

# DISCOVER

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# E

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## INSIDE THE MIND OF TODAY'S SOLDIER » P4

PUSHING FOR  
THE PODIUM » P8

SLAYER OF SUPER  
BUGS » P10

TAKING THE HURT  
OUT OF WORK » P14

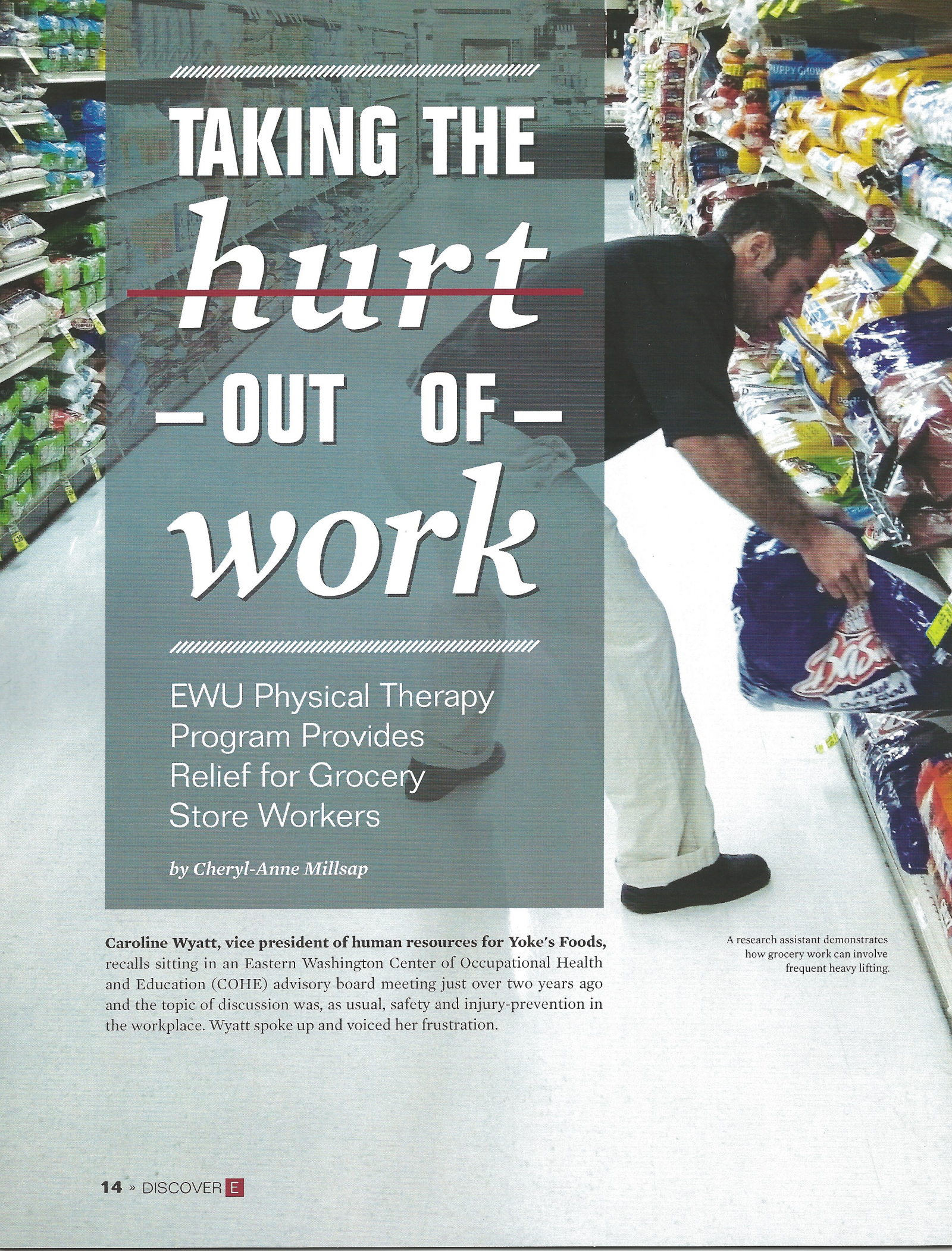
STANDOUT  
RESEARCH » P18



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start something big



A photograph of a man in a black t-shirt and white pants lifting a large blue bag of pet food from a grocery store shelf. The background shows other shelves stocked with various products.

# TAKING THE *hurt* — OUT OF — *work*

EWU Physical Therapy  
Program Provides  
Relief for Grocery  
Store Workers

*by Cheryl-Anne Millsap*

**Caroline Wyatt, vice president of human resources for Yoke's Foods,** recalls sitting in an Eastern Washington Center of Occupational Health and Education (COHE) advisory board meeting just over two years ago and the topic of discussion was, as usual, safety and injury-prevention in the workplace. Wyatt spoke up and voiced her frustration.

