



# Move More, Learn More: Physical Activity at the Secondary Level

September 12, 2012



The Colorado Health Foundation™



# Colorado Legacy Foundation

- ✿ We are an independent 501 (c ) (3) that serves as a critical friend and partner to the Colorado Department of Education in the effective implementation of good public policy.
- ✿ We identify promising practices, invest in innovative work, recommend policy, evaluate results, and share our findings with all Colorado school districts and schools.
- ✿ We believe that increased student achievement for all Colorado students requires effective leaders in every school, effective educators in every classroom, and healthy and engaging environments that ignite a passion for learning in every student.

# Move More, Learn More:

## Physical Activity at the Secondary Level

### Objectives:

- ✿ Learn why physical activity is important for secondary-level students and academic achievement.
- ✿ Learn how and why secondary students should be involved in creating, planning and leading their own activity breaks.
- ✿ Receive tangible and practical tools and templates that can be integrated into your classroom tomorrow!

# **Move More, Learn More:**

## **Physical Activity at the Secondary Level**

### **Presenters:**

- ✿ **Chris Strater**, Aurora Public Schools
- ✿ **MacKenzie Mushel**, Poudre School District
- ✿ **Ally Guerrero**, Poudre School District Student
- ✿ **Maddy Champ**, Poudre School District Student
  
- ✿ Moderator: Amy Dyett, MAT, School Health and Wellness Manager

# Take a Break!

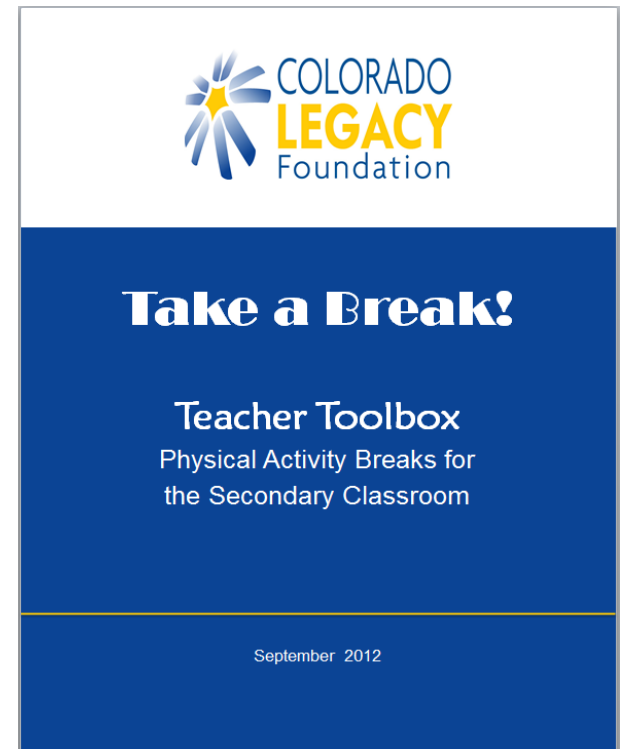
## Teacher Toolbox for Physical Activity Breaks In the Secondary Classroom

### Check it out:

#### **Take a Break! Teacher Toolbox**

- Tons of physical activity examples, templates, videos and resources
- Grade Level - 6<sup>th</sup>-12<sup>th</sup> grade
- Easy to integrate into any secondary classroom

 [www.colegacy.org](http://www.colegacy.org)



## Quotes from District Leaders:

“As we continue exploring researched based avenues for increasing student achievement, Dr. John Ratey’s research clearly and simplistically outlines the body-mind connection and how the brain learns. The premise of his research proves our brain needs chemicals, that are produced in our body’s muscles, in order to learn.

In education, we address student learning with teaching strategies, curriculum and educational techniques. Dr. Ratey highlights that there is a physiological reaction that must occur in order for our brains to respond to academic strategies effectively.

**We must enhance the duration and intensity of physical exercise in order to allow the human body an optimal learning experience.”**

- Heather Beck, Chief Academic Officer of Jefferson County Public Schools

## Quotes from District Leaders:

“I have been an educator for 26 years and as a classroom teacher of 14 years, my students were well aware of the impact physical activity had on their successes in my classroom. **There was not a day that went by that I did not have my students engage in some sort of physical activity.**

Today more than ever, the accountability for public schools is higher than it has ever been. Sadly, classroom teachers are asked to teach more in less time. Many times, teachers (or worse yet, schools) will discontinue teaching certain contents (e.g. PE, Music, Art) in order to "fit in" reading, writing, math, and science.

