

Safety and Health Information and Education for Law Enforcement Departments:

An Annotated Bibliography

February 28, 2012



COPS
COMMUNITY ORIENTED POLICING SERVICES
U.S. DEPARTMENT OF JUSTICE

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This project was supported by Cooperative Agreement 2009-CK-WX-K016 awarded by the Office of Community Oriented Policing Services, U.S. Department of Justice. The opinions contained herein are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice. References to specific agencies, companies, products, or services should not be considered an endorsement by the author(s) or the U.S. Department of Justice. Rather, the references are illustrations to supplement discussion of the issues.

The Internet references cited in this publication were valid as of the date of this publication. Given that URLs and websites are in constant flux, neither the author(s) nor the COPS Office can vouch for their current validity.

ISBN: 978-1-932582-58-1

July 2012

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INTRODUCTION

Law enforcement personnel perform their duties and serve the community better when they are healthy. Despite the fact that law enforcement commonly deals with safety and health threats (e.g., exposure to blood-borne pathogens, assault, highly stressful encounters), and on-the-job medical claims cost agencies precious human and financial resources, occupational health and safety programs have not traditionally been a focus within the law enforcement field in the United States. Further, as the world witnessed during the 2009 H1N1 pandemic, infectious diseases and other health threats continue to emerge, leaving many officers unprepared and unprotected. This annotated bibliography can help educate and protect those who serve our nation's communities—keeping them safe and able to report for duty (both in general and during a public health emergency)—by offering links to occupational health and safety resources for law enforcement in one convenient location.

ABOUT THE RESOURCES

The project team began their research by searching for occupational health and safety resources that were specific to law enforcement. Once those were collected, staff broadened the search to include other resources that could be applicable to public safety employees. Resources were grouped into categories that closely aligned with those used by the Centers for Disease Control and Prevention's National Institute on Occupational Safety and Health (NIOSH):

- Diseases (e.g., influenza, heart disease, mental illness, blood disorders)
- Hazards (e.g., weather, insects, nuclear/biological/chemical, air quality)
- Safety (e.g., injury, eye/ear safety, protective gear, resources for canine and mounted officers)
- Emergency Preparedness (e.g., pandemic influenza, SARS, Hurricane Katrina)

Then, whenever possible, resources were grouped by type:

- Journal articles/monographs (articles/monographs for which only an abstract is available at no cost are highlighted in blue)
- Signs and posters
- Videos and podcasts
- Links to websites

Law enforcement occupational health and safety has received increased attention in recent years, due partially to the growing number of officer shootings and fatalities, and to the H1N1 pandemic that found local law enforcement and public health agencies working together—some for the first time. Many agencies engage in promising practices that can be shared with the field. Federal agencies and law enforcement member organizations are engaged in relevant research, the findings of which will be helpful to the field at large. And yet, there is no “one-stop shop” for interested parties to visit to locate this critical information. For now, this bibliography serves as a starting point for those interested in learning more about law enforcement and occupational health. In the near future, project staff hope to launch a website that will contain these resources, actual plans, timely articles and templates from other agencies, and more.

The Internet references cited in this publication were valid as of January 2012. Given that URLs and websites are in constant flux, neither the author(s) nor the COPS Office can vouch for their current validity.

DISEASES

Law enforcement professionals deserve the ultimate protection from diseases to which they may be exposed as part of their day-to-day job. Frequent encounters with the public, stress, and exposure to a host of viruses are part of most first responders' typical work days. The resources that follow provide links to information on how to prevent, recognize, and treat various illnesses and conditions, including respiratory diseases, influenza, and mental health concerns.

RESPIRATORY/PULMONARY DISEASES

Journal Articles/Monographs

Banauch, Gisela I., Atiya Dhala, Dawn Alleyne, Rakesh Alva, Santhyadka Ganesha, Anatoli Krasko, Michael Weiden, Kerry J. Kelly, and David J. Prezant. 2005. "Bronchial Hyperreactivity and Other Inhalation Lung Injuries in Rescue/Recovery Workers after the World Trade Center Collapse." *Critical Care Medicine* 33 (January): S102–6.

www.ncbi.nlm.nih.gov/pubmed/15640671 (ABSTRACT ONLY)

This study focused on lung issues present in rescue workers resulting from their involvement in 9/11. The authors collected information from 179 firefighters who underwent testing 1, 3, 6, and 12 months after 9/11, and focused exclusively on inhalation lung injuries.

Banauch, Gisela I., Ayita Dhala, and David J. Prezant. 2005. "Pulmonary Disease in Rescue Workers at the World Trade Center Site." *Current Opinion in Pulmonary Medicine* 11 (March): 160–68.

www.ncbi.nlm.nih.gov/pubmed/15699790

The authors discuss respiratory syndromes, symptoms, and possible long-term respiratory health problems that have been seen in people who responded to and/or continued to work at the World Trade Center site after the 2001 terrorist attack.

Banauch, Gisela I., Charles Hall, Michael Weiden, Hillel W. Cohen, Thomas K. Aldrich, Vasillios Christodoulou, Nicole Arcentales, Kerry J. Kelly, and David J. Prezant. 2006. "Pulmonary Function after Exposure to the World Trade Center in the New York City Fire Department." *American Journal of Respiratory and Critical Care Medicine* (April).

www.nycpba.org/wtc/studies/montefiore.pdf (ABSTRACT ONLY)

The purpose of this article was to quantify respiratory health issues in New York City Fire Department employees after the 9/11 terrorist attacks. The sample size for this study was 12,079 employees.

Buyantseva, Larisa V., Mark Tulchinsky, George M. Kapalka, Vernon M. Chinchilli, Zhengmin Qian, Robert Gillio, Arthur Roberts, and Rebecca Bascom. 2007. "Evolution of Lower Respiratory Symptoms in New York Police Officers after 9/11: A Prospective Longitudinal Study." *Journal of Occupational and Environmental Medicine* 49 (March): 310–17.

www.ncbi.nlm.nih.gov/pubmed/17351517 (ABSTRACT ONLY)

This study aimed to specifically understand the progression of lower respiratory symptoms in police officers who were part of the rescue efforts during September 11. The officers were interviewed based on the prevalence of symptoms such as cough, phlegm, shortness of breath, and wheeze. The officers were asked about the prevalence of these symptoms 1 month and 19 months after the incident.

Charles, Luenda E., Cecil M. Burchfiel, Anna Mnatsakanova, Desta Fekedulegn, Cathy Tinney-Zara, P. Nedra Joseph, Holger Schunemann, John M. Violanti, Michael E. Andrew, and H.M. Ochs-Balcom. 2010. "Antioxidants and Pulmonary Function Among Police Officers." *Journal of Occupational and Environmental Medicine* 52(11): 1124–31.

www.ncbi.nlm.nih.gov/pubmed/21063191 (ABSTRACT ONLY)

The authors studied a sample of police officers to understand the effect of vitamin intake on their pulmonary function, with a focus on their smoking status.

Feldman, Debra M., Sherry L. Baron, Bruce P. Bernard, Boris D. Lushniak, Gisela Banauch, Nicole Arcentales, Kerry J. Kelly, and David J. Prezant. 2004. "Symptoms, Respirator Use, and Pulmonary Function Changes among New York City Firefighters Responding to the World Trade Center Disaster." *Chest* 125 (April): 1256–64.

www.ncbi.nlm.nih.gov/pubmed/15078732 (ABSTRACT ONLY)

The authors examined whether the arrival time of rescue workers at the World Trade Center on 9/11 had any effects on pulmonary function. The authors conducted a medical screening program on a sample of firefighters 3 weeks after the event.

Herbstman, Julie B., Robert Frank, Margo Schwab, D'Ann L. Williams, Jonathan M. Samet, Patrick N. Breyse, and Alison S. Geyh. 2005. "Respiratory Effects of Inhalation Exposure among Workers During the Clean-Up Effort at the World Trade Center Disaster Site." *Environmental Research* 99 (September): 85–92.

www.ncbi.nlm.nih.gov/pubmed/16053932 (ABSTRACT ONLY)

The authors administered a respiratory health questionnaire and conducted pulmonary testing for approximately 200 rescue workers involved in the World Trade Center site clean-up in December 2001.

