannot diagnose strep throat over the telephone. Nor can doctors or nurses rely solely on physical exam findings, because while there is a “classic” look to strep throat, some kids with sore throats have normal appearing throats yet the test reveals strep. Others have yucky looking throats but in fact have some other viral infection. We physicians ask questions about your child’s symptoms and perform a thorough physical exam and then do a “strep test” if we suspect strep throat. Even doctors send their own children to the doctor for testing. Dr. Lai’s teen was just sent to her pediatrician’s office last week with a sore throat to check for strep the day before a track meet.

Isn’t there a quick way to know?

Many pediatric offices use rapid strep tests to help make a quick decision about treatment because the strep culture takes 48 hours or more to finalize. These rapid tests are fairly reliable, but sometimes can be negative (shows NO strep) even if strep is present, so most doctors send a culture back-up if the rapid test is negative. The other problem with the quick test is that once your child has strep, the quick test can stay positive for about a month, even if your child no longer has strep disease. So if a child is treated for strep throat and then develops another sore throat within a month of treatment, that child needs a strep culture back up if the office quick test is positive.

To further complicate matters, some kids “carry” the strep germ in their throats but never develop the disease (no sore

throat or illness symptoms). These kids will test positive for strep but do not require treatment. This is why we do not routinely check kids for strep throat unless they have the typical symptoms. *Antibiotics come with their own risk of side effects so we want use them only when absolutely necessary.*

What is the proper treatment for strep throat?

The easiest way to treat strep throat is with the antibiotic amoxicillin, taken once daily, for ten days. Penicillin twice daily for ten days also treats strep throat but the liquid form doesn't taste as good as amoxicillin so can be a little harder to give your kid. Your child's pediatrician will prescribe one or the other. If your child is allergic to penicillin, your child's doctor will prescribe a different antibiotic that is also effective.

My child was treated for strep throat. We finished the antibiotic. Three days later his sore throat is back. Why did this happen?

Most likely, your child contracted a new illness. The illness may or may not be strep again. Often the new sore throat is the viral-cold-of-the-day starting up. If your pediatrician determines that the sore throat is from strep, the most common reason for getting two episodes of strep throat close together is that your child contracted the germ again (usually from a classmate). It's not that the antibiotic did not work. It's just bad luck that your child got it again. Your child's doctor can use the same antibiotic to treat the second strep or may opt to use a different one.

Fortunately, strep throat has not shown much, if any, resistance to standard antibiotic therapy. The reason that we

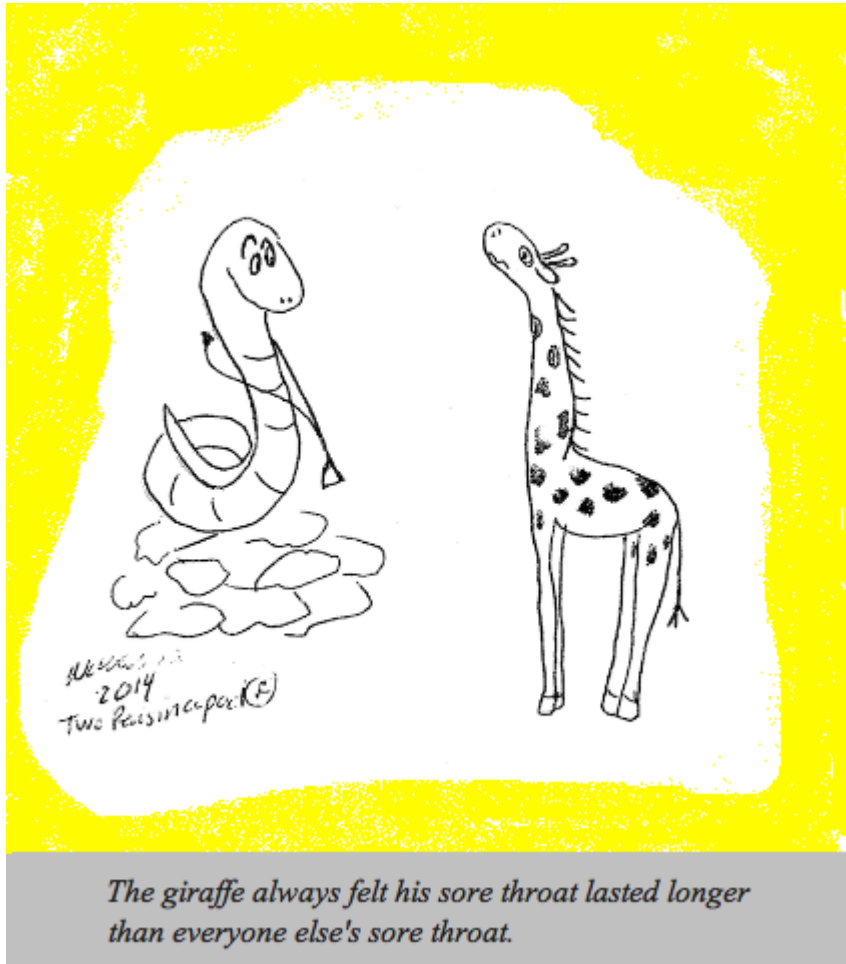
treat children (and adults) for a full course of antibiotic is that this duration helps prevent complications. You should give your child the complete course of antibiotic her health care provider prescribes, even if she feels better part way through the treatment. In addition to treating with antibiotic, be sure to provide pain medicine such as acetaminophen (eg. Tylenol) or ibuprofen (eg. Motrin or Advil). Here are more suggestions to treating sore throat pain. Good news: after 12 to 24 hours after the first dose of antibiotic, your child is no longer contagious. If they feel better, they can return to school after this time.

