

# Healthy Habits: Live them. Teach them.



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27447-3 \* IN U.S. \$4.95 (IN CANADA \$5.95) \* A BANTAM BOOK

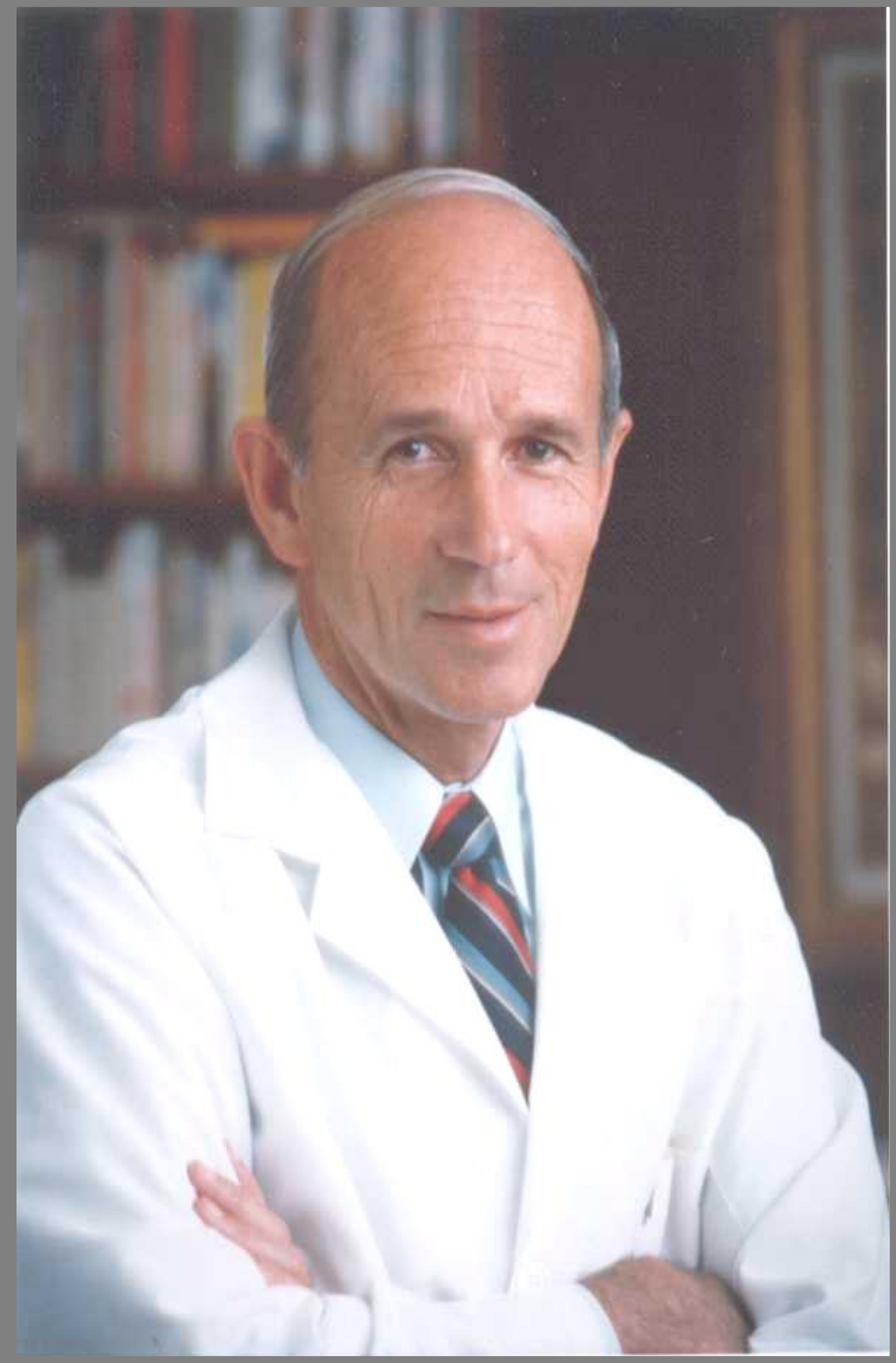
OVER 2 MILLION COPIES IN PRINT!  
THE WORLD'S MOST POPULAR  
EXERCISE PROGRAM



# aerobics

**KENNETH H. COOPER, M.D., M.P.H.**

A LIFETIME PROGRAM FOR MAXIMUM  
HEALTH, FITNESS, AND WELL-BEING THAT  
YOU CAN BEGIN TODAY





HOME

ABOUT US

EVENTS

LITERATURE

GALLERY

CONTACT US

MEMBERS ONLY

Friday 04-26-2013

## WELCOME

Kangaroo Kids is a precision jump rope team from Howard County, Maryland. Their rope jumping is choreographed to contemporary and traditional music, where every foot jumps in unison and every rope hits the floor simultaneously. This unique combination of exercise and dance is enjoyable to perform and exciting to watch.

The mission of Kangaroo Kids is to promote physical fitness and goodwill by example and by demonstration of their jump rope skills. As fitness ambassadors, Kangaroo Kids performs numerous Jump Rope fitness shows and conducts demonstrations, workshops and competitions each year to spread the benefits of this form of physical fitness around the world.

## ROOS IN THE NEWS

2-26-2013 - Fox 45 Morning News BMORE Healthy Expo Interview [\[view\]](#)

### JUMPER SPOTLIGHT

*Max*



Say hello to Max. Max is an accomplished jumper, a great teammate and student. Let's spend some time with Max.



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# Healthy Habits:



*Live them. Teach them.*



DEBERÁN LAVARSE LAS MANOS Y PARTES EXPUESTAS DE LOS PAÑOS POR LO MENIMO 20 SEGUNDOS ANTES DE REGRESAR A SU TRABAJO





<http://vimeo.com/40309500>





**Investigate. Inform. Inspire.**

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Cooper Center Longitudinal Study (CCLS), est. in 1970, is the largest study and database in the world with an objective measure of fitness.

- 100,000+ people
- Over 600 scientific articles
  - Heart Disease
  - Dementia
  - Cancers
  - Health Costs

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**The Cooper Institute trains health and fitness leaders world-wide**



# Youth Initiatives



Perot Youth  
International  
Data Repository



Cooper International Youth Fitness Test

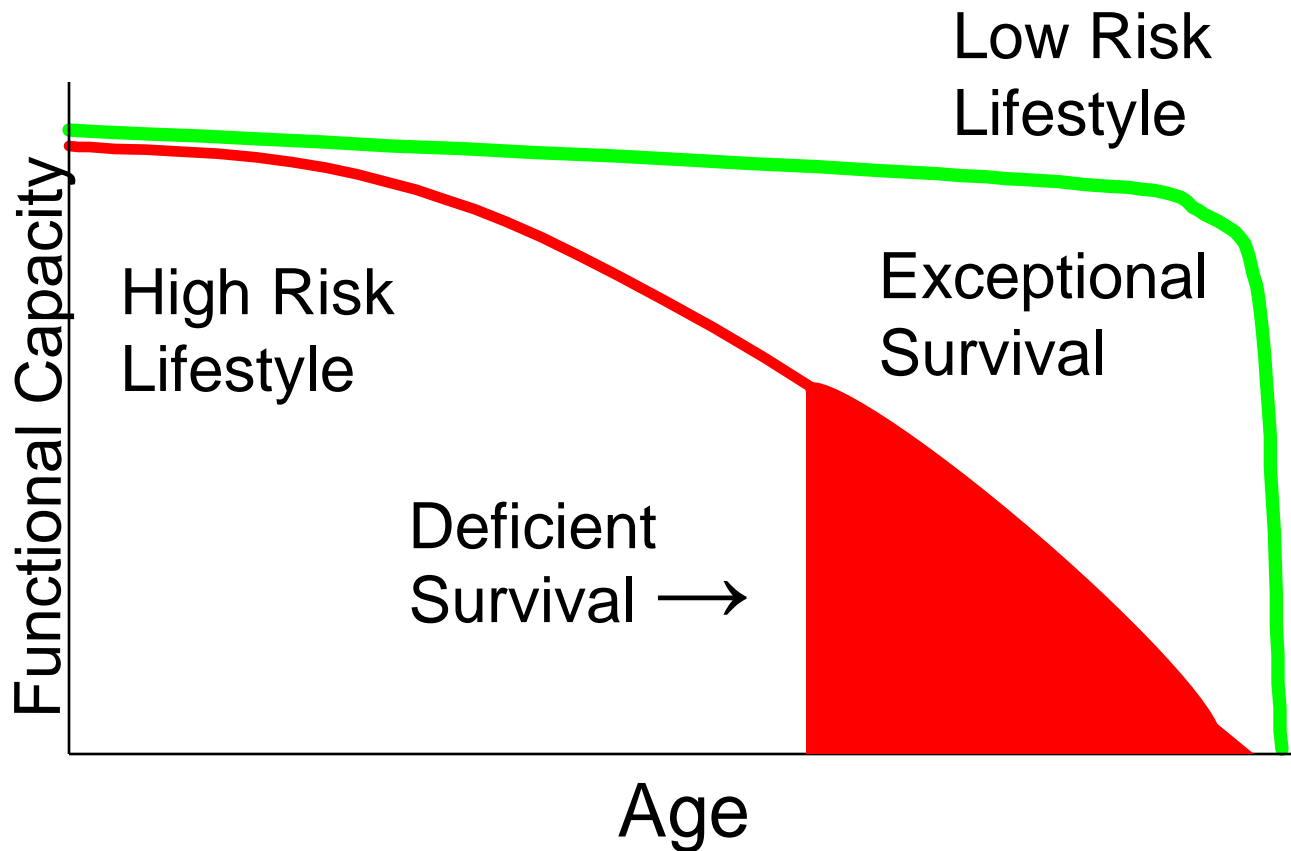


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# Squaring off the Curve



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18.4%

Archives of Pediatrics & Adolescent Medicine, April, 2009

ios.com



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# TexasMedicine

TEXAS MEDICAL ASSOCIATION

JUNE 2007

Eating  
ourselves  
to death

The cost of obesity



**Staying well**

**Physician  
price war?**

**Fraudulent  
testimony**

**Guatemala's  
next vice  
president**

**Omeprazole  
over the  
counter**

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ALADDIN CAR WASH

SONIC

POPEYES  
CHICKEN & BISCuits

ALADDIN

Arby's  
ROAST BEEF  
Sandwiches

EGG ROLL  
RESTAURANT  
王大德

Cast  
Dental  
Center

New Patient Exam &  
Tooth Whitening  
We Accept: Most Insurances & Medicaid  
Walk-ins Welcome  
672-347-2020

