The Move It! listserv is an email discussion group that focuses on the latest in the fitness world. Join today by sending a blank email to join-moveit@list.utah.gov.

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Weight-lifting 101
Principles of Resistance Training

- Resistance Training vs. Weight Lifting
  - Focus on the body
- SAID Principle
  - Specific adaptations to imposed demands
  - Use it or lose it
- Balance of power
  - Use all muscles—no apes in my gym
- Progression
  - Multi-joint to single joint
  - Large muscles to small muscles
  - Increase up to 10% per week
  - If you aren’t progressing, change something!
- Speed
  - Slow it down—2 seconds up, 4 seconds down
- Control
- Form
- Sources of information (some good, some bad)
  - Internet
  - Muscle mags
  - People-
  - Look for education and certification
- What is your goal (see back page)

Build your Program

What is your goal?

Are you a beginner, intermediate, or advanced?

Goal:
- Strength/Power: 1-2 repetitions at 80-90% of max, rest 5-10 minutes, 4-7 sets
- Bodybuilding: 6-8 repetitions at 80-85%, rest 1:30-2:00 minutes, 5-6 sets
- Endurance: 15-20 repetitions at ~60%, rest 0-30 seconds, 3-4 sets
- General strength and calorie burning: 8-12 repetitions at 70-80%, rest 2-3 minutes, 3 sets (or less)

60% = 15-20 Reps
65% = 14 Reps
70% = 12 Reps
75% = 10 Reps
80% = 8 Reps
85% = 6 Reps
90% = 4 Reps
95% = 2 Reps
100% = 1 Reps
Abdominal Crunch
Lie on your back on a soft but firm surface. Place your feet on a chair, bench or other surface that will allow you to rest your legs. Your knees and your hips should be about 90°. Grasp lightly your ears (not your neck), or place your hands across your chest.
Flatten your back into the floor. Tightening your abdominal muscles, bring your shoulders towards your knees. Keep your neck in line with the rest of your spine. Return under control to the starting position.

Tips:
• You don’t have to go very far, just bring your shoulders off the ground
• Try to bring your chin to the ceiling if you are having trouble with your neck

Basic Exercises
Chest Press
Adjust the incline of the bench to match your goal. Place dumbbells on legs and lie down on bench. Bring dumbbells to start position: upper arm parallel to the floor, elbow at 90 degrees.
Maintain neutral spine, begin breathing out and push dumbbells away from body, opposite of gravity. Motion should take about 2 seconds. Under control, return to the starting position, breathing in. Motion should take about 4 seconds. Repeat.

Tips:
• Avoid arching your back during the exercise
• Do not go below 90° at your elbows
• Do not go below parallel on your upper arms
**Bent-over Row**

Stand with your feet shoulder width apart, facing a bench that is about waist high. Bend at the waist, placing one hand on the bench. Keeping your back straight, bend your knees slightly. Your trunk should be between 45 and 90 degrees. Lightly grab a dumbbell, keeping it directly under your shoulder. Keeping your elbow close to your body, pull the dumbbell to your shoulder. Under control, return to the starting position.

**Tips:**
- Keep your head in a neutral position, looking at your forward hand
- Avoid rotating your shoulders during the exercise
- Squeeze your shoulder blade back and hold it throughout the exercise

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**Tricep Press**

Using either a bar or dumbbells, lie on your back on a flat bench. Maintain a neutral spine. You may need to bend your knees and place your feet on the bench. Extend your arms, wrist over shoulders, arms perpendicular to the ground. Keeping your elbows pointed towards your feet, bend your elbows so that the weight comes toward your head. When your elbow is at 90°, stop. Keeping your elbows pointed towards your feet, extend your arms.

**Tips:**
- Keep your wrists straight throughout the motion
- Your upper arm should not move at all during this exercise
- Dumbbells will be harder but will allow you to work each side evenly
**Biceps Curl**
This can be done standing or sitting. If standing, feet should be shoulder width apart. Bend your knees slightly and maintain neutral spine. Squeeze your shoulder blades together and move your elbows to your sides. Your hands on the bar should be at a comfortable angle, shoulder width or slightly wider. Keeping your chest up, with your elbows pinned to your sides, bend your elbow until you cannot move any further without moving your elbows. Under control, return to the starting position.

Tips:
- Keep your posture straight and tall
- Don’t bend your wrists
- Keep it under control, no swinging. You can also alternate arms if desired

**Shoulder Press**
Sitting on a bench, make sure your posture is straight and tall. Grasp the dumbbells and bring them to your shoulders. Your upper arm should be parallel to the floor and your elbow is at 90°. Imaging drawing a triangle as you extend your arms over your head, bringing the weights lightly together. Under control, return to a position in which your arms are parallel to the ground. Do not go any lower.

Tips:
- Keep your wrists straight
- Do not arch your back
- Your hands will travel in line with your ears
**Lunge**

There are many variations to a lunge, but a stationary lunge will be dealt with here. Grasp the dumbbells, bringing them to your shoulders; stand with your feet shoulder width apart. Step forward so that your knee is over your ankle on the forward foot. Keep your posture straight, and drop your back knee towards the floor. Your front lower leg should not move, only bend at the knee. Return to the starting position. Finish one side and move to the other.

Tips:
- Don’t let your back knee hit the floor. When you get tired, you may hit it harder than you anticipated
- Hold the dumbbells at the front of your shoulders
- For more challenge without adding weight, hold the position at the bottom for 2 seconds before returning to the start position

**Romanian Deadlift**

Grasp the dumbbells in front of your legs, resting on your thighs. Keep your feet shoulder width apart or slightly wider. Your knees should be straight but not locked. Focus your eyes on a point eye-height and about 15 feet away. Pull your shoulder blades back and keep them there. Maintain perfect posture, keeping your abdominal muscles tight. From your waist, bend slightly forward, allowing the dumbbells to slide down the front of your thighs. Your hips should move backward as you do this. Bend forward no more than 45°. Squeeze your buttocks together and push your hips forward, returning to the starting position.

Tips:
- It doesn’t take much weight to feel this. Don’t overdo it
- Pay attention to your back. Keep it straight at all times, no slouching