From the Clinician’s Point of View

By Paul Hooper, DC, MPH, MS

In my previous article (March 11, 2004), I examined ergonomics from the ergonomist’s point of view. I explained that the ergonomist is primarily interested in creating a match between the individual (often, the worker) and his or her environment (typically, the workplace).

I provided a flow chart to illustrate the ergonomic process. As stated in that article, from the ergonomist’s point of view, everything begins with the work task. Once the task has been described, a decision is made regarding whether the task is best accomplished by a person or by a machine. Things proceed from there.

In this article, I want to look at ergonomics from the clinician’s perspective. I get to do that because I can play both roles. Remember, I call myself an "ergopractor." And besides, it’s my column. In contrast to the ergonomist, the clinician begins looking at the process by evaluating the human response. In fact, the clinician usually becomes involved when the human response has been inadequate and has failed in some manner. Whereas the ergonomist is more involved with modifying the task itself, the clinician typically intervenes by modifying some aspect(s) of the human response.

An example: A patient presents with a complaint of lower back pain that develops after lifting a box at work. Due to either the constant and repetitive nature of the task (remember my previous article), or the magnitude of the task, the capacity of tissue(s) in the lower back is exceeded and the problem begins. With the passage of time and continued exposure to the task, the tissue becomes inflamed and symptoms develop. At some point, usually when the symptoms become intolerable, the individual seeks the advice of a clinician.

Regardless of whether the patient or the clinician makes the connection between the symptoms and the work, the role of the clinician has now become more complicated. No longer is he or she simply responsible for diagnosis and treatment of the condition. The clinician is now also involved in making suggestions regarding such issues as return to work, modified duty, work restrictions, workstation modifications, and the possibility of preventing future problems. In order to make effective and meaningful recommendations, the clinician needs some understanding of the task(s) to which the patient is being returned. In other words, the clinician needs to take a look at the "ergonomics" of the situation.
I remember a patient I saw very early in my clinical career. He had injured his back at work, and I suggested that he take some time off in order to recover. After a few days of rest and some chiropractic care, my patient was ready to return to his job. I pulled out a "return to work/school" slip that I had handy, and confidently filled it out. When asked to state any "work restrictions," I reported that my patient was limited to "lifting no more than 5 pounds." It seemed like a good idea at the time.

In retrospect, however, I have absolutely no idea whether this was helpful. I don’t even know if the patient’s job involved lifting; or if 5 pounds was within his ability to lift safely; or if he did lift 5 pounds (or 50 pounds, for that matter) - what location would he lift from? Would he have to lift a box from the floor and put it on a shelf, or would it involve reaching? Would any lift that he was required to make involve twisting? Would he have to lift with one hand? Would the object that he was required to lift have handles, or was it large and bulky? And, how often would he have to lift? Once a day? Once an hour? Once every 30 seconds? With all of these unanswered questions, limiting his lifting to 5 pounds seems kind of silly. Interestingly, I still see such recommendations from clinicians to "limit lifting to 5 pounds."

I recently had the pleasure of presenting at a conference in Australia. The conference was titled, "The Manual Handling of People." The focus of the conference was on injuries that occur to individuals who lift or move other people for a living, like nurses, doctors, physiotherapists, ambulance drivers, and even funeral directors. The title of my presentation was "How Does Training Impact Manual Handling Techniques?" I looked at the impact that education and training have on how individuals perform their duties involving the manual handling of people.

One particularly interesting article that I reviewed looked at the incidence of back pain in physiotherapists (PTs). In this particular group, the PTs were all involved in teaching others how to safely manage their own backs. According to the article, there was no significant difference in the incidence of back injury in the PTs involved in back education and the incidence in the general population. (I also referred to a paper I wrote that described several back injuries that developed in chiropractors while they were treating patients.) It’s a well-established fact that individuals who are responsible for moving others are at high risk for back injuries. Interestingly, regardless of how well-educated we are in the dynamics of safe lifting, we still manage to hurt our own backs as often as the general public. How are we to expect others to avoid future problems?
Think for a minute about all of the things you lift on a daily basis. It’s quite a range, isn’t it? Now, think about all of the things that your chiropractic assistant (CA) lifts on a daily basis. It’s a very different range. If you were treating an individual who had injured his/her back while working at a chiropractor’s office, what would you need to know about the work he or she does in order to give sound advice? What instructions (i.e., work restrictions) would you provide for a chiropractor with a back injury? Would the instructions be different for a CA? Obviously, limiting lifting to 5 pounds (or any other arbitrary weight) is somewhat meaningless.

It would appear that, in order for clinicians to make effective and meaningful recommendations regarding the workplace, they must have some understanding of the tasks involved. The clinician must understand some of the basic principles of ergonomics. He or she must take into consideration such things as work pace, work environment, job stresses, and human capacity. Like the ergonomist who must understand the task in order to make effective design modifications, the clinician must understand how individuals respond to the task.

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