DRIVE THRU

DRIVE THRU

24  
HOUR

FITNESS

POINT LON  
HANDICAP  
TO UPPER  
LOCATED  
24 HOUR

**1 out of 3  
born  
after 2000  
will develop  
diabetes**



**Source: American Diabetes Association**

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**Kids spend 5.29 hours a day  
in front of a screen.**

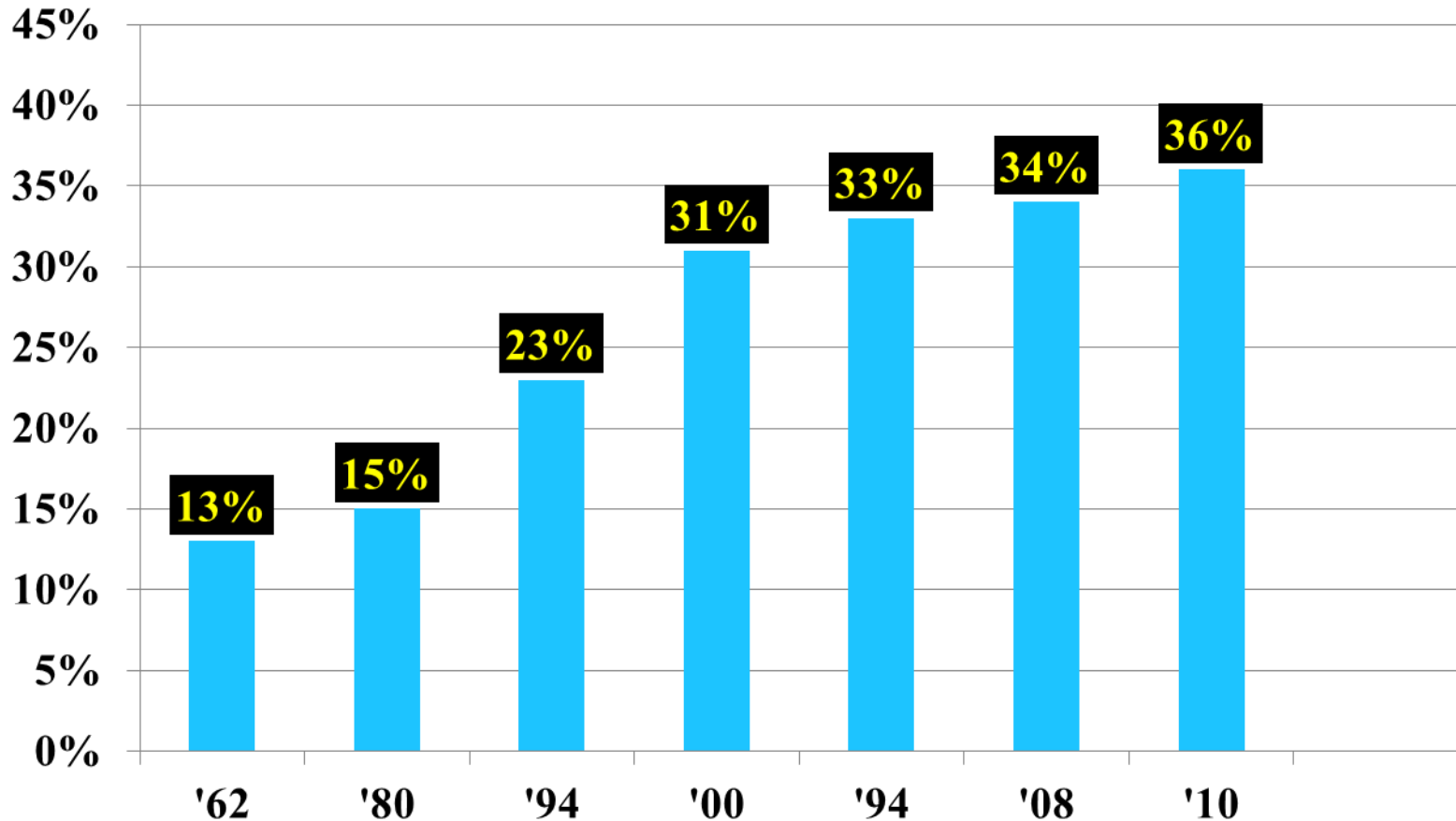
Source: Centers for Disease Control, 2007 **Get Cooperized™**



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# Obesity Over Time

Percentage of obese adults, ages 20 to 74



[Centers for Disease Control and Prevention](#)

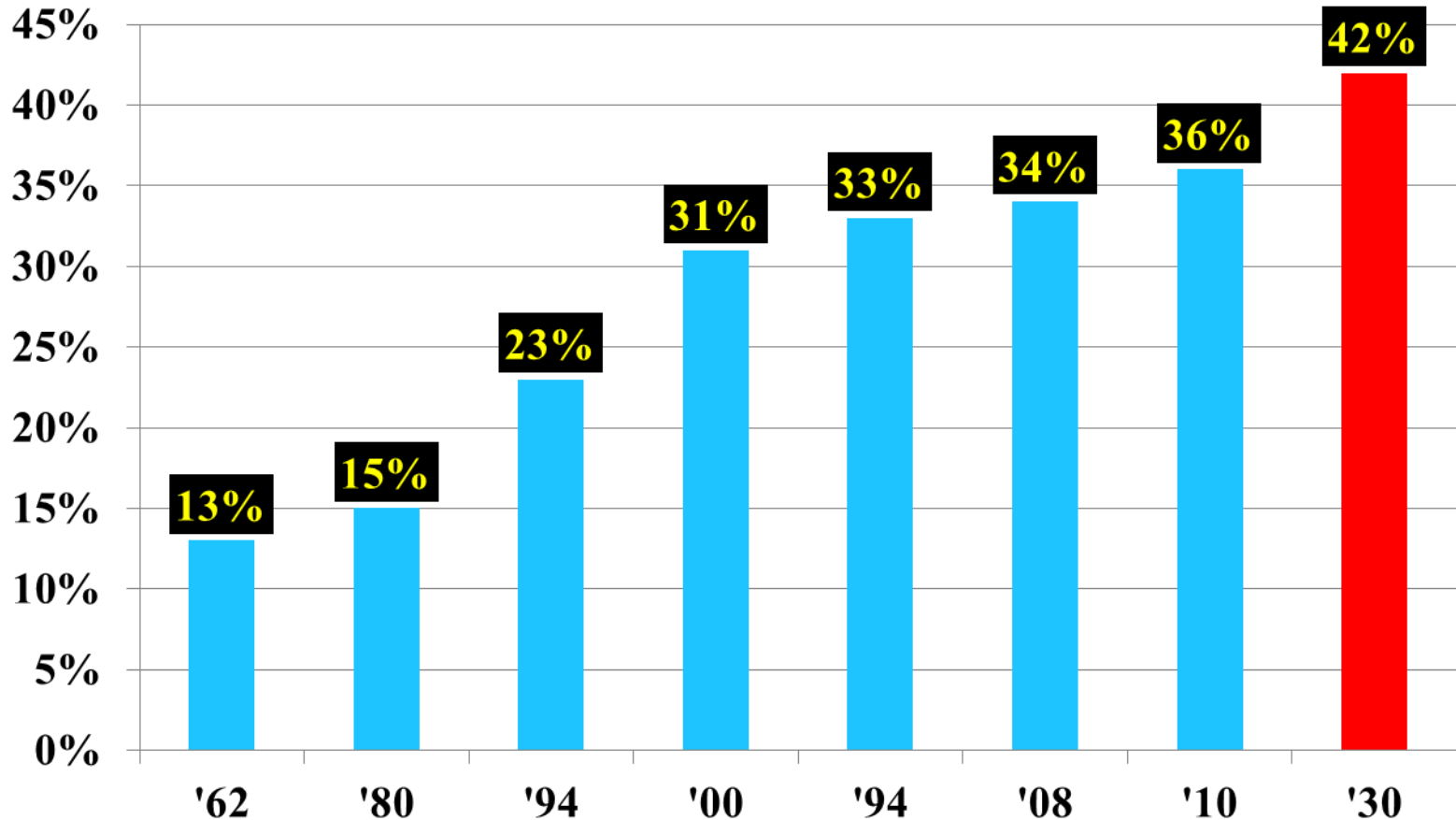
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# Obesity Over Time