Lam, Tai H., Lai M. Ho, Anthony J. Hedley, Peymane Adab, Richard Fielding, Sarah M. McGhee, and L. Aharonson-Daniel. 2000. "Environmental Tobacco Smoke Exposure among Police Officers in Hong Kong." *The Journal of the American Medical Association* 284 (August): 756–63.

www.ncbi.nlm.nih.gov/pubmed/10927788

The purpose of this study was to determine the respiratory effects that environmental tobacco smoke had on police officers in Hong Kong, both at home and on the job. A total of 5,568 male officers and 728 female officers who had never smoked completed a self-administered survey to collect data on their respiratory symptoms as a result of tobacco smoke exposure.

Prezant, David J., Michael Weiden, Gisela I. Banauch, Georgeann McGuinness, William N. Rom, Thomas K. Aldrich, and Kerry J. Kelly. 2002. "Cough and Bronchial Responsiveness in Firefighters at the World Trade Center Site." *The New England Journal of Medicine* 347 (September): 806–15.

www.nejm.org/doi/full/10.1056/NEJMoa021300

This article presents an evaluation of the health of rescue workers involved in the cleanup of the World Trade Center site. Specifically, the authors focused on firefighters who developed a severe cough after exposure to the toxins during and after the collapse of the World Trade Center.

Salzman, Steve H., Farid M. Moosavy, Jeffrey A. Miskoff, Patricia Friedmann, Gregory Fried, and Mark J. Rosen. 2004. "Early Respiratory Abnormalities in Emergency Services Police Officers at the World Trade Center Site." *Journal of Occupational Health and Environmental Medicine* 46 (February): 113–22.

<http://cat.inist.fr/?aModele=afficheN&cpsidt=15467446> (ABSTRACT ONLY)

This article examined the respiratory health effects that police officers experienced after working at the World Trade Center site. The authors described the initial effects and examined which respiratory issues lessened and which worsened over time.

Wheeler, Katherine, Wendy McKelvey, Lorna Thorpe, Megan Perrin, James Cone, Daniel Kass, Mark Farfel, Pauline Thomas, and Robert Brackbill. 2007. "Asthma Diagnosed after 11 September 2001 among Rescue and Recovery Workers: Findings from the World Trade Center Health Registry." *Environmental Health Perspectives* 115 (November): 1584–90.

www.ncbi.nlm.nih.gov/pubmed/18007989

This study describes the heightened risk of newly diagnosed asthma among rescue workers who were present at the World Trade Center disaster site. The authors focused specifically on individuals who had no presence of asthma before the disaster.

Links to Websites

National Institute for Occupational Safety and Health. 2009. "Respiratory Health Consequences Resulting from the Collapse of the World Trade Center." *NIOSH Science Blog* (January).

www.cdc.gov/niosh/blog/nsb090808_wtc.html

This science blog includes links to information on the respiratory health implications that individuals suffered after the collapse of the World Trade Center in September 2001.

INFLUENZA

Journal Articles/Monographs

Luna, Andrea M., Corina Solé Brito, and Elizabeth A. Sanberg. 2007. *Police Planning for an Influenza Pandemic: Case Studies and Recommendations from the Field*. Critical Issues in Policing Series. Washington, D.C.: Police Executive Research Forum.

www.policeforum.org/library/police-public-health/Pandemic_v4.pdf

This monograph discusses the seriousness of an influenza pandemic and the effects that this could have on law enforcement. It provides planning recommendations, including data collected from four case studies. The case studies reveal four very different agencies' experiences with pandemic flu planning from a law enforcement perspective.

Schilling, Chelsea. 2009. "Cops Jump on Swine-Flu Power: Shots Heard 'round the World." *World Net Daily* September 1.

www.wnd.com/index.php?fa=PAGE.printable&pageId=108604

This article discusses the 2009 "pandemic response bill" in Massachusetts. The bill authorizes public health and public safety officers to forcefully quarantine citizens in the event of a health emergency, compels health providers to vaccinate citizens, authorizes forceful entry into private dwellings, and inflicts fines on citizens for noncompliance.

Solé Brito, Corina, Andrea M. Luna, and Elizabeth L. Sanberg. 2009. *Benchmarks for Developing a Law Enforcement Pandemic Flu Plan*. Washington, D.C.: Police Executive Research Forum.

www.policeforum.org/library/police-public-health/Benchmarks%20Guide_v6.pdf

This monograph is the first of three centered on the law enforcement plan for responding to public health emergencies. The benchmarks in this report illustrate a step-by-step planning process to ensure the law enforcement response to a flu pandemic is effective, but can be applied to any public health emergency.

Signs and Posters

Centers for Disease Control and Prevention. “You Can’t Be Missed.”

www.cdc.gov/flu/pdf/freeresources/health/firstResp_print.pdf

This printable poster created by CDC depicts the importance of first responders being vaccinated for influenza.

Centers for Disease Control and Prevention. “Take 3 Actions to Fight the Flu.”

www.cdc.gov/flu/pdf/freeresources/general/take3-poster.pdf

This printable brochure and poster urge individuals to take action against the flu and specify three ways to act: vaccinate, stop germs, and take antiviral drugs.

Centers for Disease Control and Prevention. “Cover Your Cough.”

www.cdc.gov/flu/protect/covercough.htm

This site offers a flyer and a poster—available in several languages—to illustrate simple techniques to stop the spread of germs. These include using a face mask, coughing into the crook of one’s elbow, and disposing of tissues immediately after coughing.

Centers for Disease Control and Prevention. “No More Excuses, You Need a Flu Vaccine.”

www.cdc.gov/flu/pdf/freeresources/general/Pink_9Excuses_v1c.pdf

This poster debunks common excuses individuals tend to use for their decisions to not get vaccinated against the flu. The National Center for Immunization and Respiratory Diseases created this flyer to explain why getting vaccinated for influenza is vital.

Centers for Disease Control and Prevention. “Influenza Vaccination Flyer 2011–2012.”

<http://cdc.gov/vaccines/pubs/vis/downloads/vis-flu.pdf>

This printable fact sheet provides answers to commonly asked questions about the importance of flu vaccination and the risks of forgoing the vaccination.

Videos and Podcasts

Centers for Disease Control and Prevention. “Take Three: Seasonal Flu.” *Podcast*.

www2c.cdc.gov/podcasts/player.asp?f=3176545

This podcast encourages individuals to remember three main concepts when it comes to preventing the seasonal flu: get vaccinated, take simple steps to prevent the spread of germs, and take antiviral drugs if you do get the flu.

Links to Websites

Centers for Disease Control and Prevention. “Key Facts about Influenza (Flu) & Flu Vaccine.”

<http://cdc.gov/flu/keyfacts.htm>

This web page presents key facts about the flu and the flu vaccine. Some facts include common symptoms, how the virus spreads, complications, and individuals at a particularly high risk.

Centers for Disease Control and Prevention. “Seasonal Influenza (Flu).”

www.cdc.gov/flu/index.htm

This web page offers general information on the flu and details specific to different populations (e.g., pregnant women, individuals with asthma, and individuals with diabetes). CDC also publishes an interactive map weekly that identifies flu prevalence across the country and around the world.

U.S. Department of Health and Human Services. 2011. “FLU.gov.”

www.flu.gov

This link leads to the Federal Government’s page on influenza. Information is provided for individuals, families, and professionals, and an outreach section contains links to print materials, videos, and social media.

CANCER

Journal Articles/Monographs

Davis, Robert L., and F. Kash Motsofi. 2007. “Cluster of Testicular Cancer in Police Officers Exposed to Hand-Held Radar.” *American Journal of Industrial Medicine* 24 (August): 231–33.

<http://onlinelibrary.wiley.com/doi/10.1002/ajim.4700240209/abstract> (ABSTRACT ONLY)

This study found six cases of testicular cancer within a cohort of 340 police officers between 1979 and 1991. The shared risk factor between the six cases was use of hand-held radar devices.

