Healthy Steps Our children's health and wellness, from newborns to teenagers. Compiled by JAY MCMANEMON



The overall health and wellness of children from prenatal through childhood and leading up into their young adult lives is one of the biggest concerns for parents. For this reason, it is extremely important to have a trustworthy source of information and support for the early identification and prevention of medical matters, as well as the guidance of children's health; parents rely on pediatricians for this consolation. SRQ met with pediatricians, pediatric oncologists and child development specialists to discuss the major foundations of pediatrics and how they are put into practice. Part one of this two-part series explores the importance of prenatal care and medical care of newborn babies, as well as the best resources for parents seeking additional information on childcare. Part two of SRQ's pediatrics series highlights the role of pediatrics in the health and development of children from early childhood through adolescence and the teenage years. SRQ continued the discussion with pediatric specialists in order to find out about some of the new and exciting developments in childcare throughout Sarasota, as well as tips for healthy teen dieting and some of the benefits that parents and their children are provided by the Affordable Care Act.

Part 1: Prenatal to Newborn

What is the pediatrician's main role?

Diane Weiss, Development and Parenting Specialist, Weiss Pediatric Care: Pediatricians serve as a resource for evidence-based information for parents. I think that is a major role of the pediatric practice because the Internet and other information can be so misleading. We can assure parents and patients that our recommendations are based on reputable science; you can trust the information that our pediatric team provides.

Joseph Scarano, M.D., Giangreco, Scarano and Taylor Pediatricse: We are very fortunate in the United States to have such a large number of pediatricians; we are fairly well represented for the population that requires our care. In some of the more underdeveloped countries, pediatricians do not provide children's primary care. Through pediatric training we have the background, specialized talent, skills and the art of interacting with children in order to provide an ideal form of care. We, as pediatricians, are always looking for the latest innovations in pediatrics and are continually shifting our standards of care for improvement of quality and service. I think parents, especially, appreciate the fact that they have somebody who is an expert in children's care and is not distracted by the care of other populations in order to provide the type of medical care that their children require. In a nutshell, I think that is why pediatrics is important.

6 How important are immunizations?

Scarano: As an outpatient pediatrician, I have seen a revolution in the health status of children during my 25-year career. Going back several generations, the most common cause of death for young children was infections, and in many underdeveloped areas of the world that is still the case. Diarrhea, dehydration and pneumonia are still some of the major killers of children throughout the world; however, this is not so in the United States and more developed countries. Yes, we have hygiene,

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sanitation and effective antibiotics, but there really is one primary reason for that-miraculously effective immunizations. Some of these vaccines include the varicella vaccine that prevents chickenpox and the haemophilus influenza B (Hib) vaccine that prevents all sorts of serious bacterial infections, including bone and joint infections, spiral meningitis, etc. No vaccine is perfect but they continue to improve; they have been purified and they are safer than they ever have been. As a father of four, I am thrilled to know that my kids are protected against things that I've seen cause serious illness and death in patients.

Jennifer Mayer, Medical Director, All Children's at Sarasota Memorial Hospital: Dr. Long and I cover an inpatient service at Sarasota Memorial Hospital that is part of All Children's Hospital, which is one of the bestkept secrets in Sarasota. We have had a presence since 1995, but very few people know that there is a division of All Children's located within SMH that covers both the neonatal intensive care unit and pediatrics. If there is one thing I think parents should know it's that vaccinations are critically important for the health of their children. The first vaccine is administered in the hospital during the newborn period, which is the hepatitis B vaccination. Hepatitis B is a disease that can be devastating for a person long term, which is why we strongly encourage families to get their newborn vaccinated before discharge from the hospital.

Why should parents be cautious about immunizations and vaccinations?

Scarano: There are rare circumstances when immunizations may need to be deferred or modified. If you have a very serious impairment of your immune system, such as serious congenital immune defects like bone marrow transplant or cancer chemotherapy that wipe out the immune system, there are some wide virus vaccines that would need to be forgone. There are extremely rare instances of allergy to certain components of the vaccine. I have not seen this in my career or any serious side effects from immunizations; it is a very unusual circumstance if it occurs and vaccine protocol must then be modified.