Percentage of obese adults, ages 20 to 74



Centers for Disease Control and Prevention

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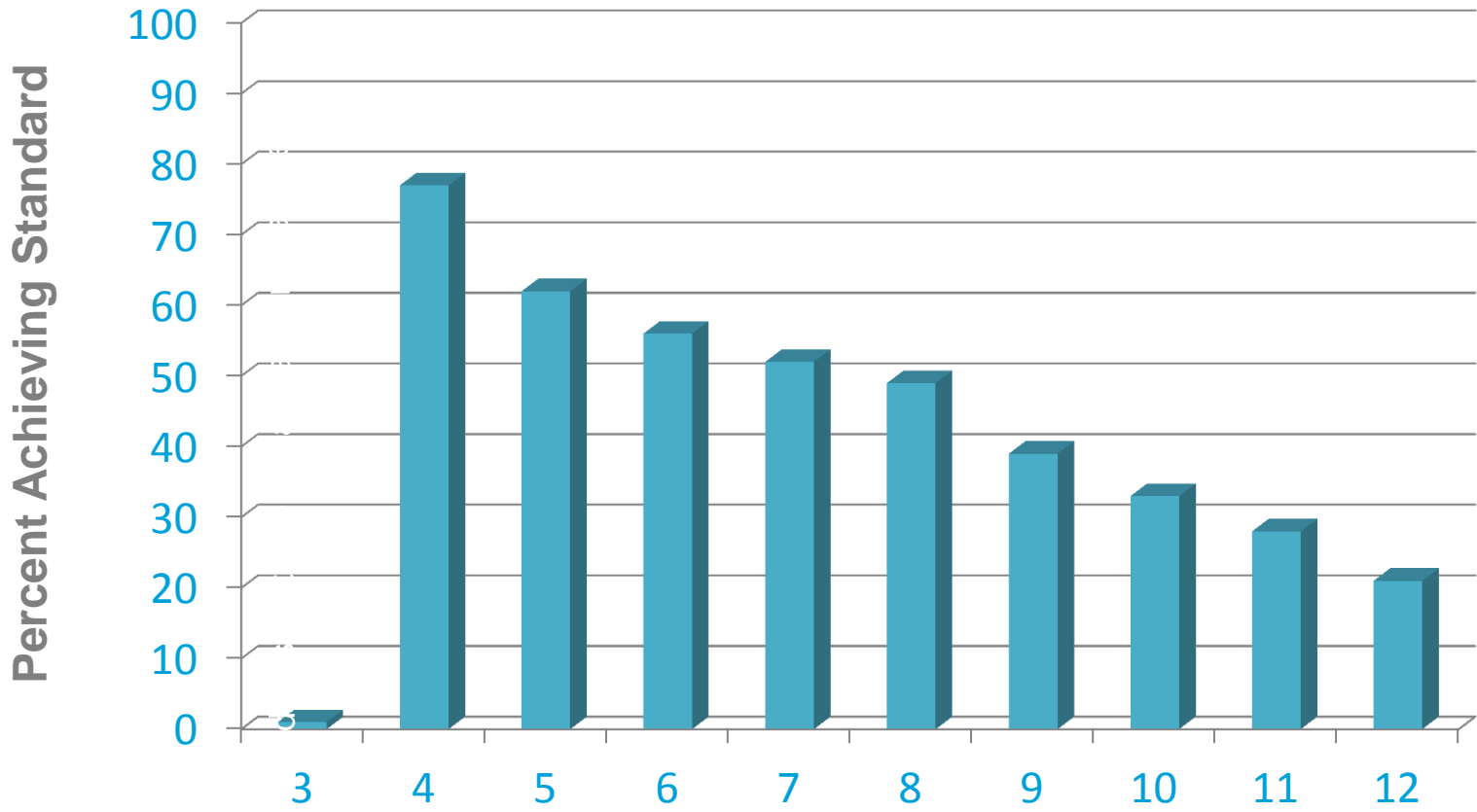


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# Losing Ground in Youth Fitness

## Cardiovascular Fitness by Grade

2008 Texas Youth Fitness Study: 2,596,565 tested

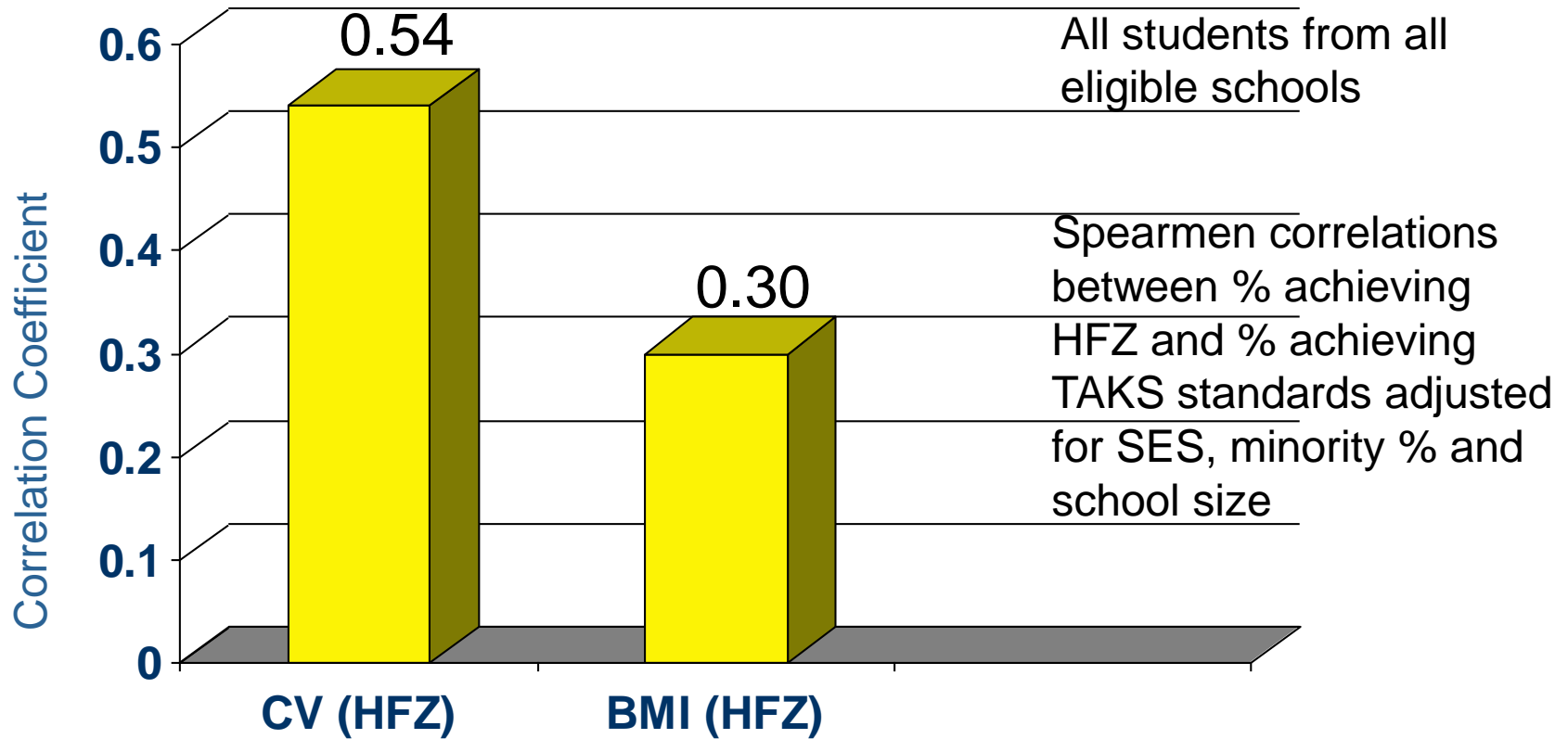


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# Association Between Fitness and Academic Performance (Texas)



Higher Levels of Fitness Associated with Better Academic Performance

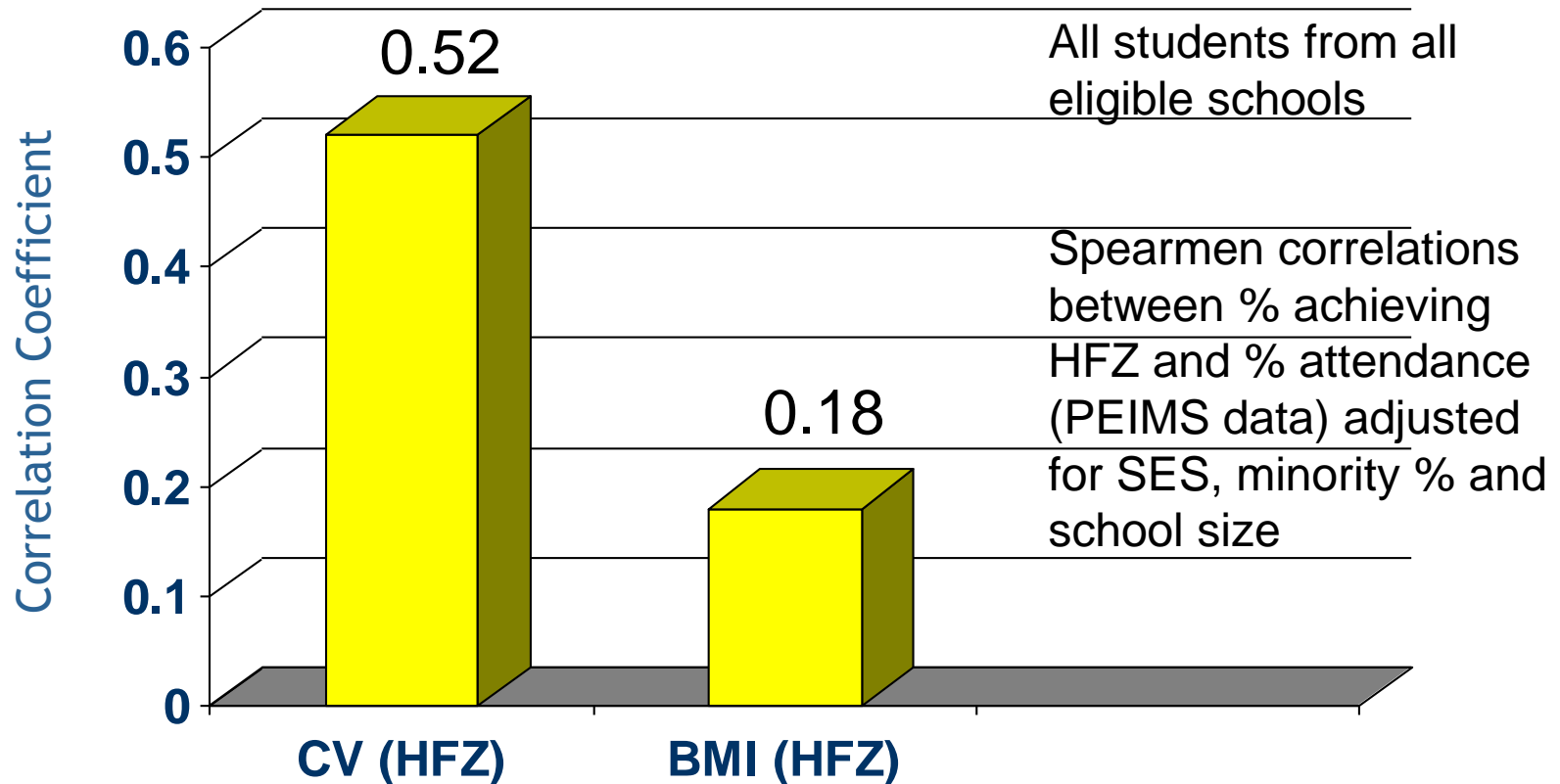
Texas FITNESSGRAM® Study, 2008

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# Association Between Fitness and School Attendance Rates



