THE NEWSLETTER FOR WINNERS

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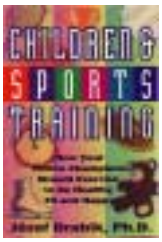

Children and Sports Training —New Book from Stadion

Why Children Should Exercise

Exercise is essential to health, fitness, and happiness. But to get these benefits one has to do it, and childhood is the time to get into the exercise habit.

During the preschool years there are several movement skills a youngster should master—including running, jumping, hopping, throwing, catching, kicking, balancing, and climbing. Lack of these generic skills—learned by age 4 or 5—makes it difficult for the child to catch up with peers and may cause him or her to quit physical activities. Practice time, the example of correct role models, and well-informed parents or teachers who know when, how, and what skills to teach will remedy this.

Dr. Józef Drabik's *Children and Sports Training* is different from other books on sports training and fitness for children. It reveals the existence of "sensitive ages" for developing movement abilities (endurance, coordination, speed, strength, flexibility) and what exercises you should use for developing these abilities at any given age. Yes, each ability is best developed at certain age. If one does not do exercises developing a given ability at the right (sensitive) age, then most likely peak performance potential for that ability will be out of reach forever.

The sensitive ages are also related to sex differences and the need to develop separate programs of exercises for girls and boys at the onset of puberty. From then on boys and girls develop at a different pace. Girls mature quicker than boys and need more challenging exercises than boys do to fully develop their athletic potential. Boys at the onset of puberty are physiologically less mature than girls, so the exercises that fully develop the potential of girls will

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Highlights

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Gold Medal Mental Workout delivers more victories!

Athletes coached by Dariusz Nowicki, author of *Gold Medal Mental Workout* and sports psychologist for Poland's Olympic Judo Teams (women and men), won major contests recently. Both Pawel Nastula (-95 kilos) and Beata Maksymow (+72) have won the gold at the Warsaw Tournament, a major international judo tournament held March 16-17, 1996. At the same tournament Malgorzata Roszkowska (-48 kilos) won a silver medal. Malgorzata Roszkowska and another member of the Women's National Judo Team—Aneta Szczepanska (-66 kilos)—have previously won a bronze at the 1995 Judo World Championship in Makuhari, Japan. Pawel Nastula, who shows standup grappling techniques in *Basic Instincts of Self-Defense,* has an unbroken string of victories lasting over two years. He won the 1994 and 1995 European Judo Championship, the 1995 World Judo Championship, and keeps on winning.

We thank Mr. Reynaldo (Rhey) Morris Arsol, TaeKwonDo instructor from Manila, Philippines, for sending us this photo showing the result of using our stretching method.

Children and Sports *(cont. from p.1)*

harm boys at that age.

The consequence of not doing just the right kind of exercises at just the right age is reduced fitness and athletic potential lost forever. In the case of girls it is easier to inflict lasting damage because their sensitive ages are shorter than boys'.

In *Children and Sports Training* you will learn methods of developing all of a child's movement abilities, but that does not mean a teacher, coach, or parent should strive to develop all of them to the maximum in a child. Not everybody can develop every motor ability equally easily or to an equally great degree. Some people's genes predispose them to the easy acquisition of great strength, others great endurance, others speed, yet others coordination.

Coaches who spend a lot of time on developing an athlete's endurance, for example, when the individual is predisposed for great strength, are not going to improve competitive results and can weaken the great strength potential. To give you a practical example, a young wrestler who has tremendous strength will dominate his opponent before endurance comes into play. Making this wrestler stress endurance in his workouts will put him at a disadvantage against someone who is genetically predisposed to develop endurance. He will lose his strength advantage but never match the endurance of someone naturally predisposed to it.

So, according to Dr. Józef Drabik, in training and exercise, work to accentuate the positive. Then, if time and energy permit, work on lagging qualities. In this way you will maintain the motivation of the young athlete to work out and make him or her receptive to the idea of doing other exercises. Exercises and training that emphasize abilities for which a young athlete is genetically predisposed to excel will make him or her happy. And a happy youngster is more willing to engage in other forms of training that promote his or her general health and fitness.

To order *Children and Sports Training,* use the form on page four or call our toll-free number: 1-800-873-7117.

