Dear KD Friends and Families,

Welcome to the Spring edition of the KDF News!

We hope that all of you had wonderful holiday seasons, and are enjoying 2012 so far. With each year comes more opportunity for researchers to gain more knowledge about Kawasaki Disease, and hopefully have more breakthroughs which can help aid future cases.

We apologize for the delay in getting this issue out to you. Timing of certain events that we wanted to recap for articles was part of the reason, but I also was caught up with the holidays, as well as getting ready to have my baby. My daughter, Gabriela Anna, arrived on January 28, 2012, at 8:34am via C-section, weighing in at 5 lbs., 12 oz., and 18 inches long. She is doing great and is now 8 weeks old, has almost doubled her birth weight and her big brother Santiago couldn’t be prouder. He loves showing off his “baby sister”, and giving her kisses, as well as helping out with her.

In this issue, we have some new additions as well as articles we are excited to showcase. Please be sure to check out page 3 for an article that was featured in the Huffington Post in November 2011. It discusses new research being done on wind patterns and the link to Kawasaki Disease. We’re also excited to recap the latest fundraising efforts in October of the 3rd Annual “To Save a Child’s Heart” Gala. Additionally, we’ve added a new recipe and exercise tip section, because heart health is important to everyone, but especially to KD Kids. Additionally, if you haven’t done so already, please check out our YouTube channel, currently featuring a video on KD in India: http://www.youtube.com/user/TheKDFoundation

Sincerely,

Kate Dávila
KDF Newsletter Editor
Chefs Nate Appleman, William Bradley, Roy Choi, Vinny Ditolo, Chris Gerwig, Matt Gordon, David Hernandez, Gavin Kaysen, Mourad Lahlou, Joe Magnanelli, Charles Phan, Naomi Pomeroy, Jonathan Sawyer, Mike Solomonov, and Chad White created magic in the ballroom, providing their table guests with sumptuous flavors and meaningful memories of their time and support of KD research.

Celebrity Chefs from around the country set their tables in San Diego for the 3rd Annual "To Save a Child's Heart" Kawasaki Disease Foundation gala on Saturday, October 22, 2011 at the Park Hyatt Aviara in Carlsbad, Calif.

New York Celebrity Chef and KD parent Nate Appleman teamed up with "To Save a Child's Heart" gala Co-Chairs Comischell Rodriguez and Jenn Phillips to bring a culinary experience to San Diego like none other.

Approximately 225 guests from San Diego and across the country attended to enjoy an exclusive event where four courses of gourmet food were prepared for them at their table by one of 15 nationally and internationally acclaimed chefs.

Kawasaki Disease Foundation President Gregory Chin presented Leadership awards to Senator Webb of Virginia, and San Diego City Councilmember Sherri Lightner for their roles in publically recognizing National Kawasaki Disease Awareness Day on January 26, 2011. Other recognitions went to Florida KD parent Karen Wicker for her service in the KD Bridges parent support program and to San Diego business leader Mr. Jay Flatley, President and CEO of Illumina for the company’s partnership and generous support of the KD genome sequencing project that is expected to unveil important data for the better understanding of the cause of Kawasaki Disease.

Honorary Chair, and Chipotle's Executive Chef Nate Appleman shared his story with son Oliver, who was diagnosed with KD in 2010. It was Oliver's battle with KD that prompted Nate to use his resources and talents to compete on The Food Network’s Chopped Allstars, choosing the KD Foundation as his charity.

Guests heard Oliver's story and watched Nate's winning moments unfold again via video. Nate won the title of Champion Allstar Chef and $50,000 for the KD Foundation.

Nate has committed to funding long-term KD research via future Celebrity Chef Galas so the world will better understand Kawasaki Disease.

Among the guests were Chipotle founder and CEO Steve Ells, KD Adult Study sponsors Don and Patty Dawn of Virginia and their daughter Brooke, and Back Street Boy Brian Littrell, his wife Leighton and son Baylee.

