



Soldiers train in body armor and combat helmets under the supervision of University of Pittsburgh ETAP instructor Jennifer Deluzio (center) in preparation for loads that soldiers carry over extended distances and over rough terrain during deployment conditions in Afghanistan.

# Pitt strengthens training for Army

*A sports medicine professor designs a program to give soldiers the bodies of athletes.*

BY ALLISON M. HEINRICHS  
TRIBUNE-REVIEW

Watching the soldiers at Fort Campbell army base in Kentucky go through their paces, University of Pittsburgh sports medicine professor Scott Lephart noticed something had changed.

Instead of morning runs, sit-ups and push-ups, more soldiers in the Army 101st Airborne Division were doing focused exercises to improve not just their endurance, but their strength, agility and reaction times.

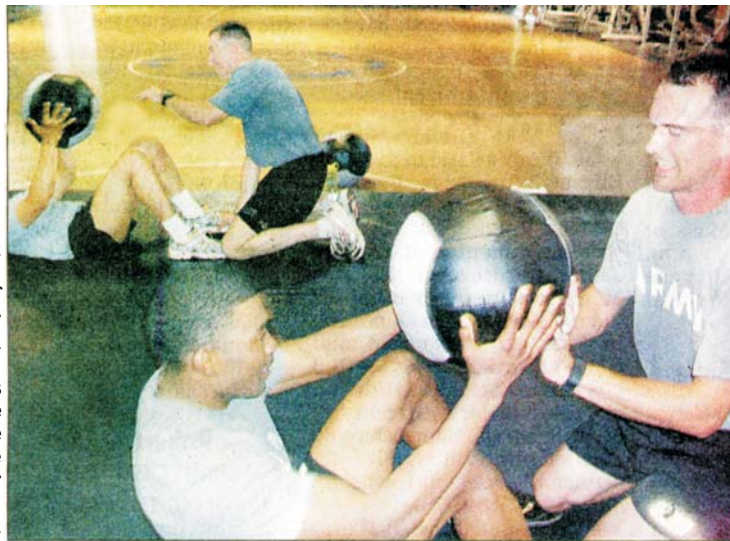
It's part of a training program Lephart and his team developed that is expected to revolutionize decades of military training and better prepare soldiers for the rocky, mountainous terrain in Afghanistan.

"The concept of an entire division changing the way they do physical training is remarkable," said Lephart, chair of Pitt's Department of Sports Medicine and Nutrition.

The Neuromuscular Research Laboratory, paid for by the Department of Defense, opened in 2007 at Fort Campbell under Lephart's direction. It was intended as a way to evaluate soldiers' fitness, and researchers began collecting data on strength, flexibility, body fat, balance, lung capacity and nutrition using high-tech equipment.

More than 400 soldiers later, it was clear that every fitness category had room for improvement — in some measurements, nearly three-quarters of the soldiers were performing below their optimum level.

"When we look at them from an athletic standpoint, they don't possess the



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Soldiers perform exercises to develop functional strength and core stability as part of a training program developed by sports medicine professor Scott Lephart.

characteristics that we want our athletes to possess," Lephart said. "The buzzword now is, we want our soldiers to be tactical athletes. Well, they can't do that if they're not athletic."

Alarmed by the data, and knowing that soldiers were experiencing training-related musculoskeletal injuries such as sprains, the Defense Department asked that Lephart and his team design a better training program.

The Eagle Tactical Athlete Program, ETAP, began clinical trials. The program emphasizes speed, power, agility, reaction and quickness with different exercises each day.

After the second eight-week trial, results showed the program worked. Performance improved in each fitness category, some by as much as 27.5 percent. Soldiers even showed improvement in traditional exercises

— in sit-ups by nearly 15 percent, for example.

In March, Gen. Peter Chiarelli, the Army's vice chief of staff, testified before the House Appropriations Subcommittee on Defense. His testimony included information on soldiers' injuries and the role Pitt's program played in reducing them.

"I'm excited about what the University of Pittsburgh is doing for us," he said. "They're ... providing the soldier the tools he needs to work on physical strength when he is deployed."

The program's success led the Army to suggest rolling it out to all 20,000 soldiers in the 101st Airborne within 18 months. That way, all soldiers would be better prepared when they deploy to Afghanistan in 2010.

Lephart's team of four at Fort Campbell couldn't train every soldier

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SPORTS MEDICINE PROFESSOR

in that amount of time. They decided to train the trainers, and recently began weeklong sessions to teach noncommissioned officers who lead each unit's physical training not only the exercises but also the philosophy behind them.

"My section started to go through it and so far they've accepted it really well," said Sgt. James Holmes, of Clarksville, Tenn., who went to Clarion University. "There's much more to it than I originally expected, though. It kicked a lot of us in the butt. ... But it's getting people in shape so much better (that) it's amazing. I wish somebody had come up with this even sooner."

For Lephart, who works with professional athletes, including the Steelers and Penguins, helping the soldiers has become priority.

"This chokes me up a little bit, but I was down there about one year into the project and there was this young soldier who had just come back from Iraq," he said. "I said to this soldier, 'Why are you doing this; why do you come in and let us test you?' And he said, 'The reason I'm here is because, if you can help me do my job better, the likelihood of my coming back alive increases.'"

"That really hit home for me."

Allison M. Heinrichs can be reached at [ahenrichs@tribweb.com](mailto:ahenrichs@tribweb.com).