Water and Athletes

If you have read articles on nutrition in the three previous issues of *Stadion News,* you know why you should eat protein, fat, and carbohydrate, and how much. Now the next critical body requirement—water.

You lose water constantly with exhaled air (about a pint or 0.473 liter a day), through skin (one to two pints a day), and an average of three pints through urine. To function well you need to drink five to six 8-ounce glasses of water per day if you do not work out hard; on the days prior to hard workouts you should up your intake to eight to ten glasses of water per day. You are probably underhydrated if your urine has a color other than clear, although some foods and vitamins can give urine strange colors—for example, B-complex vitamins make urine a bright greenish-yellow.

If you are dehydrated, eating your daily requirement of protein will hurt your kidneys!

You should drink most of your daily water requirement between and before meals. Drink a large glass of water 15 to 30 minutes before a meal and then drink 90 minutes after the meal. Drinking when you eat and digest your food will dilute the digestive juices and impair absorption of nutrients.

An exercising athlete may need five to ten times more water than a non-active person. During a vigorous workout you can lose between 1 and 3 liters of water per hour. A loss of water weight equal to 1% of your body weight will cause weakness and decreased coordination. To prevent dehydration you should drink cold water before, during, and after exercise. Cold water is absorbed faster than warm water. You should drink a little at a time because water uptake has limits—if you drink a lot at a time, you will urinate most of that water.

Not all that's wet is water…

Do not drink sugary drinks because the water from them is not absorbed well. According to Dr. Maffetone, Gatorade® and other sweetened commercial drinks will retard fluid replacement. Any drink with more than 3% sugar will inhibit fat metabolism, which means reduced endurance.

Tea and coffee dehydrates you so you need to drink more water to make up for that dehydration. After about two hours you will start to feel negative effects from caffeine.

Caffeine increases fat metabolism as a short-term effect, but it also impairs your coordination and has a hangover effect in which mental efficiency, after improving, falls off below normal values from one to three hours. Caffeine speeds up gastric emptying and thus glucose absorption, which gives you a sugar high followed by a high insulin level and a subsequent sugar low. Also the breakdown products of caffeine tend to increase insulin levels, which is very bad for you (see "Carbohydrates and Athletes" in *Stadion News, Summer 1995*). Caffeine decreases absorption of iron, calcium, magnesium, and niacin.

Cola, apart from caffeine, contains an excessive amount of phosphorus, which further depletes your body of calcium. Sugar (1.4 ounce or 39 grams in a 12 ounce or 355 mL can of Coca-Cola®) decreases absorption of chromium and raises your insulin level, which reduces your endurance.

Alcohol in any amount decreases protein synthesis in the muscles and reduces your body's ability to burn fat and so it makes you fat. It also interferes with vitamin activation by the liver and decreases absorption of magnesium.

Chemicals in your water

Chlorine is an effective and inexpensive disinfectant used to treat water. It prevents such water-borne diseases as cholera and typhoid. Some studies show that chlorine destroys vitamin E, however, and that drinking chlorinated water interferes with normal fat metabolism, thus increasing the low-density cholesterol (the bad cholesterol). A high level of low-density cholesterol in the blood means that one is not burning fats for energy and has to rely on less energy-efficient carbohydrates instead. Vitamin E prevents the formation of excess free radicals, highly reactive molecules that occur as by-products of normal oxidative processes. Athletes, especially those who exercise with high intensity (anaerobically), generate more free radicals than people who do not exercise anaerobically, and therefore can ill afford to lose vitamin E.

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Water and Athletes *(continued from page 2)*

You can find more information on the free radicals, the damage they cause, and how to prevent it in the book *Protein Power* by Michael R. Eades, M.D. and Mary Dan Eades, M.D., published by Bantam Books, 1540 Broadway, New York, NY 10036.

The by-products of chlorine's disinfection (trihalomethanes such as chloroform and trichloroethylene) may cause rectal and bladder cancers, damage your kidneys, liver, or nervous system, and cause birth defects. More information on how to make your water safe is in the book by Lono Kahuna Kupua A'o *Don't Drink the Water: The essential guide to our contaminated drinking water and what you can do about it* from Kali Press, P.O. Box 2169, Pagosa Springs, CO 81147, phone 1-970-264-5200.

