



# Take A Load Off Your Back: A How-To Guide



Dermatologic surgeons spend their days bent over exam tables to perform procedures. Their backs may suffer.

**BY GAURAV SINGH, MD, MPH**

**>>** Back pain is extremely common, affecting 84 percent of people at some point in life.<sup>1</sup> Risk factors for back pain include age, obesity, physically or psychologically demanding work, sedentary lifestyle, and psychological characteristics, such as anxiety and depression. Dermatologists, who routinely perform procedures in a demanding work environment, are at significant risk of developing chronic lower back pain. This pain can be severe enough to cause lost time at work: musculoskeletal disease is the leading cause of new disability claims in the US working population.<sup>2</sup> This piece discusses the highest-quality evidence from randomized trials, systematic reviews, and meta-analyses to provide strategies for preventing and treating chronic lower back pain without pharmacologic intervention.

## EXERCISE THE OPTIONS

An analysis of 21 randomized trials with more than 30,000 combined participants shows exercise and education about causes of back pain are beneficial in its primary prevention.<sup>3</sup> Exercise may also be beneficial in the secondary prevention of back pain, based on analysis of 13 studies with more than 1,500 participants.<sup>4</sup> Exercises shown to be beneficial include calisthenics focusing on balance-control, stretching, muscle endurance training, general fitness training, and abdominal muscle strength exercise. Ergonomic adjustments, such as back belts and shoe insoles, do not show benefit despite their popularity and supportive anecdotal evidence.<sup>3</sup>

Should back pain occur, non-pharmacologic therapy is often desired. Self-care is key. First, bedrest should be minimized and activity should be performed as tolerated.<sup>5</sup> Educational materials are helpful.<sup>6</sup> Medium-firm mattresses and conforming mattresses (i.e. foam and water) may be more helpful than firm mattresses.<sup>7,8</sup> Contrary to popular dogma, lumbar supports are not shown to be helpful.<sup>9</sup>

Other therapies that do not show benefit include interferential therapy, low-level laser therapy, ultrasound, shortwave diathermy, traction, transcutaneous electrical nerve stimulation, and percutaneous electrical nerve stimulation.<sup>10</sup>

Exercise is effective in treating chronic lower back pain, including: walking, motor control exercise, core strengthening, directional preference, aerobic exercise, general fitness exercise, flexion/extension movements, Alexander technique, yoga, Pilates, and Tai-Chi.<sup>11</sup> No exercise modality has demonstrated superiority to another. Spinal manipulation shows short-term benefit in reducing pain and improving function.<sup>12</sup> Acupuncture may also provide some benefit.<sup>13</sup> Massage therapy provides short-term relief.<sup>14</sup> Psychologic interventions, such as cognitive behavioral therapy,<sup>15</sup> mind-body interventions, such as mindfulness-based stress reduction,<sup>16</sup> and multidisciplinary rehabilitation composed of physical and psychological treatment modalities<sup>17</sup> confer benefit.

## BACK TO BASICS

Various interventions of the mind and body can effectively prevent and treat chronic low back pain: a rampant problem in our procedurally heavy specialty. Taking the time now to use a combination of these strategies, includ-

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General physical activity seems to be helpful for back pain. Spinal manipulation, acupuncture, and massage therapy may also provide some benefit. Interventions such as ergonomic adjustment and devices do not show benefit.

the**bottomline**

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ing multiple types of exercise, can help promote a longer, painless, career. ■

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