



Activity Title: BE STRONG
Activity Type: Individual or Teams
Duration: One week or one month
Point Values: - 1 point for every 10 minutes of anaerobic (muscle strengthening) exercise
- 3 points maximum per day
- 21 points maximum per week
- 93 points maximum per month

Description

Both aerobic and anaerobic exercises are necessary for good health and optimal functioning. Aerobic exercise, like walking, biking and running, requires continuous and large amounts of oxygen to generate energy. The benefits of aerobic exercise include a more toned body and an improved cardiovascular system. Anaerobic exercise, such as weight lifting or resistance exercise does not require large amounts of oxygen. The body taps into stored glycogen to provide power for our muscles during anaerobic exercise.

The major benefit of anaerobic exercise is increased muscle and bone strength. **BE STRONG** encourages people to engage in muscle strengthening, anaerobic, exercise - exercise that provides external resistance and causes muscles to contract. Dumbbells and barbells, weight machines, cans of food, and a person's body weight are examples of what can be used for external resistance. Consider forming teams to encourage participation and engagement.

How It Works

1. Establish incentives, if any, for points earned during the activity.
2. Determine bonus points, if any, for One-Day Challenges.
3. Share the activity description and resources with employees and distribute the **Individual Scorecard**.
4. Communicate before and during the activity, using the resources, health information and quotes provided. Emails, social media postings, posters and communication from management can be effective in promoting participation.
5. Post the **Group Scoreboard** (or **Team Scoreboard**) in a high traffic area where employees can post how many 10-minute segments were spent doing muscle-strengthening exercises.
6. At the end of the activity, award points and incentives earned. For a month-long activity, present **Certificates of Achievement**. "Gold" status requires a minimum of 45 points. "Silver" requires



How It Works continued

a minimum of 30 points. And, 15 points are needed to achieve the “Bronze” level. Consider having a drawing for prizes at each achievement level.

7. Invite employees to complete the **Activity Survey** and share their positive experiences.

Wellness Benefits

- Creates a healthier and more youthful appearance
- Boosts energy level and improves mood
- Increases muscle strength and endurance – especially important as we age and muscles atrophy
- Strengthens bones - especially important for women who are at risk for osteoporosis as they age
- Improves the ability to do everyday tasks with more speed and energy, e.g. climbing stairs and lifting
- Improves balance, joint flexibility and coordination
- Helps with weight management by burning calories during and after exercise
- Can help to lower blood pressure and cholesterol levels, stabilize blood sugar, and reduce the risk of heart disease and certain cancers

Measureable Outcomes

- Did people report an increase in their energy level during the activity?
- Did the workforce appear more alert and energized during the activity?
- How many pounds were reported lost during the activity?
- What was the average of waistline inches that were reported lost during the activity?
- Did “Rate Your Day” scores improve over the course of the activity?

Resources

About.com – Exercise (exercise.about.com)

“Weight Training 101”

Link: <http://exercise.about.com/cs/exerciseworkouts/a/weight101.htm>

About.com – Weight Training (weighttraining.about.com)

“Health and Fitness Benefits of Weight Training”

Link: <http://weighttraining.about.com/od/benefitsofweighttraining/a/benefits.htm>

Active (active.com)

“12 Reasons You Should Lift Weights”

Link: <http://www.active.com/fitness/Articles/12-Reasons-You-Should-Lift-Weights.htm>

EverydayHealth.com (everydayhealth.com)

“6 Reasons to Add Strength Training to Your Workout Plan”

Link: <http://www.everydayhealth.com/fitness/add-strength-training-to-your-workout.aspx>



Resources continued

Livestrong.com (livestrong.com)

“8 Reasons Why Women Should Lift Weights”

Link: <http://www.livestrong.com/article/557657-8-reasons-why-women-should-lift-weights/>

Mayo Clinic (mayoclinic.com)

“Weight Training: Improve Your Muscular Fitness”

Link: <http://www.mayoclinic.com/health/weight-training/HQ01627>

MedicineNet.co (medicinenet.com)

“Weight Lifting – Resistance Exercise”

Link: http://www.medicinenet.com/weight_lifting/article.htm

Natural News.com (naturalnews.com)

“Why weight loss requires strength training, even in women and seniors”

Link: <http://www.naturalnews.com/011285.html>

Oprah.com (oprah.com)

