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BECAUSE EVERY CHIROPRACTOR NEEDS A HAND.

Repetitive Stress Syndrome

by Claudia Anrig, DC

Often when we hear "repetitive stress syndrome," we assume this disorder is only related to adults. Health care professionals may not recognize or be aware of repetitive stress syndrome with children. This syndrome may be present in more pediatric cases than we realize.

Repetitive stress syndrome (RSS) in the pediatric population may be defined by chiropractic as repetitive stress occurring specifically to the musculoskeletal system. RSS may occur at any age and typically is a micro-repetitive stress. The musculoskeletal system is very sensitive to repetitive stress or constraint positions.

Constraint to the fetal spine has been recognized to be a cause of many problems to the developing musculoskeletal system. Beginning with the last trimester, the fetus that does not engage in the vertex position is considered as in-utero constraint. In utero constraint places unnecessary extrinsic forces on the developing musculoskeletal system, which may cause congenital torticollis, congenital hip dislocation, mandibular asymmetry and possibly vertebral subluxation.

The insult of RSS may develop for some newborns and infants when they are kept in a baby carrier daily for several hours. A baby spending considerable time in this constraint position in a carrier may place limitation on their ability to stretch and wiggle their spine. From clinical experience, I have seen that for some babies a decrease of natural spinal movement interferes with stabilizing spinal adjustments, or may even contribute to the cause of vertebral subluxation.

Placing infants in weightbearing positions with baby bouncers or walkers may have the potential to introduce micro-repetitive stress syndrome. Those parents or caretakers who elect to use this type of equipment may believe that this is entertaining for their baby, or may enjoy the freedom it allows them to perform simple household activities. However, infants four to 11 months are not sufficiently developed to bear weight on their lower limbs, pelvis or lumbar spine. The repetitive stress to these developing joints may later lead to orthopedic and spinal problems.

Stomach sleeping may be another source of micro-RSS, particularly in the cervical and upper thoracic spine. Often children, like adults, will spend a majority of their sleeping hours on their stomach with a constant head rotation to a favored side. This habit may be one of the worst for the spine and is often overlooked by the doctor. Subluxation when the child spends most or all of their sleeping hours on their stomach? My advice to all parents is to assist their child in breaking the habit. I recommend the simple solution of taping a golf ball (or a small round object) to the child's sleep clothing at the stomach area. Wearing this apparatus to bed for two to three weeks should break the habit of sleeping on the stomach.

The time devoted to television, computer games and computer usage has taken a sharp increase in the lives of children. When engaging in these activities, the way in which children position their posture/spines may not

always be to their benefit. Incorrect desk/computer/chair sit-ups (ergonomics), slouching and other poor posture habits should be reviewed and suggestions made for the individual patient.

Perhaps the most serious threat to the pediatric spine within the past decade is the use of backpacks by children. From clinical experience, I believe that backpacks have contributed to more RSS in the pediatric spine for school-age children than any other activity. It is not uncommon for an elementary school child to carry 5-10 pounds in their backpack. Middle-school students commonly carry 10-35 pounds, and a high-school student's backpack can weigh in at 25-45 pounds.

Besides the heavy weight of the backpack, another factor that may contribute to RSS is the construction of the bag and how the student wears the bag. Rarely will you observe the student wearing the bag in the center of the back with both straps in use. It is far more likely to see the student wearing the bag on one shoulder favoring one repetitive side.

Doctors should evaluate all student backpacks. Check for the construction, weight of the bag and strap length. Take time to instruct parents and children on how to use the backpack and why using it correctly is healthier for the spine.

Look for red flags of repetitive stress syndrome to the spine. If after a respective period of spinal adjusting time (this may vary with a doctor's technique and frequency of care), the patient does not appear to show improvement on your chiropractic evaluation, this may warrant concern for RSS.

A suggestion for all family chiropractors is to create a spinal hygiene checklist for distribution to a parent or the older student. It should consist of a list of activities and habits to review spinal health. This should include observing the habits of sleeping, posture while using the computer or studying, watching television, participating in sports, using backpacks, baby equipment, etc.

Chiropractors should take a more active role in discovering those habits or activities that may place unnecessary stresses to the pediatric spine.

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