Finkelstein, Murray M. 1998. “Cancer Incidence among Ontario Police Officers.” *American Journal of Industrial Medicine* 34 (February): 157–62.

<http://carcamal.ele.cie.uva.es/Postgrado/Material/Finkelstein.pdf>

This report presents a study of cancer incidence among police officers to determine if law enforcement workers have a higher rate of cancer than the general population. The results represent a cohort of 22,197 officers employed by 83 Ontario police departments.

Links to Websites

Cops with Cancer

www.copswithcancer.org/

Cops with Cancer is a site created to support law enforcement officers who have been diagnosed with cancer. The site also offers support to their family members.

Law Enforcement Cancer Support Foundation

www.lecsf.net/index.cfm?section=1

The Law Enforcement Cancer Support Foundation is a nonprofit organization that offers support to officers affected by cancer. The website also offers resources and survivor stories.

HEART/CARDIOVASCULAR DISEASE

Journal Articles/Monographs

Charles, Luenda E., Cecil M. Burchfiel, John M. Violanti, Desta Fekedulegn, James E. Slaven, Richard W. Browne, Tara A. Hartley, and Michael E. Andrew. 2008. "Adiposity Measures and Oxidative Stress Among Police Officers." *Obesity* 16 (August): 2489–97.

www.nature.com/oby/journal/v16/n11/full/oby2008395a.html

The authors examined the relationships between biological measures such as waist circumference and waist-to-height ratio and stress measures such as the level of vitamin C and other substances in the body. The sample was comprised of over 100 police officers from the Buffalo, New York, area.

Charles, Luenda E., Desta Fekedulegn, Terika McCall, Cecil M. Burchfiel, Michael E. Andrew, and John M. Violanti. 2007. "Obesity, White Blood Cell Counts, and Platelet Counts among Police Officers." *Obesity* 15:2846–54.

<http://www.nature.com/oby/journal/v15/n11/full/oby2007338a.html>

The authors conducted research on 104 randomly selected police officers to determine the relationship between obesity measures and blood count measures. They found that for women, abdominal weight was associated with higher platelet counts; no significant relationships among the variables were found for men.

Franke, Warren D., Marian L. Kohut, Daniel W. Russell, Hye L. Yoo, Panteleimon Ekkekakis, and Sandra P. Ramey. 2010. "Is Job-Related Stress the Link between Cardiovascular Disease and the Law Enforcement Profession?" *Journal of Occupational and Environmental Medicine* 52 (May): 561–65.

www.ncbi.nlm.nih.gov/pubmed?term=Is%20job-related%20stress%20the%20link%20between%20cardiovascular%20disease%20and%20the%20law%20enforcement%20profession%3F%20

(ABSTRACT ONLY)

The authors explored whether job-related stress among law enforcement officers is associated with markers of vascular inflammation. The study compared law enforcement officers and the general public's markers of vascular inflammation and the self-reported responses to measures of perceived stress, exhaustion, job strain, effort-reward imbalance, and social support.

Franke, Warren D., Sandra L. Ramey, and Mack C. Shelley II. "Relationship between Cardiovascular Disease Morbidity, Risk Factors, and Stress in a Law Enforcement Cohort." *Journal of Occupational and Environmental Medicine* 44 (December): 1182–89.

www.ncbi.nlm.nih.gov/pubmed?term=%22Relationship%20between%20cardiovascular%20disease%20morbidity,%20risk%20factors,%20and%20stress%20in%20a%20law%20enforcement%20cohort.%22%20

(ABSTRACT ONLY)

This study examined whether law enforcement officers experience increased levels of cardiovascular disease and if this could be due to job-related stress. Study methods consisted of self-report from male law enforcement officers from nine states, which were compared to similarly aged males in the same states with similar incomes.

Joseph, Parveen N., John M. Violanti, Richard Donahue, Michael E. Andrew, Maurizio Trevisan, Cecil M. Burchfiel, and Joan Dorn. 2010. "Endothelial Function, a Biomarker of Subclinical Cardiovascular Disease, in Urban Police Officers." *Journal of Occupational and Environmental Medicine* 52 (October): 1004–8.

www.ncbi.nlm.nih.gov/pubmed/20881625 (ABSTRACT ONLY)

The sample of police officers in this study exhibited higher levels of cardiovascular disease risk factors compared to a sample of the general population. The subjects were matched on a host of other variables, leading the authors to surmise that there are other reasons behind officers' higher levels of risk factors.

Pollock, Michael L., Larry R. Gettman, and Betty U. Meyer. 1978. "Analysis of Physical Fitness and Coronary Heart Disease Risk of Dallas Area Police Officers." *Journal of Occupational Medicine* 20 (June): 393–98.

www.ncbi.nlm.nih.gov/pubmed/671115 (ABSTRACT ONLY)

This analysis examined the physical fitness level of 213 law enforcement officers between the ages of 21 and 52 who voluntarily participated in the study. The authors examined the relationship between officer physical fitness abilities and prevalence of coronary heart disease.

Ramey, Sandra L. 2003. "Cardiovascular Disease Risk Factors and the Perception of General Health among Male Law Enforcement Officers: Encouraging Behavioral Change." *AAOHN Journal* 51 (May): 219–226.

www.ncbi.nlm.nih.gov/pubmed/12769168 (ABSTRACT ONLY)

Male law enforcement officers' rates of death by cardiovascular disease and the diseases' risk factors were compared to men in the general population to determine if a law enforcement career is associated with cardiovascular disease.

Violanti, John M., Cecil M. Burchfiel, T.A. Hartley, Anna Mnatsakanova, Desta Fekedulegn, Michael E. Andrew, Luenda E. Charles, and Brian J. Vila. 2009. "Atypical work hours and metabolic syndrome among police officers." *Archives of Environmental and Occupational Health* 64 (Fall): 194–201.

www.ncbi.nlm.nih.gov/pubmed/19864222 (ABSTRACT ONLY)

In this study, authors examined police officers' rate of metabolic syndrome (e.g., high cholesterol, diabetes, and hypertension) and how rates were related to atypical work hours. They found that increased overtime and working the midnight shift contributed to higher rates of metabolic syndrome.

Violanti, John, Cecil Burchfiel, Diane Miller, Michael Andrew, Joan Dorn, Jean Wactawski-Wende, Christopher Beighley, Kathleen Pierino, Parveen N. Joseph, John Vena, Dan Sharp, and Maurizio Trevisan. 2006. "The Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS) Pilot Study: Methods and Participant Characteristics." 2006. *Annals of Epidemiology* 16 (2): 148–56.

www.ncbi.nlm.nih.gov/pubmed/16165369 (ABSTRACT ONLY)

The authors selected a random sample of Buffalo, New York, police officers and measured various biological stress factors (e.g., stress markers, body composition). They found that police officers had slightly higher body mass indices and higher reported rates of PTSD and depression, compared to the general population.

Violanti, John, Desta Fekedulegn, Tara A. Hartley, Michael E. Andrew, Luenda E. Charles, Anna Mnatsakanova, and Cecil M. Burchfiel. 2006. "Police Trauma and Cardiovascular Disease: Association between PTSD Symptoms and Metabolic Syndrome." *International Journal of Emergency Mental Health* 8 (4): 227–37.

<http://ukpmc.ac.uk/abstract/MED/17131769> (ABSTRACT ONLY)

The authors examined the relationship between post-traumatic stress disorder and cardiovascular disease in a sample of 115 police officers. They found that officers with severe PTSD were three times more likely to have cardiovascular disease than those without severe symptoms.

Yoo, Hyelim, and Warren D. Franke. 2011. "Stress and Cardiovascular Disease Risk in Female Law Enforcement Officers." *International Archives of Occupational and Environmental Health* 84 (March): 279–86.

www.ncbi.nlm.nih.gov/pubmed/20509032 (ABSTRACT ONLY)

This article examines the stress levels of female officers and the prevalence of cardiovascular disease risk factors. The study methods included collecting self-report data on job-related stress and cardiovascular risk factors from 65 female law enforcement officers. The scores were then compared to responses on the same topics from male officers.

