

On Looking at More Than Just One Dimension of Human Performance

I like your point that strength is only one dimension of athletic/human performance. Even in non-athletes, one needs more than just strength; one needs the ability to move well throughout life. Also, you acknowledge that everyone has different reasons for strength training--very true! I agree we need to understand each individual's personal needs/goals regarding strength, health and fitness.

Your post inspired me to look up how resistance training might help cancer patients/survivors (serving that demographic is personally important to me).

There are many ill-effects from cancer treatment including decreased energy, decreased aerobic capacity, decreased strength, muscle atrophy, depression, fatigue, poor nutrition, and poor appetite (Strasser, Steindorf, & Wiskemann, 2013). Resistance training has the potential to increase the patient's quality of life by improving muscular strength, combating fatigue, and improving overall physical functioning (Strasser et al., 2013).

Studies using resistance training with adult cancer patients have shown significant improvements in muscular strength (14.6 kg for lower limb strength and 6.9 kg for upper limb strength) (Strasser et al., 2013). Such gains improve the patients' likelihood of survival (Strasser et al., 2013). Patients also increased lean body mass (Strasser et al., 2013). Strasser et al., (2013) noted that moderate to moderately-high exercise intensity (either resistance training, aerobic training, or a combination) was more successful in lowering fatigue as compared to low-intensity exercise. However, higher exercise intensities may not be well tolerated.

While currently there are no formal "optimal" recommendations regarding exercise for cancer patients/survivors, the consensus is that exercise is important to maintain, as much as a patient can tolerate (Strasser et al., 2013). Strasser et al. (2013) noted that low- to moderate-intensity resistance training such that the patient fatigues after two sets of 12-17 repetitions seems to elicit the best response. Start with at least two sets, and progress (as tolerated) up to 6 sets per muscle group per week (Strasser et al., 2013).

References

Strasser, B., Steindorf, K., Wiskemann, J., & Ulrich, C. M. (2013). Impact of resistance training in cancer survivors: A meta-analysis. [*Medicine & Science In Sports & Exercise*, 45](#)(11), 2080-2090.