Nutri-West announces three new formulations researched by Dr. Dan Murphy and Dr. Don Bellgrau

**COMPLETE HI D3™**
Supportive Function: Research is telling us that more people than not are deficient in vitamin D, and that we are not getting enough for optimal health. Complete Hi D3 offers a quick and easy high dose of 5,000 i.u. of active, vitamin D3 from one tablet, to get all the benefits of this powerful and versatile nutrient.

**COMPLETE IMMUNO D3™**
Supportive Function: Vitamin D is quickly becoming known for its positive influences on immune system support. This formula is boosted by other well-researched immune ingredients, such as betasitosterol, probiotics, and quercetin.

**COMPLETE NEURO™**
Supportive Function: Many nerve problems are attributed to mitochondrial dysfunction, and to toxic assaults (including environmental toxins and oxidizing substances) that damage nerve function. Antioxidants and potent nutrients like resveratrol, curcumin, quercetin, and sulforaphane from organic broccoli sprouts, etc. are combined into a formula for optimal support of the nerves and entire nervous system.
The Council on Chiropractic Pediatrics is a specialty membership group for doctors of chiropractic caring for infants, children and pregnant women. It is under the umbrella of the International Chiropractors Association, one of the oldest chiropractic organizations in the world with headquarters in Virginia, USA.

The Council’s primary goal is to provide doctors of chiropractic with advanced educational opportunities in pediatrics and pregnancy so they have the skills and knowledge to provide the best care possible for this special patient population. Educational opportunities include a recognized 3-year postgraduate program leading to Board Certification with a Diplomate in Clinical Chiropractic (DICCP). The Council also provides continuing education with conferences and seminars, networking opportunities and other resources to enhance the professional development of the DC in practice.

The Council encourages and helps advance chiropractic pediatric research by holding research symposiums around the world where practitioners/authors have a platform to present and discuss their findings. The Council also publishes the only peer-reviewed pediatrics journal in the profession, the Journal of Clinical Chiropractic Pediatrics.

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Gymnastics Training Improves Bone Health in Girls

A study published in the *Journal of Clinical Endocrinology & Metabolism* concludes that long-term elite rhythmic gymnastics may induce positive effects on volumetric bone density and bone geometry in adolescent girls.

According to lead author Symeon Tournis, MD of the Laboratory of Research and Musculoskeletal System at the University of Athens in Greece, “Our findings show that training in rhythmic gymnastics significantly improves bone health in adolescent girls. Given that osteoporosis traits start in childhood, it is possible to speculate that if girls maintain their gymnastic training beyond adolescence, even if their training is less intensive, they may have a reduced risk of bone fracture later in life.”

In this study, researchers evaluated the bone health of 49 girls between the ages of 9 and 13 years. Twenty-six of the girls were elite rhythmic gymnasts who had trained for at least two years and 23 girls had only physical-education related activity. Researchers measured volumetric bone density, bone mineral content and cortical thickness in each girl and found that girls who had undergone intensive rhythmic gymnastic training had increased cortical thickness and bone strength.

Previous studies of adolescents have found association between weight-bearing exercises and increased bone density and bone strength. “But to our knowledge,” said Tournis, “this is the first study to examine the effect of long-term elite rhythmic gymnastics on bone geometry using peripheral quantitative computed tomography (pQCT) along with detailed evaluation of bone turnover markers.”


High School Students Do Not Get Enough Sleep

Only about 8 percent of high school students get enough sleep on an average school night. The rest are living with borderline-to-serious deficits that could lead to daytime drowsiness, depression, headaches and poor performance at school.

These were the findings of a study published in the January 2010 issue of the *Journal of Adolescent Health*. The study evaluated responses from 12,000 students in grades 9 through 12 who participated in a national Youth Risk Behavior Survey in 2007. The authors found that 10 percent of adolescents sleep only five hours and 23 percent sleep only six hours on an average school night. Also, more females than males have sleep deficits. Nearly 20 percent more 12th grade students have sleep deficits than do those in the ninth grade.

According to the authors, the findings of this study were consistent with those reported by the National Sleep Foundation’s 2006 Sleep in America Poll. Although there are no formally accepted sleep guidelines, the Sleep Foundation defines nine hours of sleep a night as optimal for adolescents, eight hours as borderline and anything under eight as not enough.

The study shows that as students progress through high school, demands on their time from hectic social activities, jobs, homework and family obligations increase and they sleep less. Compounded with their delayed sleep-wake pattern, many students are getting up for school when their bodies tell them it is still the middle of the night.

The National Sleep Foundation research shows that delaying school
start-time by an hour or more increases the amount of sleep adolescents get and improves their performance in school. However, Danice Eaton, PhD, of the Centers of Disease Prevention and Control and lead author, said in order to promote optimal sleep, adolescents should have set bedtimes before 10 p.m. on school nights and consistent wake-up times every morning.

Brandy Roane, an expert in adolescent sleep patterns at the Munroe-Meyer Institute of Genetics and Rehabilitation of the University of Nebraska Medical Center, said, “Given adolescents downward spiraling tendency of depriving themselves of sleep during the week and playing catch-up during the weekend, more research exploring ways to intervene would be beneficial.”


Teens send a total of 3,450 electronic messages every month at bedtime

A pilot study conducted at the JFK Medical Center in Edison, New Jersey and presented at the annual meeting of the American College of Chest Physicians in November 2010, shows that more than half of teenagers who text and/or use the internet at bedtime have problems falling asleep and experience mood behavior and cognitive problems during the day.1

What the authors recommend is that questions about the use of information and communication technology (ICT) such as texting, phone calls, or internet use be included in routine evaluations of people reporting problems sleeping.

Surprising facts discovered during this study was that on an average each child sends 33.5 texts and emails every night, and that on average, a teenager sends a total of 3,450 electronic messages at bedtime every month. “It is obvious,” said Dr. Peter G. Polos, lead author of the study, “that these children are engaging in stimulating activity when they should be in an environment to promote sleep.”

For the STRICT (Strict Time Related Information and Communication Technology) study, the researchers analyzed the responses of 40 children and young people who were patients at the JFK Sleep Clinic, to a modified version of the Children’s Sleep Habits Questionnaire (CSHQ). The mean age of the participants was 15 years.

The analysis showed that

- 77.5 percent of the participants had persistent problems falling asleep
- On average participants were woken once per night by an ICT device
- On average a participant sent 33.5 emails or texts per night when they were supposed to be asleep and the average number of people texted each night was 3.7
- The average number of messages sent via ICT per person per month at sleep time was 3,450 and occurred over periods ranging from 10 minutes to 4 hours.
- Among adolescents, the older they were, the later they went to bed and the more time they spent with their ICT devices
- Boys were more likely to use ICT to surf the net and play online games while girls were more likely to text or make phone calls
- High rates of cognitive and mood problems during the day were linked with ICT use during sleep time including ADHD, anxiety, depression and learning difficulties
- There were also higher rates of nighttime problems such as excessive movements, leg pain and insomnia

The authors concluded that use of ICT at bedtime may have an adverse impact on sleep hygiene and daytime functions which may be significant and that more research is needed to determine the short and long term consequences.

ICA and ACA to present one Joint Pediatrics Conference in 2011

If you missed the 2010 Annual Pediatrics Conference in New York in August, don’t miss the one in 2011. We have great news…the ACA Council is joining us and we will present a Joint Pediatrics Conference in Hawaii.

Make your plans now!