“The Genius of Weights”

Link:

<http://www.oprah.com/health/20-Ways-Lifting-Helps-You-Look-Great-Stay-Healthy-and-Live-Longer>

Topend Sports (topendsports.com)

“How to Lift Weights to Lose Weight – The Five Golden Rules”

Link: <http://www.topendsports.com/weight-loss/weightloss-lifting.htm>

Women’s Health Magazine (womenshealthmag.com)

“The Best Strength Training for Women”

Link: <http://www.womenshealthmag.com/weight-loss/weight-training-tips>

Additional Ideas

- Invite a personal trainer in to do a demonstration class on proper resistance training techniques. Consider a class for women and a class for men.
- Provide resistance bands in the workplace that can be used for short exercise breaks.
- Form teams that compete based on the total number of “repetitions” completed.
- Provide resistance-training videos for employees to view at home.
- Ask people to self-report how many push-ups (standard or bent knee) they can do when the **BE STRONG** activity begins. Ask people to report again when the activity ends. Recognize those who make the biggest improvements. The same contest can be done with timed wall squats - people stand with their backs flat against a wall and then lower themselves into a sitting position, thighs parallel to the floor. Time contestants to see how long they can remain in the position.

One-Day Challenges

1. “Mix It Up Challenge” Invite people to do two resistance exercises that they have never done before. They must complete 3 sets of 10 repetitions of each exercise to satisfy the Challenge.



One-Day Challenges continued

2. "Guess My Weight Challenge" – select 5 to 10 everyday items that weigh anywhere from 1 pound to 40 pounds. Employees must secretly guess the weight of each item.
3. "Home Workout Challenge" – complete a 10 minute anaerobic workout using only objects found at home.
4. "Strength Test Challenge" – perform the following strength test:
 - Complete as many standard or bent knee push-ups as possible.
 - Do a wall squat with back flat against a wall, lower body into a sitting position with thighs parallel to the floor and hold for as long as possible.
 - Perform a lying leg raise by lying down with lower back in contact with the floor, legs straight and together, and arms positioned along the sides of the body. Raise the legs straight and together approximately 2" off the floor and hold for as long as possible.
5. "Interview Challenge" – interview a person who regularly participates in resistance training. Ask them the following questions:
 1. How long have you been doing resistant training?
 2. Why do you do it?
 3. What does your resistance training routine consist of?
 4. What results have you experienced from resistance training?
 5. What other forms of exercise do you engage in?

Quotes

1. *"The medical literature tells us that the most effective ways to reduce the risk of heart disease, cancer, stroke, diabetes, Alzheimer's, and many more problems are through healthy diet and exercise. Our bodies have evolved to move, yet we now use the energy in oil instead of muscles to do our work."* – David Suzuki
2. *"So many older people, they just sit around all day long and they don't get any exercise. Their muscles atrophy, and they lose their strength, their energy and vitality by inactivity."* – Jack LaLanne
3. *"Muscles come and go; flab lasts."* – Bill Vaughan
4. *"Muscles are in a most intimate and peculiar sense the organs of the will."* – G. Stanley Hall
5. *"He who lives in the single exercise of his mental faculties, however usefully or curiously directed, is equally an imperfect animal with the man who knows only the exercise of muscles."* – Francis Wright
6. *"You can develop good judgment as you do the muscles of your body - by judicious, daily exercise."* – Grenville Kleiser
7. *"Weight-bearing exercise builds bone density, builds your muscular strength so that you can hold your body up where those bones have a tendency to get weak."* – Ann Richards, former Texas Governor
8. *"The single biggest mistake that most beginners make is putting 100% of their effort into the positive (concentric) part of the rep, while paying no attention to the negative (eccentric) segment."* – Dorian Yates, 6-time Mr. Olympia
9. *"Suffer the pain of discipline or suffer the pain of regret."* – Author Unknown
10. *"It's not the size of the dog in the fight but the size of the fight in the dog."* – Mark Twain
11. *"There is no failure except in no longer trying."* – Elbert Hubbard