**I am convinced if they were to incorporate physical activity into their daily schedule....an obvious (and research proven) bi-product would be that "oh so necessary achievement" we are all striving for."**

- Tammy Clementi, PhD, Chief Academic Officer, Aurora Public Schools

# 2011 Healthy Kids Colorado Survey

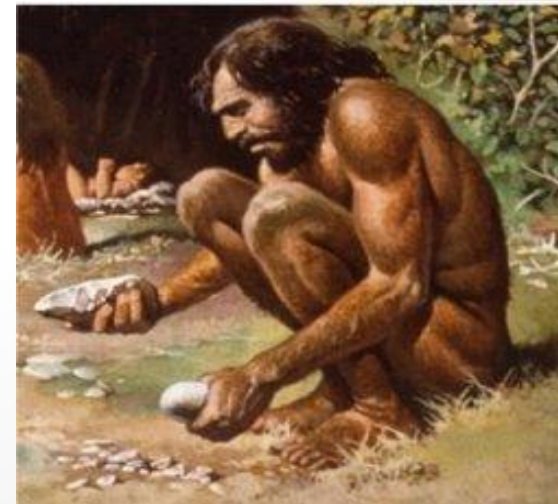
- ✿ Overall, **62%** of Colorado middle school students were physically active for at least 60 minutes on five or more of the past seven days.
- ✿ Just over half (**53%**) of Colorado high school students were physically active for at least 60 minutes on five or more of the past seven days.
- ✿ The high school students (29.2%) who were physically active for 60 minutes every day of the week, as recommended by CDC, were **more likely** to participate in extracurricular activities and eat 5+ fruits/vegetables per day and **less likely** to use marijuana or be sad for 2+ weeks.





# The Brain Learns for 3 Reasons

- Survival
- Do I need to know it---Meaning and Purpose
- Emotion---Novelty, Safe and Fun





# Meaning / Purpose

- What does this mean to me? Relevance.
- Make it real life, apply it to their world.
- What does this do for me?
- Why do I need this?
- Where will this take me?
- Spiral to prior knowledge.