Dates: December 9-11, 2011
Location: Turtle Bay Resort, Oahu
Airport: Honolulu

The ICA Pediatrics Council had a great conference in New York this past August. The feedback we received about the program was very positive and one doctor who had never attended the Council’s pediatric conferences before said, “It was phenomenal.” It was exciting to see so much energy in the room and the camaraderie among the attendees. This year there were many doctors from abroad, some from as far away as Australia. It was good to see them and to hear their positive comments. We thank all the doctors and vendors who came and made the New York event so successful.
For those who did not make it to New York, we want you to know that we will be expecting you in 2011. The good news is that the ACA Council on Chiropractic Pediatrics will be joining us and it will be a Joint Pediatrics Conference. The other good news is that it is going to be in the beautiful island of Hawaii!

The conference is scheduled for December 9-11, 2011 at the Turtle Bay Resort, located on the legendary North Shore of the Island of Oahu. This event will be the first time that the ICA and ACA councils will be collaborating to present one conference. But what is even more significant is that it is the first time that any specialty council of the two national organizations (ICA and ACA) will be working together to present one event. It will be a historic occasion and one that bodes well for the future of chiropractic pediatric continuing education.

“The ICA has been putting on these pediatrics conferences since 1991 and we are delighted to have the ACA Pediatrics Council join with us in 2011,” said Lora Tanis, DC, DICCP, chair of the ICA Pediatrics Council. “Since we both recognize one Diplomate program (DICCP) and we have the same vision regarding pediatric education for DCs and the care of the pediatric patient, it makes sense for us to combine our energies and resources to put on one event to which everyone can come without having to choose one over the other.”

Elise Hewitt, DC, CST, DICCP, President of the ACA Council on Chiropractic Pediatrics was also enthusiastic about what this can mean for the future of chiropractic pediatrics. “We are very pleased and excited about the opportunity to partner with our colleagues at the ICA Pediatrics Council to put on a first-class conference dedicated to advancing the chiropractor’s knowledge and skills in chiropractic pediatrics,” said Dr. Hewitt. “While this is the first event of this kind, we hope it leads to many years of collaboration between our two organizations.”

The leaders of both ACA and ICA have given their blessings for this joint conference. “We want this to be a memorable event,” said Drs. Tanis and Hewitt. “We invite chiropractic family practitioners all over the world, of all affiliations to join us in this inaugural effort. Our goal is to present a unified perspective in pediatrics to the chiropractic profession for the benefit of the practitioner and ultimately for the little patients they serve.”

About Turtle Bay Resort

The Turtle Bay Resort is located on the legendary North Shore of the Island of Oahu which captures the heart of True Hawaii within its 880-oceanfront acres. Forty-five minutes driving distance from Honolulu international airport, Turtle Bay is world’s apart from the other resorts that are located in the busy “Waikiki” touristy part of the island. It is isolated and surrounded by ocean and ironwood forests.

Turtle Bay is an outdoor lover’s dream, no matter how active or relaxed you want to be. Five miles of shoreline can be explored by foot or horseback. Mountain biking can deliver you from ironwood forests to the ocean’s edge. The resort has many activities on site so you don’t need to leave the property if you don’t want to. Activities include:

- Scuba diving instruction
- Helicopter tours (helipad on property)
- Horseback riding (stable on property)
- Surf school
- 36-hole championship golf
- Fitness center at Spa Luna
- Water sports equipment rental
- Children’s program
- Spa and saloon
- Beach activities

A block of rooms have been reserved for the conference at a special rate, but once they open up for reservations, we advise you to reserve them as soon as possible as they will fill up quickly. All rooms have dramatic ocean views.

The planning committee of the joint conference is working on finalizing the educational program, designed to have something for everyone. There will be clinical topics and practical adjusting workshops taught by experts, as well as exciting keynote speakers. The program will offer approximately 16 hours of license renewal credits. There will be a special Research segment. A Call for Papers will be sent out shortly by the Research Coordinators for the submission of papers for both platform and poster presentations, with a cash prize for the best paper submitted.

The program will also include a social event one evening so there is an opportunity for doctors to meet and network and have some fun together.

More detailed information with registration, reservation and program information will be up on the website and in the mail before the end of the year. But in the meantime, mark your calendars — December 9-11, 2011 and start making your plans NOW!
The Journal of Clinical Chiropractic Pediatrics covers hot topic on children and sports injuries in June issue

Recently there have been many articles in the media regarding injuries of child athletes. DCs who look after children, whether they are athletes or just involved in sports should find the articles in the June issue of the Journal of Clinical Chiropractic Pediatrics (JCCP) especially useful as the theme of the issue is Children and Sports.

The issue includes seven papers and three cases discussed in a grand rounds format, plus abstracts. Besides authors at large, editors Dr. Cheryl Hawk and Dr. Sharon Vallone invited different professionals with specific expertise in sports and sports-related injuries to share their experience, knowledge and techniques in a grand rounds format that can be of great value to the practicing DC. These cases are in keeping with the journal’s emphasis on “the evidence-informed practice” approach that promotes both the “art” and the “science.”

The JCCP is one of the benefits of ICA Pediatric Council membership, but is available to non-members for an annual subscription fee. Members and subscribers receive a hard copy as well as online access with ability to download complete articles without a fee.

Papers and cases include:

- **Children and Sport**  
  *Russ Ebbets, D.C.*

- **Chiropractic Management of Elite Athletes Under 18 Years of Age: Chiropractic Participation in the United States Olympic Team**  
  *Gregory G. Bruno, D.C., C.C.S.P., C.C.E.P.*

- **Post-Traumatic Thoracolumbar Spinal Pain in the Adolescent Athlete: Recognizing the Significance of Subtle Radiographic Findings**  
  *Beverly L. Harger, D.C., D.A.C.B.R. and Kim Mullen, D.C.*

- **The High School Examination**  
  *Bradley Waters, D.C., D.I.C.C.P.*

- **Does Evidence Support the Use of Performance-Enhancing Supplements in Youth Sports? A Qualitative Review of Literature and Policy**  
  *Mike Perko, Ph.D., C.H.E.S., F.A.A.H.E., Marion Willard Ewan, Jr., D.C., Ph.D., C.H.E.S. and Ronald Williams Jr., Ph.D., C.H.E.S.*

- **Return to Play Considerations in an 11-Year-Old Boy Following a Football Injury**  
  *Mark T. Pfefef, R.N., M.S., D.C., Stephan R. Cooper, D.C. and Samuel L. Yoder*

- **Driven to Win: Recognizing Over-Competitive Behavior in Pediatric Patients**  
  *Elizabeth Anderson-Peacock, B.Sc., D.C., D.I.C.C.P.*

- **Grand Rounds Case #1: Pre-Adolescent Gymnast with Sever’s Disease**  
  *Presenter: Kristen E. Winters, D.P.M.*  
  *Discussant 1: Joanna Schultz, D.C., C.C.S.P., D.I.C.C.P.*  
  *Discussant 2: Catherine Elizabeth Vallone, B.S.Ed*

- **Grand Rounds Case #2: Adolescent Pitcher with Elbow Pain**  
  *Presenter: Theresa Pirraglia, D.C.*  
  *Discussant 1: Richard N. Weinstein, M.D., M.B.A.*  
  *Discussant 2: Courtney A. Hoffman, M.A., A.T.C.*  
  *Discussant 3: Theresa Pirraglia, D.C.*

- **Grand Rounds Case #3: Two-Year-Old Twins with Pes Planus**  
  *Presenter: Robert E. Marra, D.P.M., A.S.P.S.*  
  *Discussant 1: Tracy A. Barnes, D.C., D.I.C.C.P., C.K.T.I.*  
  *Discussant 2: Karen Peck, B.S.Ed., C.T.R.S.*  
  *Discussant 3: Laura Hanson, D.C., D.I.C.C.P., N.D.T.*

Watch out for your December 2010 issue of JCCP:  
**Topic:** Chiropractic & Pregnancy.
Dr. Michael Schneider and Dr. Cheryl Hawk to Teach New Research Modules in DICCP Year 2 Program

Graduated DICCPs may be interested in taking two research modules in 2011 that are new to the DICCP course and are included in the Year 2 program in Chicago. These research modules will be taught by two notable researchers in the chiropractic profession, Dr. Michael Schneider, DC, PhD, Assistant Professor at the University of Pittsburgh and Dr. Cheryl Hawk, former Director of Research and Scholarship at Cleveland Colleges of Chiropractic. Both these instructors have been widely published in peer-reviewed journals, involved in research projects for many years and served on panels nationally and internationally. Dr. Hawk has been principal investigator in several large scale chiropractic research studies and Dr. Schneider is currently an investigator in a study funded by the National Institutes of Health.