Weiss: As a parenting specialist, I am the one who goes into the exam rooms at well visits, and every week there is a parent who says to me that there is so much controversy surrounding

vaccinations. What I know is that there is no controversy in the scientific community; there is controversy amongst the media and the Internet, which will overwhelm and confuse just about anyone. This notion that autism is linked to vaccines is not science-based. In fact, it has been disproved over and over again with large sample sizes over long periods of time. We can identify autism somewhere between 12 and 24 months, and that's when children are being vaccinated. So, there might have been a correlated relationship between the two, but it wasn't a causative relationship.

Why is newborn screening for congenital heart disease on the rise?

Zsofia Long, Pediatric Hospitalist, All Children's at Sarasota Memorial Hospital:

There have been a lot of heart conditions that. if identified during pregnancy or early in the newborn period, can easily be corrected, including congenital heart disease. The screening for congenital heart disease begins at 20 weeks of the pregnancy. There is a new detailed screening protocol at Sarasota Memorial, called pulse oximetry screening, that is administered after the baby is born, which looks at and listens to the baby's heart pulse and takes measurement of the oxygen levels of the baby's upper and lower extremities. Through this screening process we have started to identify cases that were missed during pregnancy screenings.

Scarano: The problem with congenital heart disease is that even an experienced pediatrician cannot detect a critical congenital heart defect in a newborn. These newborns can appear and behave completely normally in the first days to weeks of life, but then, out of nowhere, the baby goes into cardiogenic shock and has a major heart defect. The strategy with the pulse oximetry screening is to increase the ability to detect the baby's defects before they are discharged from the hospital. There are rare defects, but when they occur they have a high degree of morbidity or potential for causing harm. This is another tool that provides a greater detection rate for congenital heart disease.

Mayer: The Center for Disease Control (CDC) states that the overall occurrence of congenital heart disease is about 1 in 180 births. In an institution like Sarasota Memorial that has around 3,000 births per year you can expect several children to have one of these very serious abnormalities each year.

What is newborn metabolic screening?

Mayer: Every state in the country has some leve of screening for disorders using a small bloo sample from the baby's heel that is sent to state lab. In Florida, we blood test for 34 disor ders that, if caught early, we can positivel impact the child's health and well-being. Som of these disorders are what we call inborn error of metabolism and children with these disorder may need special formulas and diets through out their lives. Others of these disorders ar more common; things like cystic fibrosis that, i detected early, can make a huge difference in th child's life. By finding the disorder early, we can institute a number of both educational and sur port systems for the family, as well as medica interventions for the child in order to help then minimize their longer-term problems and com plications. Hopefully, this will also postpon many of the complications from evolving durin; the childhood and teen years.

Scarano: Some of these disorders are potential ly life threatening if they are not identified very early. An example of that would be con genital adrenal hyperplasia, which is an adre nal metabolic problem. These babies would typically arrive in shock or even die. Screening gives us the ability to detect the disorder and institute medical care before it is too late Others of these disorders are not life threaten ing, but if they are not detected early they could cause permanent brain damage. A good example of that is thyroid disorders, which we see most often on newborn metabolic screens The earlier you detect thyroid problems, the better their brain function will be preserved; it you don't detect it early, the baby is losing IC points.

What is your position on newborn food: and food allergies?

Scarano: There has been a lot of good infor mation coming out of the United States, as well as the Netherlands and England about food allergens and feeding babies. In the past we would have a list of "don't dos" in the first year of a baby's life. We have found through recent evidence that there is a window of opportunity for introducing complementary foods. We want babies to breast-feed for as long as possible during the first year of life. If a mother gets to 6 months or longer they are doing a fantastic job. If they make it to a year they get a gold star because that offers the

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baby extra protection against food allergies. Current evidence suggests that the time between 4 and 6 months is a critical window to introduce infant foods, such as pureed fruits. vegetables and strained meats. There are many studies now that have shown that starting those foods during that period of development reduces the long term chances of food allergies, as well as some of the rare diseases. We used to ban a lot of things in the first year of life, such as eggs and fish, but the evidence suggests that is not necessary. We do not give babies honey in their first year because of the risk of botulism, which is a rare condition that causes profound muscle weakness. We also do not give babies cow's milk in the first year of life, because it can cause iron deficiency, anemia and other problems.

