When is your child’s earache an emergency?
Learn how to easily treat an earache.

HOW TO ADDRESS TRAGIC EVENTS
Dr. Gabriela Bronson-Castain addresses how to talk with your child about tragic events

HPV VACCINE UPDATE
Pediatrician Dr. Celeste Allen outlines the recommendations for the HPV vaccine

SPRING 2017
The science is clear: Sugar-sweetened beverages are major contributors to obesity, diabetes, high blood pressure, heart disease, and other negative health consequences. The American Heart Association recommends that children have no more than 6 teaspoons, or 25 grams, of added sugar per day. However, just one soda has more than the whole day's allotment of sugar. Here are some examples of drinks that have too many added sugars:

- **Coca Cola**
  - 20oz. bottle
  - Sugars total: 65g

- **Red Bull Energy Drink**
  - 8.3oz. can
  - Sugars total: 27g

- **Vitamin Water**
  - 20oz. bottle
  - Sugars total: 33g

- **Minute Maid Orange Juice**
  - 15.2oz. bottle
  - Sugars total: 45g

We want an environment in our children's hospitals that makes it easy to choose healthy drinks, not an environment that exposes our children to more sugar than they need. As of March 1, both children's hospitals in Oakland and San Francisco will serve only drinks that contain less than 1 gram of sugar per 2 fluid ounces, with exceptions of 100 percent fruit juice and milk.

Wishing you good health,

Michael Anderson, MD
President, UCSF Benioff Children's Hospitals

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What was culinary school like?
About two weeks after graduating high school, I enrolled in the California Culinary Academy, which is now Le Cordon Bleu. I attended culinary school for about two and half years. Before you can graduate, you must complete a three-month externship (paid internship) in addition to your final exam, which consists of a “mystery basket.” It’s just like on the show “Chopped” where they give you a basket of ingredients and you have to come up with four courses in three hours. That was very exciting for me as a young cook, as I was one of the youngest students to attend at the time. Everyone in my class was already tenured or had owned a restaurant or winery.

After graduation, you get a job as a chef?
After graduating culinary school, you don’t necessarily become a chef right away; you have to work your way up. I was a line cook for a few years, working my way up to sous chef. I worked in many food outlets, including fine dining restaurants, country clubs, hotels and resorts.

The owners of The Stinking Rose restaurant in San Francisco wanted to expand to the East Bay, and I was a part of their opening team as a sous chef for their restaurant called The Dead Fish in Crockett. Then, I started cooking for country clubs, cooking for the LGPAs at the Hiddenbrooke Golf Club as sous chef for three years.

After that, I turned my focus to hotels. I was part of the opening staff at the Meritage Resort and Spa in Napa, working my way up to interim executive chef. I didn’t have a boss, so I was wearing a few hats at the time – and you’ll find in this industry that you wear a few hats, which is good for experience. It showed me that there is more to being a chef than just cooking. You have to learn budgeting and PNLs (profits and losses), and so much more. I was transitioning at this point to being in upper management: hiring, firing, mentoring, training. I had the opportunity to mentor a lot of people who are now very successful in the industry, which is something I cherish a lot.

How did you end up at Children’s?
As a chef, you are always working 16-hour days, working all the major holidays – and I barely got to see my first child. So I opted to go into corporate dining. I wanted a little better quality of life, and as a chef that’s really hard. One of the chefs that hired me suggested that I go into the healthcare sector. I had just had my firstborn. My wife gave birth early, and we were in the hospital for a couple of weeks, so I got to see what food was presented at a hospital, and it intrigued me. When the Oakland Kaiser built their new hospital, they hired me as their executive chef, which was a Monday-to-Friday job. Then Children’s asked me to join them, and by then I had my second child.

What sorts of ways can you keep being inspired at Children’s?
Your passion and your drive always translate into your food. At Children’s, we always try to do something better each and every day. We have a healthy initiative here at the hospital. I got rid of our fryer, so there is no longer any fried food in our establishment. We’re required here to do Chefs Table, which I do once a month – providing healthy options or promoting a new item. This is one of the areas where I can be creative.

How has it been working at Children’s?
What better way to give back than to feed some of the sickest kids in the country. I cherish it every day. I can get emotional, just knowing that maybe I can get one of these kids smiling because I can give them something they want, even it’s something as small as a cookie. It’s the best gratitude I could ever get – to get a child happy – when I know they are in pain. Being at Children’s has been one of my favorite gigs so far, by far the most rewarding. The best part of my job is making sure the kids are happy – and even the parents. I love my staff.
PUZZLE #18

50 chocolate candies are in a box.
- 30 of them are caramel-filled.
- 25 are coconut-filled.
- 10 of them have both.
- The rest are plain chocolate.

Which image best represents the box of chocolates?

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Answer______________
Stories of Science, Healing and Hope:
Three UCSF Benioff Children’s Hospital physicians share their perspectives on what drives their work

Is it possible to heal an entire community of kids? Can we diagnose and treat childhood cancers with pinpoint accuracy? Will staggering amounts of genetic data take the guesswork out of saving children’s lives? Amid a thousand *maybes* and a million *nos*, here are three stories that answer with a resounding *yes*.

**Dayna Long, MD**
Pediatrician and Medical Director for our Center for Community Health and Engagement

*population health*

*How do you make an entire city healthy?*

The definition of “population health” is actually very simple. How do you make an entire group of people, an entire city, an entire region – as healthy as possible?

When you walk through the halls of our hospital, there’s definitely something palpable about the dedication of the staff, from the physicians to the registration folks, to the environmental service workers. I guess it really comes down to love for the people and the work that we do.

The clinical work that I do and my research focuses on this concept of social determinants of health. Where a child eats, sleeps, plays, and goes to school, as well as environmental factors, drastically and profoundly impact health outcomes. Kids that grow up in poverty are more at risk for obesity, for asthma, for diabetes, for learning issues, and for mental health issues. We are addressing those root issues and thus improving patient population health.

I think what we are actually trying to achieve is how to actually be able to give everyone a chance to reach their potential.

**Mignon Loh, MD**
Pediatric Hematologist-Oncologist

*precision medicine*

*Can you precisely diagnose each cancer?*

How do you define “normal”?
When you are 5 years old and you have leukemia and you go to clinic every week and you see other bald kids who are getting shots like you’re getting, doesn’t that kind of become your normal?

Kids are very adaptable, and they can change as their circumstances change – and they can generally do that quite beautifully.

Part of my responsibility is to not only take care of patients, but to actually run a laboratory at UCSF; that’s what makes this university unique: We have some of the most brilliant minds in science studying, specifically, childhood leukemia and how to target it.

Leukemia cells look pretty much the same under the microscope, but we know there are dozens of different events that can cause the leukemia that you see under the microscope.

When I talk about precision medicine, I’m talking about precisely diagnosing the cancer and then having access to the right medicine to add to their chemotherapy. This can dramatically improve a patient’s outcome by precisely targeting that patient’s leukemia.

Our goal is to cure each child of cancer – to get rid of it forever and ever.