Quotes continued

12. "We don't know who we are until we see what we can do." – Martha Grimes
13. "They thought that athletes that worked out with my system wouldn't be able to throw a ball because they'd be too muscle bound. Those are the misconceptions I had to go through for about 40 years." – Jack LaLanne
14. "It's not about weight, it's about fitness, and one component of being fit is to have relatively low body fat, because fat is not very efficient, whereas muscle is." – Deborah Bull
15. "Have the courage to accept what you can't alter and to alter what you can't accept." – Author Unknown
16. "I don't have time to lift, I make time." – Author Unknown
17. "You must do the thing you think you cannot do." – Eleanor Roosevelt
18. "Make the most of yourself, for that is all there is of you." – Ralph Waldo Emerson
19. "I've missed more than 9000 shots in my career. I've lost almost 300 games. 26 times, I've been trusted to take the game winning shot and missed. I've failed over and over and over again in my life. And that is why I succeed." – Michael Jordan
20. "If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health." – Hippocrates
21. "Strength training, particularly in conjunction with regular aerobic exercise, can also have a profound impact on a person's mental and emotional health." – Centers for Disease Control and Prevention
22. "Scientific research has shown that exercise can slow the physiological aging clock." – Centers for Disease Control and Prevention

Health Facts

From the Centers for Disease Control and Prevention

Website: <http://www.cdc.gov/physicalactivity/growingstronger/why/index.html>

- *Research has shown that strengthening exercises are both safe and effective for women and men of all ages, including those who are not in perfect health. In fact, people with health concerns—including heart disease or arthritis—often benefit the most from an exercise program that includes lifting weights a few times each week. Strength training, particularly in conjunction with regular aerobic exercise, can also have a profound impact on a person's mental and emotional health.*
- **Benefits of Strength Training**
There are numerous benefits to strength training regularly, particularly as you grow older. It can be very powerful in reducing the signs and symptoms of numerous diseases and chronic conditions, among them:
 - arthritis
 - diabetes
 - osteoporosis
 - obesity
 - back pain
 - depression
- **Arthritis Relief**
Tufts University recently completed a strength-training program with older men and women with moderate to severe knee osteoarthritis. The results of this sixteen-week program showed that



Health Facts continued

strength training decreased pain by 43%, increased muscle strength and general physical performance, improved the clinical signs and symptoms of the disease, and decreased disability. The effectiveness of strength training to ease the pain of osteoarthritis was just as potent, if not more potent, as medications. Similar effects of strength training have been seen in patients with rheumatoid arthritis.

- **Restoration of Balance and Reduction of Falls**

As people age, poor balance and flexibility contribute to falls and broken bones. These fractures can result in significant disability and, in some cases, fatal complications. Strengthening exercises, when done properly and through the full range of motion, increase a person's flexibility and balance, which decrease the likelihood and severity of falls. One study in New Zealand in women 80 years of age and older showed a 40% reduction in falls with simple strength and balance training.

- **Strengthening of Bone**

Post-menopausal women can lose 1-2% of their bone mass annually. Results from a study conducted at Tufts University, which were published in the Journal of the American Medical Association in 1994, showed that strength training increases bone density and reduces the risk for fractures among women aged 50-70.

- **Proper Weight Maintenance**

Strength training is crucial to weight control, because individuals who have more muscle mass have a higher metabolic rate. Muscle is active tissue that consumes calories while stored fat uses very little energy. Strength training can provide up to a 15% increase in metabolic rate, which is enormously helpful for weight loss and long-term weight control.

- **Improved Glucose Control**

More than 14 million Americans have type II diabetes—a staggering three hundred percent increase over the past forty years—and the numbers are steadily climbing. In addition to being at greater risk for heart and renal disease, diabetes is also the leading cause of blindness in older adults. Fortunately, studies now show that lifestyle changes such as strength training have a profound impact on helping older adults manage their diabetes. In a recent study of Hispanic men and women, 16 weeks of strength training produced dramatic improvements in glucose control that are comparable to taking diabetes medication. Additionally, the study volunteers were stronger, gained muscle, lost body fat, had less depression, and felt much more self-confident.

- **Healthy State of Mind**

Strength training provides similar improvements in depression as anti-depressant medications. Currently, it is not known if this is because people feel better when they are stronger or if strength training produces a helpful biochemical change in the brain. It is most likely a combination of the two. When older adults participate in strength training programs, their self-confidence and self-esteem improve, which has a strong impact on their overall quality of life.