Higher Levels of Fitness Associated with Better School Attendance

Texas FITNESSGRAM® Study, 2008

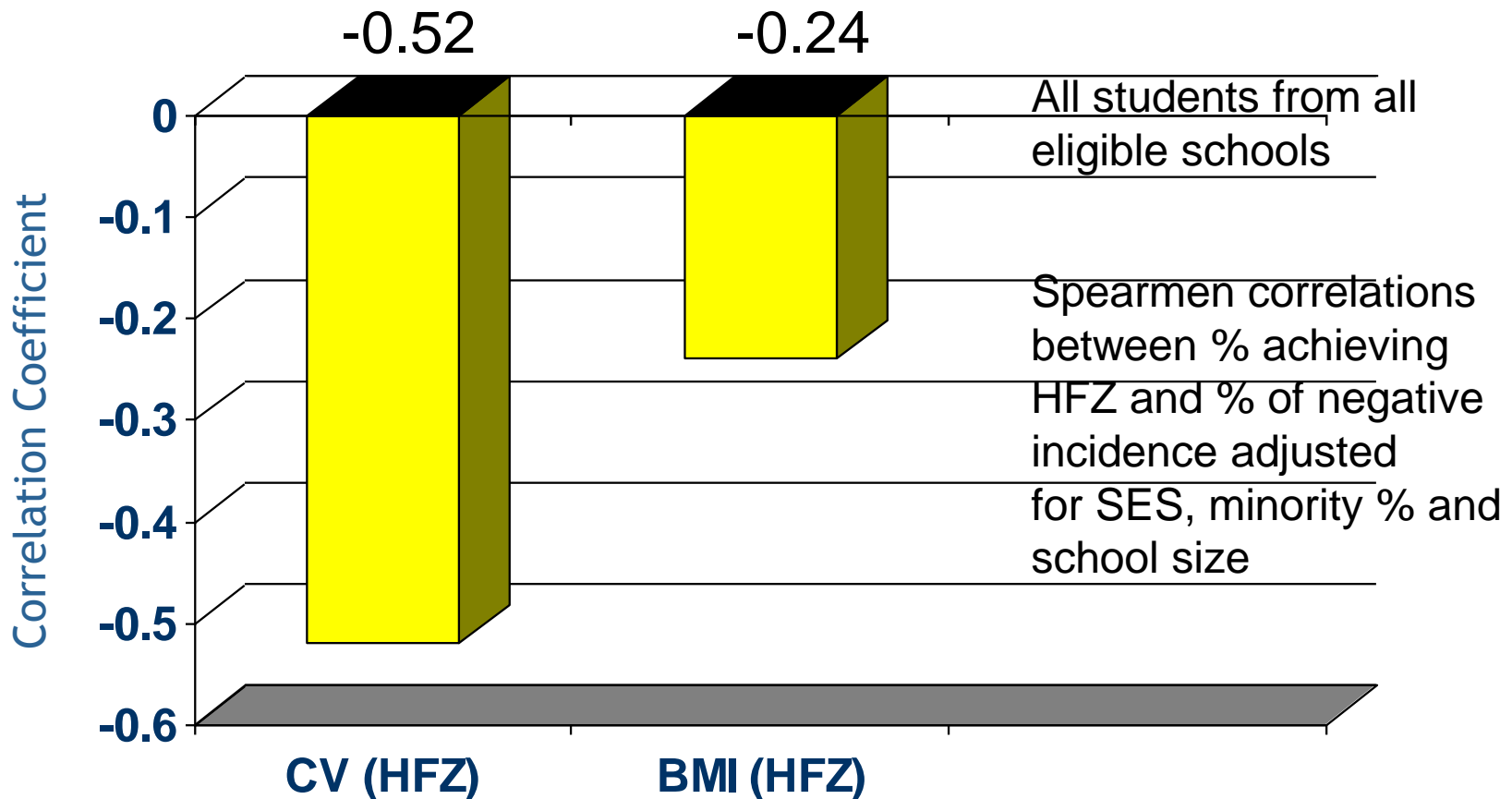
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# Association Between Fitness and School Incidence Rates



Higher Levels of Fitness Associated with Fewer Negative School Incidents

Texas FITNESSGRAM® Study, 2008

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**If you had to pick one  
thing to make people  
healthier as they age, it  
would be.....**

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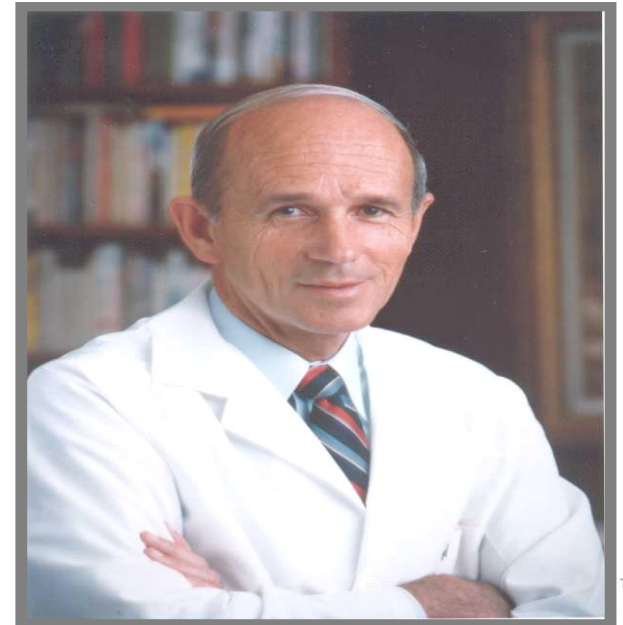
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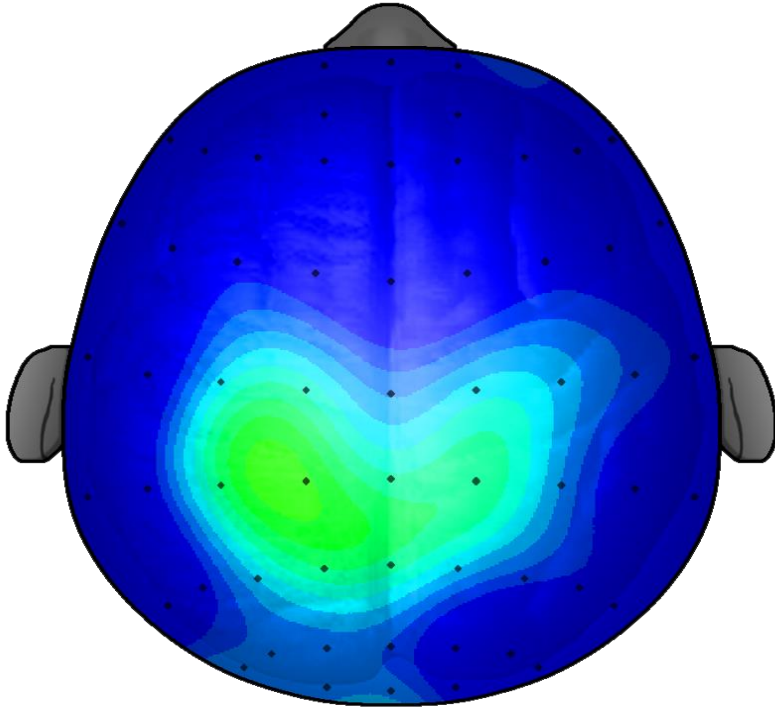
**If you had to pick one thing to make people healthier as they age, it would be.....aerobic exercise.**

**Dr. Kenneth H. Cooper MD, MPH  
The Cooper Institute**



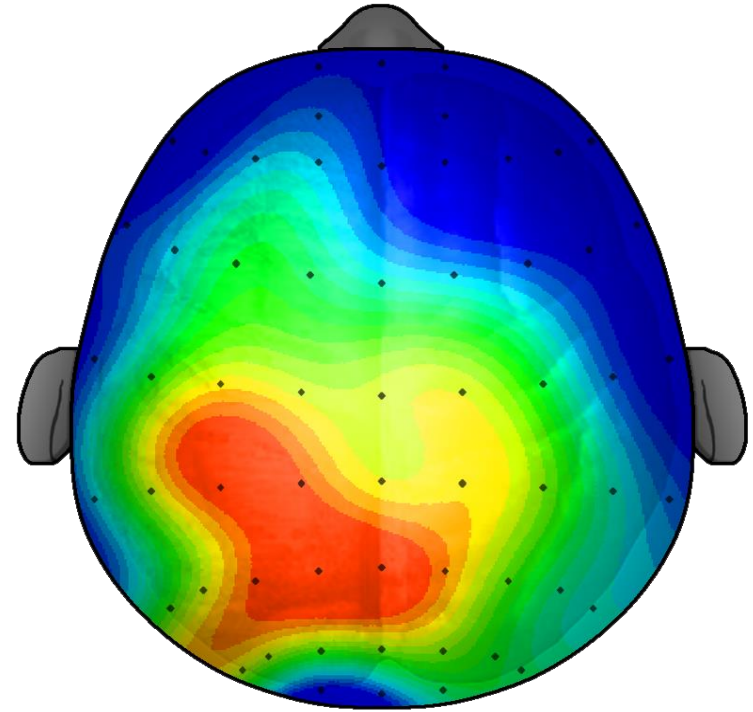
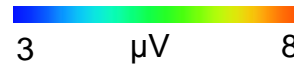
# Composite Attention Allocation

of 20 student's taking the same test.