Signs and Posters

American College of Physicians. “Reducing Your Risk of Stroke.”

www.acponline.org/patients_families/pdfs/health/stroke.pdf

The American College of Physicians and the American Stroke Association created this printable report to document how individuals can reduce their risk of stroke. The report details stroke risk factors and prevention strategies.

Centers for Disease Control and Prevention. “Heart Disease Fact Sheet.”

www.cdc.gov/dhdsdp/data_statistics/fact_sheets/docs/fs_heart_disease.pdf

This fact sheet displays a map of the United States indicating geographic prevalence of heart disease. This printable source also includes heart disease facts and risk factors.

Centers for Disease Control and Prevention. “Know the Signs and Symptoms of a Heart Attack.”

www.cdc.gov/dhdsdp/data_statistics/fact_sheets/docs/fs_heartattack.pdf

This printable fact sheet presents the signs and symptoms of a heart attack as well as risk factors and statistics.

Centers for Disease Control and Prevention. “Know the Facts about Stroke.”

www.cdc.gov/stroke/docs/ConsumerEd_Stroke.pdf

This printable fact sheet presents facts about stroke, including stroke definition, identifying individuals who might be at risk, and stroke signs and symptoms.

Centers for Disease Control and Prevention. “Stroke Fact Sheet.”

www.cdc.gov/dhdsdp/data_statistics/fact_sheets/docs/fs_stroke.pdf

This fact sheet features a color-coded U.S. map that marks the percentage of individuals who have been told they experienced a stroke. This printable source also includes stroke facts and common warning signs.

Videos and Podcasts

Centers for Disease Control and Prevention. “A Cup of Health with CDC Podcast Series: ‘Watch Those Signs.’”

www2c.cdc.gov/podcasts/player.asp?f=9031

This podcast presents information on warning signs for stroke, the third leading cause of death in America.

Links to Websites

Centers for Disease Control and Prevention. "Cholesterol."

www.cdc.gov/cholesterol/

These facts help individuals understand the risks that accompany high cholesterol. CDC also offers links to other sources to learn more about cholesterol intake and its connection to heart disease and stroke.

Centers for Disease Control and Prevention. "Heart Disease Facts."

<http://cdc.gov/heartdisease/facts.htm>

CDC offers basic facts on heart disease, including prevention tips and the prevalence among ethnic groups by geographical location.

Centers for Disease Control and Prevention. "Salt."

www.cdc.gov/salt/

CDC explains that sodium puts Americans at increased risk for heart disease and stroke, the first and third largest killers of men and women in the United States. These web pages offer additional resources to learn more about the link between sodium intake and heart disease.

Hartley, Tara A., Cecil M. Burchfiel, and John M. Violanti. 2008. "Police and Stress." *NIOSH Science Blog* (January).

<http://blogs.cdc.gov/niosh-science-blog/2008/06/police/>

This blog presents research that shows police officers are at an increased risk for cardiovascular events. The blog details research on stroke statistics and provides a section where individuals can share their personal experiences.

VECTOR-BORNE DISEASES

Journal Articles/Monographs

Proctor, Paul, and Louise Aubin. 2010. "Vector Bourne Disease Prevention Plan 2010." Region of Peele.

www.peelregion.ca/health/vbd/pdfs/vector-borne-dis-prev-plan2010.pdf

This Canadian prevention plan for vector-borne diseases was created in 2010 to focus mainly on West Nile Virus. The plan also mentions two other vector-borne diseases: Lyme disease and eastern equine encephalitis. The authors also provide summaries of the diseases, trends, and plans for prevention. It would also serve as a good resource for mounted officers.

Signs and Posters

The National Institute for Occupational Safety and Health. "Protecting Yourself from Ticks and Mosquitoes."

www.cdc.gov/niosh/docs/2010-119/pdfs/2010-119.pdf

This printable fast facts guide focuses on mosquito- and tick-borne diseases and protective strategies for those who work outdoors.

Occupational Safety and Health Administration U.S. Department of Labor. 2005. "OSHA Fact Sheet West Nile Virus."

www.osha.gov/OshDoc/data_Hurricane_Facts/west_nile_virus.pdf

This OSHA fact sheet defines the vector-borne disease West Nile Virus and details the symptoms. In addition, this document discusses what employers can do to reduce the risk to their employees.

Links to Websites

Centers for Disease Control and Prevention. 2011. "It's Spring – Time to Prevent Lyme Disease."

www.cdc.gov/Features/LymeDisease/

This CDC web page provides information on Lyme disease, including details on the disease, protective strategies, and a map of the United States that displays reported cases of Lyme disease.

MRSA (METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS)

Journal Articles/Monographs

Garrett, Ronnie. 2008. "Super Bugs: Coming to a Department Near You." *Officer.com* March 1.

www.officer.com/article/10249067/super-bugs-coming-to-a-department-near-you

This article discusses bacterial infections such as MRSA, SARS, and avian flu. The authors present related statistics from CDC and the American Medical Association.

Schneider, Jason. 2007. "MRSA Infections: Tougher than Kevlar." *Officer.com* September 1.

www.officer.com/article/10249515/mrsa-infections-tougher-tha-kevlar

This article defines the bacterial infection known as MRSA, an epidemic that presents a significant health threat to law enforcement agencies and correctional facilities across the United States. The authors describe disease transmission and what law enforcement agencies can do to prevent the prevalence and spread of the bacteria.

Signs and Posters

Centers for Disease Control and Prevention. "FAQs (Frequently asked Questions) about MRSA (Methicillin-Resistant Staphylococcus aureus)."

http://cdc.gov/mrsa/pdf/SHEA-mrsa_tagged.pdf

This printable fact sheet is comprised of FAQs about MRSA and official answers provided by CDC. This material can be printed and displayed as a poster or distributed as a flyer.

Tacoma-Pierce County Health Department. 2011. "What to do about MRSA for law enforcement."

www.tpchd.org/files/library/e6a1859303dc35b3.pdf

This poster is specifically aimed toward preventing law enforcement officers from contracting MRSA. The poster describes what MRSA is and how individuals can avoid it.

Links to Websites

Nelson, Eric L. 2008. "MRSA Info for Cops and Firefighters."

<http://mrsacop.blogspot.com/>

This website discusses MRSA and the effects of the disease specific to first responders. The site includes photographs and other useful resources.

SUBSTANCE ABUSE

Journal Articles/Monographs

Humphrey, Kim R., Kathleen P. Decker, Linn Goldberg, Harrison G. Pope, Jr., Joseph Gutman, and Gary Green. 2008. "Anabolic Steroid Use and Abuse by Police Officers: Policy & Prevention." *The Police Chief* LXXV (June).

www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=1512&issue_id=62008

This article discusses the current prevalence and patterns of anabolic steroid use among law enforcement officers, as well as policies currently in place to address this issue. Additionally, the authors present psychological effects and symptoms associated with the use and abuse of anabolic steroids specific to public safety officers.

More, Jared. 2008. "Substance Abuse among Public Safety Officers." *Treatment Solutions Network* October 28.

www.treatmentsolutionsnetwork.com/blog/index.php/2008/10/28/substance-abuse-among-public-safety-officers/

The authors challenge the notion that drug addiction is only prevalent among individuals labeled as "drug addicts," and assert that it can also affect public safety officers. The authors emphasize the importance of getting help and offer links to local substance abuse treatment facilities.

Slottje, Pauline, Nynke Smidt, Jos W.R. Twisk, Anja C. Huizink, Anke B. Witteveen, Williem van Mechelen, and Tjade Smid. 2007. "Use of Health Care and Drugs by Police Officers 8.5 Years after the Air Disaster in Amsterdam." *European Journal of Public Health* 18 (June): 92–94.

<http://eurpub.oxfordjournals.org/content/18/1/92.long>

This study examines the use of health care and pharmaceuticals by police officers involved in a response to an air disaster in Amsterdam. The authors administered questionnaires to the police officers and their noninvolved colleagues to determine their need for health services within the preceding 12 months.

Signs and Posters

The Mark Houston Recovery Center for Men. "Is Your Alcohol Problem More Serious than You Realize?"

www.markhoustonrecovery.com/documents/law-enforcement-alcohol.pdf

This printable poster presents information on the seriousness of alcohol abuse and asks difficult questions about alcohol consumption and impairment.