Studying patients and what they have to tell us, listening to them carefully, and being able to help alleviate some of their suffering makes me feel that I have something to offer them.

The kids teach me constantly about what’s important in life. I do what I do because I want to make people better. I love what I do.
We work on malaria and Zika virus, and we work on patients with unknown medical mysteries.

Children are one of our most vulnerable populations. Many patients who have an unknown and possibly infectious disease end up going on diagnostic odysseys. They go from doctor to doctor, clinic to clinic, test to test. And tests are all guess-based. You can very quickly send off 20, 30, 40, 50 different tests, and you still come up empty very often.

What we do is look at all the RNA and DNA in that patient’s sample (the genetic material of life), and we sequence everything that's in it. We simply ask the question, “What’s human, and what’s not human?” What’s very different about the research testing that’s now becoming clinically available is, with a single test you can detect all those organisms and more. When you use a data-driven genomic sequencing approach, you’re not subject to your preconceived biases, your cognitive framework from which you've seen samples throughout your lifetime. The computer and the data enters in that equation with none of that baggage.

It’s a real sea change in how you can approach diagnostics for infectious disease. When you know the etiology – the cause of something – you don’t do things that might harm the patient.

Because of years of research, a doctor can now order this test on day 1 of the infection – which eliminates this random diagnostic odyssey that so many patients endure. These kinds of diagnostics are likely to have a major impact on childhood disease.

This is where I think we need to be, and where technology is taking us.

Children’s Hospital Oakland Research Institute and Partners Receive $1.2 Million Grant to Advance Precision Medicine

A team at the Oakland and San Francisco campuses of UCSF Benioff Children’s Hospital, UCSF, and UC Berkeley have been awarded $1.2 million by California Initiative to Advance Precision Medicine (CIAPM) to help advance precision medicine in the state.

Major children's hospitals, such as the UCSF Benioff Children's Hospitals, often see patients who have unusual and severe inborn conditions that appear to be genetic, but the gene responsible for the disorder is unknown. The CIAPM-supported project, “Full Genome Analysis of Children to Guide Precision Medicine” led by Dr. David Martin of the Children's Hospital Oakland Research Institute (CHORI), will help advance precision medicine by developing methods that improve our ability to identify mutations that cause inherited diseases, and to find the cause of such difficult-to-diagnose genetic conditions.

Team members will leverage a new method for genome sequencing that provides a more complete picture of abnormalities in an individual's DNA. This “full genome analysis” may identify mutations in known genes that are invisible using standard methods of genome sequencing. Some mutations will be difficult to identify if they have not previously been described: To speed up the process of identification, the team will partner with other international teams, with the long-term goal of creating a catalog of all DNA variants that can cause human disease.

This project will actively seek to include racially and ethnically diverse patient groups, which have traditionally been under-recruited for genetic analysis – thus adding novel and important information to improve diagnosis and care for the population at large.

“This project will directly benefit patients and families by solving medical mysteries that have required lengthy diagnostic odysseys with uncertain outcomes,” says Dr. David Martin. “The answers produced by this new analysis will give patients and their doctors insights that will permit appropriate management of the condition and thereby reduce the costs of care. The project will also expand the number of conditions in which we will be able to deliver a definite diagnosis.”

“By bringing together clinical genomics efforts at both BCH campuses,” says UCSF’s pediatric medical genetics specialist Ophir Klein, MD, PhD. “It is an example of the exciting synergies that we hope to achieve as we build a unified medical genetics division.”
The World Health Organization reports that worldwide in 2015, an estimated 15 million babies were born preterm, and that complications from preterm birth were the leading cause of death among children under age 5, accounting for nearly 1 million deaths. In the United States, according to the Centers for Disease Control and Prevention, about 10 percent of babies were born prematurely in 2015, with women of color and those living in poverty being affected disproportionately.

“Preterm birth is a ‘silent epidemic’ worldwide and here in the U.S.,” says Larry Rand, MD, an OB/GYN specialist and director of the Preterm Birth Initiative (PTBi) at UCSF. “A preterm birth occurs before 37 weeks of pregnancy, but that doesn’t capture the whole picture. There is a huge difference in outcomes and development in a baby born at 34 weeks and a baby born at 28 weeks, even though they are both classified as a “preterm birth.”

Dr. Rand notes that the rate of preterm births has not changed much over the past decade, nor has there been any real progress in reducing the overall toll of prematurity on long-term health.

“Most people assume we have made great strides in caring for preterm babies, but that is not necessarily the case,” he explains.

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The gestational age when a baby might be able to survive has dropped to 23 weeks in the U.S. The 14 million preterm babies worldwide who survive, however, can have serious complications – such as asthma, developmental delays, diabetes and heart disease – that can carry over into adulthood.

To address the dual issues of reducing preterm births and improving outcomes for preterm babies, UCSF launched the PTBi in 2015 with funding from Marc and Lynne Benioff, in partnership with the Bill & Melinda Gates Foundation, who are supporting a parallel arm in East Africa. The California initiative focuses on specific communities in San Francisco, Oakland and Fresno and is supported by the UCSF Benioff Children’s Hospitals as well as Community Regional Medical Center in Fresno.

“The funding included a year of planning time to allow us to analyze why nothing had really changed and to consider what we could do differently,” Dr. Rand says. “One conclusion was that we needed to get obstetricians to work with other medical specialists and scientists, as well as with outside groups such as government agencies, schools, community- and faith-based organizations, and even businesses, to develop a transdisciplinary team to tackle this problem.

Studying preterm births, locally

“We realized we can’t move the needle on preterm birth if we’re not working together on factors that affect the lives and health of pregnant women and their families – their environment, neighborhood, poverty, access to healthcare, diet, family and community history,” he adds.

The PTBi team analyzed data about preterm births across California over the previous decade. While the state as a whole had a 10 percent rate of preterm births, there were “hot spots” where the rates were 12, 15, even 18 percent, while other other locations had rates as low as 3 percent.

“We recognized that premature birth is one manifestation of poverty, and there is no doubt that racism, rather than race, plays a role,” says Dr. Rand. “Preterm birth is the epitome of racial and socioeconomic health inequity. Scientists long recognized that women of color and lower income have much higher rates of prematurity. The stress associated with racism and poverty result in biologic changes in women’s genes, which then predispose them to higher rates of pregnancy complications. That’s different from the previously held belief that black women simply had a higher genetic predisposition to prematurity than white women.”

As examples of these disparities, 76 percent of births in Fresno County are covered by Medi-Cal – indicating low
Blood test predicts mother’s risk for preterm birth

Looking at the biological factors that contribute to preterm birth, the PTBi has been making progress and announced development of a blood test to help predict a mother’s risk. This mid-pregnancy blood test evaluates “markers” related to placental, lipid, immune system and hormone function. Combined with information about women’s obstetric risks such as hypertension, diabetes and obesity, the test can identify over 80 percent of women who will have a spontaneous preterm birth. The test offers the possibility of interventions aimed at delaying delivery and improving the babies’ outcomes.