After 20 minutes of

## Sitting Quietly



After a 20 minutes of

## Walking

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(Hillman et al., 2009)

Pre-test

9 Months Later



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**FG** FITNESS GRAM®

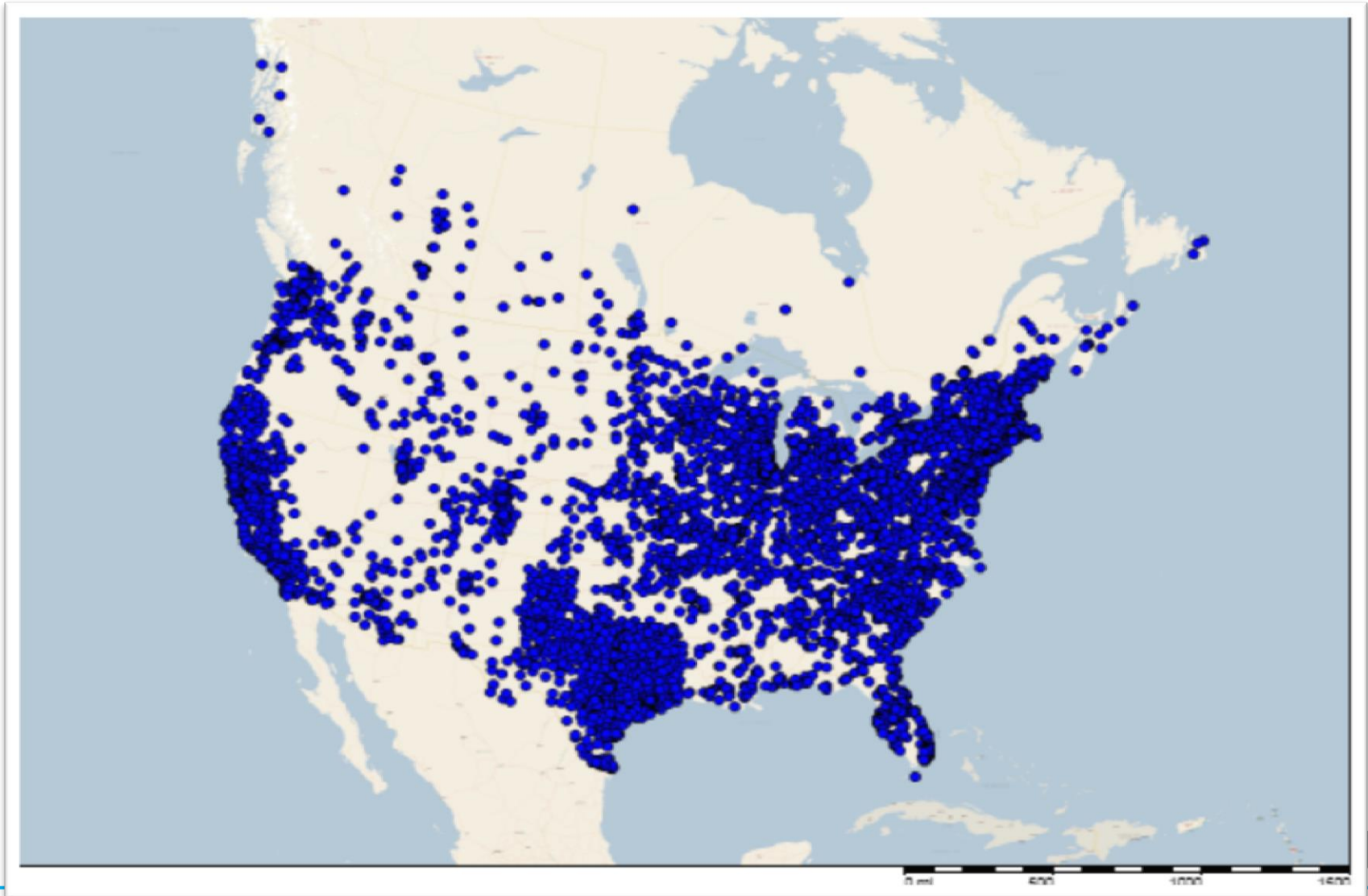


THE NFL MOVEMENT FOR AN ACTIVE GENERATION™



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# FITNESSGRAM<sup>®</sup> Sites



# What is FITNESSGRAM / ACTIVITYGRAM?

A comprehensive, educational and promotional tool for fitness and activity assessment for children.



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# FITNESSGRAM

## Scientific Advisory Board

*Kirk J. Cureton, Ph.D.*

*Joe Eisenmann, Ph.D.*

*Scott Going, Ph.D.*

*Baker Harrell, M.Ed.*

*Dolly Lambdin, Ph.D.*

*Matt Mahar, Ph.D.*

*Marilu D. Meredith, Ed.D.*

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*Weimo Zhu, Ph.D.*

*Gregory Welk, Ph.D.*

*Charles L. Sterling, Ed.D.*

*Founder*

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# FITNESSGRAM

- Committed to the concept of health-related fitness
- Concentrates on criterion-referenced evaluation
- Emphasize fitness behavior / physical activity
- Systematic updates of computerized reporting system

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# Mission

- To promote lifelong physical activity among children and youth



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# Health-Related Physical Fitness

- Aerobic Capacity
- Body Composition
- Muscular Strength
- Muscular Endurance
- Flexibility



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# Skill-Related Physical Fitness

- Speed
- Agility
- Coordination
- Balance
- Power
- Reaction Time



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# Fitness is for EVERYONE

Not all children can become elite athletes but ALL children can enjoy the benefits of a physically active lifestyle



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***If you do the process  
the product will follow!***

***Physical activity is the process***

***Physical fitness is the product***

***EVERYONE can do the process***

---

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# Fitness and Activity are for a LIFETIME

- The long-term goal is for children to become active and fit adults.
- Fostering positive attitudes to activity is more important than short term improvements in fitness.



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# Physical Activity and Health

- Physical activity will improve health in both children and adults!
- The best way to promote adult health is to promote adult activity!
- One way to promote adult activity is to provide opportunities for children to successfully participate in activity

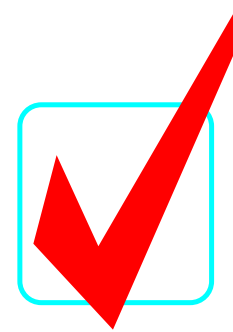
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# Fitness is PERSONAL

Fitness results provide personal information. Children do not have to share their results with other children.



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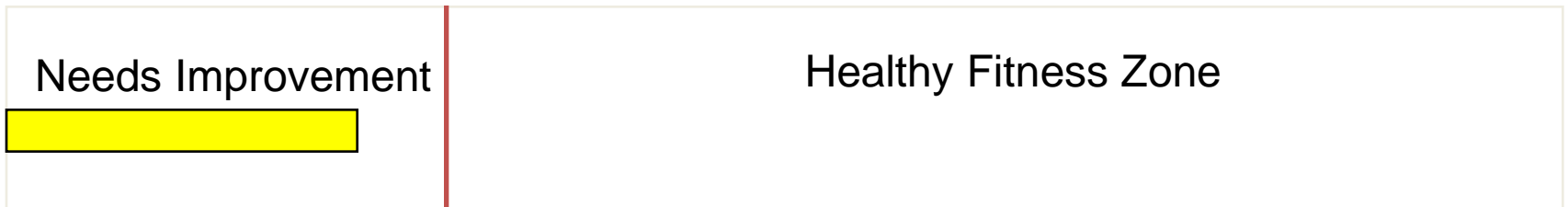
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# FITNESSGRAM Report

The *FITNESSGRAM* report prints out an individualized report that evaluates a child's personal level of fitness compared to criterion standards, in this case the criteria is health. Reports may be printed for students and for parents



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# Reports for Students



Your scores on 5 of 6 tests were in or above the Healthy Fitness Zone. In addition to doing strength and flexibility exercises, you should play active games, sports, or other activities most every day.

**Jane Jogger**  
Grade: 5 Age: 10  
Cooper Institute Elementary School

Instructor: Linda Deetz

Date	Height	Weight
Current: 04/21/2007	5' 1"	104 lbs
Past: 04/12/2006	5' 0"	100 lbs

## MESSAGES

Although your aerobic capacity score is in the Healthy Fitness Zone now, you are not doing enough physical activity. You should try to play very actively at least 60 minutes at least 5 days each week to look and feel good.

To improve your abdominal strength, be sure that your strength activities include curl-ups. You may need to do more curl-ups each day or do them more days of the week.

Your trunk and upper-body strength are both in the Healthy Fitness Zone. To maintain your fitness, be sure that your strength-training activities include exercises for each of these areas. Trunk exercises should be done 3 to 5 days each week. Strength activities for other parts of your body should be done 2 to 3 days each week.

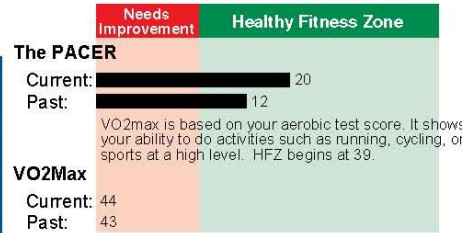
Your flexibility is in the Healthy Fitness Zone. To maintain your fitness, stretch slowly 3 or 4 days each week, holding the stretch 20-30 seconds. Don't forget that you need to stretch all areas of the body.

Jane, your body composition is in the Healthy Fitness Zone. If you will be active most days each week, it may help to maintain your level of body composition. You should also eat a healthy diet including more fruits and vegetables and fewer fats and sugars.

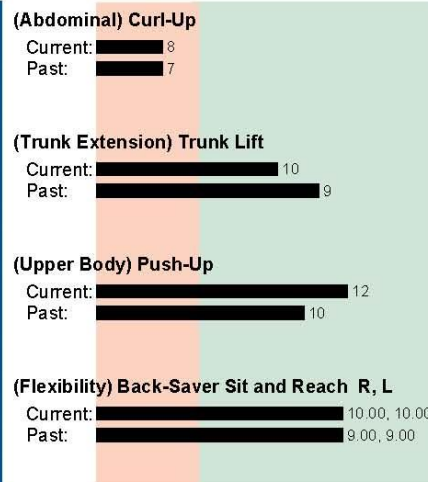
### Healthy Fitness Zone for 10 year-old girls

The PACER = 7 - 41 laps  
Curl-Up = 12 - 26 repetitions  
Trunk Lift = 9 - 12 inches  
Push-Up = 7 - 15 repetitions  
Back-Saver Sit and Reach =  
At least 9 inches on R & L  
Percent Body Fat = 13.00 - 32.00 %

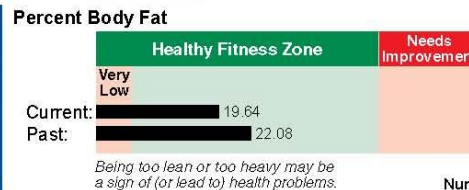
### AEROBIC CAPACITY



### MUSCLE STRENGTH, ENDURANCE, & FLEXIBILITY



### BODY COMPOSITION



### ACTIVITY

On how many of the past 7 days did you participate in physical activity for a total of 30-60 minutes, or more, over the course of the day?