- **Sleep Improvement**

People who exercise regularly enjoy improved sleep quality. They fall asleep more quickly, sleep more deeply, awaken less often, and sleep longer. As with depression, the sleep benefits obtained as



Health Facts continued

a result of strength training is comparable to treatment with medication but without the side effects or the expense.

- **Healthy Heart Tissue**

Strength training is important for cardiac health because heart disease risk is lower when the body is leaner. One study found that cardiac patients gained not only strength and flexibility but also aerobic capacity when they did strength training three times a week as part of their rehabilitation program. This and other studies have prompted the American Heart Association to recommend strength training as a way to reduce risk of heart disease and as a therapy for patients in cardiac rehabilitation programs.

- **Research and Background About Strength Training**

Scientific research has shown that exercise can slow the physiological aging clock. While aerobic exercise, such as walking, jogging, or swimming, has many excellent health benefits—it maintains the heart and lungs and increases cardiovascular fitness and endurance—it does not make your muscles strong. Strength training does. Studies have shown that lifting weights two or three times a week increases strength by building muscle mass and bone density. One 12-month study conducted on postmenopausal women at Tufts University demonstrated 1% gains in hip and spine bone density, 75% increases in strength and 13% increases in dynamic balance with just two days per week of progressive strength training. The control group had losses in bone, strength, and balance. Strength training programs can also have a profound effect on reducing risk for falls, which translates to fewer fractures.



Be Strong

Individual Scorecard

Month / Year		First Name														M.I.		Last Name														
/																																
Day of the Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
15 Minute Segments																																
Rate Your Day																																

At the end of each day, rate your day from 1 (worst) to 5 (best). Do you see a relationship between increased muscle strengthening exercise and your daily rating?

Notes: Segments should be 10 minutes of continuous muscle strengthening exercise. Indicate how many segments you complete each day with a "0", "1", "2" or "3". "3" is the maximum number that can be entered each day.

How many hours do you normally spend doing muscle strengthening exercise each month? _____

How many 10 minute segments of muscle strengthening exercise were completed during the activity? _____
 Total hours = _____

Beginning weight _____ Beginning waist circumference _____ (Measure just above the belly button)

Ending weight _____ Ending waist circumference _____

Group Name: _____
 Month/Year: ____ / ____

BE STRONG

Group Scoreboard

#	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
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Indicate how many 10 minute segments of continuous muscle strengthening exercise you complete each day. Enter "0", "1", "2" or "3" (max.)

Month/Year ____ / ____

BE STRONG

Team Scoreboard

#	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
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Indicate how many 10 minute segments were completed each day with a "0", "1", "2" or "3" (maximum).



Be Strong

Certificate of Achievement

Awarded to:

for

GOLD LEVEL

Performance

____ / ____
Month Year

Points Earned



Be Strong

Certificate of Achievement

Awarded to:

for

SILVER LEVEL

Performance

____ / ____
Month Year

Points Earned



Be Strong

Certificate of Achievement

Awarded to:

for

BRONZE LEVEL

Performance

____ / ____
Month Year

Points Earned



ACTIVITY SURVEY

Activity Name: _____

Final Day of Activity (MM/DD/YYYY): _____ / _____ / _____

Please rate the statements below by circling the number that best represents your experience.

- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neither Agree or Disagree
- 4 – Agree
- 5 – Strongly Agree

- | | | | | | | |
|----|--|---|---|---|---|---|
| 1. | I enjoyed this activity. | 1 | 2 | 3 | 4 | 5 |
| 2. | It increased my happiness. | 1 | 2 | 3 | 4 | 5 |
| 3. | It improved my health. | 1 | 2 | 3 | 4 | 5 |
| 4. | It improved my energy level. | 1 | 2 | 3 | 4 | 5 |
| 5. | It reduced my stress level. | 1 | 2 | 3 | 4 | 5 |
| 6. | I learned something valuable about my health and wellbeing from this activity. | 1 | 2 | 3 | 4 | 5 |
| 7. | I plan to make personal lifestyle changes because of this activity. | 1 | 2 | 3 | 4 | 5 |
| 8. | I would like to do this again. | 1 | 2 | 3 | 4 | 5 |
| 9. | The activity improved morale in the workplace. | 1 | 2 | 3 | 4 | 5 |

Please use the back of this page to add comments about your experience.