

For Fat Burning, Interval Training Beats Continuous Exercise

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Exercisers can burn slightly more body fat with interval training than moderate-intensity continuous training, according to a recent [systematic review and meta-analysis](#) in the *British Journal of Sports Medicine*. Although the differences in fat loss weren't huge, the interval workouts were shorter, which could make it easier for people to adhere to them.

The Problem

Weight-loss strategies usually include an increase in energy expenditure (exercise) or a decrease in energy intake (diet). But neither strategy seems to be effective for sustaining long-term weight changes in most people. Although lower-than-expected weight loss is often blamed on poor follow-through, other factors like metabolic downregulation likely also influence outcomes.

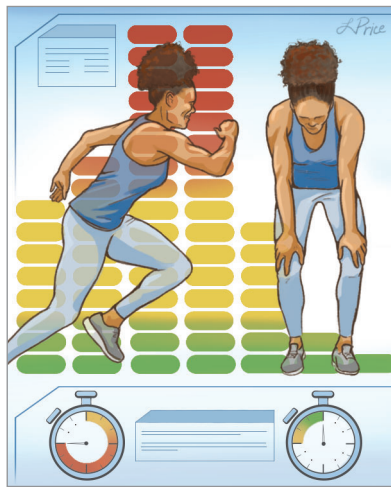
What We Already Knew

There's no consensus on the best exercise approach to burning fat, which is preferred over losing muscle for shedding weight. Some [evidence](#) suggests that interval training—including high-intensity interval training (HIIT) and sprint interval training (SIT)—can help people reduce body fat and lose weight more than sustained moderate exercise, even if the routine [burns fewer calories](#). This could be because [interval training increases](#) resting energy expenditure and [fat burning right after exercise](#), countering metabolic downregulation.

"Different types of exercise promote different metabolic responses," said Paulo Gentil, PhD, the study's senior author and a professor at the Federal University of Goiás in Brazil. "In this regard, high-intensity exercise might be particularly interesting for fat loss, [not because of the calories spent while you exercise](#) but because it [makes your body burn more fat after you exercise](#)."

The Design

Gentil's team conducted a meta-analysis of 36 clinical trials comparing HIIT and SIT—the 2 most common types of interval training—with moderate-intensity continuous training for fat loss. The studies evaluated changes in total body fat percentage and/or total absolute fat mass. They included 1012 children through older adults, spanning a range of baseline physical activity and ranging from underweight to obese.



What We've Learned

- All of the exercise approaches significantly reduced total body fat percentage and total absolute fat mass.
- None of the approaches outperformed the others in terms of reducing total body fat percentage.
- But [interval training was more effective for decreasing](#) total absolute [fat mass](#). On average, the SIT and HIIT protocols reduced total absolute fat mass by [6.2%](#) and [6%](#), respectively, compared with [3.4%](#) for moderate-intensity [continuous](#) training.
- The interval training workouts were also shorter. The SIT, HIIT, and moderate-intensity routines in studies evaluating

total absolute fat mass lasted on average [23 minutes, 25 minutes, and 41 minutes](#), respectively.

The Caveats

- The biggest reductions in total absolute fat mass occurred when interval training workouts were supervised, which likely increases adherence.
- The study designs differed widely, and many of them didn't instruct participants to stick to their normal diet, both of which could make the findings less reliable.

How Intense Is Intense?

The terms "high intensity" and "sprint" are relative. Keeping this in mind can encourage exercising and help to avoid injuries. "Interval training can be performed by almost everyone; we just have to know how to adapt it," Gentil told *JAMA*. "If you have knee problems and are not able to run, you can cycle or even swim. If you have heart disease, you can work at a controlled intensity. For a healthy young person, a sprint could involve running at high velocities, while for a frail elder, slow walking might be enough."

Gentil's bottom line: "Interval training seems to be a time-efficient approach for promoting fat loss." ■

What Is Interval Training?

- Interval training is an [intermittent period of physical effort interspersed by recovery periods](#).
- [High intensity interval training](#) requires ["near-maximal" efforts](#) performed at or above 80% of [maximal heart rate](#) or the [equivalent](#) of maximal [oxygen consumption](#).
- [Sprint](#) interval training requires ["all-out" efforts](#) performed at or [above peak oxygen consumption](#).

Note: Source references are available through embedded hyperlinks in the article text online.