

## **Don't Lose Balance: Balance Specific Training**

Help strengthen your joints and increase your proprioception by improving your balance.

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**Balance exercises** can help you maintain your balance — and confidence — at any age. Balance exercises can also help prevent falls and improve your coordination. For older adults, balance exercises can promote independence.

Nearly any activity that keeps you on your feet and moving, such as walking, can help you maintain good balance. You can also include balance exercises in your daily routine. Try balancing on one foot while waiting in line, or stand up and sit down without using your hands. For a more targeted approach, try specific balance exercises. If you have severe balance problems or an orthopedic condition, get your doctor's OK before doing balance exercises.

**Proprioception** is the body's ability to transmit a sense of position, analyze that information and react (consciously or unconsciously) to the stimulation with the proper movement (Houglum 2001). Put simply, it is the ability to know where a body part is without having to look. Proprioception allows you to scratch your head without looking in the mirror or walk up a flight of stairs without having to peer at each stair.

Improving proprioception requires progression, just as improving strength or endurance does. You would not tell a client to bench-press 300 pounds on his first day of weight training, nor would you ask him to complete a marathon after his first trial run. Yet many fitness professionals don't think twice about asking a client to jump headlong into core-training classes that require proprioceptive skills. But think twice they should, as you will learn from this primer on proprioception!

Taken as a whole, proprioception includes balance, coordination and agility because the body's proprioceptors control all these factors. **Proprioceptors** consist of both sensory and motor nerves that send and receive impulses to and from the central nervous system from stimuli within the skin, muscles, joints and tendons (Houglum 2001). These impulses transmit vital information, such as the amount of tension in a given muscle and the relative position of a body part during a given movement.

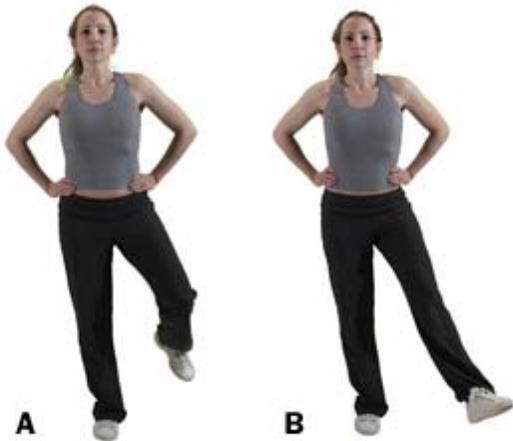


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## Weight shifts

When you're ready to try balance exercises, start with weight shifts:

- Stand with your feet hip-width apart and your weight equally distributed on both legs (A).
- Shift your weight to your right side, then lift your left foot off the floor (B).
- Hold the position as long as you can maintain good form, up to 30 seconds.
- Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions.



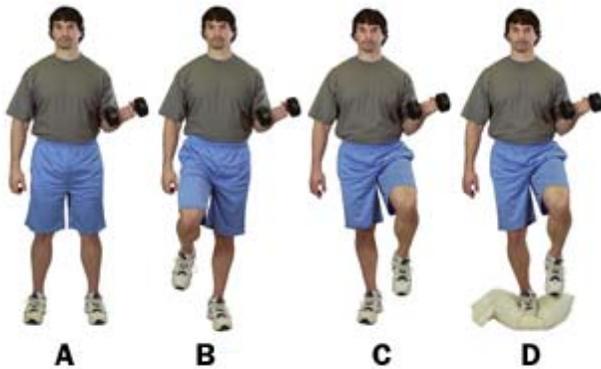
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## Single-leg balance

Standing on one leg is another common balance exercise:

- Stand with your feet hip-width apart and your weight equally distributed on both legs. Place your hands on your hips. Lift your left leg off the floor and bend it back at the knee (A).
- Hold the position as long as you can maintain good form, up to 30 seconds.

- Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions.
- For variety, reach out with your foot as far as possible without touching the floor (B).
- For added challenge, balance on one leg while standing on a pillow or other unstable surface.

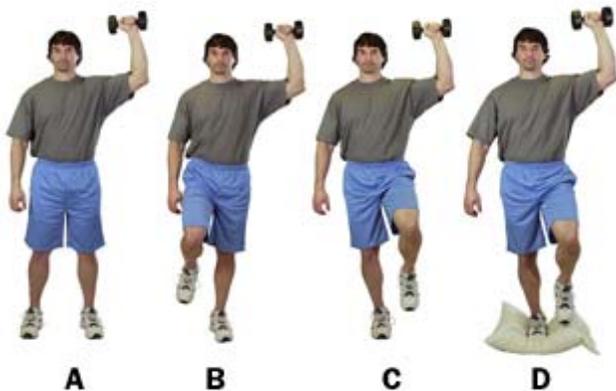


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### Biceps curls for balance

You can do many balance exercises with weights. Try biceps curls with a dumbbell:

- Stand with your feet hip-width apart and your weight equally distributed on both legs. Hold the dumbbell in your left hand with your palm facing upward (A). Lift your right leg off the floor and bend it back at the knee (B).
- Hold the position as long as you can maintain good form, up to 30 seconds.
- Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions.
- For added challenge, balance on the leg opposite the weight (C) or while standing on a pillow or other unstable surface (D).

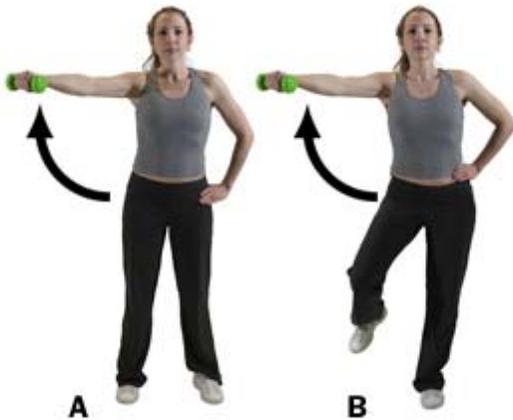


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### Shoulder press for balance

Try the shoulder press with a dumbbell:

- Stand with your feet hip-width apart and your weight equally distributed on both legs. Hold the dumbbell in your left hand and press your arm upward until your forearm is perpendicular to the floor (A). Lift your right leg off the floor and bend it back at the knee (B).
- Hold the position as long as you can maintain good form, up to 30 seconds.
- Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions.
- For added challenge, balance on the leg opposite the weight (C) or while standing on a pillow or other unstable surface (D).



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### Side-lateral raise for balance

Try the side-lateral raise with a dumbbell:

- Stand with your feet hip-width apart and your weight equally distributed on both legs. Hold the dumbbell in your right hand and raise your arm perpendicular to the floor (A). Lift your right leg off the floor and bend it back at the knee (B).
- Hold the position as long as you can maintain good form, up to 30 seconds.
- Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions.
- For added challenge, balance while standing on a pillow or other unstable surface.

## **BALANCE TRAINING**

The maintenance of balance requires many different factors such as strength, good eye sight, hearing, and coordination. Improvement in balance can be achieved by completing the following set of exercises at least once a week.

These exercises have been developed by:

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### **Exercises:**

There are nine different balance training exercises that you will be asked to perform. They start out easy and then become progressively more difficult. The exercises are categorized into two different types of balance training: standing and walking. Start your program out by performing all of the exercises outlined below using level one (see explanation below) as you perform the exercises. As the exercises get easier, you need to progress to level two and then to level three. It is important that you keep track of whether you keep your eyes open or closed during the training on a log sheet

The most important aspect of balance training is that you tax yourself enough so that the exercise is difficult, but not so hard that you put yourself at risk of falling. Whatever you do, don't fall!