# Novelty

- Surprise
- Change
- Curiosity





# Emotion / Humor

- Make it fun
- Make it interesting
- Make it challenging

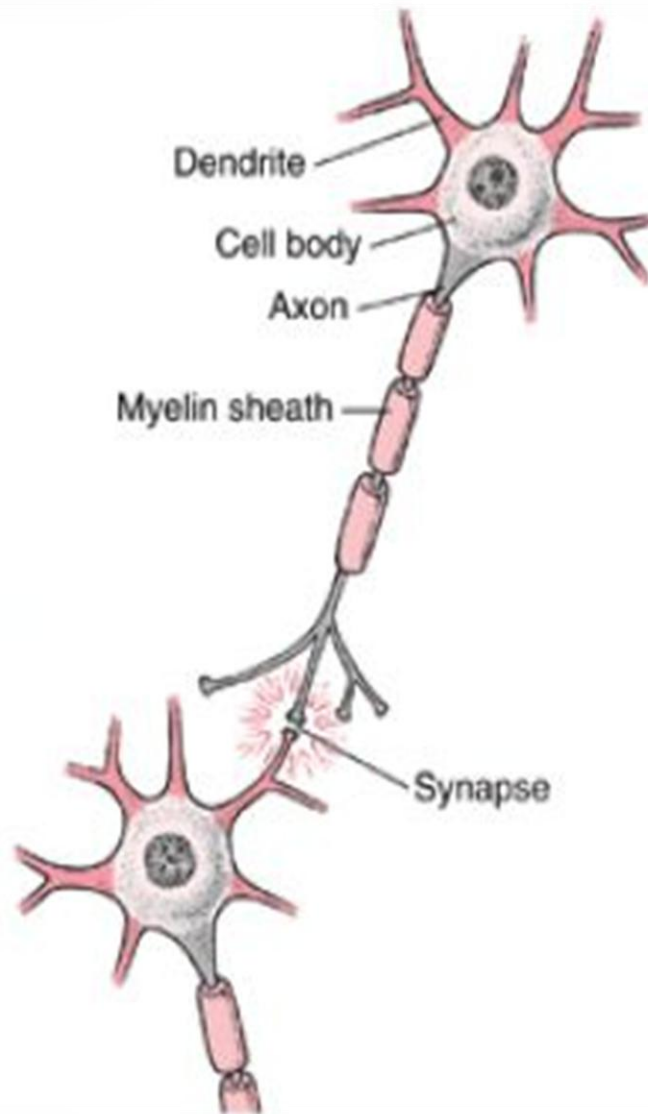




# Good Timing for Energizers

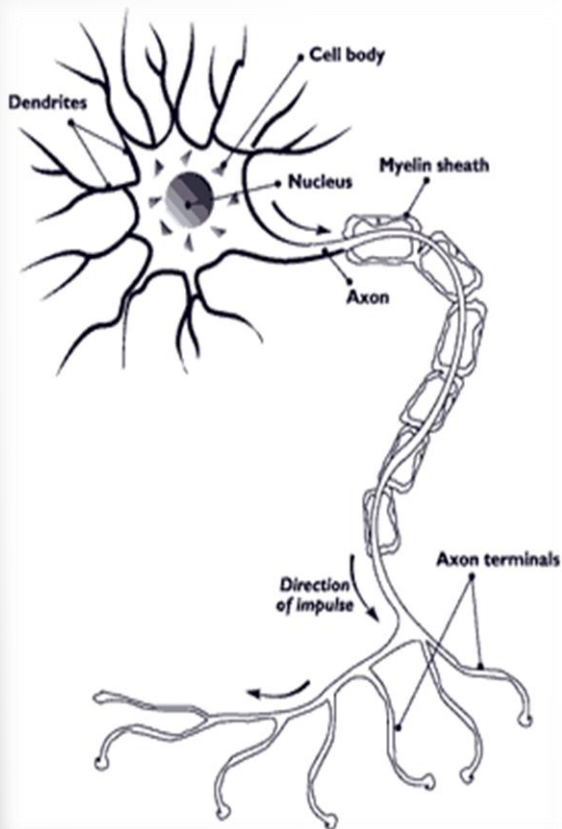
- After 20 minutes of instruction
- When you see the GOL, “glazed over look”
- Transition
- Sitting too long
- Have read the same sentence 3 times
- Need a fresh start
- Introduce a new idea







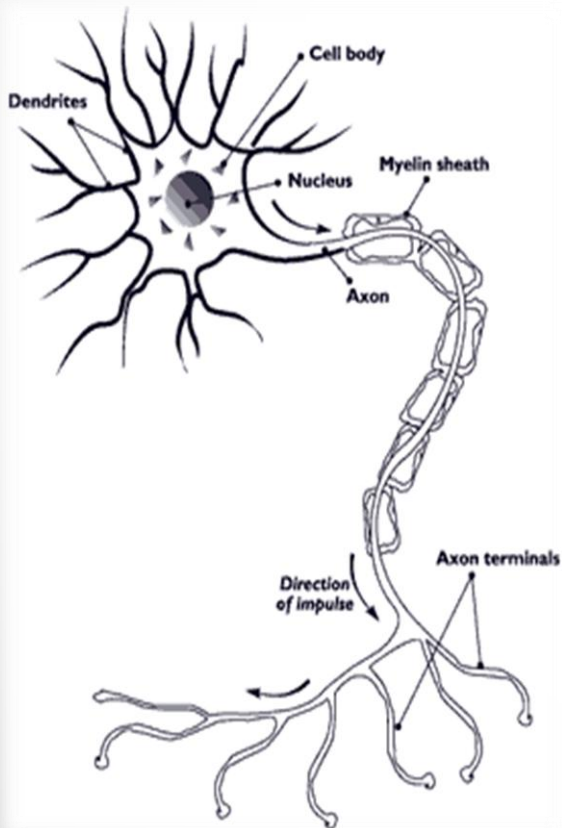
# What movement does for the brain



- ↑ Increase secondary dendritic growth
- ↑ Assist in building the myelin sheath
- ↑ BDNF-- brain derived neurotrophic factor
- ↑ The brains ability to respond to challenges



