

*Below is a May 2008 article from the U.K.'s **The Guardian** comparing indoor and outdoor cycling on four fronts: cardiovascular fitness, perceived effort, convenience, and lower body strength.*

Spinning vs Cycling

Sam Murphy, The Guardian

Cardiovascular fitness

Spinning: A study by the American Council On Exercise found spinners worked at 75-96 % of their maximum heart rate - far exceeding the minimum requirement.

Cycling: Not quite as good as spinning . Still, research shows the average amount of oxygen the body can take in and use each minute is 73.5ml/kg in pro-cyclists - compared with 42ml/kg in non-cyclists.

Perceived effort

Spinning: The fact that there's no respite in spinning - no change of scenery, say - can make spinning "feel" harder than cycling outdoors. However, the music and group motivation can help to off set this.

3/5

Cycling: The varied intensity of outdoor riding - freewheeling, uphill inclines, etc - can make it feel much more satisfying and spontaneous than fixed cycling in a closed environment.

4/5

Convenience

Spinning: Once you get to the gym, you can work at your own personal level, while still being part of a group - in a dry, temperature-controlled and safe environment.

4/5

Cycling: Since you can cover a lot of miles in an hour, you need to plan your routes - and watch the weather. There's also an inherent risk from being on the road . And, if you do get hooked, cycling can be expensive.

3/5

Lower-body strength

Spinning: Spinning uses the same muscles as road biking. However, the weight of the flywheel (14-18kg) increases the number of pedal strokes per minute, forcing the hamstrings to work harder.

4/5

Cycling: Cycling uses all the major lower-body muscles - the glutes, hamstrings, quads, shins and calves. The thighs, in particular, are worked incredibly hard.

5/5

Calorie expenditure

Spinning: The fixed wheel of a spinning bike means you can't "freewheel" - so your muscles work the whole time. This makes it a pretty high-intensity activity, burning a lot of calories.

Cycling: Cycling has the potential for high-energy expenditure - particularly when you're covering high mileage or taking in hilly terrain. The average Tour de France rider burns 124,000 calories during the race.