Instant Recess®

Moving America 10 Minutes at a Time

What’s good for the waistline is good for the bottom line...

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The Problem
Obesity Trends* Among U.S. Adults
BRFSS, 1990, 2000, 2010
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)

Source:
Behavioral Risk Factor Surveillance System, CDC
Health challenges have changed, ... but our health care system has not: Clinical encounter influences only ~10% of health status

Factors influencing gain in life expectancy: 1900-1999
(Source: CDC)

- **Curative Medicine:** 5 years
- **Public Health & Preventive Measures:** 25 years

National spending for population-based prevention, 2008
(Source: Centers for Medicare & Medicaid Services, 2010)

- **Pop - based Prevention:** 3%
- **Health Care Expenditures:** 97%

- **30 year** in life expectancy since 1900
  - **CURATIVE MEDICINE** – 5 YEARS
  - **PUBLIC HEALTH ADVANCES** – 25 YEARS

- **Annual Health Care Expenditure = $2.3 trillion**
  - **POPULATION-BASED PREVENTION** – < 3%
Extremely Low US Physical Activity (PA) Levels*

Mean moderate to vigorous intensity PA levels: US adults < 1 continuous 10-min. bout per day!

PA Levels meeting federal recs:
<5% adults
<10% teens
<50% children

*when objectively measured—NHANES (Troiano et al., 2008)
So what happened?!?
Then....

A healthy lifestyle strategy.

AVOID FATTY MEATS

GET DAILY EXERCISE

EAT YOUR VEGGIES
<table>
<thead>
<tr>
<th>Year</th>
<th>Group</th>
<th>Energy Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 million yrs ago</td>
<td>Hunter-gatherers</td>
<td>5000 cal</td>
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<tr>
<td>10,000 yrs ago</td>
<td>Agriculture</td>
<td>6000 cal</td>
</tr>
<tr>
<td>1915</td>
<td>Laborers</td>
<td>3000 cal</td>
</tr>
<tr>
<td>2000</td>
<td>Office workers</td>
<td>1800 cal</td>
</tr>
<tr>
<td>2010</td>
<td>Couch potatoes</td>
<td>1500 cal?</td>
</tr>
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</table>
How Have Things Changed?

- The Environment
  - No more walkable communities
  - Buildings and parking lots instead of trees and parks
  - Increased marketing for sedentary activity, entertainment

- Food Selection and Availability
  - Increased access to “convenience foods”
  - Less access to fresh whole foods, produce
  - Explosion of processed foods
  - Increased portion sizes
  - Presence of comfort or ‘leisure foods’
    (i.e. Krispy Kreme, Starbucks)
Effects of Prolonged Sitting

- Increase in sedentary work, entertainment & transportation means 95% of Americans don’t get enough physical activity.
- Sitting increases risk of death up to 40% & doubles the risk of cardiovascular disease:
  - Shuts off electrical activity in leg muscles
  - Drops rates of calorie burning to 1/minute
  - Drops fat-burning enzymes by 90%
  - Drops good cholesterol & insulin effectiveness
A Potential Solution
“Push” vs. “Pull”

**Pull strategies:** Traditional PA promotion relies on individual motivation—largely unsuccessful

--Improvements greater in individual inclined to be active

**Examples:** gym membership subsidies, stair prompt posters, lunchtime or after-work exercise classes

**Push strategies:** Make the active choice the default option—the path of least resistance

--Promise of broader engagement, including high risk

**Examples:** walking meetings, exercise breaks during non-discretionary time at work, nearby parking restricted to disabled, scheduling meetings at distance from workspace
Why Worksites?

- Proportion of time spent at work is high & expanding—we sit 8 hrs/day, >5 hrs of which are at work
- Humans evolutionarily programmed for sedentariness & most won’t exercise on their own even if given instruction, encouragement and time
- Especially true for ethnic minority/low income populations who may work longer hours or multiple jobs, have longer commutes, and be single parents—limiting PA outside of work
- Recognition of cultural assets available to build upon, e.g., centrality of dance and music in ethnic minority populations
- Changes made at work may spill over to home & school
Benefits of activity breaks

- A simple 10% decrease in *inactivity* could decrease healthcare spending by $150M/year
- Introducing 10-minute activity bouts in the workplace can:

  - Waist line, blood pressure, weight, and percent body fat
  - Appetite (relative appetite suppressant)
  - Urge to smoke
  - Stress and anxiety
  - Harmful effects of prolonged sitting
  - Speed and accuracy of data-entry
  - Engagement of inactive individuals
  - Mood, self-efficacy; self-esteem
  - Fruit and vegetable intake, water consumption
  - Overall (total) physical activity (due to spill-over to non-work settings)
  - Supportive work environment
  - Energy levels
  - Cognitive processing, especially executive function component (judgment, processing efficiency)
  - Bone density
What is Instant Recess®?

