

ergonomics in the workplace

Chiropractic's Opportunity With Seated Workers

By Scott W. Donkin, D.C.



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SUMMARY: "Have a seat." "Put your feet up." "Take a load off." Once upon a time, sitting was designed to be a restful break between physical activities. But these days, the number of workers who are sitting down on the job for extended periods of time is on the rise. As a result, more and more workers are paying the physical price due to poor sitting habits. In this article, Scott Donkin, D.C., explains how good sitting habits can alleviate many of the problems associated with sedentary work. Dr. Donkin also explains what role chiropractic can play in applying these concepts of structure, function, posture, and prevention to people in the workplace.

Sitting is the most misunderstood activity of modern life. Sitting seems easy and simple, but when performed incorrectly, which is almost universal, it causes more pain, fatigue and stress than any other posture. The incidence of back pain has increased 40 percent since 1970 and this, ironically, was when the majority of the American workforce shifted from physical labor to sedentary (or sitting) work. Sitting incorrectly causes a 40-to-50 percent increase in lumbar intervertebral disc pressure and adversely affects the neck and shoulders. According to the federal government, computer operators have more stressful jobs than air traffic controllers or high-level executives. Fatigue and eyestrain are also experienced by most sedentary workers. Many people feel that pain, stress and strain are necessary evils in today's "high tech" society.

It is not necessary for people who sit while working to hurt and become drained emotionally and physically. Too few people realize that by understanding the fundamentals of sitting, such as replacing poor sitting habits with good ones, learning how to arrange work places to fit unique physical characteristics, performing stress reducing activities during breaks and correcting problems when they begin, can alleviate much of the misery of sedentary work. Posture is determined by understanding sitting and the way chairs and workstations are arranged.

The major misunderstanding about sitting comes from the concept of what sitting is and what it is supposed to do. The most famous sitter in history is *The Thinker* (Figure 1). The image of this sculpture is firmly fixed in our minds and as we look at it we see an incredibly

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healthy, fit and well-conditioned human being. We see perfection in physical form and human performance. This thinker, however, did not achieve physical perfection by sitting. He could not achieve and maintain physical perfection by sitting. This famous sculpture represents a moment of time in the life of this human's extremely active life. What you see here is not what you get by sitting.

Sitting was designed to be a restful pause between physical activities. Sitting in this manner was helpful when people relied on physical activity to perform their tasks. Sitting became harmful when we began to use our minds more than our bodies in our workplace, which requires long periods of concentration while in the seated posture. A more accurate representation of the long term effects of poor sitting habits is in Figure 2. Since sitting, as it is commonly performed, is antagonistic to normal body dynamics, you see what happens over a long period of time. The degenerative changes begin and progress gradually and this is why sitting's causes and effects have been virtually unnoticed.

In addition to health concerns, poor sitting habits cause impaired work performance, accuracy, consistency and low job satisfaction. Pain, fatigue, strain and stress interfere with ability to focus attention and concentrate on work, thereby affecting the quality and quantity of

work. Poor sitting habits can significantly sabotage otherwise effective treatment procedures.



Figure 1. The Thinker.

Everyone in this system pays a high price. Workers pay the price physically and corporate owners and supervisors pay the price in diminished performance and increased complaints among the workforce they are responsible. The ultimate cost is always directly or indirectly to the consumers of the company's goods or services.

The good news is that even though

sitting was not designed for work, it can be successfully modified for work. The solution is relatively simple and the benefit of change is immense. Systematic and personalized training in the fundamentals of sitting, correct chair adjustment, work station arrangement, and knowing how and when to take stress-and-strain-reducing exercise breaks are the keys. Then consistent follow through and action transforms poor habits into good habits.

Doctors of chiropractic are uniquely qualified to be the agents of change in making sitting a successful work posture. The specialized training chiropractors receive enables them to have a firm grasp of body mechanics, balance and function. The practice of chiropractic provides a distinct practical perception about the concerns of people who suffer the end result of poor workplace adjustment and poor understanding of sitting. As small business owners, chiropractors are also aware of the need to balance costs with benefits in every financial decision affecting the business. Few people experience both sides of the fence between worker needs and management needs like the doctor of chiropractic.