It is recommended that if you want to get the full benefit of these classes you should take BOTH modules as they are integrated and not stand alone programs. In the first module you will learn how to research the literature, apply and write. During the time between the first and second module you will be expected to write a paper which will be reviewed by the time the 2nd module comes up. The 2nd module will be in a workshop format where papers will be discussed and critiqued.

DICCPs may take any module as a refresher course for a minimal fee. To get a registration form email mranathan@chiropractic.org. Given below is the schedule for Year 2 in Chicago.

**DICCP YEAR 2**  
Chicago, Illinois

- **Module 11**  
  September 11-12, 2010  
  **Pediatric Neurology**  
  Instructor: Laura Hanson, DC, DICCP, NDT

- **Module 12**  
  October 16-17, 2010  
  **Cranial Sacral I**  
  Instructor: Carol Phillips, DC

- **Module 13**  
  November 13-14, 2010  
  **Pediatric Orthopedics**  
  Instructor: Lora Tanis, DC, DICCP

- **Module 14**  
  December 11-12, 2010  
  **Pediatric Radiology**  
  Instructor: Ian McLean, DC, DACBR

- **Module 15**  
  January 15-16, 2011  
  **Pediatric Sports — Extremity Adjusting**  
  Instructor: Joanna Schultz, DC, CCSP, DICCP

- **Module 16**  
  February 19-20, 2011  
  **Research 1 — Translating Evidence into Chiropractic Practice**  
  Instructor: Michael Schneider, DC, PhD

- **Module 17**  
  March 19, 2011  
  **Nutrition (Online)**

- **Module 18**  
  April 9-10, 2011  
  **Cranial Sacral 2**  
  Instructor: Carol Phillips, DC

- **Module 19**  
  May 14-15, 2011  
  **Research 2 — Translating Evidence into Chiropractic Practice (Workshop Format)**  
  Instructor: Cheryl Hawk, DC, PhD

- **Module 20**  
  June 11-12, 2011  
  **Case Presentations (Oral)**  
  Lora Tanis, DC, DICCP  
  Sharon Vallone, DC, FICCP

DCs who wish to become ICA Pediatric Council Members and receive JCCP and Horizons can download membership application from www.icapediatrics.com. Subscribers only can also download subscription form from the website or write to pediatricscouncil@chiropractic.org.
Reminder: DICCPS need to renew their status every three years. If you don’t renew your status your DICCP credential is suspended. During the 3-year period you must attend 24 hours of continuing education in pediatrics and at least one of the Council’s Annual Conferences. If you received your DICCP in 1996, 2002, 2005 or 2008 your renewal comes up in January 2012. If you did not attend the Annual Conference in Colorado Spring (2009) and New York (2010), then you must attend the conference in Hawaii December 9-11, 2010 to maintain your status.

What a great opportunity for ALL council members to get together at the beautiful Turtle Bay Resort in the island of Oahu for the first Joint ICA/ACA Pediatric Conference in 2011. Learn from expert speakers and have fun! The program will include time for you to spend outside the classroom, so make your plans now…air fare to Hawaii is currently at an all time low!

The 2012 Annual Conference is confirmed for Colorado Springs, November 9-11 at the same gorgeous place we’ve been to before — the Broadmoor.

Thanks to all the doctors who came to New York and made the 2010 Conference so successful. Also thanks to everyone who contributed items for the auction. Congratulations to Dr. Tammy Nyhus (Minnesota) for winning the grand prize for the raffle…free ticket to Hawaii, 3 nights stay at Turtle Bay and free registration! Great package!

If you want one of the Council speakers to come to your area and present a seminar on pediatrics and are willing to put in the time to promote it either through your state association or on your own, call Molly at 1-571-765-7554 or email mtrangnath@chiropractic.org.

“Brain Development” noted that exposure to regular household noise and speech will determine child’s language development and auditory skills. DeLoache’s conclusions are basically similar. “Children are going to learn language anyway,” she said, “and research has shown that the best way to help them learn language well is by talking to them in the ordinary way that parents talk to their children.”

Choking
Keeping Kids Safe

Choking is the leading cause of injury and death among children, especially kids younger than four years of age (Pediatrics, Feb 2010). According to the American Academy of Pediatrics, in the United States, one child dies every five days from choking on food. The majority of choking-related incidents among children are associated with food, coins and toys.

During 2000, the latest year for which national mortality data were available, 160 children less than 14 years old, died from choking. Of these 41% were caused by food items and 59% by non-food objects (CDC unpublished data). However, for every choking-related death an
estimated 110 children are treated for choking-related episodes in a hospital’s emergency department. Though children’s choking episodes may be non-fatal, children are at risk for infection in the respiratory tract and complications associated with lack of oxygen from airway obstruction including permanent brain damage.

In 2001 the CDC reported there were 17,537 children treated at EDs for choking-related episodes (Table 1). Of these

60% were associated with food items; 31% were associated with nonfood objects including coins; 9% were unknown or unrecorded.

Candy was associated with 19% of all choking episodes by children 14 years and younger; 65% were related to hard candy; and 12.4% were related to other specified types of candy (chocolate candy, gummy bears, gum, etc.) The type of candy was not specified in the remaining 22.5% of the cases. Candy was associated with 5% of the visits for infants less than one year old; 25% of visits for children ages 1-4 years; and 28% of visits for children 5-14 years.

Coins were involved in 18% of the episodes for children between 1-4 years.

10.5% of the children treated in EDs for choking were admitted to the hospital or transferred to a facility with a higher level of care.

What we need to remember is that these figures do not include all choking episodes. The CDC report considered only cases treated in EDs and did not include deaths and episodes where medical care was obtained at a physician’s office or another health care facility or was not received at all. For example, only 55% of choking children for whom emergency medical services were contacted were transported to the EDs for care. The report also does not include outcomes after discharge and provides only national estimates, not state or local estimates.

