



Strong Body – Strong Mind

WAUWATOSA EAST HIGH SCHOOL
Wauwatosa, Wisconsin

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Wauwatosa East High School

- High School (9-12), 1124 students, 110 staff
- Suburb of Milwaukee, population 47,000
- 60 % teachers have Masters degree, 4 National Board Certified teachers, 2006 WI Teacher of Year
- WCKE, PLAN , PSAT, MAPS, ACT, AP tests
- WebGrader, BYOC and standards based curricula
- Student Support Mechanisms
- Data Retreats + PLC's = Staff Development

KIDS TODAY

- Have a shorter life expectancy than their parents
- Higher risk of obesity
- Higher risk of Type 2 diabetes
- Higher risk of high blood pressure

IMMEDIATE EFFECTS OF PHYSICAL ACTIVITY

- Elevates the amount of “feel good hormones”
- Increases energy level
- Increases oxygen rich blood flow to the brain
- Increases the ability to focus
- Decreases stress and anxiety levels
- Decreases discipline problems

"OUR MOVING BRAIN
BECOMES OUR
THINKING BRAIN"

-Dr. John Ratey

CHEMICAL CONNECTION BETWEEN MUSCLE POWER AND BRAIN POWER



the chemical **IGF-1** that travels to the



which leads to an



in **BDNF**

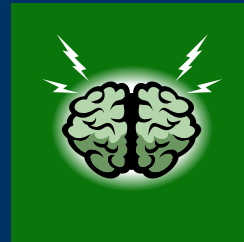


that acts like fertilizer for the brain.

That chemical causes more nerve cell

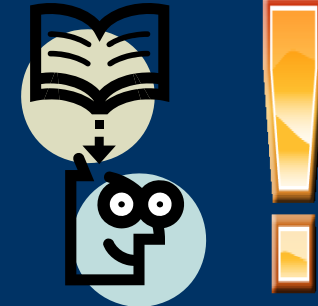


in the



and increases the

brains capacity for



KNOWLEDGE

RESEARCH INTO PRACTICE

Naperville Central High School

Based on Dr. Ratey's findings, Naperville Center High School started a zero hour Physical Education and Learning Readiness class.

All freshmen literacy students were pre and post-tested using the Nelson Denny reading test: September 2005 and January 2006

Results:

Vocabulary

- Regular PE students- 6.7% improvement
- Zero hour PE students- 11.6% improvement

Comprehension

- Regular PE students- 14.6% improvement
- Zero hour PE students- 16.3% improvement

Vocabulary and Comprehension Combined

- Regular PE students- 10.7% improvement
- Zero hour PE students- 17.0% improvement

“Across all ages, we see cognitive benefits related to fitness”
-Charles Hillman

Hillman Studies

- In one study he found that children, ages 7-10, who are in good physical shape responded faster when asked to discriminate between two different images that flashed quickly on a computer screen.
- In a second study of third and fifth graders, he looked at the relationship between academic performance and physical activity. He found that active children were more likely to perform better in the classroom than the less active children.

-Charles Hillman
Associate Professor of Kinesiology
And community health
University of Illinois Urbana-Champaign

Wauwatosa East Physical Education

- Three semesters of required PE. Classes meet everyday for 50 minutes.
- Strong elective program including zero hour PE, Team Sports, Team Sports/Weight lifting and Individual Sports offerings.
- Each semester has between 20-25 sections of Physical Education
- Each semester, students have their personal fitness level assessed. Based on those results students write their own fitness goals and workout program.
- Students are in the fitness center for four weeks to develop their personal programs and to begin working on them.
- After that initial four weeks, students are in the fitness center twice a week.
- PE teachers are constantly talking to students about making healthy choices and staying active.

FITNESS TESTING USING THE TRIFIT COMPUTER



FITNESS CENTER



FUTURE PLANS

Physical Education Choice Program: Research has shown that students will participate more and at a higher level if they are doing activities of their choice.

Leadership/Challenge Course

Rock Climbing, High/Low Ropes Course, Teambuilding

Summary Points

- Physical Education is more than just play time
- Current research is finding that physical activity not only improves a student's physical well-being but also improves brain function
- There is now evidence that suggests that exercise causes new nerve cells to be formed in the brain. With these new nerve cells come increased blood flow and a greater capacity for knowledge
- In our quest to close the achievement gap, it is necessary to use every possible tool available to us....physical activity is another tool for us to use that should not be overlooked
- It is our challenge as teachers to not only educate our students about the benefits of physical education but also our school boards, administrators and parents.