ABSTRACT

As knowledge regarding rehabilitation science continues to increase, exercise programs following musculoskeletal athletic injury continue to evolve. Rehabilitation programs have drastically changed, especially in the terminal phases of rehabilitation, which include performance enhancement, development of power, and a safe return to activity. Plyometric exercise has become an integral component of late phase rehabilitation as the patient nears return to activity. Among the numerous types of available exercises, plyometrics assist in the development of power, a foundation from which the athlete can refine the skills of their sport. Therefore, the purpose of this clinical commentary is to provide an overview of plyometrics including: definition, phases, the physiological, mechanical and neurophysiological basis of plyometrics, and to describe clinical guidelines and contraindications for implementing plyometric programs.

Keywords: Amortization, plyometric, rehabilitation, stretch shortening cycle

CLINICAL COMMENTARY
CURRENT CONCEPTS OF PLYOMETRIC EXERCISE

George Davies, PT, DPT, SCS, ATC, MEd, CSCS, FAPTA¹
Bryan L. Riemann, PhD, ATC, FNATA¹
Robert Manske, PT, DPT, SCS, ATC, MEd, CSCS²,³

¹ Armstrong State University, Savannah, GA, USA
² Wichita State University, Wichita, KS, USA
³ Via Christi Health, Wichita, KS, USA

Acknowledgement:
Sara Morris, SPT, for her assistance in preparation of this manuscript. She is a student in the Doctor of Physical Therapy Program at Armstrong State University, and a GA for the Biodynamics and Human Performance Center.

CORRESPONDING AUTHOR
Robert Manske, PT, DPT, SCS, ATC, MEd, CSCS
Wichita State University Department of Physical Therapy
Via Christi Health
Wichita, Kansas
E-mail: Robert.manske@wichita.edu