- Incorporation of 10-minute activity breaks into daily routine, e.g., on paid time or during non-PE classes
- Simple, easily replicated, usually performed to music
- Scientifically designed to maximize energy expenditure & enjoyment while minimizing injury risk and perceived exertion
- Structured to maximize accessibility & effectiveness while minimizing wasted time
- Implemented in thousands of workplaces and schools since 1999, with IR materials purchased in 45 states and DC, as well as 10 foreign countries
- Evaluated in foundation- & federally-funded studies
- Produced a library of 40+ different DVDs and CDS (and counting)
A 10-minute activity bout can:

<table>
<thead>
<tr>
<th>Decrease</th>
<th>Increase</th>
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<tr>
<td>Waist line, blood pressure, weight, and percent body fat</td>
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- **Energy levels**
- **Cognitive processing, especially executive function component (judgment and process efficiency)**
- **Bone density**
- **A simple 10% increase in activity could decrease healthcare spending by $150M/year!**
Integrating 10-Minute *Instant Recess®* Breaks into Organizational Routine

- Short bouts easier for sedentary individuals, minimizing perspiration & hair/make-up disturbance
- Variable intensity, low-impact physical activity accommodates higher proportion of overweight, unfit and/or disabled individuals
- Social support & desire for conformity drives participation
- Activity breaks may be framed as fun, play, stress release, *entitlement* to move vs. exercise=work, drudgery, obligation to most people
- Needed to counter negative activity framing typical in food policy debate
“Instead of passing the fat tax on soda, the government requires that people do 10 chin-ups before the cooler will open.”
instant recess®

Studies
10-min. *Instant Recess®* during staff / training meetings longer than 1 hour

449 employees, mostly overweight, middle-aged women, ethnically diverse

90+% participation

Demonstrated feasibility of engagement regardless of weight or physical activity levels

Found group breaks add social conformity factor that positively influenced participation

“Teachable moment” - increased individual awareness of poor physical conditioning and health status
California Fit WIC
Staff Wellness Training

Significant findings:

- Increased perceived workplace support for staff PA (96 vs. 58%, p=0.002) and healthy food choices (85 vs. 28%, p=0.001)
- Change in types of foods served during meetings (72 vs. 24%, p=0.002) & PA priority in workplace (96 vs. 71%, p<0.02)
- Increased self-reported counseling behaviors with WIC parents promoting physical activity (64 vs. 35%, p<.05) & sensitivity in handling weight-related issues (92 vs. 58%, p<0.01)
Study Outcomes

**Baseline sample:**
- N = 391 across 25 sites, health and human services gov’t & non-profit wk units
- Predominantly female (89.77%) & African American or Latino (78.24%)
- Mean age = 43.5 yrs
- Mean BMI = 30.0 kg/m²
- Mean WC = 90.5 cm (35.6 in)

**6-Month follow-up sample (Cohort 3 only):**
- N = 130 individual participants (90% reten.)
- 8 work units: 6 Intervention, 2 Control
- Preliminary findings:

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<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
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<tbody>
<tr>
<td>BP (mm Hg)</td>
<td>↓1.3</td>
<td>↑1.2</td>
</tr>
<tr>
<td>(effect size = -2.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>↑0.01</td>
<td>↑0.4</td>
</tr>
<tr>
<td>(effect size = -0.4)</td>
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## REACH Organizational Wellness Assessment Outcomes

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<tbody>
<tr>
<td>Nutrient-dense food/ beverages at company meetings</td>
<td>40%</td>
<td>73%</td>
<td>53%</td>
<td>79%</td>
</tr>
<tr>
<td>Healthy food procurement</td>
<td>31%</td>
<td>61%</td>
<td>5%</td>
<td>58%</td>
</tr>
<tr>
<td>Casual dress attire during work hours</td>
<td>60%</td>
<td>39%</td>
<td>80%</td>
<td>98%</td>
</tr>
<tr>
<td>Standing, stretching, fidgeting during meetings</td>
<td>72%</td>
<td>67%</td>
<td>47%</td>
<td>35%</td>
</tr>
<tr>
<td>Exercise breaks during meetings or scheduled time(s) of workday</td>
<td>35%</td>
<td>56%</td>
<td>10%</td>
<td>55%</td>
</tr>
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ALR dissertation grant
6 schools, n=647 students with baseline + follow-up data, 68 participating teachers/classrooms
Cluster RCT with early intervention-delayed intervention control groups--main outcome = school day pedometer readings (measured beginning & end of school day)
Final model: Linear regression of post-treatment steps on both intervention groups and baseline steps, clustered by school, and student ID ($R^2 = 0.2292$, $F = 78.41$ ($p < .001$))
Results: Adjusting for intervention group, mean steps significantly increased with IR intervention (+1910.3 steps; $p<.001$)
People who take 10 minute breaks during the workday get re-energized, are more productive and healthier.