# What movement does for the brain



↑ Increase corpus callosum's ability to connect the brain's two hemispheres

↑ Increase the ability to focus in academic settings





# What movement does for the brain

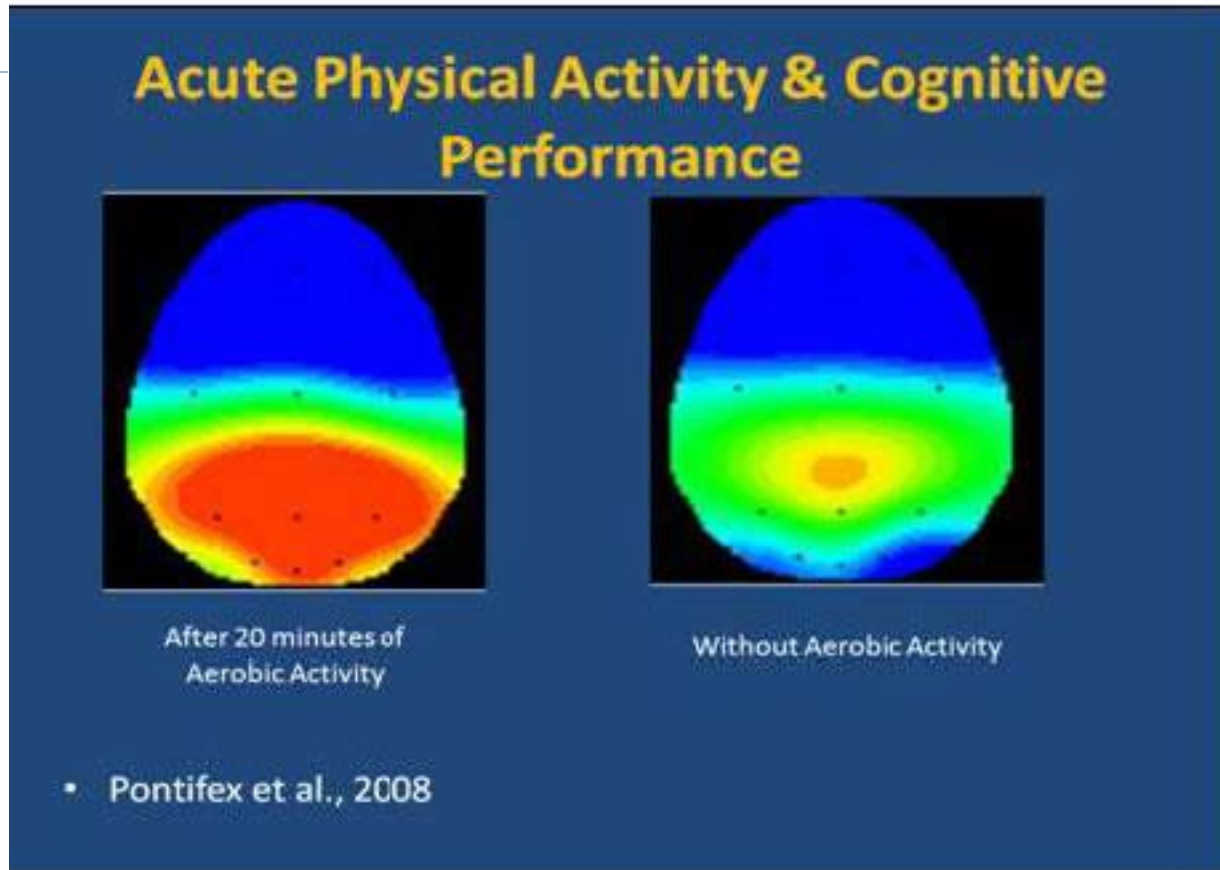


**In other words, movement:**

- ↑ Increases learning ability
- ↑ Increases the level of engagement
- ↑ Increases attentiveness
- ↓ Decreases behavioral issues
- ↓ Decreases absenteeism



# Which Student Do You Want to Teach?





The red color represents how the brain has been “turned on” after 20 minutes of moderate physical activity.

**Using short activity breaks throughout your class period can also stimulate the brains of your students!**

# Why ME? Why in my class?

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- ▶ More is not always better...**sit**  $\neq$  **get!**
- ▶ As students age:
  - ▶ Length of classes tend to .
  - ▶ Opportunities for physical activity tend to .
- ▶ Fewer students are enrolled in physical education classes or are not required to take PE for graduation.
- ▶ Walking between classes is insufficient activity to WAKE UP the brain!

# What is a Brain Break?

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- ▶ 1 – 2 minute mental and physical activities performed to stimulate the brain.
- ▶ Not truly a **BREAK** as it is a **REFUELING** of the brain.
- ▶ Performing the activity increases blood flow to the brain.

