



# The Importance of Balance Training

***With advancements in technology, it comes as no surprise that the American population spends much more time sitting (at computers, driving, etc.) and less time moving.***

The more time we spend in these fixed environments, the more our body adapts them. When the time arises for us to move (walk, run, ascend or descend stairs), our nervous system has more difficulty controlling, or balancing, our structure in these more unstable environments. This lack of "dynamic control" can lead to an increased risk of injuries. This fact is evident in the estimated 80-100,000 anterior cruciate ligament (ACL) injuries that occur annually within the general population in the United States, with 70% of them occurring during non-contact activities. For this reason, balance training is a critical component in current exercise protocols in order to enhance postural control and optimal joint stabilization during dynamic activities.

## **What is Balance Training?**

Whether walking up a flight of stairs or sprinting down a basketball court, a degree of balance is required to ensure ideal movement and to minimize stress to our structure. Balance training challenges our body's ability to stabilize itself outside of its base of support by placing more demand on the nervous system's ability to activate the right muscles at the right time in the right place, in a reactionary manner. This can be accomplished or enhanced by placing one's body in unstable environments where safe control is still possible, like in the example picture above. This is the role of balance training.

**Try the exercise you see above by following the directions in the picture!**

## **Why is Balance Training Important?**

Traditionally, balance is considered more a static concern (standing on one foot) than a dynamic one (walking, running); however, balance is an extremely dynamic matter. For example, every time we move, we must control our center of gravity over a base of support that is constantly changing. In order to move safely and effectively, we must have the ability to control our joints and our overall structure in relatively unstable environments. This becomes especially important as the population becomes more sedentary, but also holds true when performing exercises in relatively stable environments (such as weight training machines).

Our bodies are extremely adaptable. However, if we never expose ourselves to these unstable environments, our bodies will not be able to respond effectively when these environments are encountered. Balance training will enhance joint stability as we move, thus decreasing stress on joints. It will also enhance our spatial awareness and improve our ability to stabilize ourselves in environments of instability.