BLOOD-BORNE DISEASES

Journal Articles/Monographs

Flavin, Jeanne. 1998. "Police and HIV/AIDS: The Risk, the Reality, the Response." *American Journal of Criminal Justice* 23:35–58.

www.springerlink.com/content/c1114286lr081837/

HIV/AIDS presents unique and challenging issues for law enforcement departments. Though the epidemic was detected 35 years ago, the relationship between contracting HIV/AIDS and police work has been extremely limited. This article uses supporting data to examine law enforcement individuals' and departments' fear of and risk of contracting HIV/AIDS.

Marie Stopes International. 2010. "HIV Testing and Prevention Programme Targeting Tanzanian Police Force." *Marie Stopes International* November 29.

www.mariestopes.org/News/International/HIV_testing_and_prevention_programme_targeting_Tanzanian_police_force.aspx

A 2001 study found that the HIV rate among Tanzanian police officers was two to three times higher than that of the general population. This article describes a prevention program in Tanzania that provides HIV education, testing, treatment, and support services to law enforcement officers and their families. The authors state that the program had reached 49,000 police officers, their families, and communities.

Pearce, Hilary. 2007. "The Police and HIV/AIDS: A Literature Review." *AIDS, Security and Conflict Initiative*. ASCI Research Report No. 1.

<http://asci.researchhub.ssrc.org/the-police-and-hiv-aids-a-literature-review/attachment>

Due to health-related privacy acts and security of police information, research on the relation between HIV/AIDS and the police is limited. This report documents specific research that has been completed on HIV/AIDS and the police and identifies a number of important areas in need of further exploration.

Rashbaum, William K. 2000. "Silent Fraternity: Police Officers with H.I.V.; Many, Fearing Ostracism, Hide their Condition from Others on the Force." *The New York Times* August 2.

www.nytimes.com/2000/08/02/nyregion/silent-fraternity-police-officers-with-hiv-many-fearing-ostracism-hide-their.html

This *New York Times* article presents the transcripts and summaries of interviews with New York law enforcement officers who are HIV positive. These individuals agreed to be interviewed by the *New York Times* and explained their fear of rejection and criticism by their co-workers if they disclosed their HIV status.

Signs and Posters

Minnesota Department of Health. 2011. "Facts on AIDS: A Law Enforcement Guide."

www.health.state.mn.us/divs/idepc/diseases/hiv/factsonaids.pdf

This fact sheet on AIDS includes topics such as transmission, risk behaviors, and precautions public safety officers can use to protect themselves from the virus.

Links to Websites

Centers for Disease Control and Prevention. 2010. "Correctional Health Care Workers."

www.cdc.gov/niosh/topics/correctionalhcw/

This website provides information on exposure to blood borne diseases (e.g., hepatitis B, human immunodeficiency virus) in correctional health care settings. The page includes information on safe work practices, how to report exposures, model plans, and more.

MENTAL HEALTH

Journal Articles/Monographs

Adarlo, Sharon. 2010. "New Jersey Police Recruits Required to Take Suicide Prevention Training." *The Star Ledger* January 3.

www.nj.com/news/index.ssf/2010/01/new_jersey_police_recruits_req.html

New Jersey is the first state to require suicide awareness training for all law enforcement recruits. Instructors teach recruits how to spot signs of depression (in themselves and in colleagues), how to locate assistance, and strategies for coping and dispelling the stigma associated with reaching out for help.

Andrew, Michael E., Erin C. McCanlies, Cecil M. Burchfiel, Luenda E. Charles, Tara A. Hartley, Desta Fekedulegn, and John M. Violanti. 2008. "Hardiness and Psychological Distress in a Cohort of Police Officers." *International Journal of Emergency Mental Health* 10 (Spring): 137–47.

www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Retrieve&list_uids=18788348&dopt=abstractplus
(ABSTRACT ONLY)

The authors examined hardiness (measured by “commitment, control, and challenge”) and depression, posttraumatic stress disorder, and general psychological challenges in a random sample of 105 officers. Higher levels of hardiness are associated with lower levels of depression and the commitment dimension was more protective for female officers.

Berg, Anne M., Erlend Hem, Bjorn Lau, and Oivind Ekeberg. 2006. "An Exploration of Job Stress and Health in the Norwegian Police Service: A Cross Sectional Study." *Journal of Occupational Medicine and Toxicology* 1 (December).

www.ncbi.nlm.nih.gov/pmc/articles/PMC1764750/?tool=pubmed

The authors examine the correlation between physical and mental health status and stress levels among Norwegian police. They compare information collected from Norwegian law enforcement officers and the general population.

Bergen, George T., and Curt R. Bartol. 1983. "Stress in Rural Law Enforcement." *Perceptual and Motor Skills* 56 (June): 957–58.

[www.ncbi.nlm.nih.gov/pubmed?term=Percept%20Mot%20Skills.%201983%20Jun;56\(3\):957-8.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Percept%20Mot%20Skills.%201983%20Jun;56(3):957-8.%20)
(ABSTRACT ONLY)

This study compares stress levels of rural police officers to levels of urban officers. Data is collected through questionnaires and the Spielberger’s State-Trait Anxiety Inventory.

Dahl, Julia. 2010. "The Police Suicide Problem." *The Boston Globe* January 24.

www.boston.com/bostonglobe/magazine/articles/2010/01/24/the_police_suicide_problem/
(ABSTRACT ONLY)

The author writes, “Suicide kills more officers every year than homicides or accidents at work.” She examines a particular case and explains that in police culture, line-of-duty benefits may not extend to family members of officers who commit suicide.

Diskin, Susan D., Michael J. Goldstein, and Judith M. Grecnik. 1977. "Coping Patterns of Law Enforcement Officers in Simulated and Naturalistic Stress." *American Journal of Community Psychology* 5 (March): 59–73.

www.ncbi.nlm.nih.gov/pubmed?term=Coping%20patterns%20of%20law%20enforcement%20officers%20in%20simulated%20and%20naturalistic%20stress.%20 (ABSTRACT ONLY)

This study aims to observe the coping patterns of 135 police deputies exposed to a stressful video. The reaction of the officers is measured through self-reporting in which officers reported on their anxiety levels and coping strategies.

Follette, Victoria M., Melissa M. Polusny, and Kathleen Milbeck. 1994. "Mental Health and Law Enforcement Professionals: Trauma History, Psychological Symptoms, and Impact of Providing Services to Child Sexual Abuse Survivors." *Professional Psychology: Research and Practice* 25 (August): 275–82.

<http://psycnet.apa.org/journals/pro/25/3/275/> (ABSTRACT ONLY)

This article presents results from a survey of 558 mental health and law enforcement professionals, which included questions about current and past traumatic experiences, exposure to traumatic client material, and resulting conditions from these personal and professional traumas. The report documents how the two groups differed in their account of psychological symptoms and work-related post traumatic stress disorder.

Hartley, Tara A., John M. Violanti, Desta Fekedulegn, Michael E. Andrew, and Cecil M. Burchfiel. 2007. "Associations Between Major Life Events, Traumatic Incidents, and Depression among Buffalo Police Officers." *International Journal of Emergency Mental Health* 9 (Winter): 25–35.

www.ncbi.nlm.nih.gov/pubmed/17523373 (ABSTRACT ONLY)

The authors of this study randomly selected 100 police officers to complete questionnaires about recent stressful events and depression. While they did not find any specific association between traumatic events and depression, they suggest that agencies consider developing programs that offer psychological assistance to help officers in the aftermath of trauma.

Huddleston, Lynne, Christine Stephens, and Douglas Paton. 2007. "An Evaluation of Traumatic and Organizational Experiences on the Psychological Health of New Zealand Police Recruits." *Work* 28:199–207.

[www.ncbi.nlm.nih.gov/pubmed?term=Work.%202007%3B28\(3\)%3A199-207](http://www.ncbi.nlm.nih.gov/pubmed?term=Work.%202007%3B28(3)%3A199-207) (ABSTRACT ONLY)

This study presents an evaluation of the impact that traumatic events and routine organizational stressors in the law enforcement workplace have on psychological health. The authors assess 512 police recruits at their time of entry and then follow up with these officers one year later.