What are some of the best resources, children's health websites and mobile apps for parents?

Scarano: The CDC is an excellent resource for parents that are traveling with children, both foreign and domestic. The CDC Travelers'

Health website has up-to-date and accurate information about the health risks and recommended vaccines for specific travel destinations, as well as how to prevent certain diseases such as malaria.

Weiss: I like Healthychildren.org; it's an American Academy of Pediatrics website specifically created for parents. It addresses health, developmental and psychosocial needs of children and is evidence-based. There is a mobile app developed for the Healthy Children website, which includes a symptoms checker. Parents can go on the app and look up their child's symptoms to get a better idea whether or not they need to contact their pediatrician.

Scarano: We continuously update our website with the most recent and accurate information. Additionally, we are big fans of the Children's Hospital of Philadelphia's website; their vaccine resources are probably some of the best in the world. They just launched a mobile app, "Vaccines On The Go." There is no information source that I've found that is easier for parents to navigate, that puts the information in plain terms and that is not too lengthy to understand.



Part 2: The Growing Years

O Discuss your plan to implement Sarasota's first Pediatric Medical Home.

Diane Weiss, Development and Parenting Specialist, Weiss Pediatric Care: Since opening our doors in June 2013, we have strived for the National Committee of Quality Assurance (NCQA) Patient Center Medical Home (PCMH) recognition. Our goal is to provide high quality and accessible care to children in a manner that both parents and children are looking for. We are looking to provide continuous quality improvement in service delivery, which is part of the seven standards that the NCOA has set. We have the good fortune of being offered mentorship and technical support through the Florida Pediatric Medical Home Demonstration Project. We were selected as one of 14 practices in the state to participate in the project, which is an initiative set by the

American Academy of Pediatrics (AAP). Through this project, we are receiving the skills, strategies, training and resources necessary to meet the standards to provide the type of care that is proven to have the most effective outcomes for children. Preliminary data shows that this model reduces hospitalization and emergency room visits and increases compliance, cooperation and patient satisfaction. As a team, we are committed to seeing our practice become the first Pediatric Medical Home.

What kinds of things do you need to do to make the model work?

Weiss: The seven standards outlined by the NCQA are things that you would think that all pediatric practices have, such as accessibility to your primary care physician 90 percent of the time. Other standards include hours of

operation that are convenient for families, such as Saturday morning hours for established sick patients and walk-in hours between 8am and 9am with no appointment necessary. We provide phone support 24 hours a day so that every patient can speak to his or her nurse or physician. Our entire staff continuously focuses on development from birth through childhood. This involves a healthcare transition plan. So, beginning at 11 or 12 years of age, engagement is moving towards that child as the primary source for his or her own care. By 18 to 21 years of age, when the child launches, he or she is able to navigate the healthcare system. The NCOA and the National Center for Medical Home Implementation say that parents drive this model. We have a parent advisory team, regularly administered satisfaction surveys and

two parent partners that are part of the demonstration project. The entire process is a massive undertaking that we are very excited about. Once the Medical Home Demonstration project has concluded in December 2014, we will begin the yearlong recognition process.

What should parents know about the 2014 influenza virus?

Joseph Scarano, M.D., Giangreco, Scarano and Taylor Pediatrics: The influenza vaccine is not perfect; it protects children from serious infection 80-90 percent of the time and from any infection 70-80 percent of the time. This season we have seen a fair number of children with more serious illness getting secondary bacterial infection, especially pneumonia, sinus infection and other common complications associated with influenza. We have lost 200-300 Americans this year from influenza, and contrary to some beliefs it's not just the debilitated or people with chronic disease that die from influenza—we lose healthy people every year. We encourage all age groups above 6 months to get vaccinated for influenza. For our newborns, we tell parents and obstetricians to get their seasonal influenza vaccine because infants are typically infected by their primary caregivers.

