

## **Educational Wellness Facts**

### **Challenges Teachers Face:**

- One in four children do not have PE in school
- Obesity and diabetes rates are at all-time high
- ADD / ADHD diagnosis rates are increasing among youth
- Increased stress and anxiety, decreased attention and social skills
- Academic achievement in public schools is at new lows
- Urban schools need support yet lack resources
- Incidences of bullying and violence in schools are increasing

### **Challenges Children Face:**

- Emotional and physiological stress and over-stimulation
- Environmental pollution, toxins and allergens
- Inappropriate and frightening exposure to media
- Inability to self-regulate, concentrate, learn and grow
- Chronic Stress damages health and inhibits ability to learn and grow

### **The Impact of Yoga on Children in a School Environment:**

- Body movement and breath are ideal ways to de-stress
- Builds self-awareness and the ability to self-regulate effectively
- Increases self-confidence and self-control
- Mindfulness teaches how not to resist, but to be “in the moment”
- Re-enforces the ability to make good choices for themselves
- Reduces peer pressure

## **RESEARCH ON YOGA’S IMPACT ON CHILDREN:**

### **ADD / ADHD**

In studies addressing ADD/ADHD, it was found that yoga:

- Decreased hyperactivity and impulsivity – Zipkin, 1985
- Increased self-control – Zipkin, 1985
- Increased attention spans – Zipkin, 1985
- Reduced anxiety, leading to higher IQ scores and improved complex learning skills – Proger, 1980
- Increased spatial memory – Naveen, Nagendra, Telles, 1997

### **Physical Fitness and Nutrition**

In studies addressing Physical Fitness and Nutrition, it was found that yoga:

- Decreased the resting heart rate – Telles, Narendran, Raghuraj, Nagarathna, 1997
- Increased motor skills performance - Raghuraj, 1997
- Increased pulmonary function and exercise capacity – Jian, Rai, Valecha, 1991
- Increased body /self image satisfaction – Clance, Mitchell, Engleman, 1980
- Increased muscular fitness – Gharote, 1976

- Improved body weight, density, cardiovascular endurance, and anaerobic power – Bera, 1993
- Significant improvement for bronchial asthmatics (including ceasing medication) – Nagendra, Nagendra, 1986
- Decreased substance abuse by strengthening mental resolve and decreasing anxiety – Telles, Naveen, 1997
- Improved posture – Savic, Pfau, Skoric, 1990

### **Academic Performance**

In studies addressing academic performance, it was found that yoga:

- Improved decision-making skills – Rozman, 1994
- Increased attention span – Zipkin, 1985
- Improved communication skills – Zipkin, 1985
- Increased IQ and social adaptation – Uma, Nagendra, Nagarthna, Vaidehi, 1989
- Increased academic achievement – Zipkin, 1985

## **RESEARCH ABSTRACTS ON BENEFITS OF YOGA EDUCATION**

1. Yoga for children is a relaxation technique that has been found to reduce stress and tension, dissipate excess energy, relieve tiredness, lengthen attention span, improve physical health, sharpen concentration, enhance mental clarity, and cultivate better interpersonal relationships (Seiler & Renshaw, 1978 , Peck, Kehle, Bray, & Theodore, 2005; Telles S, Narendran S, Raghuraj P, Nagarathna R, & HR., 1997)).

**Seiler, G., & Renshaw, K. (1978). Yoga for kids. *Elementary School Guidance and Counseling*, 12(4), 229-237.**

**Peck, H. L., Kehle, T. J., Bray, M. A., & Theodore, L. A. (2005). Yoga as an intervention for children with attention problems. *School Psychology Review*, 34(3), 415-424.**

**Telles S, Narendran S, Raghuraj P, Nagarathna R, & HR., N. (1997). Comparison of changes in autonomic and respiratory parameters of girls after yoga and games at a community home. *Perceptual and Motor Skills*, 84(1).**

2. A recent scientific studies indicate that yoga in adults improves focus, concentration and learning readiness as well as enhances health and fitness (Wheeler & Wilkin, 2007).

**Wheeler, A., & Wilkin, L. (2007). A study of the impact of yoga asana on perceived stress, heart rate, and breathing rate. . *International Journal of Yoga Therapy*, 17, 57-63.**

3. In addition, yoga can produce a calming effect, which helps children get into a frame of mind conducive to learning. For example, a recent study showed that children who participated in Yoga Ed were more relaxed, less active, and better able to concentrate. Compared with a group of students who only exercised, students who participated in yoga exhibited improved educational performance (Gates & Wolverton, 2007).