A strong case exists against drinking fluoridated water. In my opinion it is strong enough to warrant using bottled spring water if you are in a municipality that fluoridates. More research may be necessary to determine for sure whether my misgivings—and the misgivings of many others, I may add—are appropriate, but until such research is done I would rather be safe than sorry.

If you drink fluoridated water you may experience muscular weakness, lack of coordination, pain and aching of bones, stiffness and joint pains, arthritis, recurrent upset stomachs, constipation, loss of appetite, unusual increase in saliva, skin rash, sores in the mouth and on the lips, migraine headaches, and forgetfulness.

A 1995 study on rats by Phyllis Mullenix, head of the toxicology section of Forsythe Research Institute (associated with Harvard University), demonstrated that the central nervous system's functioning is vulnerable to fluoride, that the effects on behavior depend on the age at exposure, and that fluoride accumulates in brain tissue. This rat study shows a behavioral pattern disruption that can be indicative of a potential for motor (movement) dysfunction, IQ deficits, or learning disabilities in humans. *A study of adult humans ("Behavioral effects of chemicals in drinking water," Journal of Applied Psychology* 6:230-238, 1982) found attention affected by sublingual drops containing 100 ppm (part per million) of sodium fluoride, an exposure level potentially relevant to humans because fluoridated toothpastes contain 1000-1500 ppm fluoride, and mouthrinses contain 230-900 ppm fluoride.

Fluoride causes autoimmune damage to the entire body. By disrupting hydrogen bonds in proteins and in DNA, fluoride causes genetic damage, inhibits enzyme activity, and may seriously depress the ability of white blood cells to destroy pathogenic agents (*New Scientist,* Jan. 22, 1981, p. 211).

The low levels at which fluoride exerts its deleterious effects indicates that there may be no safe level of fluoride in water. A study by Procter and Gamble (*Mutation Research,* vol. 223, pp. 191-203, 1989) shows that at 1 ppm sodium fluoride (or 0.5 ppm of fluoride) in water, 6% of the cells had genetic damage versus 2% in the untreated or "control" group.

Dental fluorosis (discoloration of teeth) is more than just a cosmetic problem. It is a permanent record showing that fluoride has interfered with the production of collagen (an essential element of connective tissue) in the ameloblasts (cells that produce collagen for tooth enamel) and most likely elsewhere in the body too.

The *Journal of the American Medical Association* has reported a greater incidence of hip fractures in fluoridated areas of U.S.A. and Britain. The *New England Journal of Medicine* reported that fluoride treatment of osteoporosis patients resulted in higher hip fracture rates.

In 1978, the West German Association of Gas and Water Experts rejected fluoridation because "the so-called optimal fluoride concentration of 1 mg per liter is close to the dose at which long-term damage [to the human body] is to be expected." Sweden, Denmark, and Netherlands have banned fluoridation outright. France, Italy, and Norway have never fluoridated their water. In France, the Chief Council of Public Health rejected fluoridation because of doubts about whether it harms human health. In December 1973, as a special consultant to the health minister of British Columbia, Dr. Richard Foulkes wrote a report recommending mandatory fluoridation for the province. But after reviewing the evidence in 1992, he has concluded that *"Fluoridation of community water supplies can no longer be held to be safe or effective in the reduction of tooth decay…. Even in 1973, we should have known this was a dangerous chemical."*

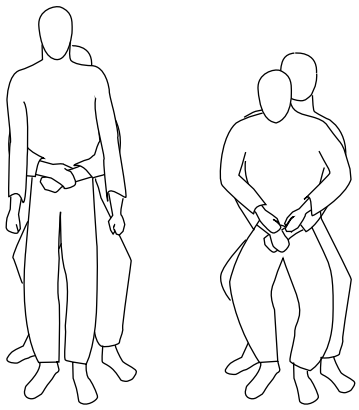
To learn more about fluoridation order *Fluoride: The Aging Factor* by John Yiamouyiannis, Ph.D. Send check for $14.95 to Health Action Press, 6439 Taggart Rd., Delaware, OH 43015.