An exciting moment of the evening included an impromptu tune by Brian to encourage funding of Kawasaki Disease research at UC San Diego's Kawasaki Disease Research Center under the direction of Dr. Jane C. Burns. Dr. Burns leads the charge of an international collaborative of research to uncover the mysteries of the disease that is the #1 cause of acquired heart disease in children.

The most coveted prizes of the evening were 2 VIP tickets to the American Idol finals week and private in-home dining with five of the celebrity chefs. The event brought in just under $150,000 and will be the first of several KD Foundation sponsored “Celebrity Chefs Cooking for KD” galas scheduled across the country to fund Kawasaki Disease Research at the University of California, San Diego.

The KD Foundation is grateful to the Honorary Committee, guests, sponsors, donors, volunteers, and Chef Nate Appleman and his colleagues for their generous support. The coming galas will help underwrite KD research and hopefully inspire an endowment at UC San Diego. For more information on the San Diego or New York galas slated for 2012, contact kdgala@normac.org.
Kawasaki Disease: Researchers Find Surprising Link to Wind

Part of a series investigating the complex linkages between human, animal and environmental health: The Infection Loop

Originally published on The Huffington Post
11/10/11

Dr. Jane C. Burns always takes her vacation in September and October. That's when, she says, there is a "lull in the action." By action, she means the influx of children with Kawasaki disease that she has come to expect during summer and winter months. Similar seasonal patterns are seen in other parts of the world, but no one has been able to explain why.

Now Burns and her colleagues think they may have found an important clue -- blowing in the wind. Despite 50 years of research, the underlying cause of Kawasaki, a rare condition that involves the inflammation of blood vessels, remains unknown.

The interdisciplinary team of doctors and climatologists has linked large-scale wind patterns originating in central Asia to fluctuations in cases of the serious and sometimes fatal disease in Japan, San Diego and Hawaii. Their findings, detailed in the journal Nature's Scientific Reports on Thursday, suggest that when these particular wind currents reverse -- sweeping in from the south, in the case of Japan -- the number of Kawasaki cases drop. A close look at data from these three regions found no associations with other environmental factors such as precipitation, temperature or dew point.

"If the winds blow in one direction, there is Kawasaki; if winds blow in the other, there is no Kawasaki. It's very dramatic," says Burns, a professor of pediatrics and director of the Kawasaki Disease Research Center at the University of California, San Diego and Rady Children's Hospital.

Researchers are now looking at dust samples collected from winds over Japan in hopes of determining what virus, bacteria, fungi or other contagion -- live or inert -- ultimately triggers Kawasaki disease. And until that mystery is solved, no one can be certain of the wind's true role. If the Kawasaki agent does, in fact, traverse great distances by wind, it would be the first known human infectious disease agent to do so. Dust plumes have been known to travel internationally. And some pathogens of plants and animals such as European livestock Foot and Mouth Disease and African Swine Fever can blow around, but only over relatively short distances, said Guy Hendrickx, managing director of Avia-GIS, a Belgian company specializing in spatial information for health and agriculture research.

His own research has found that insects carrying Bluetongue virus will fly with the wind over hundreds of miles -- yet still not at the same high altitude and long distance suggested in the new Kawasaki research.

"Traveling with the aid of tropospheric winds should not be a problem for fungi, bacteria or even small cryptogams or other animals," says Jesus Munoz Fuente, a scientist at Real Jardin Botanico in Spain, suggesting the creatures can survive the flight by protecting their DNA from UV rays with other binding substances -- they can even survive with almost no water.

Some experts, however, are more skeptical. "I have never heard of such a close association between long-distance dispersal over oceans and outbreak of a human disease," says Christopher Mundt, a professor of plant pathology at Oregon State University.

"This is more likely to happen with plant pathogens, but even there it seems to be somewhat rare and not something that happens on a regular basis." The correlations, he says, may have nothing to do with an agent being transported on the wind, but rather to something else associated with wind patterns.

