

## Does Using Walking Sticks Conserve Energy?

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A look at whether using walking sticks and trekking poles really saves energy for hikers and backpackers.

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Does using walking sticks or trekking poles conserve energy as some claim? Ray Jardine, one of the earliest promoters of ultralight backpacking, pointed out years ago that carrying more weight in the form of walking sticks has to take more energy. It's basic physics. He recommended going without. Now recent scientific research has proven him right - sort of.

{bot\_wrgoogle}A study done at James Madison University in Virginia found that people who used walking sticks or trekking poles while hiking increased their heart rate and burned more calories. The hikes were in a variety of terrains.

This was meant as a health study, though, not backpacking research. They found improved lung capacity in those who used walking sticks. Subjects increased their fitness level without any perceived increase in exertion, according to researchers.

Okay, time to read between the lines and apply this to lightweight backpacking. Is it worth using those trekking poles or not? If you reread the above information you'll realize that there is more energy spent when using them, but that users don't notice. So Jardine was right about the basic physics of the situation after all.

But the fact that users don't perceive an increase in exertion is important. Why don't they? It seems likely that it's because the use of the poles is spreading the expenditure of energy more evenly between their various muscle groups. Take some of the weight with your arms and chest and you spare your legs some of their work. That seems logical.

Of course we have already known that whether or not the extra weight causes us to spend more energy for the same number of miles hiked, walking sticks can save our knees. And even if we use more energy to do so, we might be able to go more miles more comfortably if we spare the joints the abuse. So Jardine may not be right about the value of getting rid of the trekking poles.

It seems that some people should be using trekking poles, while some should go without them. Those who have weak ankles or knees might benefit, in other words, while those who don't have these problems and want to backpack more miles on the fewer calories probably will do better without.

This also suggests that there may be better and worse times for using walking sticks. For example, you might do best to save your energy and arms when hiking long level stretches. Meanwhile you should get the poles out for downhill stretches where you can spread out the exertion among your muscle groups.

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