

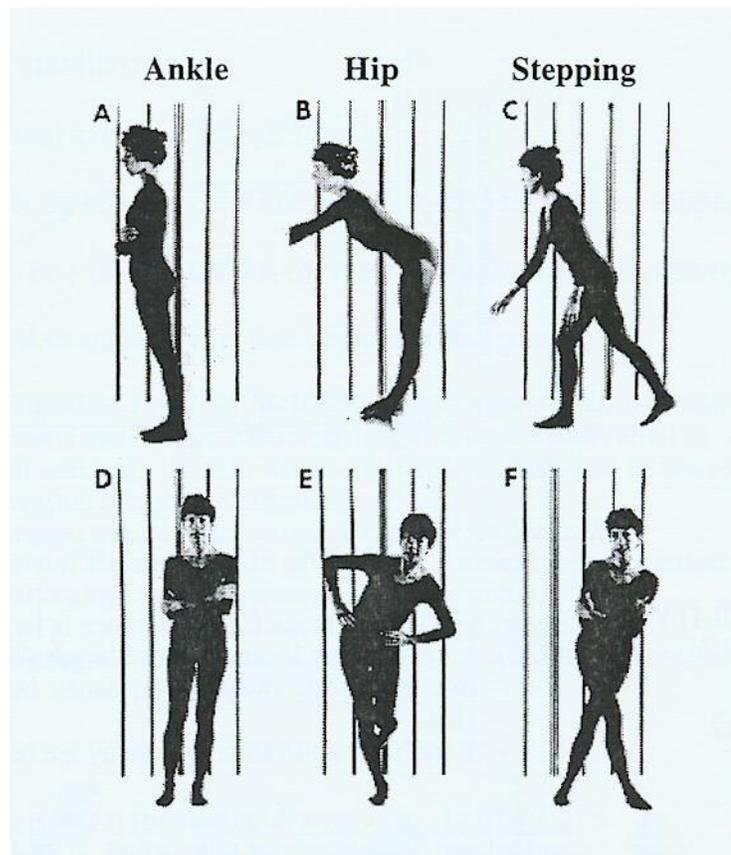
Reactive Balance



Reactive balance is defined as automatic movement patterns, or strategies, that occur when balance is disturbed. They are faster responses than movements under voluntary control. If the response is appropriate no loss of balance will occur. Researchers have studied responses of subjects by moving the surface underneath the feet, pushing, pulling or dropping subjects.

Lower limb strategies:

1. The ankle strategy is seen with slower, smaller disturbances and when standing on a firm and flat surface.
2. The hip strategy is seen with larger, rapid disturbances or standing on compliant or uneven surfaces.
3. The stepping strategy is seen when the external disturbance is a new experience, or it is large and/or rapid.



Upper limb strategy:

The reaching strategy is seen when a stable support is within reach and can be seen and is used without any disturbance.

From Otago:

Observe the participant during the holding version of each balance exercise and be confident he or she can recover balance using lower body strategies (as opposed to grabbing with their arms) before prescribing the exercise without support.

The participant knows that it is okay to make lower limb balance adjustments, such as a recovery step, while doing the exercise, and is confident in doing so.

From Stepping On Manual:**Session 1:**

1. Section 1.4 in PT Key concepts table: Observe that they have good lower body strategies to recover balance before they do the exercises without holding on. (p. 69)

2. Background information-Balance exercises-General tips-Advancing:

The first way of advancing is by gradually holding on less and less, then letting go altogether (but keeping the hand close to the support). People should advance once an exercise becomes too easy. First, they may go from hand to fingertip support, then to the hand placed just above the support with frequent touches, then to fewer and fewer touches. This process is gradual, and participants should feel confident that they can advance while still using touches as needed. It is preferred to make lower body adjustments, such as a recovery step, instead of touching. Sometimes people need encouragement to challenge themselves. (p. 85)

Session 3

1. Background information-Advancing exercise –Balance exercises:

To improve balance when standing, participants need to do exercises standing up, not seated. To improve balance with walking, they must do balance exercises that incorporate steps. We challenge balance by having people gradually go from holding on to not holding. We need to observe that they have good lower body strategies to recover balance before they advance to doing the exercises without holding on. (p. 160)