Eventually, pregnant women may be able to receive the test early in pregnancy, when they receive other routine screening tests.

“While this blood test could be a useful tool for certain women, we also have to evaluate other factors,” Dr. Rand says. “For example, high stress can contribute to preterm births, and for some women, having the test and finding out their baby is likely to be born early might actually increase their stress. How the information is delivered, the counseling, and the development of trusted relationships are all key components to developing a test like this.”

Another area of interest for the PTBi team is to explore changing patterns of prenatal and postnatal care. “The traditional one-on-one model of care in a doctor’s office may not be the best for some patients,” Dr. Rand explains.

Research has shown that providing prenatal care in a supportive group setting may improve income. The preterm birth rate for 2012-2014 among African-American women in Fresno was 15.9 percent – 60 percent higher than the county’s average rate of 9.7 percent. In contrast, the rates were 9.3 percent for Latinos and 9.0 percent for white women. In San Francisco, only 7 percent of births were preterm, but those births were concentrated in the city’s southeast corner. In Alameda County, the overall preterm birth rate was 8.7 percent in 2013. In the African-American community, however, the rate was 11.2 percent.

The determination that the highest rates of preterm birth correspond to areas with the lowest socioeconomic status and communities of color (i.e., low-income women and women of color) is a driving factor in why the California PTBi is “place-based,” focusing on specific high-risk areas of San Francisco, Oakland and Fresno County.

When Angela Banks was about 17 weeks pregnant with her son Tru, she started developing high blood pressure, which she had never experienced before. As the pregnancy progressed, she was diagnosed with preeclampsia, a condition in pregnancy that is marked by high blood pressure in women who have previously not experienced high blood pressure. Preeclampsia can lead to serious, and perhaps even fatal, complications for both mother and baby.

“The preeclampsia really started bothering me at about 29 weeks into the pregnancy,” Angela recalls. “At 31 weeks, they decided to admit me to the hospital at UCSF because of the high blood pressure, hoping I wouldn’t deliver the baby that early. They ended up having to induce labor at 33 weeks because the blood pressure was so high. Little Tru was born weighing only 3 pounds, 13 ounces.”

In addition to his small size and low birth weight, Tru also was born with a birth defect called tracheoesophageal fistula (TEF), an abnormal connection (fistula) between the esophagus and the trachea.

“Basically, Tru was born unable to swallow,” Angela explains. “His esophagus didn’t connect to the stomach, and the stomach was connected to the lungs.”

Repairing the defect would require two major surgeries, the first of which was performed on the day he was born. Performed by UCSF pediatric surgeon Tippi Mackenzie, MD, that surgery disconnected Tru’s stomach from his lungs and inserted a gastric feeding tube into his tiny stomach.

Angela says, “While Tru was recovering from the second surgery, he could swallow but had some major setbacks.”

During his lengthy hospital stay, Tru had refused to eat, losing the ability to nurse or suck. When he was discharged, he still had a gastric feeding tube.

“Tru was diagnosed with an oral feeding aversion, which is a situation where a baby who is physically capable of feeding exhibits partial or full food refusal,” Angela notes. “The discharge team at UCSF’s ICN referred Tru to feeding therapy. As he started preschool and when he played with his cousins, he started eating more on his own, although he still is reliant on the feeding tube for part of his nutrition.”

“Tru now attends Early Head Start five days a week, and he loves school,” Angela says. “With Tru being born prematurely and having to stay in the hospital for so long, I thought he might have delayed development, but he’s actually ahead of many kids his age. When we went to see his pediatrician, Dr. Carol Miller, at UCSF last October, she couldn’t believe how well he was doing.

“I really love the doctors and nurses at UCSF Children’s Hospital,” she adds. “They are like family to us. They are genuinely concerned about their patients.”
outcomes for some patients, according to Dr. Rand. Receiving prenatal care in a group with the support of other pregnant women with similar due dates has become more popular in recent years. A group learning and discussion curriculum could include nutrition, exercise, relaxation, childbirth preparation, pregnancy problems, infant care and feeding, postpartum issues, communication, self-esteem, abuse and parenting.

“Some studies show as much as a 35 percent reduction in preterm birth with group care,” says Dr. Rand. “We’re not sure why the rate decreases so powerfully, but one hypothesis is that peer support and education help empower women and reduce stress.”

**Methods of delivering innovative care at UCSF Benioff Oakland**

“Children’s Oakland has long offered a home visit program for families with preterm infants,” says Dr. Rand. “The Special Start program provides medical, developmental and psychosocial services in the family’s home by a highly skilled team. Services are provided after the baby goes home that help parents with the long-term adjustment of parenting a baby that has been very sick at birth.”

The PTBi team also is looking at changing how care is provided to preterm babies in hospitals. “The Neonatal Intensive Care Unit (NICU) at Children’s Hospital Oakland is one of the leaders in caring for preterm babies and could serve as the model for other hospitals to follow,” says Dr. Rand.

Under the direction of Priscilla Joe, MD, the NICU at Children’s Oakland is the only Level IV NICU in the East Bay. With experts in caring for critically ill infants who require intensive multidisciplinary specialist care, the NICU can monitor and support a newborn’s vital functions beyond the level of care available in a general pediatric unit. The tiniest and most fragile patients receive developmental care provided by a specially trained group of NICU nurses under the guidance of Senior Infant Development Specialist Bette Flushman, MA.

“We guide families in how to provide care that enhances fragile babies’ neurodevelopment while increasing their comfort,” Flushman says. “These interactions promote attachment and bonding that can be at risk in the NICU. Parents who might hesitate to touch and hold their babies learn to understand the subtle signals that indicate both stability and stress in their babies. The NICU nurses and staff guide parents in providing appropriately sensitive care, handling, and touch that benefit the infant and encourage mutual attachment for infant and parents. We help parents offer neurodevelopmental care that includes early touch, skin-to-skin holding, infant massage and a calming method of swaddled bathing. These methods and the guidance from our staff help parents gain confidence in caring for their infant, promote bonding, and work in conjunction with medical care in the NICU to benefit the infant.”

“A NICU stay may be traumatic for families,” says Dr. Joe. “Babies are separated from their mothers, and it may be months before the child can go home. In an attempt to enhance the experience for babies and their families, we will be involved in an innovative study led by Linda Franck, RN, PhD, of the PTBi-California Newborn Family Research Collaborative. The study will examine the use of family integrated care (FiCare) in the NICU.”

With FiCare, parents receive formal teaching and nursing support and are encouraged to be the primary hands-on caregivers for stable premature infants.

“This ‘care-by-parent’ model focuses on the well-being of both parents and infants,” Dr. Joe explains. “It is a dramatically different approach from current NICU practice and has been shown in other countries to improve infant growth and breastfeeding success, and to reduce parental stress. In preparation for implementing this model in an American setting, the PTBi research team will provide staff training and psychosocial support from veteran parents. PTBi also will test a special mobile application for parents to document their experiences. The mobile app may help provide a communication bridge for parents who are unable to visit their babies during routine business hours. From this study, we hope to develop a model where families are invited and supported to participate in their child’s care to the best of their ability.”

