

# DoD Ergonomics Working Group NEWS



Issue 119, July 2011

[www.ergoworkinggroup.org](http://www.ergoworkinggroup.org)

## Making a Move with Ergonomics in Mind!

By John Pentikis, Ergonomist, U.S. Army Public Health Command

### Background

Moving your belongings is a big job. People often state that they had no idea how much they owned until they had to pack it. This statement carries a lot of truth when you consider that people often do not leave themselves enough time to pack. One study reported that it takes 4-5 hours to pack an average dorm room. So if you think you possess as much as a dorm room in your office, then you should be prepared to spend at least 4 hours packing.

Ergonomic strategies can be implemented to make the move easier and less stressful. Although you may think the only role ergonomics can play in a move is minimizing the physical stress placed on the body by packing and unpacking boxes, there are many more considerations.

**The goal of good ergonomics practice is to lower physical stress, minimize mental stress, and maximize efficiency, safety, and quality.**

### Physical Stress

It is well known that the more force you exert, the more stress you place on your body. What is not well known is that the amount of weight you lift does not always correlate with more force acting on the body. For example, a 20-pound box can place as much as 200 pounds of force on your back and a 35-pound box can place as little as 35 pounds of force on your back. The difference in the amount of force placed on the back is based on posture. The straighter your posture, the less force is placed on the back. Do not pack at floor level; instead place boxes on a table or desk when packing. Also try to pack the heaviest boxes last so you can leave them on the desk. That way you will not have to bend over to pick the boxes up when they need to be moved.

Do not overpack your boxes. Studies show an increased risk of back injury when lifting 40 pounds, and this risk doubles when lifting up to 60 pounds. In addition to saving your back, you can save your belongings. Boxes over 30 pounds are likely to burst their tape seams and are more likely to be dropped.



Maintaining a straight posture when packing places less stress on the back. (Photo courtesy of Boston Pack and Ship, Braintree, MA.)

*Continued on page 2*

## Mental Stress

There is bound to be stress when packing because you will be under a deadline for the move. Packing early is one way to reduce stress. Start by identifying nonessential items to be packed first. For example, reference books that are not needed the week before the move are a logical choice to be packed in advance. Creating a packing list that details all items you placed in the box will help you retrieve items faster.

## Efficiency

One of the goals of an ergonomist is to minimize the number of times you move something. Everyone will agree that it is easier to pack, unpack, and move the fewest number of items, so make an honest assessment of what you are packing. Ask yourself, do you need files that have not been accessed since the 1990s? Knowing what to keep, give away, shred, and throw away will make your packing and unpacking much faster. Follow these rules of thumb when deciding if you need an item or not:

- The **1-year rule**: If you have not used an item in a year, you do not need it.
- The **“Oh, that’s where I put it” rule**: If you had no idea where an item was until you packed it, then you do not need it—you have been happily living without it.

## Safety

Create a safe work environment. Keep all boxes, packing supplies, and other moving needs in one area of the office. This ensures that clutter is contained and all packing items are in one place. You are at an increased risk of injury trying to avoid obstacles in a walking path, and this risk increases when trying to navigate around clutter when carrying a box. When moving into your new area, do not place boxes or other items in hallways or high traffic areas. Place these items against an out-of-the-way wall in the proper room.

There is a hierarchy of manual material-handling activities that influences safety. Remember that pushing is safer than pulling, pulling is safer than carrying, carrying is safer than lowering, and lowering is safer than lifting. With that in mind, a hand truck or dolly is a great piece of equipment to have on hand when moving as you will be doing more push/pull activities than lifting/lowering/ carrying activities.

## Quality

Good ergonomics practice is about performing a job that results in a high-quality product being delivered. In this sense, quality means being on time, packing efficiently, and not damaging your belongings or yourself. What can you do that will result in a high-quality move?

- Create a schedule and stay on track. Your stress level will be reduced if you see progress being made.
- Use packing as a way to thin out unwanted belongings.
- Make sure zip lock bags are available to secure hardware and other small pieces. Tape these bags to the appropriate furniture or item.
- Packing and unpacking a box placed at waist height rather than floor level will increase your work speed and efficiency.

### Other Good Ideas

Keep a scale handy so you can include the weight of each packed box on the label.

Label boxes with the thickest darkest marker you have. This makes reading the boxes easy—even from a distance.

**Follow these good ergonomics practices for a successful move!**