National Safety Month: Preventing Low-Back Injury
June 15, 2015 10:20 AM

The following instruction on preventing low back injuries comes from John Ammann, Ed.D., professor of Applied Health and Safety Science at Montana Tech and proud SkyWest BFM team member.

I recently gave several presentations on preventing low-back injury for miners in Butte, Montana. When I talked with several of the miners about when they planned on retiring, I could see them working out the calculations and gaining some understanding of the importance of taking care of themselves.

Think about it: if the average age of death of American males is about 75, and most of us are retiring at about 65, then that leaves 10 good years left to enjoy the fruits of our labor. But that’s not the full story.

Statistics show that the last eight years of our lives are spent with compromised health or reduced quality of life. It’s kind of depressing to think that retirement will only be enjoyable for two years before we begin a significant battle staying healthy enough to enjoy life. The older and younger miners alike were interested in what could be done to improve the quality of life for a longer period after retirement.

As airline employees, what should we do to address this? Understand that the choices we make today will affect our health in the future. For overall health, it’s of supreme importance that we as airline employees participate in these different activities that will have a positive effect on us:

1. Eat healthy, with generous portions of fruits, vegetables, healthy sources of protein and other nutritious foods.
2. Exercise and follow the guidelines in this article to promote heart health and maintain muscular strength and endurance.
3. Maintain and improve your flexibility by participating in exercises that stretch the muscles in a healthy manner.

Following these three recommendations is important, and to improve your chances of staying out of the hospital or medical clinic due to back pain, airline employees should pay close attention to proper lifting mechanics to prevent a low-back injury.

Multiple studies by the Occupational Safety and health Administration (OSHA) on back injuries found that the majority of movements at the time of injury involved bending and twisting under the load. These studies also found that the average time an object was held at time of injury was less than one minute. Not only that, but the distance traveled at the time of injury was less than five feet and in 93 percent of cases, the back was fully or partially flexed or bent.

Proper lifting should include the following pre-lift considerations:

- Examine the load for grease, oil, sharp edges and other hazards.
- Know your limit and have it; estimate the weight and divide the load or get help if the weight is more than you can comfortably handle.
- Plan your path and make sure that it is free of obstructions.
- Consider how you will set down the load before you lift it.
- Stand close to the load with your feet spread apart (at about shoulder width), with one foot in front of the other for balance.
- Do not twist your body to get into position.

Airline employees should also pay very close attention to the position of the spine when lifting: First, squat down with your head up and chest up, keeping your spine "locked in" and grasp the load firmly. Then, lift with your legs by slowly straightening them and then return your back to a vertical position. Keeping the spine locked in will help to ensure that overall structural integrity of the spine is maintained, thus lowering your chances of acute injury and ensuring your back health will be maintained long term.

As you can see in the photos below, Cairo is maintaining the locked in position by keeping his head and chest up, positioning the bag close to the body, lifting with his legs and then turning the entire body instead of twisting the spine, to place the bag on the cart.
Maintaining proper posture during lifting will help to protect the spine from injury. Compare Caleb’s use of proper lifting mechanics above, to the improper mechanics below:

What is the major difference in lifting mechanics? Because the head and chest are not up, the spine is bent, not slightly arched, and is in a position that will increase the risk of an injury to the spine, connective tissue or musculature of the back. When moving the bag to the cart, twisting the spine will also increase risk of injury. This is true of the numerous other duties as well, from pulling chocks and carts to picking up a stapler that’s fallen to the floor. Keeping the spine in proper position will help to keep your back safe.

Below, JP demonstrates excellent head-up, chest-up position, with the spine locked in, to safely pull the cart into position for loading.

To maintain a healthy back throughout retirement, it’s vital not only to maintain overall fitness but also to pay close attention to lifting mechanics. No matter how light an object is, keep the head and chest up so the spine stays locked in and avoid twisting at the spine while carrying any object. As airline employees, if we can follow these guidelines, we can lower the risk of back injury and keep smiling while performing the job we love!