At Children’s Oakland, the Center for Community Health and Engagement also is working with the PTBi to develop services for Oakland that will engage people in the community and include research with community participation. “We will assist PTBi in developing Oakland-based strategies as well as in training and development of any program that replicates Special Start,” says Director of Community Partnership Programs at Children’s Oakland Susan Greenwald, LCSW. “The research will help us better understand what parents feel are the most important components of the program and help us create a manual of the interventions for potential use in replicating the program.”
Veronica and Juan Luis Chavez were eager to become parents, and when they learned Veronica was expecting twins, they were delighted. At about 25 weeks into the pregnancy, their world turned upside down.

“The babies were in different placental sacs, and one was getting all the nutrients,” says Veronica. “My doctor sent me to the emergency room at Alta Bates Summit Medical Center in Berkeley. When I got to the ER, they put me on a monitor that showed I was having labor contractions, although I hadn’t felt them.”

On the sixth day in Alta Bates, when Veronica was past the 26-week mark in May 2016, the doctors gave her what she calls “good news/bad news.”

“They told me they could give the babies a better chance to live outside the womb by giving me a C-section delivery,” she says. “The smaller baby might die in the womb and cause trauma to the larger baby, who might die then, too. We decided to do the C-section delivery.”

The doctors performed the delivery later that day. Luis Tadeo was born first, weighing approximately 2.1 pounds and measuring 13.38 inches. The smaller baby, Juan Pablo, weighed only 1 pound and measured 10.63 inches.

“After Luis Tadeo was born, they took him to the Newborn Intensive Care Nursery (NICU), and I had to wait a few more minutes for Juan Pablo to arrive,” Veronica says. “Those were the longest minutes of my life. Juan Pablo’s skin was almost transparent, and he was so very, very tiny. When he cried, he sounded like a tiny little kitten. They intubated him right away because of his dangerously low oxygen level.”

Luis Tadeo was able to start feeding on his own at about 2 months of age, and he was allowed to go home. Prior to taking him home, the family met with a discharge planning group that included Chela Rios Muñoz, LCSW, from the Special Start Home Visiting Program offered by the Early Intervention Services Department at Children’s Oakland.

“I could only bring one baby home,” Veronica says. “I left a part of my heart in the hospital with my other baby. Fortunately, God sent us our angel, Chela. She helped me make doctor appointments for Luis Tadeo and find solutions to the many problems we faced.”

By January 2017, Luis Tadeo had grown to 26 pounds – close to average for his “corrected age,” which takes into account the 14 weeks of prematurity. Juan Pablo was 22½ pounds. Both boys are doing well.

“The Special Start program has been a great help to us. I appreciate with all my heart how Chela has helped us. We will be grateful to her for all our lives.”

Special Start Program Supports Premature Babies and Their Families Upon Discharge from Hospital to Home

Special Start staff members are all cross-trained to assess each baby’s needs and pull in other specialists to support the baby and family as necessary. Chela, the primary case manager for the Chavez family, brought in other Special Start professionals to aid in providing the extra care Juan Pablo required.

“The first person I brought in for Juan Pablo was a nurse,” Chela explains. “I also brought in a physical therapist who taught Veronica how to support Juan Pablo’s physical development.”

By January 2017, Luis Tadeo had grown to 26 pounds – close to average for his “corrected age,” which takes into account the 14 weeks of prematurity. Juan Pablo was 22½ pounds. Both boys are doing well.

“Working with medically fragile babies and families through Special Start is extremely rewarding,” says Chela. “I have the opportunity and the honor to meet babies and their families at a very vulnerable time in their lives and to support their strength and resilience.”
Talking With Your Kids About Tragic Events

When tragic events occur that hit close to home, how much do you tell your children?
Everyone wants to be able to protect their children, but we also want to be honest with our children within their developmental age of understanding. Preschool children have a limited concept of permanence. For example, if someone dies, they may believe death is temporary or reversible. An older child may understand these issues. Parents should provide their children with honest information that is not overwhelming. It is best to provide basic and honest information that is developmentally appropriate.

How many details should you share about a tragedy or crime?
Children do know that bad things can happen. We don’t want to avoid talking about these events entirely, but we also don’t need to go into a lot of detail about the circumstances. If there is a crime involving the death of a child, I would not tell a preschool child about any of the specific details, but I might let them know that a child has died. In general, the older the child, the more they will understand. But despite their comprehension of a tragic incident, they may not have the coping skills to manage confusing feelings. No matter what the age, when talking about a crime which has occurred, parents should focus on their child’s feelings. Their child could be feeling anxiety, sadness or fear. But remember, just because an incident is distressing, it doesn’t mean the child will experience distress. It’s okay for a tragic event to occur and for a young child to appear unfazed. It is not necessarily an indication of suppressing feelings. They may not know how a traumatic event is going to impact their lives, and therefore do not a template for how to respond or what this will mean in the future.

Should parents prepare before having these conversations with children?
As with any important conversation, parents should rehearse what they are going to say to their child. It’s important for parents to recognize how they are feeling about an event, so they don’t project their own anxiety or fear onto their children. You want to be clear and talk to children about the ways they can stay safe. Talk about how to stay safe physically, and validate their feelings (e.g., “I know you are feeling really scared that something bad may happen to you, and here’s how we’re going to keep you safe”). Identify what questions may be most difficult to answer so you’re not stumped. Parents should allow their children to share negative or scary feelings or worries, so that the parent and child can troubleshoot these fears together. Instead of saying, “Don’t talk about it; don’t think about it; Mommy won’t let anything bad happen to you,” a better approach may be, “Tell me what you are worried about so that we can talk about what we can do together to help you feel safe.”

What kind of impact do social media and other media have on children when tragic events occur?
Older children are often on their smart phones, so they can gather information easily. It’s definitely better when information about tragic events comes from parents rather than social media sources. By talking about tragic events with their children, parents provide a space for their children to talk about their feelings.

How do parents communicate information about tragedies, especially involving children, without making their own children afraid for themselves?
It’s important for parents to learn how to help children understand their own intuition and their own ability to trust in themselves. We don’t want them to be scared, but children also need to be able to say when they don’t feel comfortable. We really appreciate when children are polite and thoughtful, but we also need to help them identify when a situation doesn’t feel right anymore. Children can often surprise us with their intuitive state. It’s difficult because we can’t promise that bad things won’t happen, but we can help them know whom they can turn to if they are feeling frightened, overwhelmed, lonely, or confused. The last thing we want to do is avoid these conversations. We can protect them best by giving them skills to communicate their concerns and fears with trusting adults who will listen.

Most importantly, remember that being a parent doesn’t mean that you have to be perfect. Just do your best, and respond with love and compassion.

Dr. Gabriela Bronson-Castain, Clinical Director, Emergency Psychological Services, UCSF Benioff Children’s Hospital Oakland
Anytime is a great time for a structured strength training program. Here are some good indoor exercises that we use at the Sports Medicine Center for Young Athletes.