### Table 1. Number, percentage and rate of nonfatal choking — related episodes among children aged <14 years, by selected characteristics — United States, National Electronic Injury Surveillance System-All Injury Program, 2001.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No.</th>
<th>%</th>
<th>Rate (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>5,341</td>
<td>(30.5)</td>
<td>140.4 (90.1-190.7)</td>
</tr>
<tr>
<td>1</td>
<td>3,942</td>
<td>(22.5)</td>
<td>104.9 (59.9-150.0)</td>
</tr>
<tr>
<td>2</td>
<td>2,124</td>
<td>(12.1)</td>
<td>56.5 (26.7-86.3)</td>
</tr>
<tr>
<td>3</td>
<td>2,104</td>
<td>(12.0)</td>
<td>55.9 (25.9-86.0)</td>
</tr>
<tr>
<td>4</td>
<td>915</td>
<td>(5.2)</td>
<td>23.9 (10.9-37.0)</td>
</tr>
<tr>
<td>5-9</td>
<td>2,179</td>
<td>(12.4)</td>
<td>11.1 (5.8-18.5)</td>
</tr>
<tr>
<td>10-14</td>
<td>931</td>
<td>(5.3)</td>
<td>4.6 (2.3-6.8)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9,656</td>
<td>(55.1)</td>
<td>32.1 (20.1-44.2)</td>
</tr>
<tr>
<td>Female</td>
<td>7,831</td>
<td>(44.7)</td>
<td>27.3 (19.8-35.0)</td>
</tr>
<tr>
<td>Unknown</td>
<td>50</td>
<td>(0.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Substance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>10,438</td>
<td>(59.5)</td>
<td>17.8 (11.7-23.8)</td>
</tr>
<tr>
<td>Candy/Gum</td>
<td>3,325</td>
<td>(19.0)</td>
<td>5.7 (3.6-7.7)</td>
</tr>
<tr>
<td>Other solid food</td>
<td>5,192</td>
<td>(29.6)</td>
<td>8.8 (5.2-12.5)</td>
</tr>
<tr>
<td>Liquid</td>
<td>1,328</td>
<td>(7.6)</td>
<td>2.3 (0.9-3.6)</td>
</tr>
<tr>
<td>Unspecified</td>
<td>594</td>
<td>(3.4)</td>
<td>1.0 (0.1-1.9)</td>
</tr>
<tr>
<td>Nonfood</td>
<td>5,513</td>
<td>(31.4)</td>
<td>9.4 (5.4-13.4)</td>
</tr>
<tr>
<td>Coins</td>
<td>2,229</td>
<td>(12.7)</td>
<td>3.8 (1.5-6.1)</td>
</tr>
<tr>
<td>Other††</td>
<td>3,284</td>
<td>(18.7)</td>
<td>5.6 (3.2-8.0)</td>
</tr>
<tr>
<td>Unknown</td>
<td>1,586</td>
<td>(9.0)</td>
<td>2.7 (1.2-4.2)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17,537</td>
<td>(100.0)</td>
<td>29.9 (21.0-38.8)</td>
</tr>
</tbody>
</table>

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What Happens when a Child Chokes

When a child chokes it means that some object is lodged in the trachea and this keeps air from flowing normally into or out of the lungs. Sometimes the food or object only partially blocks the airway. In this case the child may be choking but is able to cough up the object. And though he may continue to be uncomfortable, if he is able to breathe and talk he will probably recover.
Choking — Keeping Kids Safe

The danger is when the trachea is completely blocked with the food or object. If airflow in and out of the lungs is blocked and the brain is deprived of oxygen, choking can become a life threatening emergency.

A child needs help right away when he
- cannot breathe, gasps or wheezes
- cannot talk, cry or make a noise
- grabs his throat or in the case of an infant waves his arms around
- turns blue

What Parents or Caregivers Can Do when a Child Chokes
- Call 911 immediately
- If you know the Heimlich maneuver do it immediately. The Heimlich maneuver is used differently on infants, so if you have not learned the maneuver from a health care professional and use it incorrectly you can hurt or injure the child.
- Do not open the child’s mouth and try to reach into his throat to get the food or object out, you could push it further in and make matters worse.
- If the child is unconscious call for help immediately and then perform CPR, if you’ve been trained.

There are laws and regulations in the US that require warning labels to be placed on toys that pose choking hazards and there is a system in place that monitors and recalls consumer products that pose a problem. Unfortunately, till now very little attention has been paid by government agencies and food manufacturers to minimize choking risks for children from food. Although some food manufacturers voluntarily place warning labels on products that could be choking hazards for children, more work needs to be done to implement safety standards for high risk foods.

One of the worst foods to give a small child is a hot dog. It can wedge itself tightly in the trachea and completely block the airway causing the child to die within minutes because of a lack of oxygen. A family in New York learned this the hard way. While on vacation their young son “J.T.” died after choking on a hot dog. In response to this preventable death, New York State enacted legislation to help parents, caregivers and provides common choking hazards for children prevention tips. The choking prevention legislation is known as “J.T.’s” law.

Public health strategies and regulations to reduce the risk for choking include public education, product safety labeling and changes in product design. But this does not mean that the parents or caregivers should be any less vigilant. They should keep toys and household items that could be dangerous out of their children’s reach and give them foods that they know would not be choking hazards.
Use only a small amount of peanut butter when a child is ready and use with jelly or cream cheese on whole grain bread — peanut butter can stick to the roof of a child’s mouth and form a glob.

Foods that are Choking Hazards

- Hot dogs (especially cut into coin shape), meats, sausages and fish with bones
- Popcorn, chips, pretzel nuggets and snack foods.
- Candy (especially hard or sticky), cough drops, gum, lollipops, marshmallows, caramels, jelly beans.
- Whole grapes, raw vegetables, raw peas, fruits, fruits with skins, seeds, carrots, celery and cherries.
- Raisins, dried fruits, sunflower seeds, all nuts, including peanuts.
- Peanut butter (especially in spoonfuls or with soft white bread).
- Ice cubes and cheese cubes.
- Foods that clump, are sticky or slippery, or dry and hard textured.
- Foods that are round or in a shape that could conform to the shape and size of the trachea. A small child’s trachea is approximately 1.25 inches in diameter.

Safety Tips

- Never leave a small child unattended while eating. Direct supervision is critical.
- Children should sit up when eating, should have sufficient number of teeth and have the muscular and developmental ability needed to chew and swallow the foods chosen. Remember not all children will be at the same developmental level. Children with special health care needs are especially vulnerable to choking risks.
- Children should not eat when walking, riding in a car or playing.
- Do not give a child younger than 4 any round firm foods unless they have been cut into very small pieces.
- Remove seeds and pits from fruits.
- Do not give toddlers high risk foods like hard candy, seeds and raw carrots. Cook or steam vegetables to soften their texture.
- Cut hot dogs lengthwise and widthwise. Cut grapes into quarters. This changes the round shape that can be dangerous.
- Offer plenty of liquids to children when eating, but solids and liquids should not be swallowed at the same time. Offer liquids between mouthfuls.
- Use only a small amount of peanut butter when a child is ready and use with jelly or cream cheese on whole grain bread —
peanut butter can stick to the roof of a child’s mouth and form a glob.

- Keep coins and other small items out of reach of young children at all times.
- Carefully read warning labels on toys before giving them to young children.
- Shake toys before giving to a child to ensure that none of the parts can come off if they should put it in their mouth.
- Pick up anything on the floor that they could swallow like deflated balloons, pen caps, beads and batteries.
- Become familiar with life-saving techniques such as child cardiopulmonary resuscitation (CPR), abdominal thrusts (Heimlich maneuver) and calling 911.

**Conclusion**

Choking injuries are preventable. As a health care professional take the responsibility of educating the parents and caregivers of your young patients about the risks of choking and what preventative measures they should take and why they need to be vigilant at all times. Teach them how to do the Heimlich maneuver on an infant and a child and encourage them to take the Basic Lifesaving Course by their local American Heart Association or the American Red Cross Infant/Child CPR course.

**Sources**

Up until recently, in the state of New York, if a woman wanted to have a birth attended by a midwife, she had the choice of delivering her baby in a hospital, birth center, or at home. The midwife involved with the labor and delivery would have a written practice agreement with an obstetrician (OB) in case of fetal distress or other emergency. In Ithaca, NY there are midwives who work jointly with OBs in a practice for hospital births and a few midwives had written practice agreements with OBs and attend homebirths. In 2009, some OBs in New York who were providing support via a written practice agreement were notified that their malpractice insurance would be terminated if they continued. The OBs were told it was due to increased liability risks. The notification caused these OBs to withdraw their collaborative agreements with midwives. In Ithaca, that meant that if a family wanted a homebirth that would not be a legal option. In New York City, St. Vincent’s Hospital had to close because no OB would continue the written practice agreement. So no homebirths could occur legally in New York City which created a decrease in access to care.

