Changing Workforce

- Sedentary jobs have increased 83% since 1950
- Physically active jobs make up only 25% of the workforce – 50% less than 1950
- Average week is longer
Cost of Inactivity

- 24 billion dollars
- 2.4% of the US health care expenditures
- Independent of obesity
Statistics

- 60% of Americans do not engage in the recommended amount of exercise
- 25% of Americans are totally sedentary
Sitting Too Much is a Health Hazard

- Strong relationship between sitting and chronic disease
- Moving during the day along with moderate exercise on a regular basis is the key.
<table>
<thead>
<tr>
<th>Benefits</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helps you fall asleep faster and sleep more soundly</td>
<td>Reduces risk of stroke by 20 percent in moderately active people and by 27 percent in highly active ones</td>
</tr>
<tr>
<td>Keeps weight under control</td>
<td>Promotes enthusiasm and optimism</td>
</tr>
<tr>
<td>Boosts energy level</td>
<td>Prevents bone loss</td>
</tr>
<tr>
<td>Improves blood cholesterol levels</td>
<td>Establishes good heart-healthy habits in children and counters the conditions (obesity, high blood pressure, poor cholesterol levels, poor lifestyle habits, etc.) that lead to heart attack and stroke later in life</td>
</tr>
<tr>
<td>Helps delay or prevent chronic illnesses and diseases associated with aging and maintains quality of life and independence longer for seniors</td>
<td>Provides a way to share an activity with family and friends</td>
</tr>
<tr>
<td>Improves blood circulation, which reduces the risk of heart disease</td>
<td>Releases tension</td>
</tr>
<tr>
<td>Improves self-image</td>
<td>Helps manage stress</td>
</tr>
<tr>
<td>Counters anxiety and depression</td>
<td></td>
</tr>
<tr>
<td>Prevents and manages high blood pressure</td>
<td></td>
</tr>
<tr>
<td>Helps in the battle to quit smoking</td>
<td></td>
</tr>
<tr>
<td>Increases muscle strength, increasing the ability to do other physical activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>J.W. TERRILL</td>
<td></td>
</tr>
</tbody>
</table>
Benefits of Exercise

- Helps control weight
- Reduce high blood pressure
- Reduce risk of developing diabetes
- Reduce risk for heart disease
- Reduce arthritis pain
- Helps maintain healthy bones, muscles and joints
- Reduce symptoms of depression and anxiety
- Fosters improvement in mood and overall well-being
Self Reported Benefits of Exercise

“Walking helps me to maintain good health.”
“Walking helps me to feel calm and less stressed.”
“Walking gives me more physical energy.”
“Walking gets me out of the house and I feel better afterwards.”
“Walking helps me to maintain my weight.”
Physical inactivity and low fitness is perhaps the most important predictor of morbidity and mortality that we know of. Low fitness accounts for more sickness and deaths in the population than anything else we’ve studied.

Dr. Steven Blair
ACSM Physical Activity Guidelines

- Moderately intense aerobic exercise 30 minutes a day, 5 days per week
  OR
- Vigorously intense cardio 20 minutes a day, 3 times per week
  AND
- 8-10 strength training exercises, 8-12 repetitions of each twice a week
## Moderate vs. Vigorous

<table>
<thead>
<tr>
<th>Moderate-intensity</th>
<th>Vigorous-intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased heart rate</td>
<td>Increased heart rate</td>
</tr>
<tr>
<td>Can still talk, not sing</td>
<td>Too hard to talk</td>
</tr>
<tr>
<td>Walking briskly – 15 minute per mile</td>
<td>Jogging/running</td>
</tr>
<tr>
<td>Raking</td>
<td>Swimming laps</td>
</tr>
<tr>
<td>Light snow shoveling</td>
<td>Inline skating</td>
</tr>
<tr>
<td>Actively playing with children</td>
<td>Competitive sports</td>
</tr>
<tr>
<td>Biking a casual pace</td>
<td></td>
</tr>
</tbody>
</table>

- **Moderate-intensity**: Includes activities that increase heart rate but do not make it too hard to talk. Examples include walking briskly, raking, light snow shoveling, and playing with children.

- **Vigorous-intensity**: Includes activities that increase heart rate and make it too hard to talk. Examples include jogging, swimming, inline skating, and competitive sports.
Physical Activity Programs in the Workplace

- Activity Based
- Pedometer Based
Physical Activity Programs - Benefits

**Employee**
- Feel better
- Control weight
- Reduce risk of chronic disease
- Improve stamina

**Employer**
- Fulfill mission
- Motivate and unify staff
- Show concern for staff
- Gain cohesiveness
- Reduced health cost
Medical Consent Forms

- Consult your physician before beginning if you have:
  - A heart condition and are told you should only do physical activity recommended by a physician
  - Pain in your chest
  - Loss of balance due to dizziness or loss of consciousness
  - Joint problem made worse by physical activity
  - High blood pressure or medication for blood pressure or heart condition
  - Other reasons you should not do physical activity
Planning Physical Activity Programs

- Senior level support
  - participant
- Set goals and objectives
  - specific
- Recruit help
- Develop a budget
Planning Physical Activity Programs

- Promote
## Incentives

- Pedometers
- Gift cards
- Athletic shoes
- Exercise equipment
- T-shirts
- Water bottles
- Hats/visors
- Wellness day off
- Gym bag
- Massages
- First aid kit
- Certificate
- Medal
Activity Based Programs

- Participants keep track of time spent exercising
- Includes all types of physical activity
Activity Based

- Theme based
  - Baseball theme – Spring Into Fitness
Get your bat ready!