None of these exercises or drills should cause pain, and if you have any trouble with these drills, discontinue them immediately. If you have any questions about building a comprehensive strength and flexibility program, come ask us at the Sports Medicine Center for Young Athletes!

**Top Four Indoor Exercises**

**Chair squats**
- Put a sturdy chair behind you, and stand just in front of it.
- Keeping your toes straight ahead and your knees over your feet, push your hips backward and squat toward the chair.
- Descend toward the chair, and stop just before you touch. Hold that position for five seconds and then stand back up. Repeat 20 times.

**Paint the wall**
- Lie on your side with your back flat against the wall so that your head, shoulders and hips are pressed up against the wall. Straighten your top leg, and push your heel against the wall.
- Slide your heel up and down against the wall in an arc like you are “painting the wall.” You should feel the muscles on the outside of your top hip getting fatigued. Repeat 20 times.

**Seated band pull-apart**
- Sit up tall on top of an exercise ball or on a sturdy chair.
- Hold an elastic band in front of your chest with your elbows straight.
- Squeeze your shoulder blades together, and pull your hands apart. Repeat 20 times.

**Front plank**
- Lie down on your stomach with your toes curled up and your elbows under your shoulders.
- Hold your body up with just your elbows and toes on the ground for 20-30 seconds.
- Tighten your abdominals, and lift your stomach up off the ground.
Children’s Team Is a ‘Lifesaver’ for Los Altos Teen Critically Injured in Delta Boating Accident

Some of the pediatric services involved in Jeffrey's care included surgery, infectious disease, diagnostic imaging, orthopaedics, physical therapy, child life, pharmacy, nursing and psychology.

Last year on Tuesday, June 7, Jeffrey Taylor was enjoying a fun, early summer day on the Sacramento-San Joaquin River Delta with his paternal grandfather, his father's sister and two of his friends. Jeffrey and one friend were riding in an inner tube being towed by his grandfather’s boat. Suddenly the towrope broke as the boat turned a corner, and the inner tube veered off into shallow water and dashed the two boys against an outcropping of sharp rocks.

"I remember most of the accident, except for a few minutes after I hit my head on the rocks," recalls Jeffrey, who was 13 at the time. "I saw it coming. I was able to formulate in my head that we were going to hit the rocks. Then I woke up in the water, and I couldn't move my legs.

When I woke up in the water, I couldn't move my legs."

Assessing the injuries

Jeffrey had sustained serious lacerations and abrasions on his head. CT scans of the head and neck confirmed a diagnosis of a mild concussion accompanied by a brief loss of consciousness. In addition, he had substantial open wounds on both legs and an open fracture of his right femur (thigh bone), near the knee joint.

Children's Division Chief of Pediatric Surgery Wolfgang Stehr, MD, closed up the head wounds while Pediatric Orthopaedic Surgeon James Shively, MD, repaired Jeffrey's right leg and cleaned out the wounds on both legs. The surgery on Jeffrey's right leg was particularly complicated.

"Before the surgeries, Dr. Shively described what would happen in surgery," Jeffrey says. "He told me that the X-rays showed a solid object on the inside of the right thigh, and they thought it might be a rock that had gotten into the leg through one of the wounds. It turned out to be a piece of the femur that had been knocked off the outside of the bone and moved to the inside of the leg. They had to move that piece of bone back where it belonged and use screws to put the bone back together."

"When they opened up the dressings on his leg wounds, they saw clear signs of infection and inflammation, with his fever reaching above 104° F," Joe says. "That's when they decided to perform another surgery the next day to clean up the infections."

Dr. Shively again performed surgery on Jeffrey's, irrigating the wounds and washing out the infections in both knees. In addition, the medical team called Children's Division Chief of Pediatric Infectious Diseases Charlotte Hsieh, MD, FAAP.

"Jeffrey had lacerations and abrasions that allowed water from the Delta to get into his wounds," Dr. Hsieh explains. "Fortunately, we have a great microbiology lab right here at Children's, so we were able to quickly and accurately identify the bacteria causing his infections within a couple of days. We identified multiple types of bacteria, all of which were waterborne bacteria from the environment. They clearly were not hospital-acquired infections."

Dr. Hsieh and her fellow in training, Prachi
Post-surgery care

“Having physical therapy five days a week while he was in the hospital was wonderful for Jeffrey,” Julia says. “Because he had been bedridden for so long, his muscles had atrophied. He had lost about 30 pounds because he had to fast before the surgeries, and he was on strong pain medications. The physical therapist, Sheila Madden, started working with him while he was still in bed, enabling him to get from his bed into a wheelchair with some help. Then she worked out how to get him from the wheelchair into our minivan. He eventually took a few steps using a walker before he finally was able to go home.”

Jeffrey echoes his mother’s praise of the inpatient physical therapy he received and expresses his gratitude for other services offered by the Children’s staff.

“The physical therapist was really helpful in starting my rehab,” he says. “Because of her work, followed by outpatient rehab closer to home five days a week, I met my goal of starting school on time in August and walking into school without a walker, using only leg braces. The nurses at Children’s – especially Raphael Whelan and Kelly Marker – were wonderful, helping to keep my spirits high. I also had a psychologist who helped me get over a night terror related to the accident (Gabriela Bronson-Castain, PsyD, who has expertise in post-traumatic stress disorder and other trauma-related psychological problems). The child life specialists brought in games and videos to help me pass the time, and they explained some of the medical procedures to me. I also had great orthopaedic residents, Dr. Kevin Choo and Dr. Jacqueline Nguyen, who came every day to change my bandages and dressings. I also enjoyed the bingo games on Thursday nights and the time a cartoon artist from Pixar came to the hospital and drew a character from ‘The Incredibles’ for me.”

Jeffrey’s parents had taken turns staying with Jeffrey at the hospital while the other parent took care of their other two children. They were relieved to have him home.

“It had been hard logistically to travel back and forth to Children’s from Los Altos, but we were convinced Jeffrey was getting the best care possible,” Joe explains.

“Children’s had the right specialists for all his conditions, from the incredible surgeons to the infectious disease doctors who were very good at describing what was going on, to the physical therapists and child life specialists, to the two male nurses who made our teenage boy feel more comfortable about going to the bathroom and helped to wash his hair,” he adds. “You get the sense that their entire focus is on caring for children. We never felt that they were rushing through treatments or explanations of what was happening. It was a total team effort, taking a holistic approach and attending to all aspects of his care. When you are in a hospital like Children’s, you truly gain a different perspective on how important it is to have this kind of amazing care available.”

Jeffrey continued to see the infectious disease doctors at Children’s occasionally until his infections were deemed totally clear on August 25. In addition, he received follow-up care from orthopaedic surgeon Dr. Jagodzinski, who determined by November 18 that Jeffrey could resume his previous sports activities.

“Jeffrey had been doing great – even better than expected,” Dr. Jagodzinski observes. “As infections in the joints can be devastating to the cartilage surfaces, we wanted to be confident that he was strong enough and that his infections had cleared appropriately prior to resuming his regular school sports. He has occasional aches and pains, as his full recovery continues, but his recovery has been a remarkable success to date.”

