

# The New Jersey Police Chief

The Official Publication of the New Jersey State Association of Chiefs of Police

Vol. 17, No. 7 • July/August 2011

# NJSACOP Installs 97th President Chief William A. Nally, Lacey PD

Read more on page 3

## **INSIDE THIS ISSUE**

- From the President's Desk
- Data-Driven Approaches to Crime and Traffic Safety: An Effective and Efficient Model for Law Enforcement Agencies
- Private Funding for Public Safety

### **Prevention and Treatment of Low-Back Pain** By Matt Brzycki, Assistant Director of Campus Recreation, Fitness Princeton University

According to an oft-quoted statistic, as many as 80% of Americans will experience low-back pain at some point in their lives. Frankly, it's surprising that the percentage isn't greater. It's difficult to imagine that anyone will not have at least some low-back pain once in their lifetime.

In the United States, low-back pain is the most common reason for filing a claim for workers' comp. No wonder: It's the second-leading cause of all medical visits, the third-leading cause of all hospital visits and the fifth-leading cause of all surgical procedures.

Police officers are thought to have a higher risk of low-back pain than the rest of the population. It's believed that two factors play a major role: (1) driving and sitting for prolonged periods of time and (2) having to wear extra gear that can weigh 20 pounds or more. In particular, the duty belt has been fingered as a culprit in low-back pain.

There actually aren't many studies that have investigated the risk and prevalence of low-back pain among police officers. And as it turns out, the scant research that has been conducted on this topic offers conflicting evidence.

For example, a study of the Royal Canadian Mounted Police found that driving a patrol car or wearing a duty belt doesn't increase the frequency of low-back pain. In this study, those who drove for more than half the day or wore a duty belt had the same prevalence of lowback pain as those who didn't drive or wear a duty belt.

On the other hand, a study of police officers in the United Kingdom found that those who drive a lot—in terms of distance as well as hours behind the wheel—have a high rate of selfreported low-back pain. In fact, according to this study, officers whose job mainly involved driving and sitting in a patrol car all day had more low-back pain than officers whose job mainly involved sitting, standing and lifting with no more than 10 hours per week of driving.

More recently, police officers in Canada were given a questionnaire about low-back pain. The researchers found that 17 of the 21 officers who completed the questionnaire have or had low-back pain. And of the 17 officers who reported lowback pain, 13 didn't have any lowback pain prior to entering the police force. (An important drawback of this particular study was the extremely small number of respondents.)

Normally, more credence should be given to research than anecdote. In this case, however, the sheer volume of personal narratives from police officers who claim that low-back pain is related to certain aspects of their job cannot be ignored.

In any event, let's take a closer look at the lower back and some ways to decrease the risk of pain in that region.

The main muscles of the lower back are the erector spine. These muscles produce movement of the spine in the lumbar (low-back) area. The spine is supported by the pelvis, a bony structure that also contains the hip "sockets" to which the upper legs attach.

The primary function of the erector spine is torso extension (straightening the torso from a bentover position). In addition, the muscles assist the obliques in torso lateral flexion (bending the torso to the side) and torso rotation (turning the torso).

Insufficient strength seems to be a factor that's related to low-back pain. An obvious solution to the problem, then, is to strengthen the lower back. Exercises in which the torso is straightened from a bentover position are the back extension and stiff-leg deadlift. Exercises in which the torso bends and turns are the side bend and torso rotation, respectively.

Not all low-back pain is due to weak muscles, however. Sometimes, lowback pain stems from what's known as "anterior pelvic tilt." What this means is that the pelvis is pulled or "tilted" forward which exaggerates the curve in the lumbar area. When the pelvis tilts forward, it places a strain on the lower back.

A simple way to identify anterior pelvic tilt is when the beltline is significantly higher in the back than in the front. There are several things that can be done to counteract the tilt.

One: Stretch the lower back. This can be accomplished by lying supine and pulling the knees to the chest.

Two: Strengthen the abdominals. The lower back and abdominals should receive roughly an equal amount of attention. The abdominals can be strengthened with the sit-up/ crunch.

Three: Stretch the hip flexors. These muscles are located on the front part of the hips and are involved when bringing the knees toward the chest. The hip flexors can be stretched by lying on one side of the body and pulling the heel toward the hips.

Four: Strengthen the hips and hamstrings. The hips can be strength-

#### Continued from previous page

ened with the ball squat, deadlift, leg press, lunge and hip extension. The hamstrings are used to some degree during exercises that involve the hips but it's best to target this muscle group directly with the leg curl.

If statistics are any indication, there's a good chance that you'll have low-back pain sometime in your life. But you can reduce your risk by incorporating the preventative measures as outlined here.

There's also a good chance that at one point or another, a number of your officers will experience low-back pain. It's likely that their condition will spawn either temporary or permanent absences from work that run the gamut from sick time to workers' comp claims to duty-related disability. This, of course, adds another wrinkle to your administrative duties as a police chief.

According to studies of individuals with low-back pain, a key aspect of returning to work is how they perceive their work environment. For instance, those who feel as if they get little or no organizational support from their coworkers and/or supervisors have longer absences from work. Police chiefs must be aware of this and be sympathetic toward officers who experience low-back pain.

Matt Brzycki is the Assistant Director of Campus Recreation, Fitness at Princeton University in Princeton, New Jersey. A former Marine Drill Instructor, he has authored, co-authored and edited 17 books on strength and fitness.

### National Impaired Driving Crackdown

#### National Impaired Driving Crackdown Labor Day Weekend "Drive Sober or Get Pulled Over" August 19—September 5, 2011

The problem of impaired driving is a serious one. Data from the National Highway Traffic Safety Administration shows the number of alcohol-impaired-driving fatalities in America fell from 2008 to 2009, but the numbers are still too high.

In 2009 alone, 10,839 people died in crashes in which a driver or motorcycle rider was at or above the legal limit, according to the National Highway Traffic Safety Administration. The age group with the highest percentage of alcohol-impaired-driving fatalities in motor vehicle traffic crashes was the 21-to-24 age group. According to the latest data, nearly a third of fatalities in motor vehicle traffic crashes involved a driver or motorcycle rider with a BAC above the legal limit—an average of one fatality every 48 minutes.

Since twice as many alcohol-impaired accidents occur over the weekend and four times as many occur at night, law enforcement should be especially vigilant during these high-risk times when impaired drivers are most likely to be on our roads.

To assist law enforcement during this national Impaired Driving Crackdown, NHTSA has created a promotional planner. The intent of the promotional planner is to provide you with marketing materials, earned media tools and marketing ideas you can distribute to fit your local needs and objectives while at the same time partnering with other state, communities and organizations all across the country on this promotional program.

This planner includes messaging and templates to support your impaired driving initiatives surrounding the 2011 Labor Day Impaired Driving Prevention National Enforcement Crackdown and is built on the new message platform, *Drive Sober or Get Pulled Over*. These materials also carry the tagline, *Cops are Cracking Down*, which reinforces that law enforcement officials will be on the lookout and focusing attention on impaired drivers.

NHTSA has also created the Product for Enforcement Action Kit (PEAK) to assist law enforcement with planning media and enforcement activities.

For more information, please visit <u>www.stopimpaireddriving.org/planners/crackdown2011</u>.