**RE-energize**

**RE-engage**

**RETAIN**



# Characteristics of a Highly Effective Brain Break:

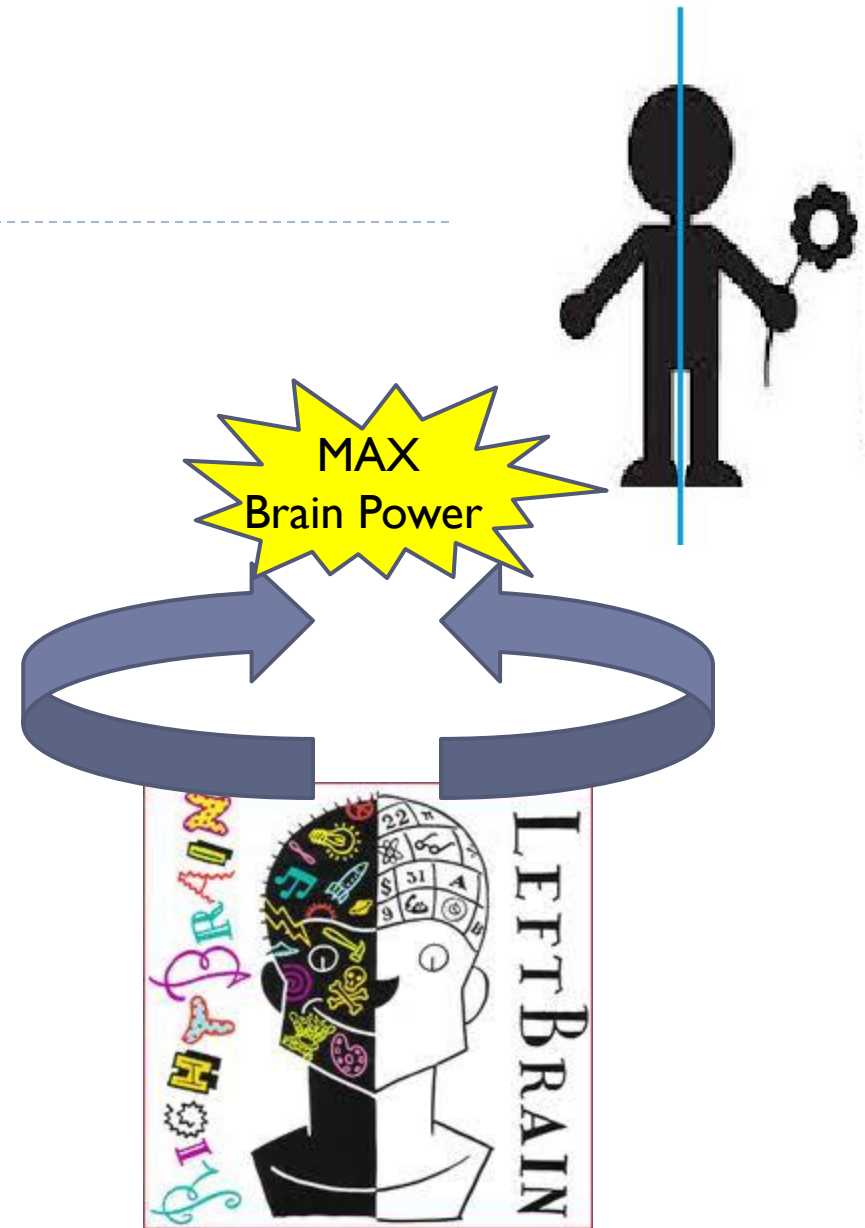
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- ▶ Short duration
  - ✓ Keep it 1-2 min. in length
  - ✓ Ease of transition
- ▶ High frequency
  - ✓ Optimally every 20-30 minutes
- ▶ Aim for Moderate to Vigorous mental & physical intensity
  - ✓ Challenge your mind and body
  - ✓ Use sequential directions
  - ✓ Keep equipment minimal (use objects from class – desks, textbooks, etc.)



# Cross the MIDLINE

- ▶ When designing a Brain Break, crossing the midline of the body or utilizing different body regions simultaneously, you are encouraging both sides of the brain to **ENGAGE**.



# Breathe new life into your lessons!

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- ▶ Brain Breaks can be used to **ENERGIZE** your classroom.
  - ▶ Start the lesson or transition
  - ▶ Introduce or review concepts
  - ▶ Organize students into partners or groups
  - ▶ Improve retention
  - ▶ Reduce off-task behaviors or distractions
  - ▶ Help students FEED their brain --> FOCUS





# Reduce the “Screensaver Effect”

**Eye contact**



**Active minds**



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Educate...Every Child. Every Day



# Where to START?

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Introduce the WHY to your student

Use often!