Reported cases of Kawasaki disease are increasingly common in many parts of the world, particularly in Japan, where one out of 185 children will develop the disease before age 10. More than 12,000 cases have been reported in the country over the last year. Burns has also seen rising numbers in her San Diego clinic, although a growing awareness of the disease may be partially responsible. About 4,000 cases are reported in the U.S. each year, according to the American Heart Association.

In general, the disease is less recognizable outside of Japan and often mistaken for an inconsequential viral infection. Symptoms typically disappear on their own within a couple weeks. If not treated early, however, Kawasaki can cause irreversible heart damage. Burns recommends that parents consult a pediatrician if their child's fever lasts for at least five days and is accompanied by a rash, red eyes and red lips.

"This is a very insidious disease," says Burns. "The heart damage is silent. You have no way to know just looking at the child, but then in the child's 20s or 30s, they may present with a heart attack due to damage to arteries that happened during childhood."

In fact, she suggests that Kawasaki might be behind a number of the tragic heart-related deaths of young athletes. Only children with a genetic predisposition will get the disease, adds Burns, noting that Asian and African Americans have an increased susceptibility compared to other groups.

The ability to predict potential outbreaks of disease based on wind patterns, even without knowing nature of agent, has the potential to save lives, suggests Xavier Rodo, director of the Institut Catala de Ciencies del Clima in Catalunya, Spain, and lead author on the new paper.

Still, the lack of a known cause for the disease continues to be a major obstacle in disease prevention and treatment. If you don't know what you're looking for, it can be hard to find it, experts note. The key problem: Like other autoimmune diseases, the causative agent need not be present when symptoms appear. So researchers are forced to look further upstream -- as Burns and her team are currently doing.

"If there is a viral cause, one reason why it hasn't been identified to date is that we strongly suspect it is a virus in some new viral family that has not been discovered," says Dr. Anne Rowley, a leading expert in Kawasaki disease at Northwestern University Feinberg School of Medicine in Chicago. Her own research has found strong evidence to suggest a virus may be to blame.

So the hunt for the unknown continues. In March, researchers flew strategic sorties miles above Japan in the direction of the wind currents thought to be carrying the responsible agent. Ian Lipkin, a internationally recognized "virus hunter" at Columbia University in New York City, has begun analyzing dust samples collected by the specially designed filters in hopes of identifying candidate pathogens.
Chef Nate Appleman has received a James Beard award for Rising Star Chef, been anointed Best New Chef by Food & Wine, and is the champion of Food Network’s Chopped All-Stars. He is inspired by competition and is passionate about his career and his son Oliver. In 2009, Nate became a KD parent when his son was diagnosed with Kawasaki Disease at the age of two.

About a week after moving to New York, Oliver woke with a slight fever. He was tired and not behaving like his normal self. His parents cared for him, treating his symptoms, thinking he could be coming down with the flu. By the 3rd day, a rash and fever that had spiked to 103 degrees prompted a trip to the emergency room.

There was a long wait before finally being called to a treatment room. Once inside, the doctor found an ear infection and determined the rash to be Scarlet Fever. He would call the nurse to deliver a prescription for antibiotics and the discharge papers to go home.

While waiting for the papers, an unwanted visitor appeared beside Oliver. It was a bedbug and dad was not happy! The sudden and noticeable noise from the treatment room brought a rush of concerned hospital personnel to investigate. In the mix was a visiting physician who happened to be the head of Dermatology at NYU. After the excitement from the bedbug’s visit subsided, the dermatologist noticed young Oliver and asked what diagnosis he was given. Skeptical that it was Scarlet Fever, she told dad she suspected Kawasaki Disease and said to make an appointment to follow up in two days.

The antibiotics brought no improvement, and after two days Oliver’s fever and rash had progressed. The follow up visit with the dermatologist brought the diagnosis of Kawasaki Disease and Oliver was admitted to the hospital right away. His condition had worsened and painful attempts to begin an IV by poking him over and over proved impossible due to the severe dehydration and swelling. Eventually, sedation was needed to put him to sleep and open his shoulder to insert the IV.