Jennifer Mayer, Medical Director, All Children's at Sarasota Memorial Hospital: The American Academy of Pediatrics states that "from October 2004 through September 2012 there were 830 pediatric influenza associated deaths in the United States. Additionally, 35 percent of these children died before hospital admission and of the 794 children with a known medical history, 43 percent had no high-risk medical conditions." This speaks to Dr. Scarano saying that universal vaccination from 6 months and older is strongly recommended.

Scarano: The vaccine is continuously improving. We now have 4 strains of influenza virus protection for vaccines. Your pediatrician can tell you which vaccine is best suited for your child. We have a nasal spray vaccine available for patients that do not like needles, which is most of them. In the future, we are going to see a universal flu vaccine; patients will get the vaccine series and will then be protected from all strains.

Oiscuss the identification of developmental and emotional disorders in children.

Scarano: This has been a recent revolution in pediatrics, and I've seen a big transformation



over the last few years. We no longer have the serious and chronic infections, but instead, we now have obesity, overweight metabolic syndrome and developmental, emotional and psychiatric disorders; these are the chronic disorders we need to be focused on.

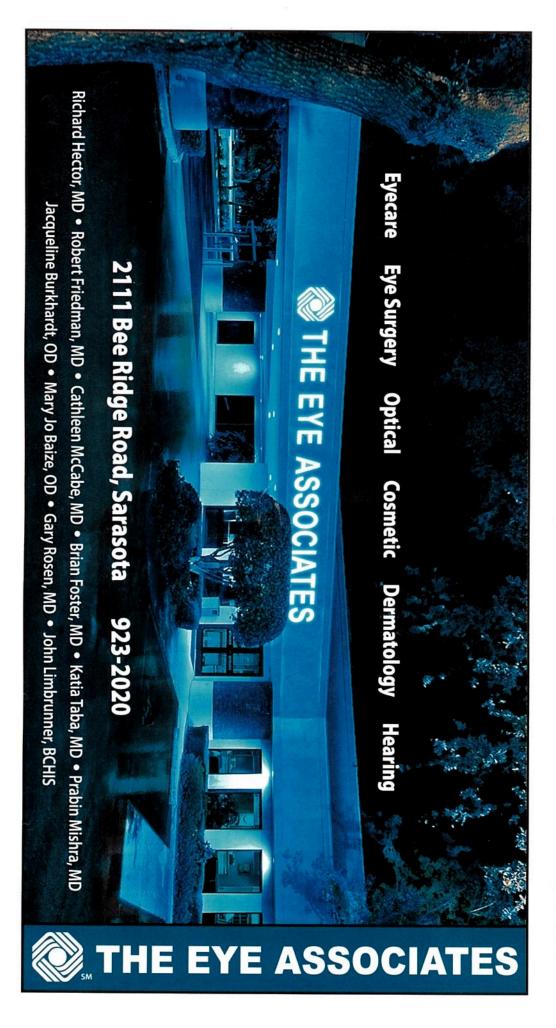
Weiss: This is why the American Academy of Pediatrics recommends routine developmental screening, particularly during the first five years of life. At 9, 18 and 24 months, the AAP recommends an Ages and Stages questionnaire, which consists of a very general screening of five developmental domains that is completed by parents who are typically the best observers of their children's actions and skills. Also, at 18 and 24 months the AAP recommends the Modified Checklist for Autism in Toddlers (M-CHAT), which looks for developmental, social and emotional delays early on in life. We do this because the brain is so plastic during the first three to five years of life when a child's brain is wiring at such a rapid rate and connections are most easily formed. We can identify these disorders early and can then make a world of difference for a lifetime because we can change the trajectory of that child's life. Developmental screening and having specialists in our community to provide the right services is making a massive difference, but it requires vigilance.

Scarano: In addition, for our tweens and teer we have some other instruments that eith the parent or the teen can complete, such the Pediatric Symptom Checklist and now to Patient Health Questionnaire about depression and mood disorders. The return on to investment for these tools is huge. They are no costly to institute, and we are finding that we can identify more children who need help.