70% of working adults said they’ve NEVER taken a paid recess type break outside of lunchtime.

More than half (53%) of US working adults indicated if a 10 minute outdoor “recess” break was initiated at their workplace every day it would make them a healthier, happier or more productive employee.
Other Activity
Break
Intervention
Studies:
Cases & Trials
10-15 minute exercise breaks to music broadcast thru intercom system

Mandatory

Secondary analysis of data, \( n=335 \), collected annually on all employees

**Not study volunteers**—75% retention at 1 year

1 kg weight loss (0.4 kg/m\(^2\)) + 1.6 cm “waist” loss after 1 year
Has provided brief stretch breaks on company time since 1982
Productivity measurements indicate 30 min. returned productivity for every 15 min. invested in exercise (5-min. breaks 3x/day)
Reduced work-related injuries from 14/yr to essentially none within 1st 3 years
Stretch breaks are viewed as a safety measure similar to wearing safety glasses
Have now increased to a few minutes every hour!
Instituted 10-minute group stretch breaks on the clock every morning & afternoon 5 yrs ago in 550-employee distribution center

Occupational RN identified two departments with large numbers of musculoskeletal complaints. Provided instruction sheet to Dept #1 for individual use at their desks; in Dept#2, turned on music and employees did the stretches as a group “on the clock” scheduled into the daily routine

Dept #2 saw greater impact on musculoskeletal complaints due to higher participation rates

Decreases in workers’ comp claims led to decrease in premiums
Dissemination
Organizational Profiles – In Brief

- **City of Duarte, CA** – 3-min PA breaks every City Council meeting x 6 yrs

- **Delta Sigma Theta Sorority, LA** – turns up AC 15 min pre-IR break each mtg & reimburses members only for healthy refreshments x 5 yrs

- **Orange Co. Health Dept, CA** – trained entire health promotion staff in implementing & dissem. IR breaks x 3 yrs

- **St. John’s CME Church, NC** – occasional IR breaks during Sunday service increased participation in gospel aerobics classes

- **WPFW Pacifica Radio Station, DC** – broadcast 10-min IR breaks daily x 6 mos; re-launching w/ Wobble Dance IR
Launched *Instant* Recess® Jan 2011 in call center, Apr in lab/path, Jun in in-pt unit 3000

Compared to 2010 data from same period, reduced sick days by 1.8 days/FTE (7.5 – 5.7) in call center, 1.9 days in an in-pt unit (6.2-4.3)

Injury rates--“accepted workers’ comp claims”--decreased from 3 to 0 (call center x 8 mos), 18 to 12 (lab x 4 mos), 1 to 0 (in-pt x 2 mos)
Ways to get your organization up, and moving…

- Meetings on the move
- Incentivize distant parking
- Take the stairs
- Feel free to fidget
- Approve casual wear at work
- Create a routine
- Get outside more, fresh air
- **BE THE CHANGE!!!**
“Instant Recess... calling card for the National Physical Activity Plan

SHIRE non-profit, Washington, DC
San Diego Padres’ PETCO Park on Sunday home game “family” days...
Dr. Yancey goes to Washington!
Adopts Instant Recess® in support of Let’s Move!

Plymouth UCC
(North Houston, TX)
“Musical Pews”
IR break
The Jesus Shuffle
Worldwide Recess Day
Union Station Plaza:
Washington, D.C.
Strategies to get your workplace started...

- Assemble a wellness committee
- Take inventory of your work environment:
  - Time, physical envir., social envir., meetings, leadership
- Generate buzz around the office
- Get leaders involved
- Set a kick-off event
- Motivate team members
- Be consistent
- Don’t give up!!!
Sparkplugs!

Instant Recess® Materials are available:

For purchase at: www.journeyworks.com*

For free streaming at: www.youtube.com/tonikyancey
                       www.youtube.com/gramercyNC

For free download at: www.gramercyresearch.com

*Materials include video (DVD) and printed guides
“Physical activity is the most promising, and most underutilized tool in our prevention arsenal.”

- Dr. David Satcher, 16th Surgeon General