On how many of the past 7 days did you do exercises to strengthen or tone your muscles?

On how many of the past 7 days did you do exercises to loosen up or relax your muscles?

Number of Days

2

3

2

To be healthy and fit it is important to do some physical activity almost every day. Aerobic exercise is good for your heart and body composition. Strength and flexibility exercises are good for your muscles and joints.

Good job! You are doing some aerobic activity and strength and flexibility exercises. Additional vigorous aerobic activity would help to promote higher levels of

# Reports for Parents



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## Report for Parents

People come in all shapes and sizes, but everyone can benefit from regular physical activity and a healthy level of physical fitness. The FITNESSGRAM fitness test battery evaluates five different parts of health-related fitness, including aerobic capacity, muscular strength, muscular endurance, flexibility, and body composition. Parents play an important role in shaping children's physical activity and dietary habits. This report will help you evaluate your child's current level of health-related fitness and help you identify ways to promote healthy lifestyles in your family.

### AEROBIC CAPACITY

Aerobic capacity is a measure of the ability of the heart, lungs, and muscles to perform sustained physical activity. In general, the more your child exercises, the higher his or her aerobic capacity level will be. Aerobic capacity is measured with the PACER test, the one-mile run, or the walk test.

**Importance:** Good aerobic capacity can reduce risks of heart disease, stroke, and diabetes. Although generally not present in children, these diseases can begin during childhood and adolescence.

**Healthy Fitness Zone** for 10 year-old boys = 23 - 61 laps

### MUSCLE STRENGTH, ENDURANCE, & FLEXIBILITY

These components of health-related fitness measure the overall fitness of the musculoskeletal system. A variety of tests are used to assess these different components.

**Importance:** The fitness level of muscles is important for injury prevention and overall body function. Strength, endurance, and flexibility are important for maintaining good posture, low back health, and total body function.

**Healthy Fitness Zone** for 10 year-old boys

Curl-Up = 12 - 24 repetitions

Trunk Lift = 9 - 12 inches

Push-Up = 7 - 20 repetitions

Back-Saver Sit and Reach =

At least 8 inches on R & L

### BODY COMPOSITION

The body composition measure refers to the relative proportion of fat and lean tissue in the body. Body fat percentage can be estimated by skinfold calipers or other measuring devices. The Body mass index (BMI) is another indicator that determines if a person is at a healthy weight for his or her height.

**Importance:** Overweight youth are at high risk for being overweight adults. Adult obesity is associated with a number of chronic health problems. Many of these health problems can begin early in life. It is important to begin healthy eating and regular activity early.

**Healthy Fitness Zone** for 10 year-old boys = 7.00 - 25.00 %

### INTERPRETING THE FITNESSGRAM REPORT

Health-related fitness includes a variety of factors. With regular physical activity most children will be able to score in the Healthy Fitness Zone for most of the tests. It is important for all children to be physically active every day (a total of 60 minutes is recommended) even if they are already fit. If your child is in the Needs Improvement area on a particular test, it is important to provide additional opportunities to be active so they can improve their levels of fitness. **See back of page for more information.**

**Joe Jogger**  
Grade: 5 Age: 10  
Cooper Institute All-level School

**Instructor(s): Bostick, Sue**

	Date	Height	Weight
Current:	10/05/2009	5' 5"	132 lbs
Past:		0' 0"	0 lbs

Needs Improvement	Healthy Fitness Zone
-------------------	----------------------

#### The PACER

Current: 23  
Past: 44

shows your ability to do activities such as running, cycling, or sports at a high level. HFZ begins at 42.

#### VO2Max

Current:  
Past:

#### (Abdominal) Curl-Up

Current: 34  
Past:

#### (Trunk Extension) Trunk Lift

Current: 11  
Past:

#### (Upper Body) Push-Up

Current: 32  
Past:

#### (Flexibility) Back-Saver Sit and Reach R, L

Current: 9.00, 10.00  
Past:

#### Percent Body Fat

Very Low	Healthy Fitness Zone	Needs Improvement
Current:  21.58		
Past:		

Being too lean or too heavy may be a sign of (or lead to) health problems. However, not all people who are outside the Healthy Fitness Zone are at risk for health problems. For example, a person with a lot of muscle may have a high BMI without excess fat.

# FITNESSGRAM Assessment

- Aerobic Capacity
  - PACER
  - One Mile Run/Walk
  - Walk Test (13 years and over)

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# FITNESSGRAM Assessment

- Body Composition

- Percent Body Fat from Skinfold Measures
- Percent Body Fat from Bioelectric Impedance Analyzer (BIA)
- Body Mass Index from Height/Weight
  - Students remove shoes when getting height and weight
  - When measuring height have students looking forward with shoulders back (standing tall)
  - Weight – cover scale and invite students back to discuss with you during your conference time
  - Encourage you to drop fractions of an inch or pound and use the last whole number. Example: 5 foot 5 ½ inches would be 5 feet 5 inches; 112.5 lbs would be 112 lbs

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# FITNESSGRAM Assessment

- Muscle Strength, Endurance & Flexibility
  - Abdominal – [Curl-up](#)
  - Trunk Extensor – [Trunk Lift](#)
  - Upper Body – [90<sup>0</sup> Push-up](#), Modified Pull-up, Flexed Arm Hang
  - Flexibility – [Back Saver Sit and Reach](#) or Shoulder Stretch

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# Abdominal Strength

- Curl-up



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# Trunk Extensor Strength

- Trunk Lift



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# Upper Body Strength

- 90° Push-up



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# Flexibility

- Back Saver Sit-and-Reach



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# Activity Day Questions

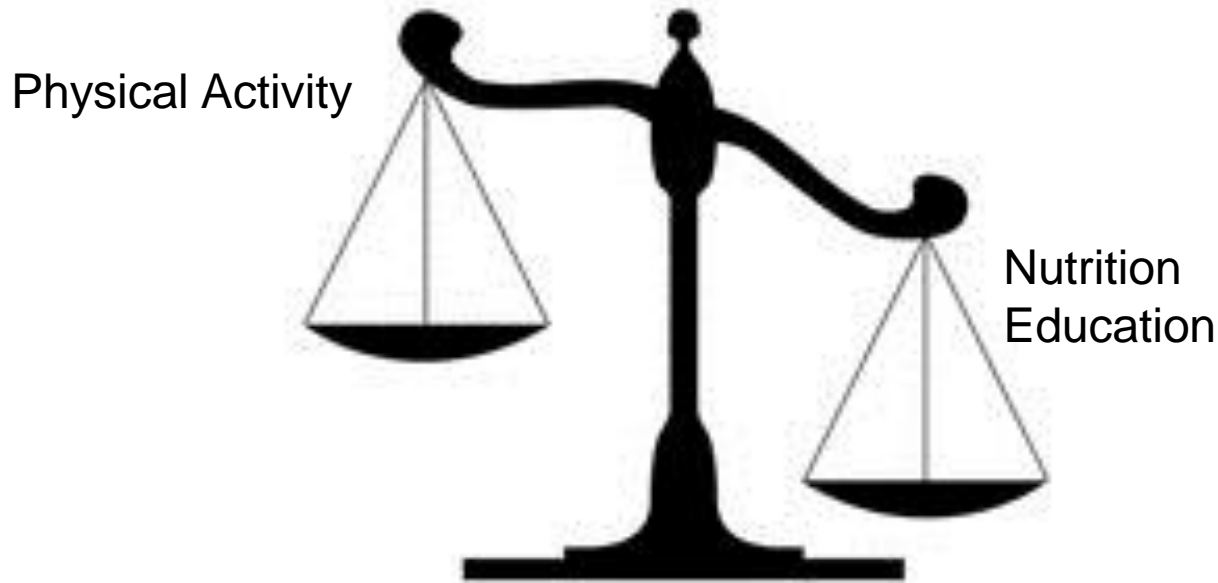
- How many of the past 7 days did you participate in any physical activity for a total of 30-60 minutes or more over the course of a day? This includes moderate activities (walking jogging, bicycling) as well as vigorous (jogging, active games, etc). (0,1,2,3,4,5,6,7) \_\_\_\_\_
- On how many days of the past 7 days did you do exercises to strengthen or tone your muscles? This includes exercises such as push-ups, sit-ups, or weightlifting. (0,1,2,3,4,5,6,7) \_\_\_\_\_
- One how many of the past 7 days did you do stretching exercises to loosen your relax your muscles? This includes exercises such as toe touches, knee bending, or leg stretching. (0,1,2,3,4,5,6,7)  
\_\_\_\_\_

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# Is your program balanced?

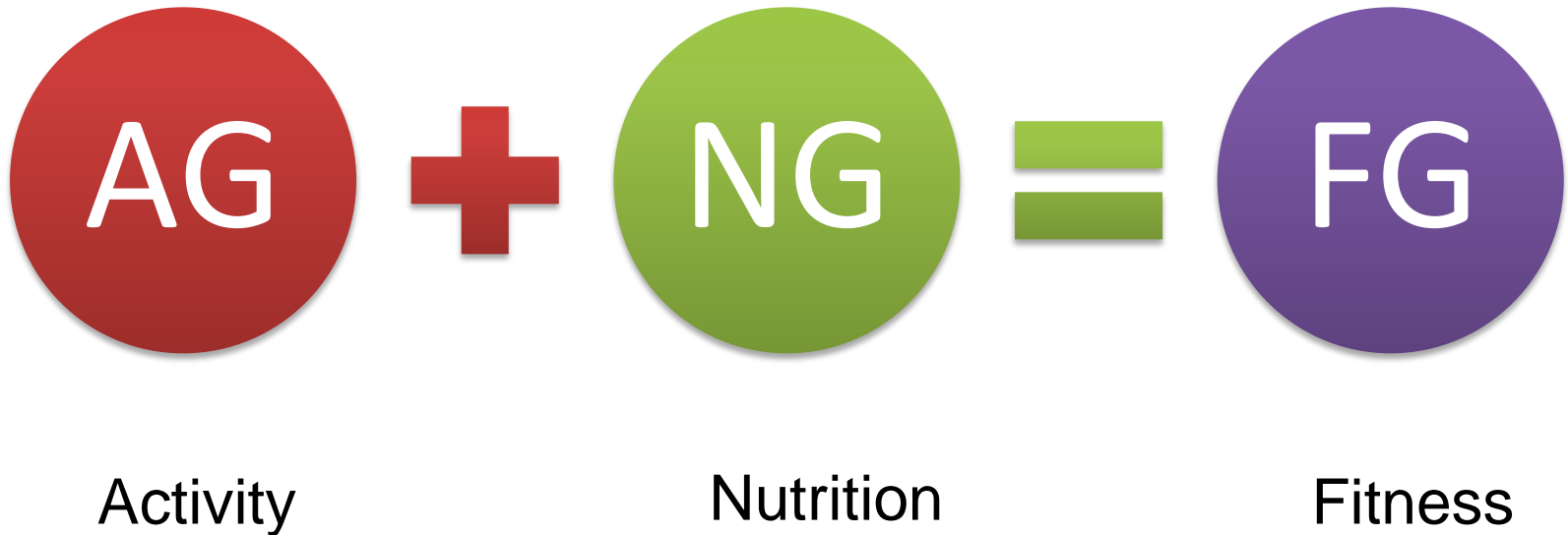


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# Formula for Children's Health