Gather a team of 4 and compete in this 6 week activity challenge with your co-workers.

Participants keep track of minutes of physical activity and score runs for their team. Winning teams will be awarded prizes. All participants win by feeling better, sleeping better and controlling weight with physical activity.

The season opens on Wednesday, April 10 and ends on Wednesday, May 22nd.
Activity Based Programs

- Pros
  - More inclusive
  - Minimal cost
  - Employees are doing what they like
  - Easy to administer
Activity Based Programs

- Cons
  - May be hard to define appropriate activities
  - Honor system
  - Takes more communication
Activity Based Program

- Stair program
  - Count flights of stairs going up
  - Theme based – walk up landmark buildings
Activity Based Program

- Stair program
  - Pros – encourages stair use, no special equipment, can be done throughout the day in short bursts, forming habits
  - Cons – need stairs, not everyone can participate
Pedometer Walking Programs
- Pedometer
- Accelerometer
Pedometers and Accelerometers and GPS

- **Pedometer**
  - an instrument that gauges the approximate distance traveled on foot by registering the number of steps taken.

- **Accelerometer**
  - An instrument or device for measuring acceleration, especially one in which a sensor converts acceleration into an electrical signal.

- **GPS**
  - On smart phone
Popular Pedometers

- Omron
- Walk4Life
- Yamax Digi-Walker
- Sportline Fitness
Popular Accelerometers

- Fitbit
- Nike + FuelBand
- Jawbone UP
Pedometers and Accelerometers

- Employee pays
- Employer pays
- Combination
Pedometer Selection

- “You get what you pay for!”
- $15 - $100
- Where/How do you wear it?
- User friendly?
- Noise?
- Other functions?
- Training
Pedometer

- Mileage
- Selecting stride length
  - Heel to heel
  - Count out 10 steps measure toe to toe, divide by 10.
How Many Steps?

- Average American takes 3,000 to 6,000/day
- 3,000 steps is considered sedentary
- Goal: 10,000
  - 2,000 steps = 1 mile
- Wear pedometer for 3-7 days to establish baseline.
  - Average steps
- Set your goal
- Increase number of steps by 20%
  - Week 1 - average 5,000 steps
  - Week 2 – goal of 6,000 steps
Pedometer Program

- Gold level
  - 10,000 steps
- Silver level
  - 8,000 steps
- Bronze
  - 6,000 steps
## Mileage/Step Conversion

<table>
<thead>
<tr>
<th>STEPS</th>
<th>MILES</th>
<th>KM</th>
<th>STEPS</th>
<th>MILES</th>
<th>KM</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>0.25</td>
<td>0.40</td>
<td>5500</td>
<td>2.75</td>
<td>4.43</td>
</tr>
<tr>
<td>1000</td>
<td>0.50</td>
<td>0.80</td>
<td>6000</td>
<td>3.00</td>
<td>4.83</td>
</tr>
<tr>
<td>1500</td>
<td>0.75</td>
<td>1.21</td>
<td>6500</td>
<td>3.25</td>
<td>5.23</td>
</tr>
<tr>
<td>2000</td>
<td>1.00</td>
<td>1.61</td>
<td>7000</td>
<td>3.50</td>
<td>5.63</td>
</tr>
<tr>
<td>2500</td>
<td>1.25</td>
<td>2.01</td>
<td>7500</td>
<td>3.75</td>
<td>6.03</td>
</tr>
<tr>
<td>3000</td>
<td>1.50</td>
<td>2.41</td>
<td>8000</td>
<td>4.00</td>
<td>6.44</td>
</tr>
<tr>
<td>3500</td>
<td>1.75</td>
<td>2.82</td>
<td>8500</td>
<td>4.25</td>
<td>6.84</td>
</tr>
<tr>
<td>4000</td>
<td>2.00</td>
<td>3.22</td>
<td>9000</td>
<td>4.50</td>
<td>7.24</td>
</tr>
<tr>
<td>4500</td>
<td>2.25</td>
<td>3.62</td>
<td>9500</td>
<td>4.75</td>
<td>7.64</td>
</tr>
<tr>
<td>5000</td>
<td>2.50</td>
<td>4.02</td>
<td>10000</td>
<td>5.00</td>
<td>8.05</td>
</tr>
</tbody>
</table>