The following months saw a powerful grassroots campaign for the midwives grow. There were multiple letter writing campaigns, phone calls to legislators statewide, a rally in Albany, and distribution of bumper stickers to name a few. Finally in June 2010, the Legislature passed the Midwifery Modernization Act which would make it legal for midwives to work independently. According to the Act, the midwives had to be able to show that they had collaborative relationships with physicians but it was not a written practice agreement. This bill was hotly contested by medical doctors who felt that midwives providing independent prenatal and intrapartum care was dangerous. After some negotiation with the American College of Obstetricians and Gynecologists (ACOG), the bill reached Gov. Paterson’s desk and on July 30th he signed it into law. The hard work of many organizations and people kept a safe homebirth experience for a mom accessible.

Why should this topic be of concern to chiropractors? Midwife-assisted births, especially homebirths, have been shown to be safer for the mom and baby. There is lower risk of infection, less use of medications, decreased rate of Cesarean section and less trauma to the mom and baby. In general, a “natural” childbirth is more likely to occur.1

When a baby is allowed to progress through labor uninterrupted and unmedicated, the baby moves itself into the exact position necessary for the descent out of the uterus. This allows the baby’s head and neck to align correctly. As the baby exits the birth canal, if there is no one pulling on the baby’s head or assisting it in some other way, the baby’s cervical spine and associated muscles will more likely be symmetrical and of appropriate tone. If the baby needs any assistance with positioning, often the mom can help by moving her body into a different position. A midwife-assisted homebirth allows all of this to occur without constraint.

Today, midwives in many states still have to have a written agreement, though 10 states have pending legislation to allow the midwives to practice independently with collaborative relationships. As chiropractors, we should support them in their endeavors to achieve the best birth experience for every family. The website, www.thebigpushformidwives.org, has information about the legal struggles the midwives are facing regarding independent practice in each state. I believe we should continue to work alongside midwives to insure that a natural, non-interventive, healthy birth is available to all moms and babies. Call the midwives in your area and ask how you can help protect healthy birth experiences.

Reference
The brain starts as the neural tube and grows and folds into a one pound gelatinous mass by the time the baby is born. Over the first year of life after birth, the brain doubles in size. Neural pathways are formed for the processing of emotions, memories, dreams, movement, balance, the ultimate source of everything. What occurs in the womb and during the baby’s first year of life influences the physical development of the brain as well as its emotional, intellectual, and primitive functions.

This article gives an overview of the developmental process of the infant brain from birth to the second year of life and discusses how we as chiropractors can influence this development and help the baby have the best quality of life possible.
Brain In-utero

Our brain is the most complex thing on earth. Even the newborn’s brain is extremely complicated with a piece the size of a grain of rice containing approximately 10,000 nerve cells with each cell making up to 10,000 connections. As the baby matures there will be trillions and trillions of connections within their brain.

Yet the brain doesn’t start at birth, but during the first days after conception. From the very beginning, when the neural groove starts to form until the further mylenation and growth of the brain during the last 8 weeks of gestation, the neural development is never idle.

At 4 weeks, when the neural tube closes, the bipolar neuroblasts are dividing at rates up to 250,000-500,000 divisions per minute. This is when the supporting glia appear and migration of cells begins. The nucleus at the back of the cell holds onto a glial fiber and moves along like an inch worm. No other cell is known to do this.

By the 5th week in-utero, the neuronal migration is well underway. Distance to size, this trip across the brain is equivalent of a trip from Seattle to New York, yet the cells rarely make mistakes. Evidence shows that the young neurons have an idea about where they are migrating to and that they can recognize their position within the brain. A neuron is born from the division of a stem cell, but before its final transformation into a neuron its fate is determined by its neuron neighbors. The developing neuron travels beside them and takes on the same functions. The cell is plastic. It listens to cells outside itself and sets its fate. It is then true to its genetic destiny and keeps its separate function.

By the 9th week, the gross structure is established and the glial cells begin directing the rapid growth of axons and synapses. This is when the motor system starts working too, and the baby’s muscles begin to contract.

During weeks 13-20, the brain grows rapidly as myelination begins and then continues through 2 years postpartum at which time Babinski’s test changes from up going and flaring to down going.

By 24 weeks, the vital organs are formed and the brain has nearly its full complement of billions of neurons.

During the last 16 weeks of gestation, synaptic development continues building nearly two million connections per second until there are more connections than stars in the sky. This is also when neuronal pruning of excess neurons begins by apoptosis.

The First Year

At birth, every cell is usually in its rightful at-birth place with every link carefully organized; nothing is by chance, nothing is discretionary. The brain is now prepared for the change from hardwiring to sculpting itself in response to the demands of the world.

During the first year of life, the brain doubles in size due to the massive increase in the number of dendritic connections. Because of this rapid expansion of the head, we measure the head circumference on a regular basis. The head grows as the brain grows.
and where the brain grows the head expands. So, when the baby develops a flat spot, the brain cannot grow properly in that area. When this is in the occiput, where the cerebellum is, we can see minor to obvious delays in motor milestones. It is essential that craniosacral evaluation and appropriate adjustments be made; and that parents are taught how to position the baby while sleeping, and to perform gentle head rubbing from all directions toward the flat spot. In my office I have had numerous children with delayed developmental milestones catch-up quickly after the removal of craniosacral imbalances and spinal subluxations.

The fetal brain is very dynamic. During gestational development, an excess of neurons are provided and the ones used remain while the unused are either removed by apoptosis or reassigned an alternative function; such as the visual areas of a person blind from birth being used to enhance the auditory areas.

Even more abundant than the neurons are the dendrite connections. These are constantly changing in response to the process of strengthening appropriate connections and pruning inappropriate ones. The billions of connections will be checked and tuned-up depending on what the baby experiences.

The Premature Infant

Much of what we know about how the brain develops comes from studying the premature infant. Developmental psychologist Heidelise Als of Harvard Medical School has been studying premie brain development and states that nearly 50% of preemies have difficulties later in life with paying attention, learning, planning, imposing structure, and prioritizing. Often, even when they are very bright, they start to fall behind in the second grade classroom. Dr. Als believes that the glare and clamor of the neonatal intensive care unit (NICU) is part of the problem. These babies’ brains are faced with challenges different than what is faced in the womb; even bodily functions like how we process food and get oxygen to our cells is different. Even though babies can see and hear in the womb, the brain is not ready to process all the input that comes from the outside world and the premature infant is more hypersensitive, more easily over stimulated; few impressions can be managed easily. Sensory input comes in like a flood with an overactive response that costs the baby tremendously. So, what can be done?

Dr. Als has designed a NICU that is quiet and nearly dark. She suggests that mom and dad be abundantly present. The baby should have lots of skin to skin contact with the mother and be breast fed. “This is what the brain and body of the baby have been promised: the womb, the breast, the closeness of holding the body of the parent, the family, the social group of the family helps the baby feel confident.”

Remember, the premie brain has not completed its pre-birth pruning of excess neurons and dendritic connections so it functions more like a primitive telephone system with party lines and phones that ring in places other than the one dialed. Even a mature newborn is awash in sights and...
Development of the Infant Brain

sounds as they learn to navigate a roiling sea of sensations.