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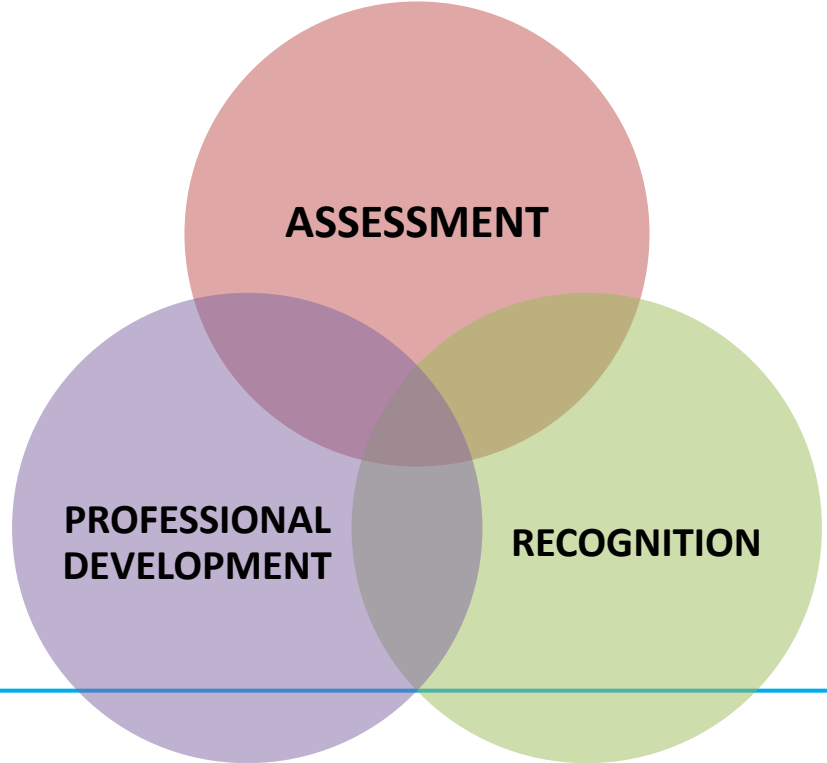


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# Presidential Youth Fitness Program



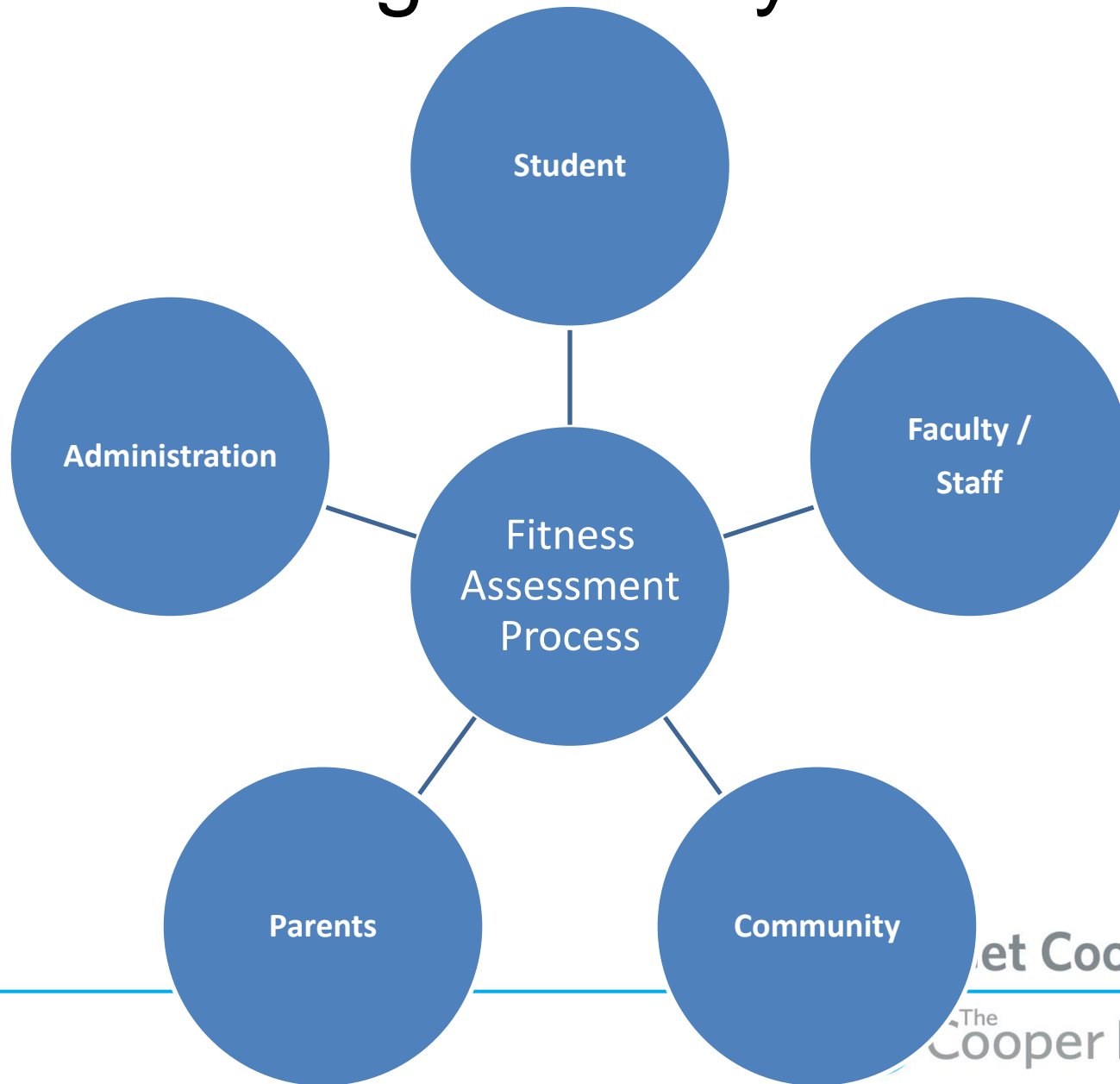
This is a voluntary program that includes a health-related assessment, as well as educational and motivational tools, to support educators and empower students to adopt an active lifestyle.



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# Communicating with Key Stakeholders



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Tyler  
Sixteen Participa



# Cooper Youth Fitness Test

The International **FG** FITNESSGRAM<sup>™</sup>

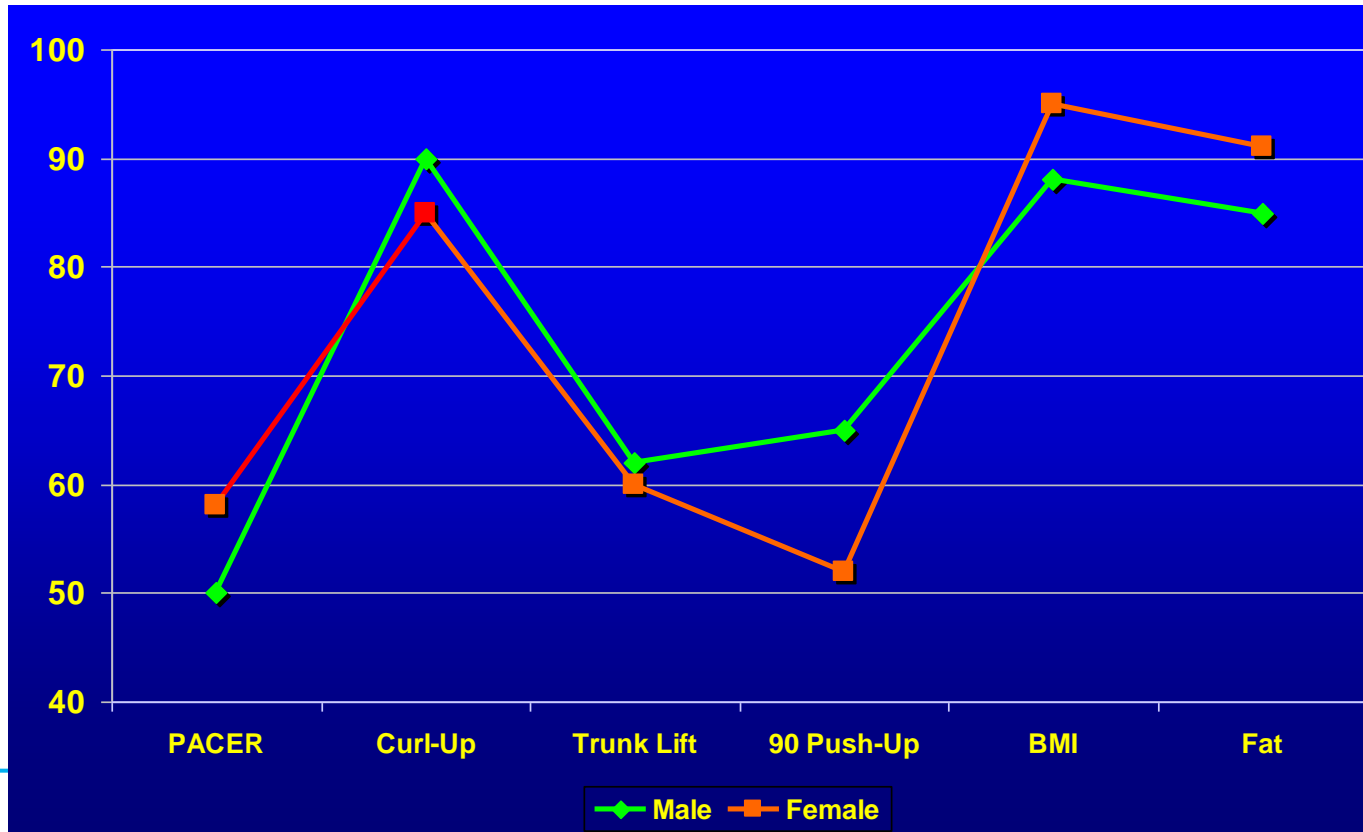


# Fitnessgram® Testing in China

## Passing Rate of Tests By Gender

- 1440 Boys
- 1440 Girls

Grades  
4-5, 6-7, 11-12





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# Secular Changes in Pediatric Fitness 1958 - 2003

- 6 – 19 years of age.
- 25,455,527 students.
- 27 countries.
- Average: ↓ 0.36% per year (total 16.2%).
- Improved late 1950s – 1970.
- Magnitude of the decrease increased after 1970.

