

Culinary Ergonomics: Minimizing *Injury Risk* in the Kitchen

After 40 years of preparing tempting dishes from Minnesota wild rice soup to red snapper bouillabaisse, executive chef Stephen Bello's body has taken a beating.

"I have bad knees, heel spurs, two herniated discs in my back and six herniations in my neck from kitchen work," said the 50-year-old chef who started working in his father's deli at age 10.

But chef Bello is not the only one in the culinary industry paying the price for years of incorrect lifting, excessive reaching, awkward postures and repetitive strains.

From 1994 to 1998, food preparation and kitchen workers accounted for a 12 percent rate of absenteeism in health care facilities in British Columbia, according to a report by that country's Occupational Health and Safety Agency for Health-Care. Some 33 percent of the claims submitted were related to improper handling of materials.

"A poor culinary work environment can lead to a substantial loss in worker productivity, which drives up an organization's costs," he said.

Whether it's in the United States, Canada or anywhere else in the world, kitchens are fraught with potential hazards. For hours on end, dietary workers perform repetitive tasks from dicing, slicing and stirring to lifting heavy saucepans, overreaching for supplies and prolonged bending. Repetitive motions and improper body mechanics can lead to a host of injuries, including muscle strain, inflammation of the

tendons and back injuries.

To minimize the risk of injury among the dietary staff, chef Bello and John Alexander, director of dietary, together



Flexing and stretching their muscles at the dietary department's exercise station, are, in back, Mayra Valerio, dietary aid; sous-chef Tomas Vargas; and Rene Duran, garde manager (cold food manager), in foreground.



These posters displayed in the kitchen provide a primer on proper stretching techniques.

with Ernesto Capulong, M.D., chairman of physical rehabilitation, and Joshua Kugler, M.D., senior vice president and chief medical officer, formed a safety team. Over six months they assessed the work habits of 104 employees who are assigned to several areas of the department, including the kitchen, employee

cafeteria, coffee shop and dietary office.

They identified the tasks that pose a risk of musculoskeletal injury and the risk factors associated with those tasks.

In March, Chef Bello and Mr. Alexander launched an ergonomic program which included an inservice on proper lifting techniques; cross-training and job rotation; adjusting the height of work surfaces; and placing frequently-used and heavier items in accessible locations. They also installed anti-fatigue matting in the kitchen, purchased ergonomic knives and recommended workers buy shoes with slip-resistant soles that provide cushioning to relieve stress on the back and legs.

Pot washers and stewards, workers who lift heavy food cartons from the loading dock and transport them to freezers and refrigerators in dietary, now wear back braces to protect against injury.

To minimize the risk of injury, the safety team also implemented rest breaks and stretches that are performed in the morning upon arrival and during the work shift, as the schedule allows.

"This program is not about a few posters and a few exercises," chef Bello said. "This is a new way of thinking to prevent injuries and make the kitchen a safer place to work."

In the case of one worker, a repetitive strain injury was eliminated.

The worker, a tray starter who places the utensils, plates and condiments on a tray that is lifted to the tray line—about 350 times a day—had already developed the signs and symptoms of back strain in the

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