

# Gait Exercise and Gait Training

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#### Introduction

Gait is a term which is used to describe the unique ways in which an individual walks. Gait training involves set of exercises specifically implemented by therapists in order to help people improve walking style, efficiency and ability. These exercises include enhancing motion in lower extremity joints, enhancing the strength and balance on feet, and imitate closely the repetitive nature of legs that occur while walking. The ultimate aim and goal of gait training is to help a person develop and maintain the most effective walking style possible.

## Who Gets Benefitted from Gait Training?

Many children have problems in walking. This could be due to difficulties encountered since birth or injuries acquired later in childhood. Gait training also help Paralysis Patients.

### **Benefits of Gait Training**

Gait training can help make a person walk again, restore natural gait, reducing fall risk, restoring sense of balance, increase level of independence.

### When Gait Training is Required?

Person may require gait training after joint treatment, Amputation, Spinal cord injury, Brain injury after an accident, Stroke, Osteoarthritis, Muscular dystrophy, Cerebral palsy, Multiple sclerosis, Parkinson's disease, post-surgery, Sports injury. Gait Training improves various gait issues such as:

- 1. Spastic gait: Single-sided stiffness which leads to footdragging walk.
- 2. Propulsive gait: A stopped and rigid posture in which head and neck tend to lean forward.
- 3. Scissor gait: Walking with slightly bent knees and hips with the knees and thighs crossing in a scissor-like movement.
- 4. Steppage gait: In this the foot hangs and the toes points downwards, causing the toes to drag along the ground.
- 5. Waddling gait: Exaggerated side-to-side torso movements which are caused due to insufficient hip stabilization.

#### What Does Gait Training Involve?

Physiotherapist initiates by completing a thorough assessment of person's current conditions and ability. After completion of assessment a training programme is designed specific to individual needs and requirements. Some of the techniques which are used are listed below:

- 1. Balance Exercises
- 2. Strengthening Exercises
- 3. Stretching Exercises
- 4. Postural Realignment
- 5. Gait Re-education
- 6. Manipulation / Mobilization
- 7. Pilates
- 8. Orthotics
- 9. Taping
- 10. Vestibular and Transfer Rehabilitation

- 11. Exercises for Core Stability
- 12. Fracture Treatment
- 13. Hydrotherapy
- 14. Massage
- 15. Post-surgical Rehabilitation
- 16. Proprioceptive Exercises
- 17. Soft Tissue Treatment

Individuals are also advised to perform minor exercises at home such as:

- 1. Hold stable desk or chair, practice standing on one leg for about 5-10 seconds. Then switch the legs and take 10 repetitions.
- 2. Lie flat on back; try raising knees towards chest but with a focus at having that tummy do the work. This exercise helps to work one's core muscles.
- 3. In sitting position, try lifting right leg towards chest like marching in place. Then switch to your left leg and alternate and repeat this exercise for 10 times.
- 4. Sit in a chair with feet flat; raise the toes off the ground while the heels must remain connected. One can also point toes in order to raise your heels.

### **Advantages of Gait Training**

Gait training gives a new sense of ability and achievement allowing person to live a more independent life style.

- 1. Increased level of independence
- 2. Increase ability to exercise
- 3. Enable more participation in activities
- 4. Increase confidence
- 5. Reduce fatigue
- 6. Sense of achievement
- 7. Reduce care needs
- 8. More efficient walking patterns
- 9. Reduced relying on walking aids

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