Jeffrey, now 14, has already played in a few basketball games.

“My goals from here on out are to keep getting stronger,” he says, “and to play sports at the level I could before I was injured. I have experienced some pulled muscles and other frustrations as I try to get back up to full speed, but I am determined to keep going.”
When is an ear infection an emergency?

An ear infection is an infection of the middle ear (the space behind the eardrum). It can be caused by viruses or bacteria. It usually is a complication of a cold and typically starts on or after the third day of the cold. A cold can block off the tube that connects the middle ear to the back of the throat (the Eustachian tube), and this blockage makes it easy for bacteria and viruses to grow.

### EAR INFECTIONS

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<thead>
<tr>
<th>Types of ear infections</th>
<th>Preventive measures</th>
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<tr>
<td>There are two types of inflammation of the ear:</td>
<td>• Some children are more prone to infection due to the shape of the face or Eustachian tube.</td>
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<td>• Mild: The more mild type that does not require treatment is called <strong>otitis media with effusion</strong> (OME). This is fluid behind the eardrum that causes mild bulging, and the drum has mild redness. This type of inflammation does not need treatment with antibiotics.</td>
<td>• Others are more at risk due to propped-up formula bottles or smoke in the home.</td>
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<td>• More severe: The fluid behind the eardrum can be a set-up for a more significant infection later. This infection is called <strong>acute otitis media</strong> (AOM). If there is fever with recent ear pain or drainage (that is not from swimmer’s ear), then this type of ear infection is suspected.</td>
<td>• Vaccines like pneumococcal vaccine can reduce the incidence of bacterial ear infections.</td>
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<tr>
<td>• Preventive measures</td>
<td>• Breastfeeding and keeping tobacco smoke away are also protective measures.</td>
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<tr>
<td>• Ear infections are not contagious.</td>
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<th>Symptoms</th>
<th>When to go to the ER</th>
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<td>• Tiredness, teething and fluid behind the eardrum will sometimes cause ear rubbing; this does not mean there is an infection.</td>
<td>It can feel like an emergency when there is an earache in the middle of the night. Unless the child is under 6 months or has a problem fighting infections, it is completely reasonable to use a pain reliever and call your pediatrician in the morning. The emergency room is there for children who seem very ill despite pain and fever medication.</td>
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<td>• Young children show ear pain by holding, tugging or rubbing the ear, with the pain worsening at night.</td>
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<td>• An ear infection usually presents with fever lasting longer than 72 hours from the onset of a cold or with fever recurring later in the illness.</td>
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<td>• Other symptoms are irritability and poor sleep.</td>
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<td>• Some children have trouble hearing; a few have dizziness.</td>
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<td>• In 5-10 percent of children, the pressure in the middle ear causes the eardrum to rupture and drain a yellow or cloudy fluid.</td>
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<th>Ear infection complications</th>
<th>Returning to normal activities</th>
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<td>Newborns, young infants and immune-compromised children need to be evaluated to make sure there is no complication from the infection and that the infection is isolated to the ear. Children with recurrent infections (3 episodes in 6 months or 4 episodes in 1 year with 1 episode in the preceding 6 months) may require a consultation with an otolaryngologist. An otolaryngologist (or ear, nose and throat doctor) may suggest ear tubes or other elective surgical procedures to help prevent future infections. Ultimately, we want to prevent scarring of the drum so that kids hear, as well as they can especially during the early language-development years. Prophylactic antibiotics are no longer prescribed to prevent infection. Surgeries are often simple outpatient procedures.</td>
<td>• Your child can return to normal activities when he can go outside, and he does not need to cover his ears.</td>
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<tr>
<td>Swimming is fine as long as there is no perforation (tear) in the eardrum or drainage from the ear.</td>
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<tr>
<td>Children can travel safely by aircraft if they are taking antibiotics. Give them a dose of ibuprofen one hour before takeoff to deal with any discomfort they might have. Most will not have an increase in their ear pain while flying. While coming down in elevation during an airline flight or a trip from the mountains, have your child swallow fluids, suck on a pacifier, or chew gum.</td>
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<tr>
<td>Your child can return to school or daycare when he or she is feeling better and the fever is gone. Ear infections are not contagious.</td>
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Most children will have at least one ear infection, and some children will have repeated ear infections.

### TREATING EAR INFECTIONS WITH AND WITHOUT ANTIBIOTICS

**Overview**
Antibiotics may or may not be needed to treat an ear infection; it depends on a couple of factors. For mild ear infections, we try to avoid antibiotics. There are numerous studies to show that children with healthy immune systems can wait it out for 48 hours, and most will get better without treatment. In order to avoid antibiotic resistance or an adverse reaction, we should not rush to start antibiotics. Mild cases are more often caused by viruses and will get better on their own.

**Acetaminophen or ibuprofen**
The first line of treatment for any ear infection is pain and fever relief. Acetaminophen or ibuprofen can be used to help with the earache or a fever over 102°F (39°C) for a few days until an antibiotic takes effect. These medicines usually control the pain within two hours. Earaches tend to hurt more at bedtime. To help ease the pain, some providers recommend using a heating pad or warm, moist washcloth. Remove the heating pad after 20 minutes to prevent a burn.

**When to take antibiotics**
Antibiotic treatment is indicated in the following situations:
- Bilateral or unilateral AOM in children older than 6 months with severe signs and symptoms, fever higher than 102°F (39°C), and moderate/severe ear pain or ear pain lasting longer than 48 hours.
- Bilateral ear infections in children 6 to 23 months.

**Making decisions with your pediatrician**
Shared decision-making between provider and parent/guardian is now the standard. This typically involves a plan to treat ear pain for 48 hours and a follow-up plan to consider antibiotics if the pain and fever are not better in a couple of days. Shared decision-making is recommended in the following situations:
- Unilateral AOM in children 6 to 23 months without severe signs/symptoms.
- Any non-severe AOM in children older than 24 months.

**Reactions**
The usual bacteria respond to amoxicillin in high doses or to one of the other alternatives available. Recent antibiotic use and previous reactions to classes of antibiotics are reviewed prior to treatment. The pain and fever can persist for 48 hours after starting antibiotics, so it makes sense to give acetaminophen or ibuprofen for the first two days whether or not antibiotics have been started.

If antibiotics are used, your pediatrician may need to change your child’s treatment if he is not feeling better and without fever 48 hours later. If a child still has pain or fever two days after starting treatment, you should bring the child in to see your clinician for follow-up. An ear check after a resolved, isolated infection is not required unless ear infections have become a chronic problem.

It is important to give your child her medication on schedule. If instructed, store the antibiotic in the refrigerator, and use a measuring syringe (not a kitchen spoon!) to be sure that you give the right amount. Administer the medicine until the bottle is empty or all the pills are gone. Do not save the antibiotic for the next illness because it loses its strength over time. Even though your child will feel better in a few days, give the antibiotic until it is completely gone. Finishing the medicine will keep the ear infection from flaring up again. The length of treatment with oral antibiotics varies from 5 to 10 days, depending on age and severity.