**Gates, G., & Wolverton, M. (2007). *Emerging Thought and Research on Student, Teacher, and Administrator Stress and Coping*: Information Age Publishing Incorporated CT.**

4. Yoga Ed's programs are not only designed to reduce stress in students but they are also specifically designed for the teacher's renewal, which is crucial today when rates of teacher

burnout and attrition are high, especially in low- income schools. Average teacher attrition hovers at 46% for teachers in their first five years of teaching; turnover in hard-to-staff schools occurs at a higher rate. High poverty urban schools, for instance, lose 22% of their teachers each year, compared with only 12.8% in low-poverty schools (Ingersoll, 2004).

**Ingersoll, R. (2004). *Why do high-poverty schools have difficulty staffing their classrooms with qualified teachers?* Washington, D.C.: Center For American Progresso. Document Number)**

5. Frustration with work environment, pay, and isolation are the top drivers of teacher attrition (RISE, 2007). Yoga Ed may hold promise for improving work environment because it addresses student behavioral issues which, are an essential component of maintaining a stable teaching force (Walker, Ramsey, & Gresham, 2004).

**Walker, H. M., Ramsey, E., & Gresham, F. M. (2004). *Heading off disruptive behavior: How early intervention can reduce defiant behavior-and win back teaching time.* Washington D.C.: American Federation of Teacherso. Document Number)**

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## **RESEARCH ON THE IMPACT OF EXERCISE ON HEALTH AND LEARNING:**

### **Exercise such as Yoga:**

- Over-rides the body's physiological response to stress on the body. Conscious breathing initiates the relaxation response and re-integrates the nervous system for receptivity. Yoga postures and games activate and integrate all the body's systems to bring students back into an energized, alert state.
- Organizes whole-brain function for optimal learning. Breathing and physical activity fuels the brain and body with oxygen and glucose through blood circulation.
- Raises levels of glucose, serotonin, epinephrine and dopamine, all chemical messengers known to balance behavior and inhibit hunger. The chemical messengers present under stress usually make us want the quick fix of junk food!

- Triggers BDNF, a neuro-tropic factor required for neurons to communicate. The flow of BDNF decreases after 20 minutes of sitting and is triggered again with movement.
- Shifts body-brain into a homeostatic state – balancing brain chemicals, hormones, electricity and the functioning of all the body’s systems, which supports making healthy food choices.
- Strengthens key area of the brain – basal ganglia, cerebellum and corpus callosum by building brain cells and connections.
- Improves mental focus and concentration (Caterino and Polk, 1999) by stimulating the frontal lobe of brain - enhancing memory, creativity and academic achievement. (Michund and Wild 1991), (Brink, 1995), (Vanves and Blanchard).
- Which include cross-lateral movements organize and stimulate the whole brain – unifying the cognitive and motor regions of brain and increasing synaptic connections (Dennison and Hannaford).
- Develops eye muscle fitness and helps with reading.
- Enhances vestibular, cerebellum and reticular activating system integration which is critical to strengthening our attention and coordination both physical and cognitive.
- Helps 85% of students who are kinesthetic learners (Hannaford). Learning through body is more powerful than learning through listening and recalling facts (Jensen). If it’s not in your body, you really haven’t learned it.
- Creates a fun, harmonious and safe way for learning and developing social skills.
- Reduces stress, increasing mind and body fitness and developing the 2 key factors of lifetime health:
  - i. Self-awareness
  - ii. Self-care and management tools and techniques
  - iii. Prove importance of mind-body integrity with muscle testing.
- Has been correlated with improved behavior, physical fitness and academic achievement. See PERC Assessment at [www.yogaed.com](http://www.yogaed.com) .

## **NUTRITION FACTS AND RESEARCH ON HEALTHY EATING:**

### **Eating 5-9 SERVINGS of a wide variety of whole, colorful fruits and vegetables:**

- Is a cornerstone of lifetime health and wellness.
- Helps insure that you consume enough of the following nutrients necessary for optimum health:

- **Vitamins and Minerals** – natural substances found in foods that our bodies need in specific amounts everyday. Eating a wide variety of fruits and vegetables of different colors is the best way to get all that you need to maintain health, feel good and be strong!
  - **Fiber** – natural plant substance that supports healthy digestive and elimination health
  - **Phyto-chemicals** – natural plant substances found in the bright colors of fruits and vegetables that promote healthy function throughout your whole body and mind!
  - **Anti-oxidants** – plant substances that protect the body by neutralizing free radicals, or unstable oxygen molecules, which can damage cells and lead to poor health.
- Promotes optimal weight and energy levels
  - Encourages healthy growth and development
  - Supports healthy aging
  - Reduces the risk of cancer and diabetes
  - Helps digestive and elimination system health
  - Supports healthy brain and memory function
  - Supports good eyesight and vision health
  - Helps strengthen the immune system
  - Helps maintain strong bones and teeth
  - Promotes heart health
  - Maintains urinary track health



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