Contact your child's doctor during treatment if your child experiences increasing pain, inability to swallow, seems dehydrated, or look worse instead of better.

Julie Kardos, MD and Naline Lai, MD

©2018 Two Peds in a Pod® Updated 10/1/2019

Sore throat relief



The giraffe always felt his sore throat lasted longer than everyone else's sore throat.

Many times parents bring their children with a sore throat to our office to “check if it’s strep.” Some are disappointed to find out that their child does NOT have strep. Moms and Dads lament, “But what can I do for him if he can’t have an antibiotic? At least strep is treatable.”

Take heart. Strep or no strep, there are many **ways to soothe your child’s sore throat:**

- **Give pain medication** such as acetaminophen (brand name Tylenol) or ibuprofen (brand names Advil or Motrin). Do not withhold pain medicine before you bring her in to see her pediatrician. Too many times we hear parents say, “We wanted you to see how much pain she is in.” No need for this! Pediatricians are all in favor of treating pain as quickly and effectively as possible. Pain medicine will not interfere with physical exam findings nor will it interfere with strep test results.
- **Give lots to drink.** Some kids prefer very cold

beverages, others like warm tea or milk. Avoid citrus juices since they sometimes sting sore throats. Frozen Slurpies or milkshakes, on the other hand, feel great on sore throats. Tell your child that the first three sips of a very cold drink may hurt, but then the liquid will start to soothe the throat. Watch for signs of dehydration including dry lips and mouth, no tears on crying, urination less than every six hours, and lethargy.

- **Provide soft foods** if your child is hungry. For example, noodles feel better than a hamburger on a sore throat. And ice-cream or sherbet therapy is effective as well.
- **Try honey** (if your child is older than one year) – one to two teaspoons three times a day. Not only can it soothe a sore throat but also it might quiet the cough that often accompanies a sore throat virus. Give it alone or mix it into milk or tea.
- **Kids older than three years** who don't choke easily can suck on lozenges containing pectin or menthol for relief. Warning: kids sucking on lozenges may dupe themselves into thinking they are hydrating themselves. They still need to drink to stay hydrated.
- **Salt water gargles** are an age-old remedy. Mix 1 teaspoon of salt in 6 ounces of warm water and have your kid gargle three times a day.
- **Magic mouthwash:** For those older than 2 years of age, mix 1/2 teaspoon of liquid diphenhydramine (brand name Benadryl 12.5mg/5ml) with 1/2 teaspoon of Maalox Advanced Regular Strength Liquid (ingredients: aluminum hydroxide, magnesium hydroxide 200 mg, and simethicone) and give a couple time a day to coat the back of the throat prior to meals. The Maalox coats the throat and the benedryl acts as a weak topical anesthetic (pain reliever). **Do not** use the Maalox formulation which contains bismuth subsalicylate because bismuth subsalicylate is an aspirin derivative, and aspirin is linked to [Reye's syndrome](#).

- For kids three years and older, **try throat sprays** containing phenol (brand name Baker's P&S and Chloraseptic® Spray for Kids). Use as directed.