FOOD CORNER

Turmeric, Chia Seeds and Coconut Oil:
Trendy foods, or food with real benefits?

Among the currently prevalent food trends widely touted for their health benefits are turmeric, chia seeds and coconut oil. But what are these foods, really? Are they as beneficial as they claim to be? There is some scientific evidence that supports, in varying degrees, the nutritional and health benefits of these foods. However, as with anything, moderation is key, as consumption of any food in excess may yield unwanted side effects.

Turmeric

What is it?
Widely used in curry dishes to give a distinctive flavor and bold yellow color, turmeric is typically used as a powdered spice and is made from the rhizome of the turmeric plant. In regions such as Southeast Asia, turmeric has a long history of use for its medicinal properties. It contains more than 300 different components – such as curcumin, the most extensively studied for its health benefits.¹

Health benefits
• Considerable research has shown anticancer and anti-inflammatory properties of turmeric; it may halt tumor cell growth by blocking inflammatory pathways.¹
• Turmeric may be beneficial for wound healing due to its action as an anti-inflammatory as well as its antioxidant and antimicrobial properties.²
• There is growing evidence indicating that turmeric may improve skin conditions such as acne and psoriasis.³

Health risks
• Turmeric may not have ideal bioavailability from oral consumption.⁴
• There was a recall in August 2016 of six brands of the spice due to contamination with excessive lead.⁵

How to eat or drink it?
Turmeric is ubiquitous in curry powder, which is used frequently in Thai and Indian curry dishes. It can also be used in beverages such as teas and smoothies.

Coconut Oil

What is it?
A tropical fruit oil that is solid at room temperature, coconut oil is extracted from coconut meat and is often used in cooking and baking.

Health benefits
• Coconut oil is derived from a fruit and contains medium-chain fatty acids (MCFAs). These fats are more readily absorbed and thought to be less damaging to the heart than longer-chain saturated fats, such as those found in butter.⁸
• Some research indicates that lauric acid, the main MCFA in coconut oil, increases HDL (“good” cholesterol).⁹

Health risks
• Coconut oil is high in calories, so excessive consumption can lead to weight gain.
• As all MCFAs are saturated, coconut oil is high in saturated fats, which experts recommend limiting to reduce heart disease risk. However, there is some research indicating that saturated fat from plant sources metabolizes differently than that from animals sources, posing less of a risk.⁹
• In addition to raising good cholesterol, lauric acid is known to also raise LDL (“bad” cholesterol).⁹ However, since it also raises HDL, the total cholesterol-to-HDL ratio (which is a more sensitive heart disease risk factor) may not be negatively impacted.¹⁰

How to eat it?
• Virgin coconut oil is recommended over refined coconut oil, as the refining process may use chemicals and reduce beneficial phytonutrients.⁹
• Consume coconut oil in moderation, and consider which fats you are replacing. Replacing butter with coconut oil may be a healthy plant-based substitution. Use coconut oil in addition to other healthier fats such as olive oil with monounsaturated fats, or walnut oil with polyunsaturated fats.
Coconut Curry

Makes 6 servings
Virgin coconut oil, for cooking
1 pound protein of choice
2 garlic cloves, minced
1 yellow onion, chopped
1 cup red bell pepper, chopped
1 poblano pepper, chopped
3 carrots, chopped
1 head of broccoli, chopped
1 can diced tomatoes, strained
1 can coconut milk
2½ teaspoons curry powder
(look for turmeric as an ingredient!)
1 teaspoon salt
1 cup Thai basil, chopped
Pinch of red pepper flakes, or Thai dragon red pepper, chopped (to taste)
Brown rice or quinoa for serving

DIRECTIONS
1. Wash and chop vegetables.
2. Heat about 1 tablespoon of coconut oil and brown the protein over medium-high heat.
3. Add garlic, onion, peppers, and carrots to the pan and sauté, adding additional coconut oil as needed to prevent vegetables from sticking.
4. Add broccoli, and more coconut oil if needed.
5. Reduce heat to medium-low, and stir in tomatoes, coconut milk, curry powder, and salt.
6. Cover with the lid and gently simmer on low heat.
7. Let curry simmer for about 20 minutes, until the vegetables are ready. Add the Thai basil a few minutes before removing from heat.
8. Serve with rice or quinoa.

Variations: Substitute your favorite seasonal vegetables! Try a lean protein such as chicken, or for a vegetarian dish, try a plant-based protein such as tofu.
Chia Seeds

What are they?
Chia seeds come from a plant in the mint family that is native to Central and South America. They have a long history as a dietary staple in the Aztec population. They are often added to beverages, where they swell when immersed in liquid. They are also used in a variety of foods.6

Health benefits
• Chia seeds are high in protein and soluble fiber, which is what gives them their gel-like properties in water. When chia seeds are eaten, these properties can lead to a feeling of fullness or satiety.6
• Chia seeds are a good source of the plant form of omega-3, alphalinolenic acid (ALA), which can be converted to eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), the omega-3s found in fish – are shown to have beneficial heart health effects.6

Health risks
It is unclear how well ALA is converted to EPA and DHA in the body, as studies have had conflicting results.6

How to eat or drink them?
Ground or milled chia seeds may provide improved benefit for nutrient utilization.6 One study showed an increase in blood levels of ALA by 58% and EPA by 39% in women who consumed milled chia seeds, and insignificant increases with whole chia seeds.7

Overnight Chia Pudding

1 cup unsweetened milk of choice
¼ cup whole chia seeds

Toppings:
1 tablespoon chopped nuts or granola
Seasonal fruit, chopped
1-2 tablespoons maple syrup
(Grade B has a stronger maple flavor)

Directions
1. Mix milk and chia seeds in a mason jar, and store in the refrigerator overnight.
2. Add toppings of choice in the morning to your thickened chia pudding, and enjoy.

Variation: You may substitute ground chia seeds for whole, but this results in a stronger-tasting pudding with a thicker consistency. If substituting ground chia seeds, increase the milk volume to 1¼ cups. Add sweetener to taste if needed, or try adding cocoa powder to the mixture.

Coconut Curry
Nutrient analysis per serving (made with chicken breast): 285 calories, 20g protein, 19g carbohydrate, 14g fat, 10g saturated fat, 39mg cholesterol, 106mg sodium, 6g fiber.

Overnight Chia Pudding
Nutrient analysis per serving (made with unsweetened soy milk, walnuts, 1/2 cup berries): 230 calories, 11g protein, 20g carbohydrate, 14g fat, 1g saturated fat, 0mg cholesterol, 20mg sodium, 14g fiber.

References
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2 https://www.ncbi.nlm.nih.gov/pubmed/27640646
5 http://www.fda.gov/Safety/Recalls/ucm515328.htm
6 http://www.nutritionletter.tufts.edu
7 https://www.ncbi.nlm.nih.gov/pubmed/22830971
8 http://www.todaysdietitian.com/newarchives/1016p32.shtml
9 http://www.todaysdietitian.com/newarchives/11114p32.shtml
HPV VACCINE: SHOULD YOUR CHILD GET IT?