Factors Influencing Development

A major part of this navigation is the synapses that are being formed and axonal pruning that is taking place 24/7. It is a “use it or lose it” situation. Synapses that are not used are pruned away. A perfect example of this is the baby born with a cataract in one lens. Surgery to remove the cataract should be done STAT. By two days of age, a baby can recognize its mother’s face. The distance from the breast to the face of the mother doting on her new infant is the perfect distance for developing this wiring of the brain, but if the baby has a cataract, the visual cortex does not develop properly and may never develop fully if corrective action is delayed even two months. Improvement in visual cortex response is seen within one hour after removal of the cataract. The brain kicks into gear and speeds up the development process to catch-up with the other eye.

Another example of the brain’s first year sculpting or soft wiring is language development. Most all babies are born with the ability to make noise, but it is exposure that determines which language the child will speak, and what intonations they will be able to hear. The baby born into an Oriental household will develop more language related auditory discernment than one born into an English-speaking household. A baby kept in a very quiet room with a constant white noise, like the air conditioning fan, has a difficult time with language development and auditory skills. Often these children will understand and learn better, for the rest of their life, when there is a similar white noise in the background. So, regular household people noises should not be suppressed, but the infant should not be exposed to a constant unchanging white noise.

There are also other windows of opportunity in the baby’s brain, such as appreciation and learning of music, development of food preferences, and sensory integration. If these windows are missed for a prolonged period, they may be lost forever, like language skills for a child locked in a room with minimal human contact.

Conclusion

Baby’s brains are plastic. As babies grow and develop, their brains adapt to the world with a flexibility that is the hallmark of being human. Brain development is a continuum, although large sections of wiring are permanent. Development doesn’t stop. It never stops until we die. The brain cells we are born with are the same ones we die with, but we now know that glial cells and astrocytes can be converted to function as neurons. So never give up on a baby’s brain — check those reflexes, examine, evaluate and adjust, making sure that you modify your technique to the baby’s individual needs. Chiropractic care can help a baby’s brain develop to its full potential.

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Donna Quezada, DC, DICCP is a graduate of Cleveland College of Chiropractic, Los Angeles. She received her Diplomate in Chiropractic Pediatrics (DICCP) in 2001 and is currently studying for her Diplomate in Chiropractic Neurology. Donna is in private practice in Enumclaw, Washington.
Introduction

Growing pains, now referred to in the literature as “ubiquitous limb pains of childhood” affect between 25% and 40% of children between the ages of three and twelve. Children with this problem predominantly complain of deep, aching pains that last from 30 minutes to two hours and often wake them from sleep. The pains are usually described as deep in the leg and most often occur unilaterally in the thigh, calf or behind the knee. Symptoms occur frequently after a day of intense physical activity.

Diagnosis of ubiquitous limb pains of childhood is one of “exclusion” because pathology such as trauma, tumor, infection and arthritis must be ruled out before a diagnosis is made. X-ray and blood tests, if performed, are negative for pathology and the questioning during a thorough case history is often the biggest factor in the diagnosis.

Headache is common in all age groups, but its frequency among pediatric patients is alarming. Up to 75% of children report headache symptoms by age fifteen. A complete history should be performed to determine the most likely causes of the headache. Quality, timing, location, severity, duration and frequency are important questions to ask and are best asked directly to the patient in words they can understand. Differential diagnosis must be considered and underlying pathology must be ruled out.

History

An 8-year-old boy came to our office with complaints of nightly leg pains and daily headaches. The child had been diagnosed with “growing pains” by the medical doctors twice in the past four years. Underlying pathology was ruled out prior to diagnosis. The patient had been in the custody of his grandmother as a foster child from the age of 18 months. The grandmother had lost contact with the mother before his birth so very little was known about his pre-natal and birth history. The grandmother explained that the patient’s mother had been using crack cocaine before, during and after pregnancy. The child was in the hospital at the age of 18 months for an acute ear infection that had been neglected by his mother. The grandmother was awarded foster custody shortly thereafter.

The patient had complained of bilateral leg pains since the age of 18 months. The patient did not give a specific area but pointed to the general knee area when asked where it hurt. The child stated that the right side was generally worse than the left. He described the pain like cramps that woke him up at night. In the past 4 years the child visited the medical doctor many times where knee, leg and hips x-rays were taken, all of which were negative for fracture or tumors. The grandmother commented that he crossed his legs a lot and would bring them up close to his trunk. She felt that this position helped decrease the pain.

The patient also complained of daily headaches for the past month. He described them as a sharp pain that extended from the front of his head to the back, worse in the evening and that he occasionally woke up with a headache. The child also said he

Resolution of Growing Pains and Improvement in Cephalgia Following Chiropractic Care

By Patricia Sorbo, DC, DICCP
had occasional pain between the shoulders after a long day at school.

The grandmother was also concerned with his behavior. She felt that he had a few tendencies toward Attention Deficit Hyperactivity Disorder. He had never been diagnosed by a medical doctor or psychologist but his teachers were concerned with his behavior.

**Examination**

The physical examination of the patient included rolling infrared thermography and surface EMG, global range of motion testing, chiropractic ranges of motion within normal limits. Chiropractic static and motion palpation revealed taut and tender muscle fibers at C1, C6, T5-T8 and palpatory tenderness over the right sacroiliac joint. Intersegmental range of motion restrictions were noted at C1 right lateral flexion and right rotation; T7 extension and right rotation; and right sacroiliac joint motion restriction.

Full spine radiographs revealed significant pelvic unleveling with mild rotation, a mild left spinal list from T12 to occiput, mild loss of normal cervical curvature and extension at the occipitoatlantal articulation.

**Results**

The child noted a significant decrease in the severity of the leg pains after the first two adjustments. The grandmother reported no episodes of leg pains after the first 30 days of care. The child also reported headaches decreased from daily to less that one headache per week depending upon his stress level at school. The grandmother stated that the child was not as “hyper” and his behavior was “much calmer.” The boy’s teachers expressed their pleasure with his behavioral changes as well.

The grandmother reported that he loved coming for his chiropractic visits and frequently asked when he was going for his next visit. Re-examination was performed at the 15th visit which was approximately 8 weeks into care. Results of the re-exam revealed a significant change in pattern on the rolling thermal scan with only C1 show-
ing a temperature differential of 0.9 degrees warmer on the left; a reduction of 2.7 degrees from the initial scan. All other levels were within normal range. The severity of muscle tension on the surface EMG scan was reduced at most levels, but most significantly at the S1 level where readings were within the normal range, compared to the severe range on the initial scan. The asymmetry scan showed a major shift in pattern as well, with readings in the lower back mostly within normal range. Some increase in asymmetry was noted in the upper thoracic spine.

**Discussion**

Growing pains and headache are two common complaints among the pediatric population. In the medical literature, the etiology of ubiquitous leg pains in children is listed as unknown. Traditional allopathic management of leg pains, once a diagnosis is made, consists of waiting until the child “grows out of it”, massaging the area until the pain subsides, and in some cases recommendations of over the counter medications. There is little supporting chiropractic research on ubiquitous leg pains in children, aside from a few individual case reports. A case report published by Peter Fysh, DC also showed a quick resolution to “growing pains” following an adjustment to the sacroiliac joint. No formal research studies seem to have been conducted to investigate the effects of subluxation correction for these symptoms.

One etiology for leg pains in children proposed by Dr. Fysh would correlate well with the results seen in this case. Peter Fysh proposes that sacroiliac subluxations can cause referred pain to the knee and nearby structures in the leg. This non-dermatomal referral pattern is seen frequently in adults, where resolution is often seen quickly if not immediately with correction of the pelvic subluxation. Fysh goes on to propose that this same mechanism could be responsible for “growing pains” in children. It would follow that intense physical activity would lead to an increase in symptoms due to aggravation of a sacroiliac problem.