Mayer: At All Children's, we cover the medianeeds of children that have more serious metal issues. I think there is great potential for fither growth, development and collaboratibetween Sarasota and Manatee Counties to beter coordinate mental health services for children. Currently, there aren't enough pediat mental health providers in our community.

O How often do you see children wi ADHD in your practice?

Scarano: We have a large population of chedren with attention deficit in our practice, a across the United States the population school age children affected is 7-8 percent. I have great ways to screen for this, and a lot times children with attention deficit has other issues that need to be sorted out as w We have very good medications for attenti deficit including a liquid form of the medi



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tion, as well as a transdermal formulation; you wear a patch and it is directly absorbed into the blood stream. There is a lot of science, but also a lot of art that goes into treating attention deficit from matching up the right therapies with the individual child, knowing when a child meets threshold criteria, knowing when a child also needs to have IQ testing or psychoeducational evaluation for a learning disability and also knowing when a child has anxiety, mood issues or conduct disorders that can be attached to attention deficit. A lot of times it can be more difficult to catch attention deficit in females because they are less overtly hyperactive, but they can be very inattentive and distractive. There is a lot of success when you make an accurate diagnosis and can identify the problems and titrate the right medication levels. A lot of parents ask me how long their child will need to be on the medication, and the answer is that many children will need to be on medication through their academic careers or until they develop enough coping skills to bypass needing the medication.

S How important are diet and exercise during childhood development?

Tara Cocco, Family Nurse Practitioner, Weiss Pediatric Care: I think dieting is extremely important for people of all ages and starting children on the right foot at an early age is key. At Weiss Pediatric Care, we are going to start a Fit4AllKids program through All Children's that is going to look at prevention of obesity. It's a six-month program that begins with discussing nutrition, healthy dieting choices and lifestyles with parents and their child. We know that obesity is on the rise and can really affect us later in our lives, so I think prevention is a very important aspect. I recommend the website Choosemyplate.org for more information about healthy dieting choices. The website shows recommended portion sizes and options that include more fruits and vegetables, whole wheat breads and pastas and lean meats. It also shows parents healthy choices for quick, onthe-go lifestyles. Additionally, I find a lot of parents are now pushing children towards a vegetarian diet, and if that is the case, I like to explain the importance of high-protein foods.

O Do you recommend vegetarian or vegan diets for younger children and teens?

Scarano: When a child comes to me for their well checkup and tells me they are on a vegetarian or vegan diet there is a signal that goes

off in me that is very encouraging, because it shows that he or she is are actively pursuing their health, and so, I am careful not to put a negative spin on my advice. I don't discourage vegetarian and vegan diets, but I do advise the parents and the patients to sit down with their pediatrician or a nutritionist and make sure that their diet is nutritionally complete. Those diets can be very good as long as they are getting all of their macro and micronutrients, calcium, iron, B12, folate, and they need to make sure they are getting adequate and quality protein. Furthermore, watching a child's growth and development is important to make sure he or she is on a healthy path overall

Zsofia Long, Pediatric Hospitalist, All Children's at Sarasota Memorial Hospital: Because food, weight and appearance are such emotional things for people during their teenage years, I think the most powerful message is that whatever diet or exercise regiment they choose should always be about their health and wellness, not their appearance. I think that takes some of the weight off their shoulders when they hear from their doctors that it should be about their health and not their looks.

Has the Affordable Care Act been beneficial for children?

Scarano: I think it is favorable from a pediatric standpoint because there is increased access. Five years ago things were really bad with the amount of people who didn't have insurance coverage for their children. Now, with the Affordable Care Act, the Children's Health Initiative program has expanded and the income criteria has been loosened so that more children qualify. Parents can now keep children on their insurance plan until 26 years of age, which is huge for the transition from adolescence into adulthood. The Vaccines for Children program has been beefed up, which allows us to provide vaccines at no charge for people without health insurance or that are on the Medicaid program. I hope the government continues this investment in our children because it is a wonderful investment. §

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