Strep throat typically does **not** cause a bad cough, profuse runny nose, ulcers in the throat, or laryngitis. If your child has these other symptoms in addition to her sore throat, you can be fairly sure that she does NOT have strep. For a better understanding of strep throat, see our updated post on this topic.

The following are each a very important sign that a child with a **sore throat needs to see a doctor** for further evaluation:

1-can't swallow (kids might even spit out their own saliva)

2-can't open his mouth fully

3- hurts so much that the pain is not alleviated with the above measures in this post

4- presence of fever 101F or higher for more than 3-4 days


5-is accompanied by a new rash

Please also see our prior post on [how to tell if you need to call your child's doctor for illness.](#)

Julie Kardos, MD and Naline Lai, MD

©2016, 2015, 2012 Two Peds in a Pod®t

Sore throat remedies for kids

 Many times parents bring their children with sore

throats to our office to “check if it’s strep.” Some are disappointed to find out that their child does NOT have strep. Moms and Dads lament, “But what can I do for him if he can’t have an antibiotic? At least strep is treatable.”

Take heart. Strep or no strep, there are many **ways to soothe your child’s sore throat**:

- **Give pain medication** such as acetaminophen (Brand name Tylenol) or ibuprofen (brand names Advil or Motrin). Do not withhold pain medicine before you bring her in to see her pediatrician. Too many times we hear “We wanted you to see how much pain she is in.” No need for this! Pediatricians are all in favor of treating pain as quickly and effectively as possible. Pain medicine will not interfere with physical exam findings nor will it interfere with strep test results.
- **Give lots to drink.** Some kids prefer very cold beverages, others like warm tea or milk. Avoid citrus juices since they sometimes sting sore throats. Frozen Slurpies on the other hand feel great on sore throats. Tell your child that the first three sips of a drink may hurt, but then the liquid will start to soothe the throat. Watch for signs of dehydration including dry lips and mouth, no tears on crying, urination less than every 6 hours and lethargy.
- **Provide soft foods** if your child is hungry. For example, noodles feel better than a hamburger on a sore throat. And ice-cream or sherbet therapy is effective as well.
- **Try honey** (if your child is older than one year) – one to two teaspoons three times a day. Not only can it soothe a sore throat but also it might quiet the cough that often accompanies a sore throat virus. Give it alone or mix it into milk or tea.
- **Kids older than three years** who don’t choke easily can suck on lozenges containing pectin or menthol for relief. Warning: kids sucking on lozenges may dupe themselves into thinking they are hydrating themselves.

They still need to drink and stay hydrated.

- **Salt water gargles** are an age-old remedy. Mix 1 teaspoon of salt in 6 ounces of warm water and have your kid gargle three times a day.
- **Magic mouthwash:** For those older than 2 years of age, mix 1/2 teaspoon of liquid diphenhydramine (brand name Benadryl 12.5mg/5ml) with 1/2 teaspoon of Maalox Advanced Regular Strength Liquid (ingredients: aluminum hydroxide, magnesium hydroxide 200 mg, and simethicone) and give a couple time a day to coat the back of the throat prior to meals. **Do not** use the Maalox formulation which contains bismuth subsalicylate. Bismuth subsalicylate is an aspirin derivative and aspirin is linked to Reye's syndrome.
- For kids three years and older, **try throat sprays** containing phenol (brand name Baker's P&S and Chloraseptic® Spray for Kids). Use as directed.

Strep throat does not cause cough, runny nose, ulcers in the throat, or laryngitis. If your child has these other symptoms in addition to her sore throat, you can be fairly sure that she does NOT have strep. For a better understanding of strep throat see our posts: "Strep throat Part 1: what is it, who gets it and why do we care about it" and "Strep throat Part 2: diagnosis, treatment, and when to worry."

Any **sore throat that prevents swallowing or prevents your child from opening his mouth fully, pain that is not alleviated with the above measures, fever of 101F or higher for more than 3-4 days, or a new rash** all merit a prompt visit to your child's doctor for further evaluation. Please see our prior post on how to tell if you need to call your child's doctor for illness.

Julie Kardos, MD and Naline Lai, MD

STREP THROAT Part 2: diagnosis, treatment, and when to worry

How can I tell if my child has strep throat?

The definitive way to diagnose strep throat is for a health care provider to get a sample of the sore throat germs from your child by using a long cotton swab to gently swipe the sore throat and send the germs to a laboratory for culture. The laboratory lets the germs grow to determine if the Strep Throat bacteria grows from your child's throat.