Jetmore, Larry F. 2011. "Rational Emotive Therapy for Modern Day Warriors." *PoliceOne.com* October 27.

www.policeone.com/health-fitness/articles/4557679-Rational-Emotive-Therapy-for-modern-day-warriors/

The author explains the toll on the psyche that working in law enforcement can have and presents strategies for combating this strain. He suggests officers focus on their bodies, minds, and spirits to ensure they are able to function at the highest level possible.

Iwasaki, Yoshitaka, Roger C. Mannell, Bryan J. Smale, and Janice Butcher. 2005. "Contributions of Leisure Participation in Predicting Stress Coping and Health among Police and Emergency Response Services Workers." *Journal of Health Psychology* 10 (January): 79–99.

[www.ncbi.nlm.nih.gov/pubmed?term=J%20Health%20Psychol.%202005%20Jan%3B10\(1\)%3A79-99](http://www.ncbi.nlm.nih.gov/pubmed?term=J%20Health%20Psychol.%202005%20Jan%3B10(1)%3A79-99)
(ABSTRACT ONLY)

The authors collect information on the relationship between leisure activity participation and coping/health strategies among law enforcement officers and emergency response workers. The results indicate that the type and amount of leisure activities may improve stress coping skills.

Johnson, Edward E. 1995. "Improving Mental Fitness Reports of Candidates for Police Officer and Fire Fighter." *Psychological Reports* 76 (February): 193–94.

[www.ncbi.nlm.nih.gov/pubmed?term=Psychol%20Rep.%201995%20Feb;76\(1\):193-4.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Psychol%20Rep.%201995%20Feb;76(1):193-4.%20)
(ABSTRACT ONLY)

This article presents the shortcomings that are frequently observed in psychological and psychiatric reports on the mental fitness of candidates for law enforcement officers and fire fighters. At the time this paper was published, the author had been on the Medical Review Panel of the New Jersey Department of Personnel for 18 years.

Johnson, Scott A. 2009. "Impact of Pornography on Forensic Mental Health and Law Enforcement Professionals: Effective Coping Strategies." *International Journal of Emergency Mental Health* 11 (Spring): 93–96.

[www.ncbi.nlm.nih.gov/pubmed?term=Int%20J%20Emerg%20Ment%20Health.%202009%20Spring%3B11\(2\)%3A93-6](http://www.ncbi.nlm.nih.gov/pubmed?term=Int%20J%20Emerg%20Ment%20Health.%202009%20Spring%3B11(2)%3A93-6) **(ABSTRACT ONLY)**

Law enforcement professionals may be exposed to imagery that can be both stressful and troubling. For example, in cases dealing with sex offenders, officers may have to obtain and examine pornography as evidence. This article explains the unique strain that officers go through in this process and describes helpful coping techniques.

Kirkcaldy, Bruce, Gary L. Cooper, and Paul Ruffalo. 1995. "Work Stress and Health in a Sample of U.S. Police." *Psychological Reports* 76 (April): 700–702.

[www.ncbi.nlm.nih.gov/pubmed?term=Psychol%20Rep.%201995%20Apr%3B76\(2\)%3A700-2](http://www.ncbi.nlm.nih.gov/pubmed?term=Psychol%20Rep.%201995%20Apr%3B76(2)%3A700-2)

This study examines responses of officers employed at the Naperville, Illinois, Police Department to a questionnaire titled "The Occupational Stress Indicator." The officers' stress levels are compared to those of workers in a range of other occupations.

Maja, Deborah B., Charles R. Marmar, Thomas Metzler, Augusta Nobrega, William Berger, Mauro V. Mendiowicz, Evandro S.F. Coutinho, and Ivan Figueira. 2007. "Post-Traumatic Stress Symptoms in an Elite Unit of Brazilian Police Officers: Prevalence and Impact on Psychosocial Functioning and on Physical and Mental Health." *Journal of Affective Disorders* 97 (January): 241–45.

www.ncbi.nlm.nih.gov/pubmed?term=%22Post-traumatic%20stress%20symptoms%20in%20an%20elite%20unit%20of%20Brazilian%20police%20officers%3A **(ABSTRACT ONLY)**

This study examines the frequency of post-traumatic stress disorder (PTSD) symptoms in a set of Brazilian law enforcement officers assigned to an elite unit. The authors concluded that prevalence of PTSD in this sample is comparable to rates in other countries.

McCafferty, Francis L., Sam Souryal, and Margaret A. McCafferty. 1998. "The Corruption Process of a Law Enforcement Officer: A Paradigm of Occupational Stress and Deviancy." *The Journal of the American Academy of Psychiatry and the Law* 26:433–58.

[www.ncbi.nlm.nih.gov/pubmed?term=J%20Am%20Acad%20Psychiatry%20Law.%201998;26\(3\):433-58.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=J%20Am%20Acad%20Psychiatry%20Law.%201998;26(3):433-58.%20) (ABSTRACT ONLY)

The authors find that the prevalence of corruption in law enforcement is similar to that of other professions and occupations. Some of the other areas explored are business, law, and medicine.

McCanlies, Erin C., Sewit Kesete Araia, Parveen N. Joseph, Anna Mnatsakanova, Michael E. Andrew, Cecil M. Burchfiel, and John M. Violanti. 2011. "C-reactive Protein, Interleukin-6, and Posttraumatic Stress Disorder Symptomology in Urban Police Officers." *Cytokine* 55 (April): 74–78.

www.ncbi.nlm.nih.gov/pubmed/21493089 (ABSTRACT ONLY)

The authors study the relationship between post-traumatic stress disorder symptomology and the level of certain "markers" in urban police officers' plasma. The sample size is small and limiting; the authors suggest further exploration in a larger population.

Miller, Laurence. 2006. "Critical Incidents: Myths and Realities." *PoliceOne.com* August 15.

www.policeone.com/health-fitness/articles/509571-Critical-incidents-Myths-and-realities/

Dr. Miller defines critical incidents and presents four myths about exposure and various types of reactions to incidents.

Miller, Laurence. 2006. "Critical Incident Stress Debriefing for Law Enforcement: Practical Models and Special Applications." *International Journal of Emergency Mental Health* 8 (Summer): 189–201.

[www.ncbi.nlm.nih.gov/pubmed?term=Int%20J%20Emerg%20Ment%20Health.%202006%20Summer;8\(3\):189-201.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Int%20J%20Emerg%20Ment%20Health.%202006%20Summer;8(3):189-201.%20) (ABSTRACT ONLY)

Critical incident stress debriefing has become a necessary technique in law enforcement due to the amount of high-stress incidents faced by officers. This article presents an overview of critical incident stress and how traditional and law enforcement-specific debriefing models can help officers cope.

Miller, Laurence. 2008. "Stress and Resilience in Law Enforcement Training and Practice." *International Journal of Emergency Mental Health* 10 (Spring): 109–24.

www.ncbi.nlm.nih.gov/pubmed?term=Stress%20and%20resilience%20in%20law%20enforcement%20training%20and%20practice.%20 (ABSTRACT ONLY)

This article discusses how stress is unavoidable and resilience is essential in the field of law enforcement. The authors provide a history of stress and resilience concepts, outline multiple responses, and provide a stress and coping model.

Mitchell, Jeffery T, and Richard L. Levenson Jr. 2006. "Some Thoughts on Providing Effective Mental Health Critical Care for Police Departments after Line-of-Duty Deaths." *International Journal of Emergency Mental Health* 8 (Winter): 1–4.

www.ncbi.nlm.nih.gov/pubmed?term=%22Some%20thoughts%20on%20providing%20effective%20mental%20health%20critical%20care%20for%20police (ABSTRACT ONLY)

This article presents a framework for crisis teams to use in response to a fellow officer's line-of-duty death. The authors suggest that the crisis teams use Critical Incident Stress Management techniques for optimum results.

Piercecchi-Marti, Marie D., Gastone Leonetti, Annie L. Peslissier, John Conrath, Stefano Cianfarani, and M. Valli. 1999. "Evaluation of Biological Stress Markers in Police Officers." *Medicine and Law* 18:125–44.

