Aggressive Skin Infections
Dr. Arnd Herz

**Dr. Desai**: Welcome to the KP HealthCast. Today in our studio we have Dr. Arnd Herz who is the Chief of Pediatrics at the KP Medical Centers of Hayward and Fremont. He is also board certified in pediatric infectious disease. Welcome Dr. Herz.

**Dr. Herz**: Thank you very much, glad to be here.

**Dr. Desai**: Dr. Herz is going to talk to us about skin infections and particularly aggressive skin infections today. Dr. Herz, what are we talking about exactly?

**Dr. Herz**: What we are talking about is over the last few years we have seen a lot of patients come in with what appears to be a new kind of skin infection or at least resurgence of skin infections we haven’t seen in many years. You know bacteria lives in our skin naturally and most of the time they live on the surface of the skin and they don’t cause any problems. Sometimes they cause a little bit of a rash, but they don’t go deep into the skin. But what we’ve seen now is that there is a bacteria called staph aureus and in some cases can go deeper under the skin and cause deep pustules and boils.

**Dr. Desai**: So how do I know that from a normal rash?

**Dr. Herz**: Well it’s funny. A lot of my patients actually come in and they think that this started out as a spider bite. And in most cases when patients or parents are concerned about spider bites, I find that it often is this staph aureus infection and it is usually something that forms a bump, it is very painful to touch and it is bright red. People might or might not have a fever at the same time.

**Dr. Desai**: And is there usually a particular location that they might expect this kind of rash?

**Dr. Herz**: It can happen anywhere on the body. I have seen it rarely on the face, but it could be on the face. The typical spots might be the arms or the legs. Some people get them in skin folds, so that might be at the waist line or under the elbows.

**Dr. Desai**: And often I think as staph infections as occurring at places where skin breaks down, scratches and injuries. Is this the same kind of thing or not?

**Dr. Herz**: It is similar to that. What is unique about this kind of staph infection is that the staph bacteria have acquired an ability to penetrate the skin. So they don’t necessarily need a little cut, but they can penetrate the skin and then they start multiplying under the skin and so then what they form is they form a collection of pus or a boil and those are the things that get quite painful. When patients come into get those treated, there are two things the physicians keep in mind. First of all the best way to treat it is to get the pus
So it is something that starts draining or sometimes you make a little cut and it starts draining and the pus coming out is very helpful. The other thing is to pick the right antibiotic. Many of those staph infections are more resistant to the typical antibiotic. Often we using something called Keflex and many of those staph infections are not treated by that and so what the doctors now do is they culture the bacteria to see what antibiotic they can use.

Dr. Desai: Okay, but even before I come to see the doctor, what’s going to be my clue that I need to actually go in to get it checked out as opposed to a normal boil that’s going to just run its course and just go away in a few days.

Dr. Herz: I think the clue is severalfold. First of all, there is a clue that you have a boil and gee somebody else in your family also has a boil and so maybe you’re giving it back and forth from one family member to the other and you want to get those treated. The other might be that fact that it is particularly painful, hasn’t gone away in a few days or patients develop fevers and that might be a reason to come in.

Dr. Desai: Okay and you mentioned something about other family members. So this is a contagious problem. This is something that you do have to worry about spreading.

Dr. Herz: We definitely have seen it spread. It has certainly been a problem in family members, where one family member will give it to the other without even knowing about it. Some family members might carry it on their skin and not get sick, but they can still give it to other members in the family who then do get sick. We have also seen outbreaks in football teams because of direct contact during playing football or even the locker room sharing towels and so forth, I think it’s been spread to football teams. Even some professional teams have that problem.

Dr. Desai: So you’re saying it is direct contact mode of spread. Not in the air or anything like that.

Dr. Herz: Correct. It is direct contact, but it doesn’t have to be skin to skin. It can be skin to towel. So sharing a towel or sharing some clothing can do it do.

Dr. Desai: So should we sterilize everything? I mean how paranoid should we be about this?

