RESISTANCE EXERCISE AND HYPERTENSION
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Introduction

Hypertension is a “Silent Killer”, most of the time, it has no obvious symptoms to indicate that something’s wrong and many people are unaware that they have the condition. 30-45% of adults around the world are affected by hypertension (Mancia et al., 2013) and is an important cardiovascular risk factor (Cornelissen, Fagard, Coeckelberghs, & Vanhees, 2011; Cornelissen & Smart, 2013; Mancia et al., 2013) directly related to cardiovascular morbidity and mortality (Cornelissen et al., 2011).

Lifestyle changes are the first line of therapy for hypertensive individual and exercise programs have been widely encouraged (Mancia et al., 2013). Resistance exercise has been recommended as part of the therapeutic approach in individual with hypertension (Pescatello et al., 2004). Studies have shown that resistance exercise reduces blood pressure (BP) to levels below resting values (Mota et al., 2009), although this is not a universal finding (Roltsch, Mendez, Wilund, & Hagberg, 2001). Considering that the incidence of adverse side effects (real or perceived) can be high with some antihypertensive drugs (Grégoire et al., 2001) and may ultimately contribute to low rates of drug compliance or adherence, lifestyle interventions should be given serious consideration as valuable modalities for individual with hypertension to manage their BP and reduce their reliance on antihypertensive medications (James et al., 2014). Importantly, successful implementation of lifestyle modifications, including physical activity, often requires adoption of strategies to maintain behavior adherence (Hackam et al., 2013).

The traditional objective of clinical practice has been to achieve a resting BP target of 140/90 mmHg (Arguedas et al., 2009). Primary hypertension, a resting BP >140 mm Hg systolic and (or) >90 mm Hg diastolic, remains one of the most prevalent modifiable risk factors for cardiovascular disease (James et al., 2014).

Benefits of Resistance Exercise on Blood Pressure

Benefits on resistance exercise are acute reductions in ambulatory BP have been reported in hypertensive patients (Melo et al., 2006). Although some meta-analysis