

NSAIDs exacerbate exercise-induced small intestinal injury

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Nonsteroidal anti-inflammatory drugs aggravate exercise-induced small intestinal injury in athletes, according to a study published in the December issue of *Medicine & Science in Sports & Exercise*.

(HealthDay)—Nonsteroidal anti-inflammatory drugs (NSAIDs) aggravate exercise-induced small intestinal injury in athletes, according to a study published in the December issue of *Medicine & Science in Sports & Exercise*.

Kim van Wijck, M.D., from the Maastricht University Medical Center in the Netherlands, and colleagues studied nine healthy, trained men under four conditions: 400 mg [ibuprofen](#) twice before cycling; cycling without ibuprofen; 400 mg ibuprofen twice at rest; and rest without ibuprofen intake. Plasma intestinal fatty acid binding protein (I-FABP) levels were used to assess small intestinal injury. Liquid chromatography and mass spectrometry were used to measure urinary excretion of orally ingested multi-sugar test probes to assess gastrointestinal permeability.

The researchers observed increased I-FABP levels with both ibuprofen consumption and cycling, indicative of small intestinal injury. Levels were highest after cycling with ibuprofen versus cycling without ibuprofen and rest with or without ibuprofen. Small intestinal permeability increased, particularly after [cycling](#) with ibuprofen, indicative of gut barrier integrity loss. There was a significant correlation between the extent of intestinal injury and barrier dysfunction.

"The current study shows that, in healthy endurance athletes, NSAID consumption can aggravate exercise-induced small intestinal injury and induces loss of gut barrier function," the authors write. "We consider it of utmost importance to increase the awareness of athletes and trainers toward the potential negative effects of [NSAIDs](#) and recommend that the use of NSAIDs in the absence of a clear medical indication should be discouraged."

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