# Stride Length Conversion

<table>
<thead>
<tr>
<th>Step Length</th>
<th>Number of Footsteps to Walk a Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>18”</td>
<td>3520</td>
</tr>
<tr>
<td>21”</td>
<td>3017</td>
</tr>
<tr>
<td>24”</td>
<td>2640</td>
</tr>
<tr>
<td>27”</td>
<td>2347</td>
</tr>
<tr>
<td>30”</td>
<td>2112</td>
</tr>
<tr>
<td>33”</td>
<td>1920</td>
</tr>
<tr>
<td>36”</td>
<td>1760</td>
</tr>
<tr>
<td>39”</td>
<td>1625</td>
</tr>
</tbody>
</table>

Pedometer Program

- **Pros**
  - Physical device that records movement
  - Instant feedback
  - Positive motivation
  - Great for competitions
  - Most employees can walk
  - Becomes a stepping stone for other activity
Pedometer Program

- **Cons**
  - Cost
  - Have to wear/carry pedometer with you all the time
  - Set up is involved
  - Physically active people may not feel the need to walk more
  - May not be fair to all participants
Pedometer Program

- Best practice to offer alternatives
# Activity Conversion Chart

If you are adding up steps and miles to better health, you can include a variety of activities in addition to walking. Consult the list below for an estimate of the steps per minute that can be added to your weekly tally.

<table>
<thead>
<tr>
<th>Physical Activity</th>
<th>Steps per minute of activity</th>
<th>Physical Activity</th>
<th>Steps per minute of activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobics, low impact</td>
<td>125</td>
<td>Sawing Wood</td>
<td>113</td>
</tr>
<tr>
<td>Aerobics, moderate</td>
<td>153</td>
<td>Shoveling Heavy Snow</td>
<td>278</td>
</tr>
<tr>
<td>Aerobics, high impact</td>
<td>181</td>
<td>Skiing, downhill</td>
<td>109</td>
</tr>
<tr>
<td>Basketball</td>
<td>100</td>
<td>Skiing, cross-country</td>
<td>114</td>
</tr>
<tr>
<td>Canoeing</td>
<td>72</td>
<td>Snowshoeing</td>
<td>156</td>
</tr>
<tr>
<td>Chopping Wood</td>
<td>60</td>
<td>Soccer</td>
<td>144</td>
</tr>
<tr>
<td>Dancing, all types</td>
<td>133</td>
<td>Stationary Bicycling, leisurely</td>
<td>100</td>
</tr>
<tr>
<td>Football</td>
<td>133</td>
<td>Stationary Bicycling, moderate</td>
<td>181</td>
</tr>
<tr>
<td>Gardening</td>
<td>73</td>
<td>Stationary Bicycling, vigorous</td>
<td>250</td>
</tr>
<tr>
<td>Golf, walking</td>
<td>100</td>
<td>Stretching</td>
<td>6</td>
</tr>
<tr>
<td>Horseshoes</td>
<td>52</td>
<td>Swimming laps, light/moderate</td>
<td>200</td>
</tr>
<tr>
<td>Ice Skating, leisurely</td>
<td>84</td>
<td>Tai Chi</td>
<td>8</td>
</tr>
<tr>
<td>Judo and Karate</td>
<td>236</td>
<td>Tennis</td>
<td>200</td>
</tr>
<tr>
<td>Mopping</td>
<td>51</td>
<td>Volleyball</td>
<td>90</td>
</tr>
<tr>
<td>Painting</td>
<td>78</td>
<td>Walking</td>
<td>125</td>
</tr>
<tr>
<td>Racquetball</td>
<td>138</td>
<td>Water Aerobics</td>
<td>100</td>
</tr>
<tr>
<td>Rollerblading</td>
<td>200</td>
<td>Waterskiing</td>
<td>136</td>
</tr>
<tr>
<td>Rowing, light effort</td>
<td>74</td>
<td>Weightlifting</td>
<td>100</td>
</tr>
<tr>
<td>Rowing, moderate</td>
<td>153</td>
<td>Yoga</td>
<td>50</td>
</tr>
</tbody>
</table>

Sources: The Step Diet by James Hill and John Peters, 2004; Excellus Blue Cross Blue Shield; Davis County Government, Utah;wegmans.com; Shape Up Across Colorado Activity Chart
### Walk n’ Roll

**Band Name:**

**Band Member:**

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
<th>Weekly Album Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gig</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Album Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playlist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:**
- Gig = Activity (walking, running, aerobics, cycling, basketball)
- Album Sales = Daily number of steps taken
- Playlist = Time/length of workout
- Venue = Location (Gym, outside, mall, treadmill)

*Turn in to Band Manager every Monday*
Adding Steps

- Park far from entrance
- Walk to lunch
- Walking meeting
- Walking club
- Take stairs
- Walk child to school
- Walk the dog

- 5-10 minute walk break at work
- Walking buddy
- Walk your memo instead of emailing
- Find a walking tour
- Clean
- Walk the aisles at the store
Resources

- www.Americawalks.org
- www.Americaonthemove.org
- CDC Healthier Worksite Initiative Physical Inactivity Cost Calculator
  - http://www.ecu.edu/picostcalc/
- www.startwalkingnow.org
- Physical Activity readiness questionnaire
- StairWELL