Oliver was treated with IVIG right away with promises that after one treatment he should be OK. When two treatments of IVIG brought no response, attending physicians began to question the diagnosis. With his heart being monitored, several specialists were asked to evaluate little Oliver. The decision was to treat with steroids. This followed with some improvement, and Oliver was allowed to return home.

When Oliver’s symptoms returned, a second dose of steroids was given to continue treatment and he was scheduled to visit the cardiologist for an echocardiogram two days later. This test revealed giant aneurysms in his heart and Oliver and dad were sent directly to intensive care to receive treatment. Dad describes the walk from the cardiologist back to the hospital as the longest walk of his life. Total time in the hospital for young Oliver was 3 weeks.

It has been two years since Oliver’s diagnosis. He remains under a doctor’s care for the heart disease he acquired from having Kawasaki Disease.

Again, Dad is not happy! He cannot explain why his son acquired KD, nor does he see a cure in sight, but like with the bedbug, he is determined to draw attention to the issue. He is determined to work toward finding answers to the disease that wreaked such havoc on his young son’s precious heart.
Part of a healthy lifestyle is staying physically active. Doctors say kids should be physically active for at least 60 minutes a day. Here are some tips to keep in mind during physical activity:

**Physical activity is fun!** Being physically active doesn’t have to be a hard or scary thing. Did you know that riding bikes with your friends, jumping rope, playing hopscotch, and running around the park with your friends are all types of physical activity? Any game where you are up and moving are great ways to stay physically active and make your heart, bones, and muscles strong.

**Keep it exciting:** Ask your friends what their favorite types of physical activity are and make a list of all of them. Make a deal with your friends to try a new activity off the list each week. Who knows, you may learn a new game!

**On the playground:** Do you sometimes get scared to play a sport with your friends because you think you don’t know how? That’s okay, no one knows how to play every sport. So, the next time your friends start playing a game that you aren’t sure of, ask one of them for help. They will be happy to show you and glad that you are playing with them!

**Warm up before you start.** For example, if you’re going to be running, start by walking. Then walk fast, and then speed up to a jog to increase your heart rate.

**Stretching after any workout is very important to help prevent injury or strain.**

**Water is your friend – the harder and longer you work out, the more you need to hydrate.**

**Mix it up and keep it fun!** Don’t get stuck in a workout rut. Try and incorporate a new exercise every few weeks to keep you motivated.

**Break it up – you don’t have to have 60 minute workouts.** As long as your daily physical activity adds up to at least 60 minutes, you are okay.

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**Exercise Tips for Kids**

**Make The Most of Play!**

*Originally posted on the American Heart Association website: [www.heart.org](http://www.heart.org)*

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**After school:** We all have our favorite TV shows and video games, but did you know that too much of those are bad for your health? The more we watch TV or play video games, the less physically active we are. It is okay to do those things some of the time, but no more than 2 hours a day. Ask your parents to help you keep a chart of how long you watch TV or play video games each day and when you come home from school go for a bike ride or shoot some hoops before starting on your homework. Not only will you feel better, but you will think better too!

**Fun Fact:** A “warm up” is really your muscles “warming up!” When you aren’t active your muscles are cooler and tighter. Make it easier on your muscles by letting them get gradually loose and warmer instead of making them go straight from cold to hot (this is also important after your workout to keep from going from hot to cold too fast).

**Fun Tip:** Pick 2 to 3 of your favorite songs to play while you are stretching and don’t stop stretching until those songs are over. This will help the minutes go by fast and make sure you are stretching long enough.

**Fun Fact:** Did you know that 70% of your body is made of water? Make sure to replace whatever water you sweat out after each workout: your body needs it!

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**Break it up – you don’t have to have 60 minute workouts.** As long as your daily physical activity adds up to at least 60 minutes, you are okay.

**Fun Tip:** Start a “Workout Log” to track your exercise every day. 20 minutes intervals throughout the day will add up fast: who knows, you may even clock more than 60!

