

FRENKEL'S EXERCISES FOR ATAXIC CONDITIONS

This program consists of a planned series of exercises designed to help you compensate for the inability to tell where your arms and legs are- in space without looking.

General guide lines:

1. Exercises are designed primarily for coordination; they are not intended for strengthening.
2. Commands should be given in an event, slow voice; the exercises should be done to counting.
3. It is important that the area is well lit and that you are positioned so that you can watch the movement of your legs.
4. Avoid fatigue. Perform each exercise not more than four times. Rest between each exercise. The exercise routine takes about ½ hour and should be done 2 times daily.
5. Exercises should be done within normal range of motion to avoid over-stretching of muscles.
6. The first simple exercises should be adequately performed before progressing to more difficult patterns.

Exercises While Lying Down

Starting position: Lie on a bed or couch with a smooth surface along which the feet maybe moved easily. Your head should be raised on a pillow so that you can watch every movement.

1. Bend one leg at the hip and knee, sliding your heel along the bed.

Straighten the hip and knee to return to the sitting position. Repeat with the other leg.



2. Bend one leg at the hip and knee as in #1. Then slide your leg out to the side leaving your heel on the bed. Slide your leg back to the center and straighten your hip and knee to return to the starting position. Repeat with the other leg.



3. Bend one leg at the hip and knee with the heel raised from the bed.
Straighten your leg to return to the starting position. Repeat with the other leg.



4. Bend and straighten one leg at the hip and knee sliding your heel along the bed stopping at any point of command. Repeat with the other leg.

5. Bend the hip and knee of one leg and place that heel on the opposite knee.
Then slide you heel down the shin to the ankle and back up to the knee.
Return to the starting position and repeat with the other leg.



6. Bend both hips and knees sliding heels on the bed keeping your ankles together.
Straighten both legs to return to starting position.



7. Bend one leg at the hip and knee while straightening the other in a bicycling motion.

Exercises While Sitting

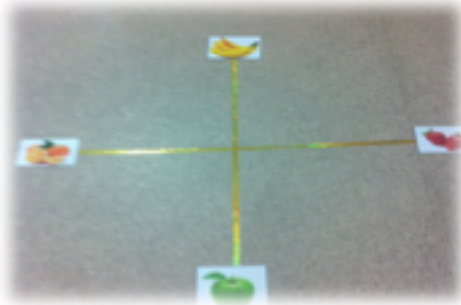
Starting position: Sit on a chair with feet flat on the floor.

1. Mark time, raising just the heel. Then progress to alternately lifting the entire foot and placing the foot firmly on the floor upon a traced foot print.



2.

Make two cross marks on the floor with chalk. Alternately glide the foot over the marked cross: forward, backward, left and right. (Use the ataxia kit item #1 and make 2 cross lines then use item #2 and place them at the end of the line as shown below and ask the patient to slide his/her leg toward the pictures)



3. Learn to rise from the chair, at two, bend trunk forward; at three, rise by straightening the hips and knees and then the trunk. Reverse the procedure to sit down.



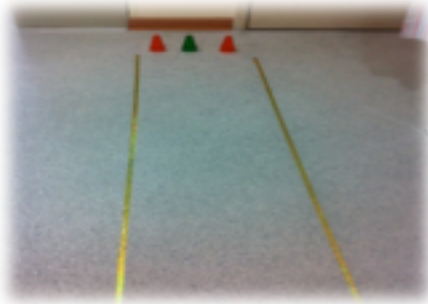
Exercises While Standing

Starting position: Stand erect with feet 4 to 6 inches apart.

1. Walk sideways beginning with half steps to the right. Perform this exercise to a counted cadence: At one, shift the weight to the left foot, at two, place the right foot 12 inches to the right; at three, shift the weight to the right foot; at four, bring the left foot over to the right. Repeat exercise with half steps to the left. The size of the step taken to right or left may be varied.



2. Walk forward between two parallel line 14 inches apart placing the right foot just inside the right line, and the left foot just inside the left line. Emphasize correct placement. Rest after 10 steps. (Use the ataxia kit item #1 and make two parallel lines 14 inches apart, and put at the end of the line a target so the patient can bring the target while performing the task)



3. Walk forward placing each foot on a footprint traced on the floor. Foot prints should be parallel and 2 inches from a center line. Practice with quarter steps, half steps, three-quarter steps, and full steps. (Use the ataxia kit item #3 and fix the foot prints using tape and ask the patient to place his/her legs over the footprints)



4. Turn to the right. At one, raise the right toe and rotate the right foot outward, pivoting on the heel; at two, raise the left heel and pivot the left leg inward on the toes; at three, completing the full turn, and then repeat to the left.

5. Walk up and down the stairs one step at a time. Place the right foot on one step and bring the left up beside it. Later practice walking up the stairs placing one foot on each step. At first use the railing, then as balance improves, dispense with the railing.



Upper Extremity Exercises

When the arms are affected use a backboard and chalk. Change a minus sign to a plus sign, copy simple diagrams (straight lines, circles, zigzag lines, etc.) Various coordination boards may be used to improve eye-hand coordination. (Use the ataxia kit item #4 and hang it on the wall and make minus signs and ask the patient to change it to plus signs)