A research assistant demonstrates how grocery work can involve frequent heavy lifting.



"I made the comment that it would be nice if we could just sit in a break room and actually talk to our employees about what to look for if they are starting to feel soreness in the wrist or arm or any other kind of injury, and what to do next," she says. "Then I said, 'wouldn't it be nice if a doctor could come to a safety meeting and talk to employees about preventing that kind of injury?'"

As luck would have it, Dr. Dan Anton, an associate professor in the Physical Therapy Department at Eastern Washington University, was looking for an available grant, which would fund research into corporate measures that would identify and educate vulnerable employees and introduce worker-safety initiatives.

"After outlining the project, our next stop was lining up the grant and a community partner," said Anton. "Yoke's was very excited and said yes immediately."

*"The results of the VIPER project changed the way we look at a lot of things. And it's gone beyond Yoke's. It's making a difference in the industry."*

### ■ Caroline Wyatt

*Vice President of Human Resources, Yoke's Foods*

After securing the \$188,610 Safety & Health Investment Projects grant in 2010 with the help of Dr. Dan Hansen, the COHE Project program director, and Dr. Doug Weeks, of Inland Northwest Health Services, the Vertically Integrated Participatory Ergonomics Resources (VIPER) project for preventing and identifying musculoskeletal disorders (MSDs) in grocery workers and warehouse employees was underway.

Anton, working with a team of EWU physical therapy doctoral students, had identified two important areas of potential injury and damage: in-store workers and grocery warehouse staff. According to materials cited in the grant application, the grocery industry (at the time) ranked fifth in the state of Washington in compensable upper-extremity MSDs and in the top 25 for work injuries to neck, rotator cuff and wrist tendons, as well as carpal tunnel syndrome and back disorders.

The VIPER project was specifically designed to implement a comprehensive participatory ergonomics program for grocery store and food distribution warehouse workers and would include awareness training and post-training educational outreach and dialogue.

"Obviously, the key to preventing these kinds of injuries and disorders is through proper ergonomic applications,"

said Anton. "It goes far beyond just teaching people how to lift properly. That's just a starting point."

Sam Herman was one of the students involved in the VIPER project.

"I approached Dr. Anton with a request to become involved as a research assistant," Herman said. "I was looking for a chance to experience the various aspects of physical therapy and the multiple benefits that go along with student research."

Talking to Anton, Herman quickly realized that as a former grocery store employee, he had a unique perspective to bring to the VIPER study.

"We found it would be a great fit, as well as my interest in musculoskeletal injury prevention," Herman said.

The objective of the project was not just to identify possible injury-causing behavior and habits for corporate use. An important function was to teach employees how to self-identify and modify movements and work habits that might cause long-term damage or injury. Wyatt points out that one unique characteristic of the grocery store business is that employees tend to be at each end of the age scale. Yoke's 900-plus employees range from teenagers working their first jobs to senior citizens who are either long-term Yoke's employees or retirees returning to the workforce. This

made it necessary for Wyatt to implement a program that could be applicable to all ages; one that taught good work habits to the young and protected older employees from residual disability.

Anton's team of students followed and videotaped employees as they worked, often during the overnight-restocking shift. The videos of employees grinding meat, loading pallets, lifting bags of flour, scanning purchases and even filling jelly doughnuts, helped researchers look for identifiable risk factors which could lead to musculoskeletal disorders if not addressed and corrected.

The student-produced videos had an immediate impact. "It was very eye-opening," said Wyatt. "Once employees are able to see themselves at work, bending, twisting and lifting, they see things they're not cognizant of when working."

For Anton, the result was exactly what the project had been designed to produce.

"We all know what we should do," said Anton. "But in the course of a work day, how many of us stop to think and practice what we know?"

By using the videos as a teaching tool, educating both employees and management, everyone involved in the project was able to see direct implications.