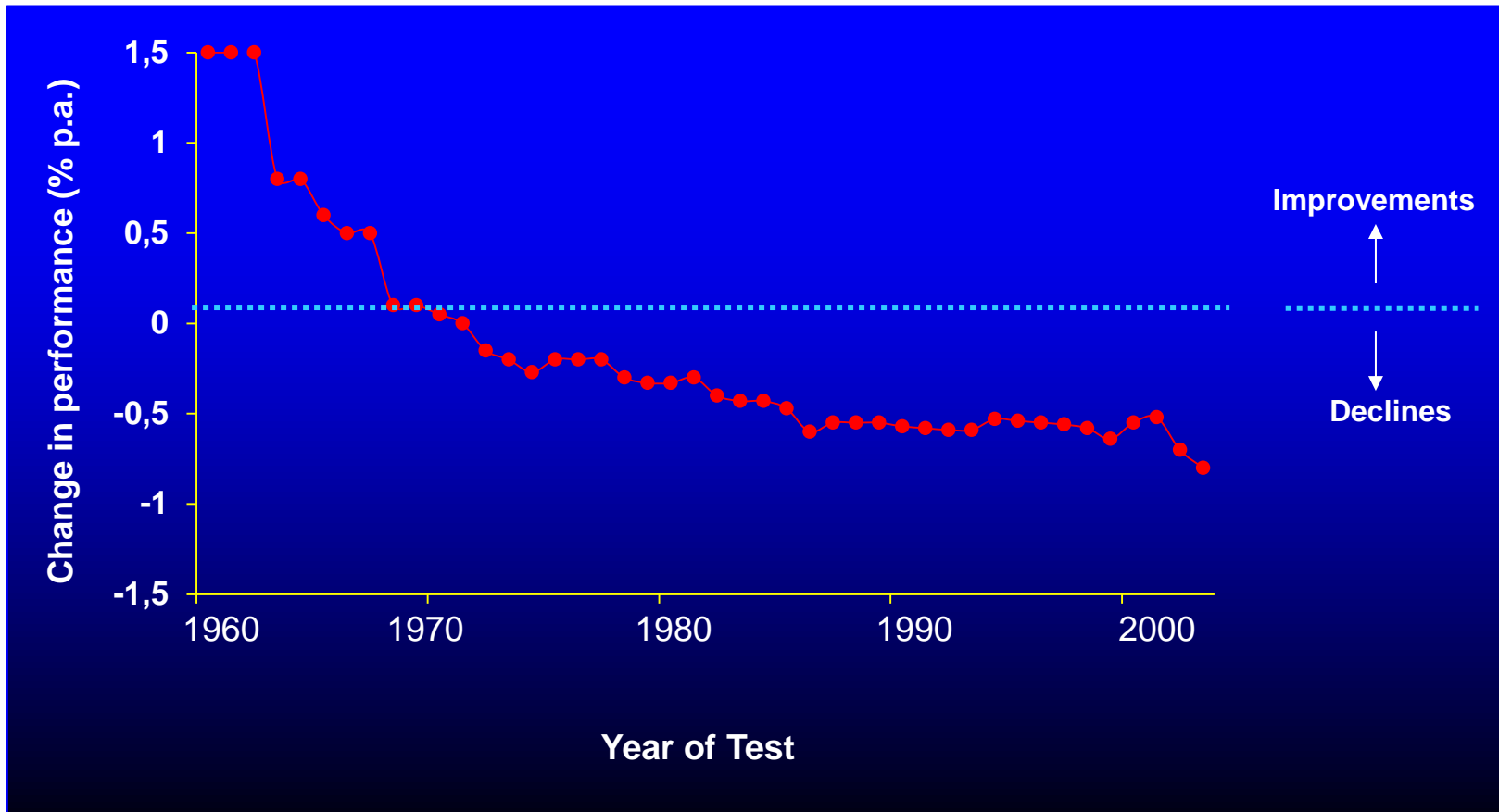
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Source: G. Tomkinson et al, *Med Sport Sci*, 2007.



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# Global Time-Related Patterns of Change in Pediatric Aerobic Performance Between 1958 and 2002

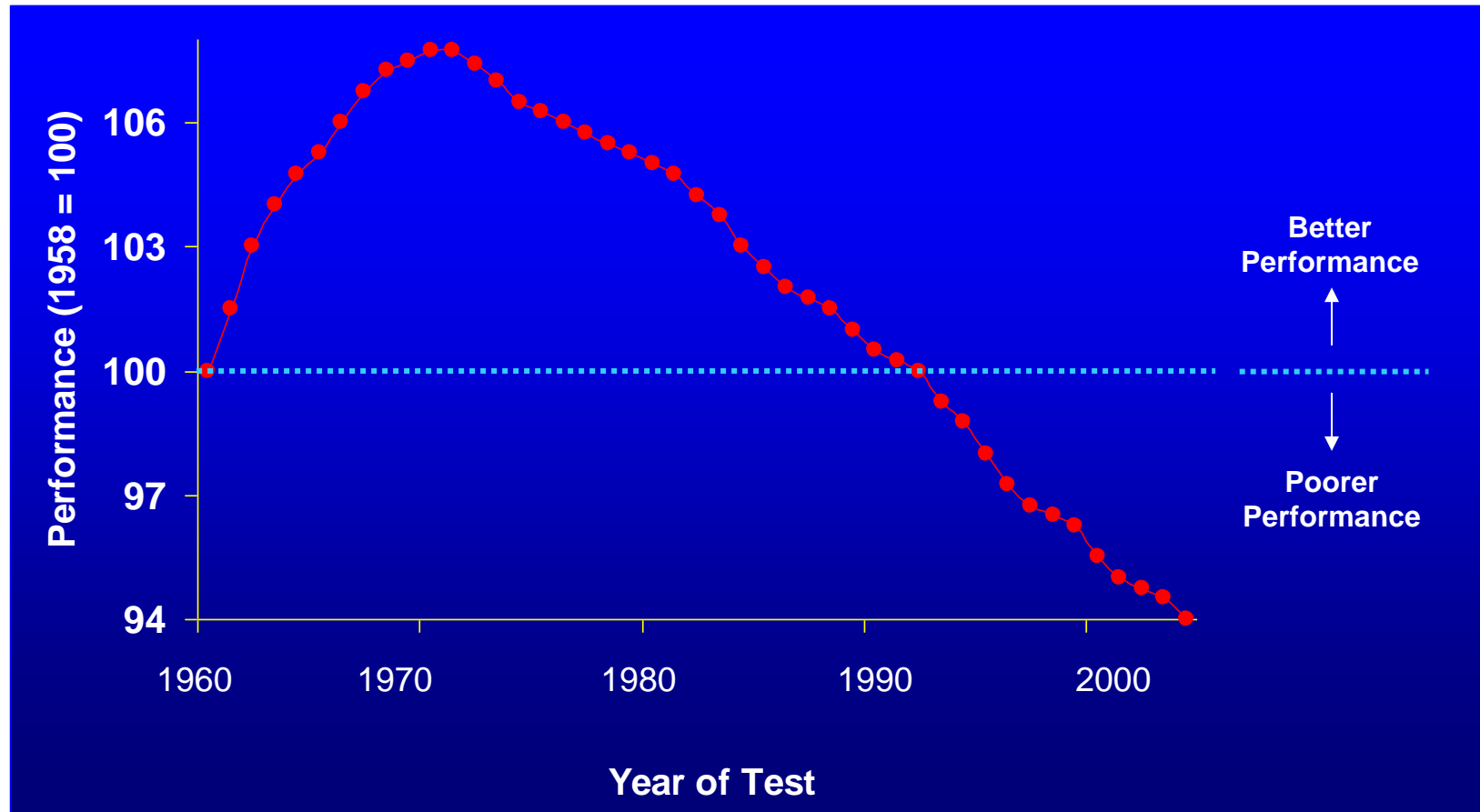


Source: G. Tomkinson et al, Med Sport Sci, 2007.



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# Global Time-Related Patterns of Performance in Pediatric Aerobic Performance Between 1958 and 2002



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Source: G. Tomkinson et al, Med Sport Sci, 2007.



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# Hungarian School Sport Federation

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# Hungarian National Fitness Test Partnership Team

*Mr. Balogh Gábor - President Hungarian School Sports Federation*

*Dr. Csányi Tamás - Professional Project Leader*

*Dr. István Kulisity - Director for Legal and International Affairs*

*Dr. Kenneth H. Cooper, MD, MPH – Founder, The Cooper Institute*

*Mr. Don Disney. MS, MA – The Cooper Institute Director of Youth Initiatives*

*Ms. Catherine Vowell, MBA – International Director for CIYFT*

*Dr. Weimo Zhu – Principle Scientist*

*Dr. Greg Welk – Scientist*

*Dr. Kevin Finn – Quality Control Scientist*

*Dr. Kelly Larson - Scientist*

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# Outcomes



- Develop the Hungarian National Fitness Test
  - Conduct the research
  - Develop customized software
- Determine the levels of health related physical fitness in Hungarian youth

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# CIYFT - Brazil





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Cooper International Youth Fitness Test

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