Often when parents come to our office with their children and the children have complaints of headaches, it is generally given as a secondary complaint and is frequently discovered in a review of systems. Unfortunately, when parents discuss headaches with their family physician they are generally told that headaches are “common” or “normal” for their age. Though stress, inadequate sleep and poor diets can also contribute to headaches, there is usually some other underlying factor for these symptoms. We must also remember that just because something is “common”, it does not mean it is “normal”.

**Conclusion**

The significant reduction in frequency and intensity of headaches following spinal adjustments in this case would point to a likely cervicogenic etiology. There have been other case studies published that have come to the same conclusion.

The young boy’s leg pains improved greatly after the first two adjustments. This would suggest that pelvic subluxation was the main cause of his leg pains. Unfortunately the boy’s care was discontinued after three months so we do not know his current status. Since the child was taking a DHA supplement at the same time as he was receiving chiropractic adjustments we cannot determine which had the greatest effect on his hyperactive behavior. The rapid results in this case however, indicate that research into chiropractic’s role in the resolution of growing pains and headaches in pediatric patients may be worth pursuing.

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**Patricia Sorbo, DC, DICCP**

has an undergraduate degree in biology from Wartburg College in Iowa and received her DC degree from Palmer College of Chiropractic in 2003. She is passionate about what she does, but also believes that it is important that people be consciously involved in their health care decisions. A Diplomate in Clinical Chiropractic Pediatrics (DICCP), Patricia and her husband have a family practice in Greeley, Colorado.
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Dr. Laura Hanson is a Diplomate in Clinical Chiropractic Pediatrics (DICCP) and a Neuro Development Therapist. She obtained her DC degree from Life University and her BS from the University of Georgia. Former Secretary-Treasurer of the ICA Council on Chiropractic Pediatrics, Dr. Hanson is an instructor on the DICCP program co-sponsored by Palmer College and the New Zealand College of Chiropractic in Australia/New Zealand.

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Wellness has become one of the most talked about topics of our time. What is wellness? We see it used everywhere and everyone who uses it has a different description. Weight loss companies use it to define ideal weight. Some massage therapists define it as the healing state the body is in after a massage. Many chiropractors describe it as the optimal state patients reach after they are on a regular adjustment schedule. In the past few years, many chiropractic clinics have added the word “wellness” to their clinic names. Some also advertise that they specialize in “wellness care.” Are these clinics truly addressing the wellness needs of their patients?
To answer these questions, we need to first define wellness. First, we need to look at the early teachings of chiropractic because I believe the correction of subluxation is actually synonymous with wellness and I will explain why. Many of us learned from the beginning that correction of subluxation is our primary function as chiropractors. Also, we were taught that our goal as chiropractors is to find the “cause” of a patient’s condition and that medicine focuses on the symptoms.

Based on these very principles, I would say that most of us have been treating the “symptoms” of subluxation, not the cause. If we are not determining the cause of the subluxation, we are missing a key component of wellness. Therefore, we are not necessarily moving people towards wellness as much as moving them towards less pain or giving them better function. Moving a bone does not “correct” a subluxation for the same reason that taking a Tylenol does not correct back pain. Sure, giving a patient an adjustment temporarily treats their subluxation but if we want to correct it we need to focus on the cause.

The 3 T’s

As we all learned early on in our chiropractic studies, the 3 T’s (thoughts, traumas, toxins) cause subluxation. If this indeed is a fact, I would like to believe that if we truly wanted to correct subluxation, we would have to work on eliminating the 3 T’s from the body as well as adjusting the spine. Once the 3 T’s are being managed, we will be able to move as close to wellness as possible.

How does this pertain to our pediatric patients? To begin with parents need to be educated on what the 3 T’s are and how they pertain to their children’s health.

When we think about thoughts we usually only consider stress. If we look a little deeper we realize that children go through many emotions as they mature. What constitutes stress in a newborn, a teen or an adolescent? Not having a bottle at bedtime? Losing your favorite stuffed animal? Hearing parents fight? Being late for school? Not having lunch money? Not having a date to the prom? Teen pregnancy? The list goes on and on.

**Trauma** is usually considered to result from an injury that occurs from an accident. Besides injury, there are different types of trauma to consider. Trauma may also come from abusing one’s body. Overeating leads to obesity and is very traumatic to the body. Sports injuries left untreated lead to long term problems. Not exercising allows the body to degenerate and increases the chances of adult chronic diseases like heart disease and type II diabetes.

**Toxins** are much more prevalent and much harder to eliminate. We start young lives with vaccinations, some baby formula, fast food, high fructose syrup. What we end up with is one sick population of children. This is not the only obstacle we face when we look at decreasing toxins. Second hand smoke, pesticides, and food additives are all things we find in great abundance in our society today and are almost impossible to avoid.

Once you eliminate or reduce the causes of subluxation, we can assume that our pediatric and adult patients will certainly move more towards optimal wellness. Many people will argue the key components of wellness, but not many people can argue that well-
Wellness is not a destination; it is a road that we are constantly traveling. Every choice we make leads us towards wellness or, further away from wellness. So next time you discuss your pediatric patients’ wellness with their parents, help them to make proper decisions about what their children are eating and their exercise habits and physical activities. Find out how they are doing in school, academically, socially and emotionally. Discover if your young patients are suffering from exposure to toxins. If you have spent enough time with them to search for the causes of subluxation you can help lead them toward wellness.

Tips for Parents

Here are some quick tips to give to parents to move their kids toward wellness that they can start today!

- Feed children a variety of healthy foods, especially fresh fruits and vegetables. Include organic foods when able. Free range organic meats help eliminate harmful pesticides and herbicides. Organic milk prevents unnecessary antibiotics from entering the body.
- Provide children with a balanced diet that includes protein, carbohydrates, vegetables or fruits, and healthy fats.
- Make water accessible for children at all times. A hydrated brain performs better in an academic setting.
- To maintain a healthy weight, exercise with children regularly, 30-60 minutes a day if possible. A 30-minute visit to the park can provide a great amount of exercise for a child.
- Exclude soda from a child’s diet, especially diet soda which is filled with toxins.
- Protect the child’s skin from harmful sunlight and apply sunscreen after 15 minutes of sun exposure to ensure proper vitamin D absorption.
- Educate children from an early age about the harmful effects of smoking and tobacco use.
- Children need to be adjusted on a regular basis. This keeps their spines healthy and helps boost their immune systems.

Conclusion

Education begins at home. However, most parents need to be educated on their child’s wellness and their role in it. Parents buy the groceries and provide nutrition for the house. Parents are the role models for their children. If the adults in their lives are not eating right, exercising and communicating with their family how can we expect the children to do so? Teach your young patients and their parents about the 3 T’s and how thoughts, traumas, and toxins affect their nervous system... give them some responsibility for their own health! By educating parents and children as well as providing them with chiropractic care you can get your little patients on the right road to wellness.

Jason Yusavage, DC, DICCP

is a 1999 graduate of Palmer College of Chiropractic and practices in Olyphant, Pennsylvania. He teaches his patients how to live healthier lives by making lifestyle choices. Jason received his Diplomate in Clinical Chiropractic Pediatrics (DICCP) in 2002.
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American society has become ‘obesogenic,’ characterized by environments that promote increased food intake, non healthful foods, and physical inactivity. Policy and environmental change initiatives that make healthy choices in nutrition and physical activity available, affordable, and easy will likely prove most effective in combating obesity.