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<th>Overview</th>
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<td>HPV (Human Papilloma Virus) is a common virus; one in four people in the United States are currently infected, and most people do not know they have it. In both males and females, HPV causes mouth, throat and anal cancers. It also causes cervical, vaginal and vulvar cancers in females and penile cancer in males. One person develops an HPV-related cancer every 20 minutes in the United States.</td>
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<td>The HPV vaccine was first licensed in 2006 for females and in 2009 for males. The vaccine has been carefully studied and is continually monitored by the CDC and the Food and Drug Administration (FDA). No serious safety concerns have been associated with the vaccine. In the past, three doses of the vaccine were needed. Now, if administered at a younger age, only two doses are required.</td>
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<th>Why a vaccine is necessary</th>
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<td>The Pap smear is available to detect cervical cancer, but there is no routine screening for other cancers caused by HPV. These cancers can cause pain and suffering as well as death in some cases. This is why preventing people from becoming infected with HPV is so important.</td>
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<th>Age recommendations</th>
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<td>The goal is to vaccinate preteen boys and girls ages 11-12 for several reasons:</td>
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<td>1. Protection begins long before they are exposed to HPV.</td>
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<td>2. Studies show that during the preteen years the HPV vaccine produces a stronger immune response/works better.</td>
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<td>3. Preteens are more likely than older teens to get health checkups.</td>
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<th>Dose recommendations</th>
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<td>As of October 2016, the Centers for Disease Control (CDC) recommend that ideally 11- to 12-year-olds should receive two doses of HPV, 6 to 12 months apart. Thirteen- to 14-year-olds receive the same dosage. Teens and young adults 15 to 26 years old will continue to need three doses of the vaccine.</td>
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<th>Side effects</th>
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<td>• Many have no side effects from the vaccine.</td>
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<td>• Some report mild side effects like pain/redness at the site where the vaccine was given, fever, headache, fatigue, nausea or muscle/joint pain. In general, some preteens feel dizzy or faint after medical procedures and getting vaccinations. Lying down or sitting for 10-15 minutes after injections can prevent fainting and associated falls. Occasionally, people have allergic reactions to vaccines.</td>
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The development of new devices and technology for children's health is often overlooked by industry because the markets are smaller compared with health care for adults.

To help kick start innovative projects at the intersection of technology and medicine, UC San Francisco has joined with UCSF Benioff Children’s Hospitals, Children's Hospital Oakland Research Institute (CHORI) and UC Berkeley to form the Engineering for Children's Health Initiative.

“There is no greater mission than helping the most vulnerable populations worldwide – children and infants,” said Hanmin Lee, MD, surgeon-in-chief at UCSF Benioff Children’s Hospital San Francisco and co-director of the new initiative.

Already, artificial kidneys, magnets that correct skeletal deformities, and virtual-reality therapy for pain management are among the new technologies being developed at UCSF to advance children's health.

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UCSF Benioff Children’s Hospital Oakland Launches Safe Infant Sleep Environment Campaign

UCSF Benioff Children’s Hospital Oakland is partnering with Alameda County Children and Family Services, Alameda County Department of Public Health, Highland Hospital and the Childhood Injury Prevention Network-Bay Area to promote a campaign educating parents about safe sleeping environments for their infants.

Over the past five years, 33 infants between the ages of 0 and 12 months died of sudden unexpected infant death in Alameda County. An unsafe sleep environment was identified in 72 percent of those deaths. Some of the risk factors include bed-sharing, front or side sleeping, and loose bedding or soft objects in the infant’s sleep area that can obstruct an infant’s nose or mouth.

The campaign includes recommendations from the American Academy of Pediatrics’ (AAP) recently updated safe sleep guidelines, which suggest putting an infant on his back to sleep for every sleep up to 1 year of age; placing infants on a firm sleep surface (i.e., mattress in a safety-approved crib) covered by a fitted sheet with no other bedding or soft objects; room-sharing without bed-sharing; avoiding overheating and head-covering in infants; and offering a pacifier at naptime and bedtime.

In addition, the AAP also has recommendations for breastfeeding mothers: The organization recognizes a mother may fall asleep in the adult bed when breastfeeding. This increases the importance of not having loose objects, blankets or pillows in the nursing area and suggests that a mother should return the infant to the crib as soon as the mother awakes. The mother should be vigilant not to fall asleep due to the increased risk, and infants should not be fed in an armchair or sofa. The new AAP recommendations also advocate that infants remain in the parent’s room in a separate bed designed for an infant until 1 year of age or minimally until 6 months of age.

“No one should underestimate the importance of safe sleep practices, especially with newborns and infants under 1 year of age,” says Bonnie Lovette, RN, MS, PNP, UCSF Benioff Children’s Hospital Oakland’s injury prevention coordinator. “We are hopeful that our safe sleep education efforts will be augmented through our partnership with local and national organizations.”

UCSF Benioff Children’s Hospital Oakland recommends our families follow these safe sleep rules for infants under 1 year of age

- Baby sleeps in a crib and not on a cot, couch, chair, or window seat.
- Baby sleeps on a firm mattress with a fitted sheet.
- Baby wears light clothing or a sleep sack.
- Crib contains no pillows, comforter, bumper pads, or toys.
- No co-sleeping; the baby should sleep alone.
- Baby sleeps on his back.
MUSICIANS
DAVEED DIGGS
The actor, rapper, hip hop vocalist, and songwriter is a proud Oakland boy who has hit it big in Broadway’s Hamilton, winning a Tony for playing the dual roles of the Marquis de Lafayette and Thomas Jefferson. He won the 2016 Best Featured Actor in a Musical for his electrifying performance.

THE HEAD AND THE HEART
This Seattle band’s singles “Lost in My Mind” and “All We Ever Know” hit #1 on the Billboard Chart, and 4 more have been in the top 10.

VOCAL RUSH
A national sensation and three-time national champion a cappella ensemble, Vocal Rush will blow you away with their powerhouse vocals and beat-box rhythms. This crew of insanely talented high-schoolers has placed in the top three on NBC’s Sing Off and performed live with Coldplay at Levi’s Stadium.

AUTHORS
MICHAEL LEWIS
East Bay Wunderkind, best-selling nonfiction author, journalist and all-around good guy Michael Lewis is known for riveting bestsellers like The Big Short, The Blind Side, Moneyball and Flash Boys. His newest book, The Undoing Project, immediately went to the top of all bookselling charts.

CALVIN TRILLIN
Although this satirist appeared on Johnny Carson more than 25 times, loves to poke fun at Americana, and is adamant that the average shelf life of a book is “between milk and yogurt,” Calvin Trillin touched our hearts with his tribute to his late wife in About Alice.

KELLY CORRIGAN
Kelly is the creative force behind Notes & Words and is known for her clever, insightful bestselling memoirs The Middle Place, Lift, and Glitter and Glue. Her books deeply resonate with readers through their delicate weave of humor and heartache.