

The Essentials of Strength Training

PEBTF

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Jim Meister, RD, LDN, CPT

To provide feedback or to receive a copy of today's slides, send an email to jmeister@activehealth.net.



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Learning Objectives

The Essentials of Strength Training

- Understand the difference between muscle and fat
- Learn the benefits of strength training
- Explore strength training fundamentals
- Uncover strength training myths
- Discover resources to help you start strength training

Trivia Question

True or False?

One of the benefits of strength training: It can turn fat tissue into muscle tissue.

FALSE

Strength training can help increase your muscle tissue, which in turn can help you burn body fat tissue -- but one does not change into the other.

The Power of Muscle

Muscle Cells:

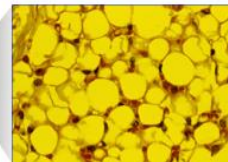
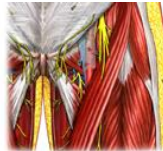
- Dense
- Highly metabolic
- Requires more calories to sustain itself



Muscle cells burn more calories

Fat Cells:

- Not dense
- Stores calorie-dense fatty acids



Fat cells tend to store calories

The Benefits of Strength Training

| Increases your | Decreases your |
|---|---------------------|
| Strength/Muscle Tone | Arthritis/Back Pain |
| Bone Density | Body Fat |
| Metabolism | Postural Problems |
| Range of Motion/Flexibility | Resting Heart Rate |
| Balance/Coordination | Blood Pressure |
| Glucose Control | Heart Disease Risk |
| HDL levels | Injury Risk |
| Sleep | Stress |
| Mood, Energy, Body Image, Mental Wellness | Anxiety |

Trivia Question

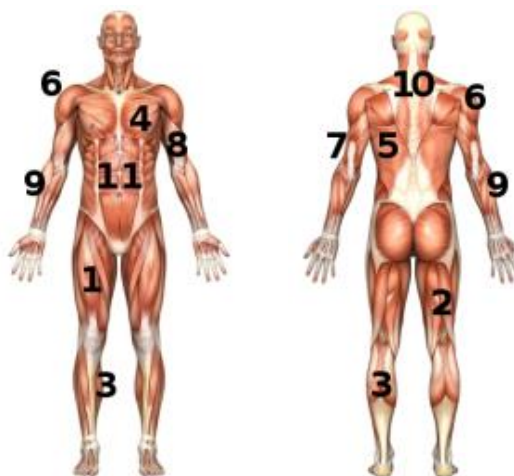
Which exercise burns more calories per repetition than any other?

- a) Crunches
- b) Squats
- c) Bench Press
- d) Bicep curls

b. Squats

Major Muscles of the Body

1. Quadriceps
2. Hamstrings
3. Calves
4. Chest
5. Back
6. Shoulders
7. Triceps
8. Biceps
9. Forearms
10. Trapezius
11. Core



How much physical activity do you need?

For important health benefits, adults need at least:

- 2 ½ hours (150 minutes) of moderate-intensity aerobic activity every week
 - Muscle-strengthening activities on 2 or more days a week to work all major muscle groups
- OR
- 1 hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity every week
 - Muscle-strengthening activities that work all major muscle groups
- OR
- An equivalent mix of moderate- and vigorous-intensity aerobic activity
 - Muscle-strengthening activities on 2 or more days a week that work all major muscle groups

1 minute of vigorous-intensity = 2 minutes of moderate-intensity activity

Strength Training Terminology

REPETITION:

- Complete motion of a certain exercise
- 12 pushups = 12 repetitions or 'reps'

SET:

- Completing a specific number of repetitions before you rest
- Complete 12 pushups, rest, complete another 12 pushups = 2 sets

SUPERSET:

- Completing 2 exercises back-to-back with no rest between
- Complete 12 pushups, then complete 12 squats, then rest

CIRCUIT:

- Completing a series of strength exercises (usually 6-10), one right after the other. Perform each for a specific number of repetitions before moving to the next exercise. Rest after entire group is completed and then repeat.
- 12 pushups, 12 squats, 12 chest presses, 12 pull-ups, 12 shoulder presses, 12 crunches. Rest and repeat entire group.