[www.ncbi.nlm.nih.gov/pubmed?term=Med%20Law.%201999%3B18\(1\)%3A125-44](http://www.ncbi.nlm.nih.gov/pubmed?term=Med%20Law.%201999%3B18(1)%3A125-44) (ABSTRACT ONLY)

This study evaluates the relationship between behavior and stress management among police officers. Specifically, the authors examine the activity of the main hormonal systems implicated in stress management in 18 male officers.

Riley, Peter. 2009. "Occupational Hazards: Feeling Stressed and Unhealthy? A New Study from the United States Finds the Job of a Police Officer Can Literally Make People Sick." *Police Federation*.

www.polfed.org/13_Police_Mar09_feature_occupational_hazards.pdf

This study claims that stress faced by law enforcement officers impacts their long-term health. The researchers obtain questionnaires from over 400 police officers, and (at the time this annotation was drafted) the project is still in progress.

Tehrani, Noreen. 2010. "Compassion Fatigue: Experiences in Occupational Health, Human Resources, Counselling and Police." *Occupational Medicine (Oxford, England)* 60 (March): 133–38.

www.ncbi.nlm.nih.gov/pubmed?term=%22Compassion%20fatigue:%20experiences%20in%20occupational%20health,%20human%20resources (ABSTRACT ONLY)

This study measures the levels of compassion fatigue in specific professions, including law enforcement. The author lists some strategies for dealing with distressed employees, clients, and members of the public.

Van Hasselt, Vincent B., Donald C. Sheehan, Abigail S. Malcom, Alfred H. Sellers, Monty T. Baker, and Judy Couwels. 2008. "The Law Enforcement Officer Stress Survey (LEOSS): Evaluation of Psychometric Properties." *Behavior Modification* 32 (January): 133–51.

[www.ncbi.nlm.nih.gov/pubmed?term=Behav%20Modif.%202008%20Jan;32\(1\):133-51.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Behav%20Modif.%202008%20Jan;32(1):133-51.%20) (ABSTRACT ONLY)

The Law Enforcement Officer Stress Survey is an early warning stress screening tool designed for law enforcement officers. The authors examine the survey extensively, looking specifically at the psychometric properties and find it to be a valid and consistent indicator of law enforcement stress.

Violanti, John M., Luenda E. Charles, Tara A. Hartley, Anna Mnatsakanova, Michael E. Andrew, Desta Fekedulegn, Bryan Vila, and Cecil M. Burchfiel. 2008. "Shift-Work and Suicide Ideation Among Police Officers." *American Journal of Industrial Medicine* 51 (10): 758–68.

www.ncbi.nlm.nih.gov/pubmed/18704914 (ABSTRACT ONLY)

The authors examine the relationship between shift hours and thoughts of suicide among a sample of police officers. They find a positive relationship between the two variables for female officers who had higher depressive symptoms and worked longer dayshift hours, and for male officers with higher levels of PTSD and who worked longer afternoon shift hours.

West, Christine, Bruce Bernard, Charles Mueller, Margaret Kitt, Richard Driscoll, and Sangwoo Tak. 2008. "Mental Health Outcomes in Police Personnel after Hurricane Katrina." *Journal of Environmental Medicine* 50 (June): 689–95.

[www.ncbi.nlm.nih.gov/pubmed?term=J%20Occup%20Environ%20Med.%202008%20Jun%3B50\(6\)%3A689-95](http://www.ncbi.nlm.nih.gov/pubmed?term=J%20Occup%20Environ%20Med.%202008%20Jun%3B50(6)%3A689-95) (ABSTRACT ONLY)

This study examines symptoms of post-traumatic stress disorder (PTSD) and depression among New Orleans police personnel who were involved in the rescue and relief services following Hurricane Katrina. More than 900 police employees completed a questionnaire in which they reported symptoms associated with depression and PTSD.

Winwood, Peter C., Michelle R. Tuckey, Roger Peters, and Maureen F. Dollard. 2009. "Identification and Measurement of Work-Related Psychological Injury: Piloting the Psychological Injury Risk Indicator among Frontline Police." *Journal of Occupational and Environmental Medicine* 51 (September): 1057–65

[www.ncbi.nlm.nih.gov/pubmed?term=J%20Occup%20Environ%20Med.%202009%20Sep%3B51\(9\)%3A1057](http://www.ncbi.nlm.nih.gov/pubmed?term=J%20Occup%20Environ%20Med.%202009%20Sep%3B51(9)%3A1057) (ABSTRACT ONLY)

The authors develop and administer the Psychological Injury Risk Indicator, a self-report assessment of work-related psychological injury tool for frontline police. These reports are then compared to individual assessments performed by a clinical psychologist.

Wirth, Michael, James Burch, John Violanti, Cecil Burchfiel, Desta Fekedulegn, Michael Andrew, Hongmei Zhang, Diane B. Miller, James Hébert, and John Vena. 2011. "Shift Work and the Awakening Cortisol Response among Police Officers." *Chronobiology International* (28) 5: 446–57.

www.ncbi.nlm.nih.gov/pubmed/21721860 (ABSTRACT ONLY)

The authors studied the relationship between levels of cortisol (a stress hormone) and long- and short-term shift work in a sample of Buffalo, New York, police officers.

Videos and Podcasts

National Institute for Occupational Safety and Health. 2010. "Working with Stress."

www.cdc.gov/niosh/docs/video/stress1.html

NIOSH created this video as a resource for individuals who may experience stress in the workplace. The video describes workplace factors that can create or exacerbate worker stress, and suggests practical measures for reducing job-related stress through changes in work organization.

PoliceOne.com. "PTSD and the Police Officer."

<http://blutube.policeone.com/police-health-wellness-videos/937047152001-ptsd-and-the-police-officer/>

This video presents national statistics related to PTSD and suicide among police officers and encourages officers to seek out mental health counseling when necessary. Note: A Police One login is needed to access this link.

PoliceOne.com. "Safe Call Now 1."

<http://blutube.policeone.com/police-health-wellness-videos/935650658001-safe-call-now-1/>

This video encourages individuals who might be dealing with pressures associated with a public safety career to call the help line for assistance. The main issues addressed in this video are financial strains and marital and domestic problems.

PoliceOne.com. "Safe Call Now 2."

<http://blutube.policeone.com/police-health-wellness-videos/935688852001-safe-call-now-2/>

This video encourages individuals who might be dealing with pressures associated with a public safety career to call the help line for assistance. The main issues addressed in this video are officer suicide and substance abuse.

Links to Websites

Georgia Department of Behavioral Health and Developmental Disabilities. "Disaster Mental Health."

<http://georgiadisaster.info/>

Police officers and other first responders are the initial individuals called to duty in the event of a disaster. This section of the website addresses the mental health issues associated with disasters.

Hartley, Tara A., Cecil M. Burchfiel, and John M. Violanti. 2008. "Police and Stress." *NIOSH Science Blog* (June).

<http://blogs.cdc.gov/niosh-science-blog/2008/06/police/>

This blog discusses research and statistics associated with police officers and work-related stress. The blog offers an area for users to read and post feedback and interact with others.

The International Association of Chiefs of Police. 2011. "Supplemental Cases for Police Psychologists Compiled by the AELE Law Enforcement Legal Center."

www.aele.org/psych/aele_psych_2011.html

This page provides law enforcement-specific links to cases involving expert opinions, the reliability of eyewitness identification, suicide watch in jails, officer suicide and stress-related claims, military leave, and more.

National Institute for Occupational Safety and Health. 2010. "Workplace Safety & Health Topics, Traumatic Incidence Stress."

www.cdc.gov/niosh/topics/traumaticincident

This web page discusses symptoms and recommendations associated with workplace-related traumatic incidence stress.

Safe Call Now

<http://safecallnow.org/index.html>

Safe Call Now is a website offering help and resources to troubled police officers, firefighters, corrections officers, and their families. This is a safe, confidential source of support that provides online assistance and a live call-in help line.

