



FUNCTIONAL TRAINING



Functional movement is the body's ability to perform natural movements in daily life. **Functional training** is the ability to train our bodies through natural movements that strengthen specific movement patterns used everyday. Functional training improves the body's ability to react, move quickly and efficiently and to resist injury. It can help a person improve performance and any daily life activity, from throwing a baseball to reaching for a book in the back seat of a car. It can help a person improve health and reduce the risk of injury by strengthening the muscles used for producing natural movements and it can improve appearance by maintaining or improving posture and muscle tone.

To improve performance, reduce the risk of injury and develop good posture and muscle tone, functional training combines strength, flexibility and balance with the functional movements of the body. These movements are known as the **pillars of human movement** and can be divided into four categories; 1) standing and locomotion, 2) level changes, 3) pushing and pulling and 4) rotation.

The pillar of **standing and locomotion** involves any movement where the body moves forward, backward, side to side, diagonal and also standing. Walking, jogging, skipping, rolling, standing, skating and swimming are examples of movements that utilize the pillar of standing and locomotion.

Another pillar of human movement is level changes. **Level changes** are movements that lower or raise the body using the legs and/or the trunk such as; kneeling, squatting, lunging, jumping, bending and hopping.

The **pushing and pulling** pillar of human movement involves any movement that pushes the hands away from the body or pulls the hands to the body. Throwing, reaching, lifting and carrying are examples of the pushing and pulling pillar of movement.

Rotation is the final pillar of human movement. This pillar involves the twisting of the trunk and is used in most movements which is why it is considered the most important pillar of human movement. Throwing, swinging a racket, swimming, walking and twisting are movements that require rotation.

Most movements involve a combination of pillars.

Some examples:

- **Putting on shoes.** This action requires a level change by bending at the waist. Pushing and pulling along with rotation are used to place the shoes on the feet.
- **Throwing a Frisbee.** This is an activity that includes three of the four pillars of human movement. Standing, rotation and pushing and pulling are demonstrated by standing in place, twisting the trunk and moving the Frisbee using a pulling and pushing movement.

As seen in the examples above the pillars of movement work together to create common movements used in everyday life.

Movements in daily life are often performed when a person is off balance. Functional training requires the body to balance itself while mimicking the natural movements of the body. Because the core works to stabilize the body during movement and provide good posture, many functional training exercises focus on this part of the body. **Functional training exercises** are exercises that develop the four pillars of human movement. These exercises can be accomplished through the use of weight-bearing exercises as well as exercises utilizing functional training equipment. **Functional training equipment** includes types of equipment designed to add resistance and/or an unstable base which develops the pillars of movement and mimics the body's natural movements.

The ability to train the pillars of human movement is accomplished through functional training. The front squat is an example of an exercise that follows the pattern used while picking up an object from the ground. Adding dumbbells increases the intensity of this exercise. Performing a push-up is an example of an exercise that mimics the movement used while pushing open a door or performing a chest pass. Using a stability ball to create an unstable base increases the difficulty of this movement.

As with any form of exercise, however, it is important to know how to perform functional training exercises and how to use functional training equipment. Through functional training it is possible to improve health and reduce the risk of injury by strengthening the muscles used for producing natural movements and improve appearance by maintaining or improving posture and muscle tone.



Key vocabulary words that will be introduced during this unit are:

- **Functional Movement** - The body's ability to perform natural movements in daily life
- **Functional Training** – Any activity that trains movement for a specific purpose or function
- **Functional Training Equipment** - Types of equipment designed to add resistance and/or an unstable base which develops the pillars of movement and mimics the body's natural movements
- **Functional Training Exercises** - Exercises that develop the four pillars of human movement
- **Pillars of Human Movement** - Functional movements of the body which are divided into four categories; standing or locomotion, level changes, pushing and pulling and rotation
- **Standing and Locomotion** - Any movement where the body moves forward, backward, side to side, diagonal and also standing
- **Level Changes** - Movements that lower or raise the body using the legs and/or the trunk
- **Pushing and Pulling** - Any movement that pushes the hands away from the body or pulls the hands to the body
- **Rotation** – Any movement that involves the twisting of the trunk and is used in most movements