Lead an example of an  
Energizing Brain Break

Allow students to teach/lead  
Brain Breaks (video tape, write  
on a deck of cards and “deal” a  
break)

Take time to have students  
create their own Brain Breaks  
- OR – ask for student  
volunteers for enrichment



# Student-Generated Brain Breaks

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- ▶ Taking time to allow students to create their own Brain Breaks will pay off in the long run!
  - ▶ Increases student “buy in”
  - ▶ Your students are **VERY CREATIVE** and will typically design activities they want to do!
  - ▶ Promotes leadership and an inclusive classroom environment
  - ▶ Builds your Teacher Toolbox



# Helpful Resources

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- ▶ Your students and fellow teachers!
- ▶ Jean Blaydes Madigan, Action Based Learning
- ▶ Brain Rules, by John Medina
- ▶ SPARK & related research by Dr. John J. Ratey
- ▶ <http://www.energizingbrainbreaks.com/>  
Created by David Sladkey, Math Teacher at Naperville High School
- ▶ Find this and more in Colorado Legacy Foundation's:

**TAKE A BREAK!** Teacher Toolbox for  
Physical Activity Breaks in the Secondary Classroom



# Preview:

## **Take a Break!** Teacher Toolbox for Physical Activity Breaks in the Secondary Classroom

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### **Rock-Paper-Scissors with Feet**

Have students stand up and pair up.

Rock is with the feet together.

Paper is with the feet spread apart.


Scissors is placing the feet in a crisscrossed position.

Start and count: 1-2-3 go.



# Preview:

## Take a Break! Teacher Toolbox for Physical Activity Breaks in the Secondary Classroom

  
Health-E-tips®  
JAM School Program


Click on the image for more!

### JAMmin' Minute

Reps	Workout Routine: Standing Exercises
10	March in place
10	Face chair, tap toes on chair
10	Feet together, hop side-to-side
10	Tap your bottom on chair and stand up
10	Hands on abs, squeeze and release abs

**Health-E-tip**  
**Keep it in perspective:** Avoid spreading germs when you have a cold by coughing into your elbow instead of your hand.

Disclaimer: Please be advised the exercise handbook may not be suitable for everyone, in every age, and this or any other exercise program may contain risks. Therefore, the use of these or similar exercise material should be done with appropriate supervision. The exercise handbook is not to be used as a substitute for medical counseling.


  
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### Chair Aerobics

Have students pull their chairs out from their desk.  
They should sit up straight, keeping their ankles together to do leg lifts.  
Extend legs to a 180-degree angle for 20 repetitions.

Then have students stand behind the chair and while holding the back for balance, extend their right leg out to the side to a 45-degree angle for 20 repetitions.  
Then repeat with the left leg.

<http://schooltools.coloradolegacyfoundation.org/174491>



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### Make them Laugh

Divide the class into two teams. Teams line up and face a person on the other team.


A member from each team walks down the opposing team line.

The opposing team members try and make the volunteer smile or laugh. The members in line are not allowed to touch or talk as the volunteer passes by.

If the volunteer smiles or laugh they join the opposing team.

<http://tools2012.com/articles/teacher-exercises/47432>

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### Deep Breaths

Make it a classroom tradition to take 3 deep breathes, each held for 3 seconds, before a big test or a presentation.

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## **Hear it from the students!**

Rocky Mountain High School's Student Wellness Committee:

# **Team Drive**

“What’s Your Drive? What makes you want to be healthy?”

Our vision is to create a sense of inclusion and transform the current health and wellness initiative at our school into something accessible to *all* students by starting a movement that’s by students, for students.

2012-2013 Goals:

Pilot the WellClass Program and Workout Buddy Program

**Ally Guerrero and Maddy Champ**

# **Move More, Learn More:**

## **Physical Activity at the Secondary Level**

# **Q&A**

# Move More, Learn More:

## Physical Activity at the Secondary Level

**Thank you!**

- ✿ This **Webinar** and the **Tool Kit** will be archived and available on our website at <http://colegacy.org/resource/movemore/>.
- ✿ Please don't hesitate to contact me, Amy Dyett, at [adyett@colegacy.org](mailto:adyett@colegacy.org).

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