## RELATED STUDIES

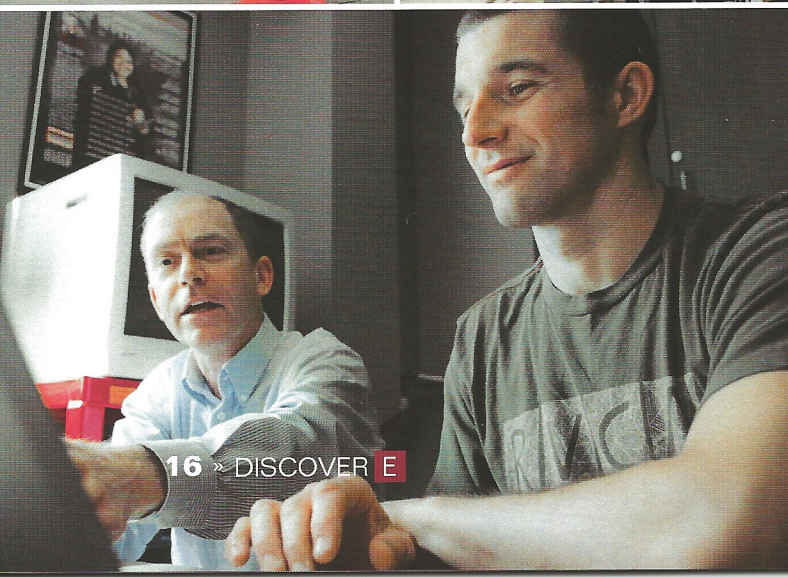
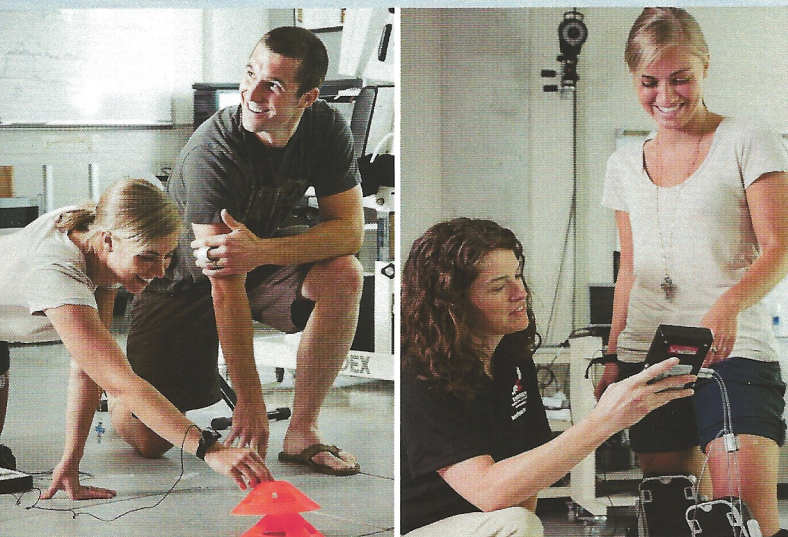
In addition to field studies on work-related musculoskeletal disorders, Dr. Dan Anton and his graduate research assistants conduct studies on risk factors and ergonomic interventions in the Biomechanics and Ergonomics Laboratory. These pictures show physical therapy doctoral students testing an intervention that may make kneeling safer.

**TOP:** Jonathan Braun positions the intervention on Laura Hall.

**MIDDLE LEFT:** Muscle activity and pressure on the kneecap are measured while kneeling.

**MIDDLE RIGHT:** Julianne Keenan shows Laura Hall the results of the experimental trial.

**BOTTOM:** Dr. Anton discusses research findings with Jonathan Braun.



"It was another example of how small changes can make a big difference in the workplace," said Anton. "For instance, by bringing in hand scanners, Yoke's significantly reduced strain on cashiers who'd previously had to lift heavy dog food bags and other bulky purchases."

In another case, meat department employees, after seeing the angle at which their bodies bent and twisted to package meat as it came out of the grinder, were quick to make suggested changes.

"Each of our stores is a bit different, depending on the age of the store and the type of equipment in it," said Wyatt. "We made changes based on the requests of the employees and the physical property." One store simply moved a stool to make retrieving ground meat more comfortable, while another upgraded to a new grinder.

"We simply put the information in front of both the corporate staff and warehouse staff," said Anton. "That gives everyone the tools to make changes."

For Wyatt, Yoke's employee-owned status impacts employee willingness to implement changes and to maintain a corporate open-door policy.

"Our employees recognize that we all win if people understand that management is open to suggestions and will look at them seriously," she said. "And, since we're employee-owned, our employees realize that working safely pays off for everyone."

As a result of the VIPER project, Yoke's implemented a "Don't Hurt at Work" campaign and all employees are now required to go through mandatory safety and ergonomic training.

"Proper ergonomic training needs to be applicable to real life, to the way people work," said Anton. "Most of the time the solutions are simple. But the process to find those solutions may not be."

Anton is proud of the work done by EWU students and the significant impact the project has continued to have since its implementation in 2010.

"The results of the VIPER project changed the way we look at a lot of things," Wyatt said. "And it's gone beyond Yoke's. It's making a difference in the industry." ■

## EWU PHYSICAL THERAPY STUDENTS WHO CONTRIBUTED TO THE VIPER PROJECT:

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