Thus, strep throat cannot be diagnosed over the telephone. Nor can health care providers rely solely on physical exam findings, because while there is a "classic" look to strep throat, some kids have normal appearing throats yet the test reveals strep, while others have yucky looking throats but in fact have some other viral infection causing their sore throat and thus do not need antibiotic treatment since antibiotics do not cure viruses. Health care providers ask questions about your child's symptoms and perform a thorough physical exam and then do a "strep test" if they are suspicious that your child may have strep throat.

Many pediatric offices use rapid strep tests to help make a quick decision about treatment because the strep culture takes about 48 hours or so to finalize. These tests are fairly reliable, but sometimes the quick test is negative (shows NO strep) even if strep is present, so most offices will send a culture back-up if the rapid test is negative (no strep germs found). The other problem with the quick test is that once your child has strep, the quick test stays positive

for about a month, even if your child no longer has strep disease. So if a child is treated for strep throat and then develops another sore throat within a month of treatment, that child needs a strep culture back up if the office quick test is positive.

To further complicate matters, some kids “carry” the strep germ in their throats but never develop the disease (no sore throat or illness symptoms). These kids will test positive for strep but do not require treatment. This is why we do not routinely check kids for strep throat unless they have symptoms of strep throat.

My child was treated for strep throat. We used all of the antibiotic. Three days later his sore throat is back. Why did this happen?

The most common reason for getting two episodes of strep throat close together is that your child contracted the germ again, usually from a classmate in school. If your child gets strep throat again, it is usually not because the antibiotic didn’t work but rather it is from bad luck. Most doctors treat a second episode of strep with the same medicine used the first time around.

Luckily, strep throat has not shown much, if any, resistance to standard antibiotic therapy. The reason that children (and adults) are treated for a full course of antibiotic is that this duration is known to prevent some of the complications of strep throat. You should give your child the complete course of antibiotic her health care provider prescribes, even if she “feels better” part way through the treatment. In addition to treating with antibiotic, be sure to provide pain medicine such as acetaminophen (brand name Tylenol) or ibuprofen (Motrin or Advil) to treat sore throat pain as needed.

Reasons to contact your child’s health care provider during treatment would be increasing pain, inability to swallow, or looking worse instead of better during the course of treatment.

STREP THROAT Part 1: what is it, who gets it, and why do we care about it?

You just got the call from the school nurse, who tells you: “I have your child here with me and she has a sore throat. I think you need to take her to the doctor to see if it’s strep throat.”

What exactly IS Strep Throat?

Strep throat is a throat infection caused by Group A streptococcus bacteria. Symptoms can include sore throat, fever, pain with swallowing, enlarged lymph nodes (glands) in the neck, headache, belly pain, vomiting, and rash. Not all symptoms are present in all kids with strep throat.

Symptoms do NOT include cough, profuse runny nose, or diarrhea. Only about 15 percent of all kids coming to our offices with a main concern of “sore throat” are going to actually have strep throat. That means that MOST kids with sore throats will turn out to have something other than strep throat, usually some form of virus causing pain or post-nasal drip.

Who gets Strep Throat?

The most common age for kids to get strep throat is between ages 5 to 12 years old. For some reason, kids younger than 3 years are not as

prone to strep throat. Also strep throat is seen less often in adults than school aged kids. Some children appear really ill with strep throat and other kids just have a bad sore throat, but with pain medicine can look quite well.

So why do we care about strep throat?

Most children's immune systems are really good at fighting the strep germ off and in fact most kids will get better from strep throat even if they are not treated. However, some kids' immune systems get a little haywire when fighting the strep germ, and in addition to making antibodies (germ-fighting cells) to fight the strep, they make antibodies against their own heart valves (immune system gets confused) which causes rheumatic fever. It has been shown that treating strep throat with antibiotics shortens the duration of strep throat only by about one day, but more importantly prevents the body from making the wrong kind of immune cells, or antibodies, against the heart valves thus lowering the risk of rheumatic heart disease.

Strep throat can also lead to other complications such as scarlet fever (strep throat plus sandpaper-feeling rash on the skin), peritonsillar abscesses (pus pocket in the tonsils) and kidney inflammation (first symptom can be cola-colored urine).

Stay tuned for Part 2 about Strep Throat: how it is diagnosed and treated.

Julie Kardos, MD

© 2010 Two Peds in a Pod