When we are smart about the way we play, our bodies can become healthier, stronger, and faster. Try to use new tip a week to recharge your playtime.
Heart Healthy Recipes

Life is busy! Between kids, work, friends and all that life has to offer, sometimes having a healthy meal is impossible!

With kids who have had Kawasaki Disease, eating “heart healthy” is important, even if they didn’t sustain heart damage. So in each issue, we would like to feature a heart healthy recipe that you (and your kids!) could try out. If you have a recipe you’d like to see featured, please send it to the editor.

Roasted Grapefruit
(Recipe by Chef Nate Appleman, and originally featured on NYTimes.com)

Ingredients:

1/3 cup muscovado sugar (use brown sugar if you don’t have muscovado sugar available to you)
2 teaspoons finely chopped mint
1 grapefruit

1. Cut the grapefruit in half and thoroughly loosen all sections with a knife. Dry the cut surface with a paper towel.

2. Pour the sugar in a 10-inch heavy skillet and place of medium-high heat. Stir until the sugar melts and darkens slightly (about 2 minutes); do not allow it to burn. Spread across the pan (it will not coat evenly) and immediately add the grapefruit halves, cut side down.

3. Move the grapefruit around in the pan to coat the surface. Using tongs or two spoons, transfer to serving dishes, cut side up. Sprinkle with mint and berries of your choice and serve immediately.
Epidemiology of Kawasaki Disease – Worldwide Numbers

By Vanessa Gutierrez

On February 7, 2012, 428 attendees joined in at the 10th International Kawasaki Disease Symposium in Kyoto, Japan. Among the attendees were Dr. Tomisaku Kawasaki, Dr. Jane Burns, Dr. Anne Rowley, Dr. Jane Newburger, Dr. Shulman Stanford along with many KD parents and researchers. Doctors from Australia, Costa Rica, India, Canada, Finland, Italy, Russia, Korea and many other countries all met in Kyoto for four days for one sole purpose – to learn about the latest Kawasaki Disease research.

Upon celebrating the 87th birthday of Professor Tomisaku Kawasaki, the present KD experts gathered to discuss the numerous reports presented from doctors worldwide. Below is a snapshot of some of the topics that were discussed at the symposium.

To begin, the epidemiology of Kawasaki Disease varies greatly from country to country. Japan, for instance, has an incidence rate of 240/100,000 children under the age of five; however, no reports are being made in countries such as North Korea, Africa and Latin America.

The lack of response rates makes it difficult to track KD cases in these countries, which makes researchers jobs even more difficult, so many efforts are being made to assure that KD cases are reported worldwide. Currently, the only Latin American country reporting KD cases is Costa Rica with 261 cases from January 1993 to December 2011, out of which 74% were initially misdiagnosed.

It was conveyed that some countries that do report KD cases still have a difficult time tracking accurate numbers and resorting to estimates. Indonesia, for example, reported based on 550 estimated cases of KD for Chinese children in this country every year, and 4,840 cases for Native descent children. However, the number remains questionable due to the fact that there is no registry in place in this country.

Tracking in Ontario, The Netherlands, Northern European Countries, Italy, W. Australia, Korea, Taiwan, Hong Kong and Singapore, on the other hand, have shown better success rates. Surveillance in Ontario, for instance, have been tracked through direct contact with all hospitals and pediatric cardiologist with 100% response rate.

Similarly, the Netherlands and Northern European countries track KD cases through coded hospital visits and discharges or mandatory monthly notification by pediatricians. Together with Australia, which is currently reporting a case of KD every other day, and other similar tracking systems in the previously mentioned Asian countries, rising or plateau incidents of Kawasaki Disease can be better noted and studied.

A tracking system evidently, is essential for researchers worldwide for better understanding of who is being diagnosed with KD and when.

While the United States is currently reporting a 2% mortality rate, other countries such as Malaysia and Costa Rica reported no documented KD related deaths. Surprisingly, Costa Rica has only one pediatric referral clinic, and still, has no mortality rates reported. Additionally, the Philippines reported a mortality rate of less than 1% at 2/1,526.