Information is a key element in this merger of interests among end users and management. End users must understand how change benefits them in the form of greater comfort, health and being able to perform their tasks with greater ease

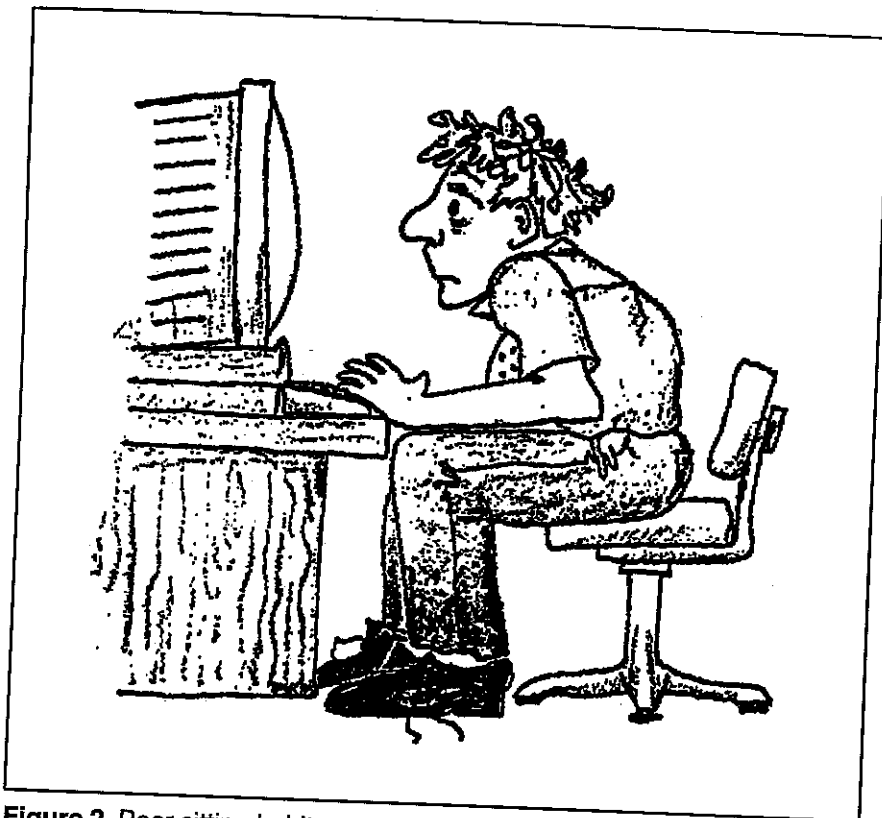


Figure 2. Poor sitting habits, as seen here, can lead to impaired work performance, accuracy, consistency and low job satisfaction.

When approached with the notion of making ergonomic changes and providing worker education, legitimate concerns quickly arise. For example, management personnel fear that they will be forced to buy new chairs for every worker and that this could escalate workers compensation claims.

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and efficiency. Management must understand that creating a healthy workplace is profitable in terms of offsetting costs of change and train-

ing with the value of having decreased worker turnover, absenteeism and consistent, long term increased work output and accuracy.

My experience in working with companies and state governments indicates that the vast majority of existing chairs can be economically modified to fit workers. A poor chair that is appropriately adjusted and modified with seat wedges or lumbar cushions combined with training the worker to sit and stretch properly is more effective and profitable than providing an expensive chair without training. Common sense solutions are quite appreciated by management.

Doctors of chiropractic develop into talented communicators in the treatment room. Taking the time and courage to enhance this talent to a group setting enables chiropractors to share their expertise to more people and apply their learned concepts of structure, function, posture and prevention to people in the workplace. An inevitable benefit of this is that people from this workplace, as well as their family and friends, find their way to your office. This is a natural result of expanding your level of service. ■

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