

What Functional Training Is and Why It's Important

Amir Mohammad Amini*

Department of Sport, Payam Noor University, Mahabad, Iran

***Corresponding author:** Amir Mohammad Amini, Department of Sport, Payam Noor University, Mahabad, Iran

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ABSTRACT

Functional training focuses on improving everyday movements by enhancing strength, flexibility, and balance through exercises that replicate real-life activities. This approach emphasizes compound exercises that engage multiple muscle groups, resulting in better coordination and physical performance in daily tasks. The present study systematically reviews the principles, benefits, and applications of functional training, with a particular focus on its implications for improving physical abilities in older adults, preventing injury, and supporting weight management.

Introduction

In the contemporary fitness landscape, functional training has gained traction as a method that prepares individuals for daily activities by developing practical strength and mobility. Unlike isolated muscle training, functional fitness prioritizes compound movements that simulate real-world tasks such as lifting, pushing, pulling, and walking. This holistic approach aligns with natural human movement patterns and aims to improve the body's ability to function as an integrated unit (Thompson [1,2]).

Significance of the Study

With increasing rates of sedentary lifestyles and aging populations, there is a critical need for training paradigms that maintain independence and reduce injury risk. Functional training offers a strategy to enhance physical performance and quality of life, particularly in older adults who commonly experience declines in mobility and strength. Prior research has demonstrated that functional strength training not only improves mobility and balance but also facilitates weight management through increased caloric expenditure (Seguin, et al. [3,4]).

Literature Review

Several studies have emphasized the importance of compound exercises in replicating daily activities. For instance, squats improve the ability to rise from a seated position more effectively than isolated knee extensions (NASM). Deadlifts teach proper lifting mechanics to

protect the lower back (Wall [4]). Moreover, functional training has shown superiority over traditional isolated training in reducing body fat and improving dynamic stability (Seguin, et al. [1,3]). The decline in functional fitness in aging populations correlates with reduced independence, highlighting the necessity of this training approach (StatPearls, 2024).

Objectives

The primary objectives of this study are to:

1. Define functional training and distinguish it from conventional strength training.
2. Examine the benefits of functional training on daily activity performance and physical health.
3. Present practical guidelines and a sample workout routine emphasising compound movements.
4. Discuss the implications of functional training for older adults and its role in weight management.
5. Propose recommendations for implementing functional training based on existing evidence.

Methods

This study used a qualitative review methodology, collecting data from peer-reviewed journals, official guidelines, and published scholarly works focusing on functional training principles and effects. Key

databases such as PubMed, ACSM Health & Fitness Journal, and NASM resources were reviewed. Emphasis was placed on synthesizing actionable insights regarding exercise selection, programming, and outcomes. A practical functional training program was formulated incorporating major compound movements targeting major muscle groups: quadriceps, hamstrings, chest, shoulders, triceps, back, biceps, grip, and core.

Statistical Methods

Though this is primarily a literature review and synthesis, referenced studies employing quantitative methods were critically appraised. These include randomized controlled trials (RCTs) reporting effect sizes for changes in body fat percentage, functional mobility, and strength variables pre- and post-functional training interventions ($p < 0.05$ considered significant).

Results

- Functional training emphasizes natural, multi-joint exercises such as squats, deadlifts, push-ups, and pull-ups that improve real-world movement efficiency.
- Compound exercises activate multiple muscle groups simultaneously, enhancing coordination and balance.
- Functional training routines support improvements in activities of daily living (ADLs), especially in older adults, helping maintain independence and reduce fall risk.
- Studies show functional training may lead to greater reductions in body fat compared to traditional strength training due to higher metabolic demands [Seguin, et al. [3]].
- Introducing variety and instability (e.g., hiking versus elliptical) further challenges balance and neuromuscular control, offering superior functional benefits [5].

Discussion

The review highlights that functional fitness training supports an “antifragile” body concept, physically preparing individuals to manage unpredictable physical demands effectively. Prioritizing free weights and compound movements aligns training stimuli with real-life functional needs, offering superior transfer to daily tasks compared to machine-based, isolated muscle exercises. Functional strength training also aligns with the five primary human movement patterns (hinge, lunge, push, pull, rotate), which are essential to maintain or regain for normal function and injury prevention. The integration of core stability through exercises like bear crawls further supports spinal health and movement efficiency.

Conclusion and Recommendations

Functional training represents a vital component of fitness programs aimed at enhancing practical strength and movement quality. The following recommendations are proposed for fitness practitioners:

- Emphasize compound, free-weight exercises rather than machine-based isolation movements.
- Design routines that incorporate all major movement patterns and muscle groups.
- Aim for at least two functional training sessions per week combined with aerobic activity as per U.S. guidelines.
- Incorporate training variations and unstable surfaces to challenge balance and neuromuscular coordination.
- For older adults, focus on exercises supporting ADLs to promote independence and reduce fall risk.

Sample Functional Training Routine

Muscle Group		Recommended Exercise	
Quadriceps		Bodyweight Squats	
Hamstrings and Glutes		Deadlifts	
Chest, Shoulders, Triceps		Push-ups	
Back, Biceps, Grip		Pull-ups	
Core		Bear Crawl	

Alternatives include lunges, overhead press, and bodyweight rows for variety.

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Amir Mohammad Amini. Biomed J Sci & Tech Res



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