Week 11:

The Wisconsin AD Exercise Newsletter

Pro Tip

Feeling self-conscious when you're working out? Trust me, we've all been there! Try some of these tricks to help refocus your mindset:

- Start with at-home workouts to build up your confidence.
- Work out when the gym is less busy.
- Begin with exercises that are fun and/or you're comfortable with.
- Plan your workout ahead of time! One less thing to worry about.
- Get a new workout outfit that makes you *feel good*!
- Do a socially distanced workout with a friend.
- A good playlist is the best distraction from your thoughts.
- Remember: you're out there bettering your health. **That's what matters!**

Coach's Playbook

Time-constrained Exercise **–** Gillen & Gibala, 2014 and Sultana et al., 2019

We all wish we had more time, especially when it comes to fitting exercise into our busy days. This has led to a surge in people developing a variety of workouts that aim for maximum benefit in the shortest time possible. The real question now is "Can I achieve benefits from these sorts of workouts?"

First, let's define these maximum benefit/minimum time workouts. They fall into the category of *low volume, high-intensity interval training (LV HIIT)*. LV HIIT involves brief, repeated high (>90% VO2max) or "all-out" intensity sprints separated by recovery intervals.

LV HIIT Examples:

- Running: High-intensity sprint for 60 seconds, followed by slow walking for 60 seconds. Repeat 10 times.

- Cycling: All-out sprint for 30 seconds, followed by rest for 4 minutes. Repeat 4-6 times.

LV HIIT requires less time engaged in heavy exercise during a workout (hence, low volume) compared to traditional continuous exercise, often called moderate-intensity continuous training (MICT).

MICT Examples:

- 30-minute run at a constant moderate intensity
- 60-minute bike ride at a constant moderate-high intensity

Depending on the work-to-rest ratio of the LV HIIT workout, you may be exercising heavily for a small fraction of your workout. In the cycling example, your work intervals tally up to just 3 minutes! But remember, those 3 minutes of exercise are intense.

Research has shown that at a physiological level, similar benefits can result from relatively short (2-6 weeks) LV HIIT and MICT programs. This includes increased mitochondrial capacity, enhanced peripheral vascular structure and function, and improved insulin sensitivity. Cardiorespiratory fitness after an LV HIIT program is also improved comparably, and sometimes to an even greater extent than MICT. Changes in body composition are mixed, but there is some evidence to support a reduction in fat mass after completing at least 6 weeks of LV HIIT.

The type of exercise (e.g. running vs. cycling), the intensity of the sprint and recovery bouts, duration of the sprint and recovery bouts, and duration of the program can all affect individual outcomes—there is plenty of research still to be done.

According to current knowledge, you can achieve many of the same benefits for less time. However, the intensity must be high enough. So, if you're running short on time and want to reap the benefits of exercise, try LV HIIT and be prepared to work!

Ask the Exercise Physiologist

Do you have a question for our Exercise Physiologists?

Send your question(s) to Camille Conway.

You may be featured in an upcoming newsletter!

Tune in next week where we will reassess your fitness progress using the same tests from week 1!

Going the Extra Mile...

Law et al., 2018. Moderate intensity physical activity associates with CSF biomarkers in a cohort at risk for Alzheimer's disease

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