### **Standing Exercises**

1. Toe Stand
2. Tandem stand
3. On-legged stand
4. Heel stand

### **Walking Exercises**

5. Toe walk
6. Tandem forward walk
7. Heel walk
8. Cross-over walk
9. Tandem backward walk

**Progression:** Balance training progression is very subtle. The technique of progression for balance evolves around whether your eyes are open or closed and whether you are using your hands. You will find that some of the exercises are easy to perform and easy to progress in and others are more difficult. This is to be expected. The five walking exercises are difficult and it is not expected that many people will be able to perform these exercises with their eyes closed.

## BALANCE TRAINING RATE OF PROGRESSION

*Level One:* Use one hand to steady yourself as you perform the exercise.

*Level Two:* Use no hands unless you lose balance as you perform the exercise.

*Level Three:* Eyes closed and using no hands unless you lose balance as you perform the exercise.

### STANDING EXERCISES

#### 1. Toe Stand

- Stand about one and a half feet away from the counter.
- Raise up as high as possible on the balls of your feet. Your feet should be shoulder width apart.
- Try to stay as still as possible. Do not move your feet around to maintain balance.
- Hold the toe stand for 10 seconds. Rest. Repeat 5 times.



#### 2. Tandem Stand

- Stand about one and a half feet away from the counter.
- Place one foot directly in front of the other foot so that the heel of one foot is just touching the toes of the other foot.
- Try to stay as still as possible. Do not move your feet around to maintain balance.
- Hold the tandem stand for 10 seconds. Rest. Repeat 5 times.



#### 3. One-legged Stand

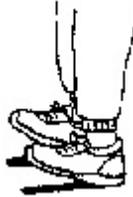
- Stand about one and a half feet away from the counter.
- Slowly lift one leg off of the floor, while maintaining your balance with the other leg.
- Try to stay as still as possible. Do not move your foot around to maintain balance.



- Hold the one-legged stand for 10 seconds. Rest. Repeat with other leg. Do 5 stands with each leg for a total of 10 one-legged stands.

#### 4. Heel Stand

- Stand about one and a half feet away from the counter.
- Raise up as high as possible on the heels of your feet. Your feet should be shoulder width apart.
- Try to stay as still as possible. Do not move your feet around to maintain balance.
- Hold the heel stand for 10 seconds. Rest. Repeat 5 times.



### WALKING EXERCISES

For all dynamic movements you need to find a hall or other area in your home where you can walk at least ten feet without obstacles in the way. This is important for safety reasons.

#### 5. Toe Walk

- Go to one end of a hall and slowly raise up as high as you can onto your toes. Walk down the hall on your toes.
- When you reach the other side, come down onto your feet and stand normally.
- Rest. Repeat 5 times.



## 6. Tandem Forward Walk

- Go to one end of a hall and place one foot in front of the other so that the heel of one foot touches the toes of the other foot.
- Walk down the hall in a tandem walk. It is important that with each step the heel of one foot touches the toes of the other. If you make a mistake, just place one foot in front of the other and continue down the hall.
- When you reach the other side stand normally.
- Rest. Repeat 5 times.



## 7. Heel Walk

- Go to one end of a hall and slowly raise up as high as you can onto your heels. Walk down the hall on your heels.
- When you reach the other side come down onto your feet and stand normally.
- Rest. Repeat 5 times.



## 8. Cross-over Walk

- Go to one end of a hall and walk down the hall by placing one foot in front and on the other side of the other foot. Your feet are going in front and then sideways with each step, but your body continues to go straight.
- When you reach the other side stand normally.
- Rest. Repeat 5 times.



## 9. Tandem Backward Walk

- Go to one end of a hall and place one foot behind the other so that the heel of one foot touches the toes of the other foot. Walk down the hall in a backward tandem walk. It is important that with each step the toes on one foot touch the heel of the other. If you make a mistake, just place one foot behind the other and continue down the hall.
- When you reach the other side, stand normally.
- Rest. Repeat 5 times.

