

Life in Balance

By Dr. Tom Welch

“Wilderness medicine” is about a lot more than splinting complex fractures on steep slopes in a snowstorm. Much of the specialty should deal with prevention of injuries and encouragement of fitness. Fitness and wilderness trekking are closely interrelated; outdoor adventure pursuits are a terrific way to maintain one’s fitness, and physically fit adventurers are less likely to

require wilderness medical treatment.

When we think of fitness for hiking, strength and endurance are probably the first things we consider. For this column, though, I want to remind readers about *balance*.

Two of the most common injuries in hikers, ankle sprains and forearm (Colles) fractures, are typically triggered by a momentary loss of balance, resulting in a slip or fall. Although this can happen to anyone, some individuals are plagued by balance difficulties. While a host of factors contribute to balance disorders, most can be treated or prevented.

Underlying joint problems, such as knee osteoarthritis, are a common antecedent to balance difficulties. Pain or limited movement of a joint may make one compensate with awkward movements, leading to an unstable position and loss of balance. This is one of the reasons I highly recommend trekking poles for folks with such problems (see “AdironDoc,” March-April 2021).

Blood pressure problems or the use of certain medications may cause temporary decreases in brain blood flow, especially with a sudden change in position such as getting up from a rest. This can result in momentary lightheadedness and a stumble.

Balance requires a sensation of position, something we inelegantly refer to as “proprioception.” Many factors, including aging, can contribute to diminished proprioception.

Balance also requires the function of a complicated apparatus in our inner ear, the “vestibular system.” This

is the system that makes one dizzy after amusement park rides or queasy on a boat. Head injuries, illnesses, and (again, unfortunately) aging can impact vestibular function.

A visit to one’s primary care provider is the way to begin addressing issues affecting balance. Many balance problems can be uncovered by a careful medical history and exam. Depending upon the issues, treatments ranging from physical therapy to medication may be prescribed. For example, there are now physical therapists who specialize in customized exercise programs for individuals with balance problems caused by inner ear abnormalities (“vestibular rehabilitation”).

For folks without overt balance problems who are interested in maintaining or improving their balance, there are a number of terrific options. One particularly worth mentioning is tai chi. This ancient Chinese practice, which frankly looks a bit odd the first time one observes it, is a gentle form of exercise that has measurable positive effects on balance, as well as a host of other benefits. A nice description of these was provided in a Harvard Health blog (health.harvard.edu/staying-healthy/the-health-benefits-of-tai-chi). Although there are videos that can teach tai chi at home, I suggest starting with a group class. These are frequently available through community centers, senior programs, and gyms.

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Colles fracture just below timberline on a high peak, shortly before sunset! How thrilling to package the patient to prevent hypothermia and splint the fracture while observing for shock and ensuring hydration! How exhilarating to orchestrate an early-morning helicopter evacuation! Contrast this to the abject dullness of recommending a tai chi class, which could have prevented all the drama. The best medicine is often the least exciting. ▲

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