Strength Training Techniques

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Consult with a physician before beginning any exercise regimen |
| <input type="checkbox"/> | Use a light weight the first week, then gradually add more weight |
| <input type="checkbox"/> | Your body needs to get use to using weights: start out using 1- or 2-pound weights if using dumbbells |
| <input type="checkbox"/> | Take 3 seconds to lift or push a weight into place, hold the position for 1 second, and take another 3 seconds to return to your starting position. |
| <input type="checkbox"/> | Try to do 10 to 15 repetitions for each exercise |
| <input type="checkbox"/> | Rest |

Safety Tips

- **Don't hold your breath**
 - Breathe regularly and slowly: in through your nose and out through your mouth
- **Use smooth and steady movements**
 - Jerking weights into place can cause injury
- **Avoid locking out your joints**
 - Keep the joint slightly bent



Mix It Up

Any exercise that challenges or overloads your muscles will help you become stronger.

- **Free weights**
 - Dumbbells, kettlebells, medicine balls
- **Bodyweight exercises**
 - Total body resistance exercise (TRX), Pilates, yoga
- **Machines**
- **Exercise bands**



Weekly Examples



Donna: age 65, new to strength training

- Monday
 - Pilates, focusing on upper body
- Thursday
 - Exercise bands, focusing on lower body and core
- Each exercise: 10-15 reps of light weight, 2 sets



Derrick: age 35, wants to build strength, seasoned lifter

- Monday and Thursday:
 - Uses free weights, working chest, legs, and core
- Tuesday and Friday:
 - Uses weight machines, working arms and shoulders
- Each exercise: 8-12 reps of challenging weight, 4 sets

What could they do on the remaining days?

Myth Buster

Myth:

I've heard that it's better to exercise first thing in the morning so I boost my metabolism, instead of exercising later in the day. Is this true?

FALSE

Regardless if it is in the morning, afternoon, or early evening, the same amount of calories will be expended by the body according to the intensity and duration of the workout.

Myth Buster

Myth:

I'm a female.

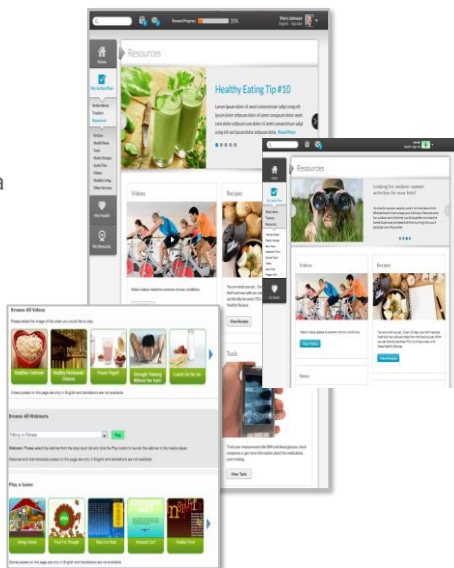
Won't I become big and bulky if I strength train?

FALSE

Men have between 20 and 30 times more circulating testosterone than women. Men also have a greater number and larger muscle fibers. Due to these reasons, men can develop much larger muscles than women.

Resources to Help You

- Certified Personal Trainers
 - Your local gym may provide a free session when you first start
- Exercise classes or DVDs provide instruction and demonstration
- MyActiveHealth website videos



Summary

- Muscle cells require more calories and also burn more calories than fat cells
- Aim to strength train **2 days per week**, focusing on major muscle groups
- Pilates, yoga, dumbbells, weight machines, or any bodyweight exercise that **challenges** your muscles
- Strength training helps to **improve** metabolism, mood, and bone density while **decreasing** arthritis pain, back pain, and risk of future health complications.



Join Me In May!

On-
Site
Lunch
&
Learns

• Blow Away Your Old Exercise Routine

- May 17 @ PennDOT Clearfield
- May 18 @ Hiram G Andrews
- May 19 @ PennDOT Hollidaysburg
- May 25 @ Reading State Office Bldg
- May 26 @ Health & Welfare Bldg
 - 12:00 – 12:30pm
 - www.pebtf.org/wellness

Join Me In June!

Webinars

- Preventative Health for Men and Women
- June 2 or June 16
- 12:00 – 12:30pm
- www.pebtf.org/wellness

Thank you!



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