Dr. Herz: The problem is all of our skin naturally has lots of bacteria on it and as many people know once you take antibiotics and you get rid of those natural bacteria you often have worse bacteria that take its place. And there is no way we can sterilize anything, but what we should do is if there is a family or football team or somebody who has several members who have a certain strain of staph bacteria, they should come in a get treated and very importantly I think, they should tell their doctor that they are not the only family member that has infection, but that the whole family or several members have infections. What the doctors then can do is they treat every family member’s infection with antibiotics or lancing and get rid of all the pus and once that is done they can try to get rid
of that strain in all the family. So it’s not a matter of getting rid of all bacteria in the family, but that strain of aggressive staph bacteria they can get rid of in the family.

**Dr. Desai:** And how’s that done, just with the antibiotics?

**Dr. Herz:** The antibiotics only treat the infection, the colonization remains, so at the end of treatment what is then done is for a week you use a special soap called Hibiclens to clean your body and you also use an antibiotic called Bactroban and you end up putting that on those spots where we know that the bacteria likes to hide. In most cases if the whole family does this all at once, you can get rid of the colonization of that strain and then hopefully it won’t come back.

**Dr. Desai:** And then what about the teenage football player that comes in boil and gets that checked out; does the whole team need to come in? That’s going to be a logistical nightmare sometimes.

**Dr. Herz:** And I think you’re right. With the teenage football player, what the teenager should do is get treated and then tell the coach. If the coach says “you know this was one case”, then probably nothing else needs to be done. If the coach says “you know this is the fourth or fifth person who’s told me this” then the coach probably should come up with a plan for the whole football team and at that point usually the Health Department gets involved.

**Dr. Desai:** Okay, so what if I didn’t treat it? What’s the downside? How dangerous is this? What kind of things can happen if this goes on untreated?

**Dr. Herz:** That’s a good question. It is a question that we don’t completely know the answer to. On one hand if it just lives in your skin, it could break open, the pus drains, the infection goes away and it never comes back. It might be that you get it again or other family members get it, but it stays under the skin. The tricky thing is that we know that in some cases the very same bacteria can cause more serious disease; pneumonias, it can go to heart valves and cause what’s called endocarditis or can cause much more serious disease and particularly in the elderly when people are in nursing homes, that it is something than can kill people.

**Dr. Desai:** Is there an age or sex or ethnic predilection for this?

**Dr. Herz:** There’s not.

**Dr. Desai:** So anybody can get this. From babies, to elderly to healthy young adults.

**Dr. Herz:** Correct.

**Dr. Desai:** You mentioned that the treatment for this is an antibiotic and some of it depends on what you culture. Is that right?
**Dr. Herz:** Right. And that’s what we’ve been telling the doctors to get a culture because we can make a guess as to which antibiotic might be the most useful. Often it is one called Septra, one called clindamycin, but since we don’t always know the best thing is to culture. It’s also the best way to document if there’s truly an outbreak particularly as you mentioned in a football team or something like that where the Health Department would get involved.

**Dr. Desai:** Now they don’t have to come into the hospital necessarily right? They don’t have to be admitted for intravenous antibiotics?

**Dr. Herz:** Correct.

**Dr. Desai:** It’s just oral.

**Dr. Herz:** Correct. Almost never do you need intravenous antibiotics, it’s always antibiotics by mouth.

**Dr. Desai:** So Dr. Herz, if there was one message that you want to send out to the audience today, what would that be?

**Dr. Herz:** I think it’s the fact that when something looks like a spider bite, particularly when there is more than one family member involved, go get it checked out. Mention to your doctor that it’s more then one family member. Same thing if you’re on a sports team, mention it to your coach to see whether there’s more cases involved. If we all do this together, we can get it treated and get it under control.

**Dr. Desai:** That’s good advice. And Dr. Herz I want to thank you for spending the time today to discuss this very important topic.

**Dr. Herz:** Your welcome.

**Dr. Desai:** And as always, I’d like to thank our audience for taking the time to listen to our HealthCast today. If you want more information about skin infections and rashes, please visit the KP website at [www.kp.org](http://www.kp.org). If you’d like to hear more of our HealthCast, please visit our website at [www.kp.healthcast.org](http://www.kp.healthcast.org). And if you have any questions or comments, please e-mail us at castmaster@kphealthcast.org. We’ve come to the conclusion of yet another HealthCast. Don’t forget to get out there and look for more ways to THRIVE.