Self-Defense Tip

If an attacker grabs you in a rear under-the-arms bear hug, your first concern is to protect your bottom ribs from being squashed and also to make sure that you are not lifted up. Your assailant's intent with this attack is to lift you up and then throw you down, driving your hips into the ground to break them and damage your back. The sudden grab alone can make you urinate and faint as well as break your lower ribs.

You can prevent all that with one move—pushing down with your hands on the attacker's wrists while simultaneously squatting down. You have to push his hands down on your hips so he squeezes your hip bones rather than your abdomen and floating ribs. You must simultaneously squat down because, unless you separate attackers hands, he will still be able to easily lift you. After you have spoiled your attacker's initial attack you can do a rolling throw (makikomi) as shown in the video *Basic Instincts of Self-Defense,* or stomp on his toes and insteps, or grab and wrench his fingers. But most important to your survival is that first basic, instinctive reaction, and *Basic Instincts of Self-Defense* teaches such reactions to over 55 typical attacks.

To learn more techniques, order *Basic Instincts of Self-Defense*. Call 1-800-873-7117 or send us your check or money order (see the order form on page four).



Q&A on STRETCHING *(continued from previous issues)*

Study these typical questions on stretching carefully. Among them may be just the one that you wanted to ask.

- ***Question: I recently purchased your book [Stretching Scientifically] and your video [Tom Kurz's Secrets of Stretching]. I desire to follow your instructions to the letter (I refer to your advice against riding a bicycle for those that want great flexibility). My problem: Up to now I have been riding a bicycle for my cardiovascular workout! I live in a city apartment so jump rope and running without being on concrete are impractical. What is your suggestion?***

Answer: Climb and eventually run up staircases.

- ***Question: I want to know more about developing other physical abilities (strength, endurance, speed, coordination) and how they relate to flexibility. What do you recommend?***

Answer: The book ***Science of Sports Training.***

- ***Question: What is the difference between leg raises or front splits with the front leg straight and bent at the knee?***

Answer: The angle between the thighs in a front split and in a front raise (kick) is greater, or it is easier to increase it, when the front leg is bent at the knee because your hamstring is relaxed then. Exercise with your front leg straight to better stretch the hamstring.

Hamstrings originate *above* the hip joint and attach *below* the knee joint. Bending your knee relieves the tension of the hamstring and thus permits a greater range of movement in the hip joint. In a full front split, your pelvis is *always* tilted to the front *in relation* to the front thigh no matter what you do with your knees. Tilting of the pelvis is necessary for relaxing the ligamentum iliofemorale of the hip joint of the *rear thigh* (see page 15 of *Stretching Scientifically*), You can achieve a greater amount of forward tilt when the knee of the front leg is bent because then the hamstring of your front leg is more relaxed.

- ***Question: When you describe "leg raises," you refer to a slow, controlled lifting of the leg, not a quick swinging action, correct?***

Answer: Controlled, yes, but not very slow.

- ***Question: Is it better to take a shower before or after the morning stretch?***

Answer: It should not matter. A few movements will warm you up better and faster than a hot shower, so you can save your time and shower only after the morning stretches.

- ***Question: Can I do an early morning stretch after having my breakfast?***

Answer: Yes, if you can perform a sufficient number of leg raises with adequate intensity and height without throwing up your breakfast.

- ***Question: My bones pop and crack when I warm up and stretch. Is this dangerous?***

Answer: There is gas (of a composition similar to air) dissolved in synovial fluid that lubricates joint surfaces. The cracking sound is caused by this gas dissolving out of the synovial fluid and forming a bubble between joint surfaces when they are pulled apart far enough. After several minutes the gas redissolves into the fluid. Popping and cracking of joints is not harmful per se but *may* indicate some (perhaps excessive) tension of the muscles surrounding these joints. Another cause of sounds in a joint is osteoarthritis. When joint surfaces are diseased and the cartilage is eaten away, the ligaments and tendons crossing the joint get slack. Their slack lets them move in and out of their grooves, making popping sounds. See your chiropractor or physician to make sure that all is okay.

- ***Question: In chapter 3 of Stretching Scientifically, "Dynamic Stretching," I am unsure how to perform the forward bends on page 49 and the bends to the back on page 50.***

Answer: The answer to your question is in the chapter title itself—"*Dynamic* Stretching," right? Perform these movements in a controlled fashion but not very slow.