Gut microbes may offer performance boost for elite athletes

One difference between elite athletes and the rest of us might be in what hangs out in their guts.

Microbes that flourished in the guts of some runners after a marathon boosted the time that lab mice ran on a treadmill, researchers report June 24 in Nature Medicine. These particular microbes seem to take lactate, pumped out by muscles during exercise, and turn it into a compound that may help with endurance.

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In the study, researchers collected stool samples from 15 elite runners for five days before and after they ran in the 2015 Boston Marathon, and compared the samples' microbial makeup with that of poop collected from 10 nonrunners.

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[T]he researchers cultured one strain, Veillonella atypica, from a runner and fed it to mice. Not all of the 32 mice responded to the treatment, but on average, mice that received the microbes ran for 13 percent longer in experiments than mice in a control group.

The work shows that "a single bout of exercise can have effects on your microbiome," says Jeffrey Woods, an exercise physiologist at the University of Illinois at Urbana-Champaign.

Read full, original post: Gut microbes might help elite athletes boost their physical performance