A 2009 KD surveillance database compiled by Healthcare Cost and Utilization Project in the United States revealed that there is no evidence for increasing incidents of KD in the United States, and that the number of patients with coronary aneurysms has remained stable at about 5% during a ten year surveillance period (2000-2009). Additionally, it was observed that even though in the U.S. Kawasaki Disease is shown to peak in the winter and spring, seasonality varies from country to country, with some countries sharing the winter/spring peaks, while others have spring/fall peaks.

The difference in the numbers reported worldwide vary tremendously, with increasing incidence of KD cases reported annually in Japan, and unknown numbers in Latin America where diagnosis is rarely made.

Kawasaki Disease experts have continued to recommend that all KD children to follow a healthy lifestyle whether their coronary arteries were impacted or not. Researchers continue to encourage KD parents to focus early on preventive care, encouraging KD children to avoid tobacco and substances, as well as controlling cardiac risk factors such as hyperlipidemia, hypertension, and high levels of fasting glucose, high BMI’s, and to engage in physical activity, as recommended by your child’s cardiologist.

In the past 50 years since Kawasaki Disease was first officially diagnosed in 1961, there have been many amazing breakthroughs due to researchers working worldwide.

Many questions still remain such as: “Is KD predictable?”, “Why is KD more common in people of Asian descent?”, and “What has been learned about etiology?”, but researchers are continuously working together to unravel the genetics of Kawasaki Disease. We are hopeful in the coming years that not only will these questions be answered, but that a diagnostic test for KD will be created to decrease the number of cases throughout the world.

Vanessa Gutierrez attended the 10th International Kawasaki Disease Symposium in Kyoto, Japan along with KDF Board members Greg Chin and Catherine Frank.

She is the mother of Bella, 5, who had KD in 2007 at 5 months old. She is the founder of The Faces of Kawasaki Disease, and you can visit their website at www.thefacesofkd.com or view their Facebook page at www.facebook.com/thefacesofkd
Ask the Experts

We are currently looking for more “Ask The Experts” questions. If you have a question that you would like answered, please contact us at editor@kdfoundation.org

The following Q & A was posted on the KD Forum on the KDF website (www.kdforum.org)

Editor’s Note: The original date of this posting was November 2008.

Q: My son had KD 6 years ago at age 5 and has no lasting cardiac involvement. On his latest blood test his cholesterol level came back high. He is in a normal weight range and eats healthy.

I was just wondering if there is any correlation between KD kids and high cholesterol. Should high cholesterol in children post-KD be more of a concern then in children without a history of KD? Can you give any guidelines in help with lowering cholesterol in children?

His cholesterol was 178 (normal is 100-169.) His LDL cholesterol level was 99 (normal range is 0-99.) Additionally, his T3 uptake was 34 (normal is 24-33.) His BUN/ Creatinine Ratio was 27 (normal is 8-27.) Glucose was 98 (normal is 65-99.) Even though some results are in the normal range they are at the high end of normal.

Thank you,
Beth

A:

Dear Beth:

Because the long term consequences of having had Kawasaki Disease without coronary aneurysms will not be known until the earliest patients reach middle age, it is important to avoid risk factors for atherosclerotic coronary artery disease (the type that adults get).

However, the cholesterol values that you cite below look good, with an LDL of 99. It seems likely, although you do not list the value, that your son’s level of HDL cholesterol (the good type) is excellent.

Assuming this is so, he does not need any medicines and should get plenty of exercise, follow a heart-healthy diet, and avoid smoking when he gets older.

Jane W. Newburger, M.D., M.P.H.
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Kawasaki Disease Foundation
Calendar of Events

If you have an event that you would like to add to the calendar, please email it to editor@kdfoundation.org

Do you have suggestions for upcoming newsletter articles? Would you like to have your or your child’s KD story included in the “Survivors” section? Please send the information via email to editor@kdfoundation.org

Kawasaki Disease Awareness Day is January 26th. To support KD research, donate $26! Click the button above and you will be taken to Paypal to complete your donation.

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