Centers for Disease Control, 2010

The Role of Chiropractors in Preventing Childhood Obesity

Sharon Vallone, DC, FICCP

Chiropractors working with children focus on the prevention of disease through detecting and correcting vertebral subluxation supported by positive lifestyle guidance including good nutrition, physical activity, promotion of safety through the use of car restraint systems and bicycle helmets. The increasing incidence of overweight and physical inactivity in American youth affects not only their mental health — personal and social development in terms of self confidence and willingness.
to challenge themselves — but places a burden on their physical health and risks progressive degenerative diseases and long term disability. Prevention is one of the hallmarks of the chiropractic pediatric practice and includes an important role in public health by providing education and advocacy for children’s health.

Obesity is recognized as a “family affair” ranging from genetics to environmental influences and the development of personal habits around healthy eating and exercise. Culture, social status, and even peer pressure influence choices that may take a child down the road to obesity and weight-related illnesses like diabetes and joint problems, high blood pressure, and high cholesterol.2

Weight-control programs show little success among children, and as the years go by, these children are more and more likely to grow up to be obese adults.2 To stem the epidemic of childhood overweight, prevention needs to begin long before children enter school (even preschool!).

Proactively, chiropractors can begin educating parents as soon as the mother is pregnant. As early as infancy, parents make choices that might lay the foundation for future health concerns. For example, the benefits of breastfeeding in reducing the risk of obesity have been well documented, yet many choose the “convenience” of bottle-feeding or are under the impression that breast milk substitutes (cow’s milk and soy based formula’s) provide a more consistent, regulated nutrition for their infant.

Breastfeeding has long been recognized as a proven disease-prevention strategy. Among its other well-documented effects, breastfeeding also has been found to play a foundational role in preventing childhood overweight. An analysis by Owen et al in 2005 included 61 studies and nearly 300,000 participants and showed that breastfeeding consistently reduced risks for overweight and obesity.3 The greatest protection is seen when breastfeeding is exclusive (no formula or solid foods) and continues for more than three months.4,5

The introduction of alternate food sources like formula and solid foods prematurely (like a little rice cereal mixed in their formula to help the baby “sleep through the night” at only a few months old) increases the risk of alteration of the immature gastrointestinal mucosa, resulting in inflammation, alteration in normal gut flora and dysbiosis and the resultant development of allergies and atopic disorders like eczema and asthma.

As children grow, the risk factors for overweight and obesity are numerous and complicated. Many factors influence children’s choices ranging from mouth watering advertisements of fast food and junk food as they sit in front of the television set, to their observation of the eating, drinking and social habits of the adults, siblings and their peers around them. The availability of and types of food choices may contribute to the inverse relation of obesity prevalence with socioeconomic status, but the relationship is a complex one.6

For example low-income families may face a variety of barriers including the lack of safe places for children to play and exercise, the lack of access to fresh, healthy food, particularly fruits and vegetables. Failure to interact with children at home to stimulate their minds instead of their gastric juices (reading to them, playing games with them, involving them in meal preparation or other joint household chores to help them understand how to live inde-
pendently), low socioeconomic status, and maternal obesity all predict development of obesity.7

In research settings, there is even evidence of the detrimental effects of over-controlling parental behavior impacting children’s ability to self-regulate eating habits. For example, a mother who is obsessed with her daughter becoming overweight, or a child being constantly told to clean their plate (whether they like the food or not, or whether they are hungry or not), nitpicking what, where or when the child is eating (parents concerned about everything from anorexia to obesity,9

or influencing a child’s food choices by the parents own likes and dislikes (“...oh, he hates asparagus, just like his father!”), all may promote undesired consequences for children’s eating behaviors.10 Parental obesity also correlates with childhood obesity.11

Children are less active than in the past. Children are driven to school instead of walking or riding their bicycles. Changes in availability and requirements of school physical education programs have also generally decreased children’s routine physical activity, with the possible exception of children who actively enroll in athletic programs. Family leisure time (let alone the individual child) is increasingly more sedentary, with the wide availability of entertainment such as television, videos, and computer games. Children no longer drop their backpack at home, grab a mitt or bat and run out to play ball with kids in the neighborhood. Rather, they drop their backpack, grab a snack and settle down in front of the TV. All these factors play a potential part in the epidemic of overweight.12

Chiropractors can proactively discuss and promote healthy eating behaviors for children at an early age and empower parents to promote children’s ability to recognize when they are hungry (and differentiate that from when they are bored, for example) and choose types and amounts of foods wisely while providing mealtime (and family time) structure and healthy boundaries around eating. Educating families about nutrient dense food choices that are naturally low in fat and sugar, but also taste great, can include making cook books or cooking classes available to patients. Many local health food stores will collaborate on community lectures with local healthcare providers as well as give tours of the store to explain how to prepare many healthy foods from their unprocessed origins.
Chiropractors can also encourage family and individual activities that involve movement and physical exertion not only for their spinal health, but for their overall health. Posting local activities (bike rides, walks, etc.) as well as supporting marathons with posters in the waiting room will continue to bring awareness to opportunities for physical activity. Collaborative talks at the chiropractors office with local yoga, pilates and athletic facilities can be a social gathering for patients from which could spring walking partners or car pools (even though “walking” pools would be preferable, sometimes, safe transport is required to an isolated athletic facility).

Change can be promoted in the community by advocating for health and fitness programs that encourage regular physical activity in child care centers, schools, after-school programs and other community settings. Participation in team sports may be a vital part of a child’s physical activity but there needs to be a model of healthy individual activity for personal fitness that begins in preschool and encouraged throughout their academic life.

Once educated, the community also needs to find ways to assure that healthy food choices are readily available to parents, grandparents, babysitters, school and child care food services, and anyone responsible for feeding children as well as the children when they have an allowance to spend! Potential affordable sources include community gardens, organic cooperative farms and farmers’ market projects.

Having the responsibility of supporting our patients in their healthy life choices comes the challenge to become active on not only the patient but community levels to educate and advocate for change that can affect the long term health of our most precious young patients.

References

Sharon Vallone, DC, FICCP

a graduate of New York Chiropractic College received her Diplomate in Clinical Chiropractic Pediatrics (DICCP) in 1999 and was made a Fellow in 2004. She is currently the Editor of the Journal of Clinical Chiropractic Pediatrics (JCCP), an instructor on the DICCP program and Vice Chair of the ICA Council on Chiropractic Pediatrics. Dr. Vallone practices in Hartford, Connecticut.
A new study reports that yoga can reduce the stress of cancer diagnosis and treatment experienced by childhood cancer patients and their parents. The study was conducted at the Children’s Hospitals and Clinics of Minnesota, and findings published in the October 2010 issue of the Journal of Pediatric Oncology Nursing published by the Association of Pediatrics Hematology/Oncology Nurses. According to the study, teenage cancer patients who practiced yoga twice a week were less anxious and experienced a greater sense of well-being than cancer patients who didn’t attend yoga classes.

What was interesting about the study is that children between the ages of 7-12 did not show any change in their anxiety or sense of well-being. However, adolescents between the ages of 13-18 years and the parents of hospitalized patients showed significant improvement. Sense of well-being pre-and postclass was measured with the Spielberger State Anxiety Stress Scale.

Teens reported that they felt relaxed and calmer, and that it [yoga] was fun. Parents detailed even greater benefits. They found that yoga sessions were relaxing, allowed them to stretch their muscles, strengthen their bodies and relieved stress. They felt better about themselves and those who participated in the session with their children felt it helped them bond with their children.

Based on the results of this study the authors concluded that “yoga is a feasible intervention for this population and is beneficial to adolescents and parents.”

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