Tears of a Cop

www.tearsofacop.com

Tears of a Cop is a website where members of the law enforcement community can access help and information about PTSD and suicide. The website offers a memorial section, chat room, and authentic stories about officers suffering from PTSD.

GENERAL

Journal Articles/Monographs

Banauch, Gisela, Mary McLaughlin, Robin Hirschhorn, Malacy Corrigan, Kerry Kelly, and David Prezant. 2002. "Injuries and Illnesses among New York City Fire Department Rescue Workers after Responding to the World Trade Center Attacks." *Morbidity and Mortality Weekly Report* 51 (Special Issue): 1–5.

www.cdc.gov/mmwr/preview/mmwrhtml/mm51spa1.htm

This report describes morbidity and mortality in the Fire Department of New York City (FDNY) rescue workers during the 11-month period after the WTC attacks and documents a substantial increase in respiratory and stress-related illness compared to the time period before the attacks. These findings demonstrate the need to provide acute and long-term medical monitoring, treatment, and counseling to FDNY rescue workers exposed to this disaster and to solve supply, compliance, and supervision problems so that respiratory protection can be rapidly provided at future disasters.

Centers for Disease Control and Prevention. 2006. "Health Hazard Evaluation of Police Officers and Firefighters after Hurricane Katrina—New Orleans, Louisiana, October 17–28 and November 30–December 5, 2005." *Morbidity and Mortality Weekly Report* 55 (April): 456–58.

www.cdc.gov/mmwr/preview/mmwrhtml/mm5516a4.htm

The CDC surveyed New Orleans Police and Fire Department employees 7 to 13 weeks after Hurricane Katrina to assess health effects they experienced as a result of being exposed to certain hazards. The most common symptoms reported by the sample included upper respiratory problems and skin rashes.

Davies, William W., John R. Harrison, Christopher W. Ide, Ian S. Robinson, and Anthony Steele-Perkins. 2004. "Ill-Health Retirement: A Survey of Decision Making by Occupational Physicians Working for Local Authority Fire and Police Services." *Occupational Medicine* 54 (September): 379–86.

<http://occmed.oxfordjournals.org/content/54/6/379.full.pdf>

This article examines how police officers and fire authority personnel make decisions regarding whether an individual is eligible for ill-health retirement. The authors attempted to identify the factors impacting eligibility.

Huizink, Anja C., Pauline Slottje, Anke B. Witteveen, Joost A. Bijlsma, Jos W.R. Twisk, Nynke Smidt, Inge Bramsen, Williem van Mechelen, Henk M. van der Ploeg, L.M. Bouter, and Tjabe Smid. 2006. "Long Term Health Complaints Following the Amsterdam Air Disaster in Police Officers and Fire-Fighters." *Occupational and Environmental Medicine* 63 (April): 657–62.

www.ncbi.nlm.nih.gov/pmc/articles/PMC2078049/?tool=pubmed

This historical cohort study examines the long-term health effects of over 1,000 first responders who were involved in the 1992 Amsterdam air disaster, when a cargo plane crashed into apartment buildings.

Levin, Stephen M., R. Herbert, Jacqueline M. Moline, Andrew C. Todd, Lori Stevenson, Paul Landsbergis, S. Jiang, Gwen Skloot, Sherry Baron, and Paul Enright. 2004. "Physical Health Status of World Trade Center Rescue and Recovery Workers and Volunteers—New York City, July 2002—August 2004." *Morbidity and Mortality Weekly Report* 53 (September): 807–12.

www.cdc.gov/mmwr/preview/mmwrhtml/mm5335a1.htm

After the terrorist attacks on the World Trade Center, the WTC Worker and Volunteer Medical Screening Program provided free, standardized medical assessments, clinical referrals, and occupational health education for workers and volunteers exposed to hazards during the rescue efforts. This report summarizes data collected from participants of the screening program.

SAFETY

A public safety officer cannot protect others unless protected and safe him/herself. Remaining physically fit and being aware of the effects of shift work can keep officers healthy and positive. Donning protective gear accurately and keeping vaccinations current are a few of the things officers can do to ensure their own safety. This section includes a host of safety resources, along with items specific to canine/mounted officers and motorcycle and bicycle safety.

INJURY AND DEATH

Journal Articles/Monographs

Banauch, Gisela, Mary McLaughlin, Robin Hirschhorn, Malacy Corrigan, Kerry Kelly, and David Prezant. 2002. "Injuries and Illnesses among New York City Fire Department Rescue Workers after Responding to the World Trade Center Attacks." *Morbidity and Mortality Weekly Report* 51 (Special Issue): 1–5.

www.cdc.gov/mmwr/preview/mmwrhtml/mm51spa1.htm

This report describes morbidity and mortality in the rescue workers of the fire department of New York City (FDNY) during the 11-month period after the WTC attacks and documents a substantial increase in respiratory and stress-related illness compared to the time period before the attacks. These findings demonstrate the need to provide acute and long-term medical monitoring, treatment, and counseling to FDNY rescue workers exposed to this disaster and to solve supply, compliance, and supervision problems so that respiratory protection can be rapidly provided at future disasters.

Berrios-Torres, Sandra I., Jane A. Greenko, Michael Phillips, James R. Miller, Tracee Treadwell, and Robin M. Ikeda. 2003. "World Trade Center Rescue Worker Injury and Illness Surveillance, New York, 2001." *American Journal of Preventative Medicine* 25 (August): 79–87.

[www.ajpmonline.org/article/S0749-3797\(03\)00110-7/abstract](http://www.ajpmonline.org/article/S0749-3797(03)00110-7/abstract)

The authors of this article review medical records from four Manhattan hospitals for one month following the 9/11 attacks to track related rescue worker-related injuries and illnesses. The article describes the research conducted by the City of New York Department of Health and Mental Hygiene and the Centers for Disease Control and Prevention (CDC) to explain and differentiate between the various rescue worker-related injury and illness that occurred just after 9/11.

Centers for Disease Control and Prevention. 2002. "Rapid Assessment of Injuries among Survivors of the Terrorist Attack on the World Trade Center—New York City, September 2001." *Morbidity and Mortality Weekly Report* 51 (January): 1–5.

www.cdc.gov/mmwr/preview/mmwrhtml/mm5101a1.htm

This article gives a detailed description of injuries that occurred within hours and days as a result of the World Trade Center (WTC) attacks. This article specifically addresses the ratio of survivors injured to rescue workers injured. The City of New York Department of Health and Mental Hygiene conducted field investigations, which indicated that the arrival of injured persons to this sample of hospitals began within minutes of the attack and peaked 2 to 3 hours later. This need for a rapid assessment of injuries among WTC attack survivors reinforces the need to strengthen hospital capacity prior to the next disaster.

Copeland, Arthur R. 1984. "Death Wearing a Badge—A Study of Police Officers Who Died in the Line of Duty in Metro Dade County from 1956 to 1982." *Forensic Science International* 25 (July): 175–79.

[www.ncbi.nlm.nih.gov/pubmed?term=%20Forensic%20Sci%20Int.%201984%20Jul%3B25\(3\)%3A175-9](http://www.ncbi.nlm.nih.gov/pubmed?term=%20Forensic%20Sci%20Int.%201984%20Jul%3B25(3)%3A175-9)

This journal article describes a study of police officers who died (either on- or off-duty) while performing police action. Data is collected from the files of the medical examiner department. These 37 cases, which occurred between 1956 and 1982, are then analyzed by age, race, sex, cause and manner of death, scene circumstances, and alcohol and drugs detected at autopsy.

McCullen, Mary Jo. 2008. "Injuries to Law Enforcement Officers Shot Wearing Personal Body Armor: A 30-Year Review." *The Police Chief* LXXV (August).

www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display&article_id=1571&issue_id=82008

This article provides a historical overview of the effectiveness of personal body armor worn by law enforcement officers, highlighting how the U.S. Department of Justice's National Law Enforcement and Corrections Technology Center (formerly the Institute of Justice Technology Assessment Program) developed testing standards for this new technology.

Pastorella, Richard. "Impact of the Death Notification upon a Police Widow." *SpiritoftheLaw.org*.

www.stevedavis.org/spiritofthelaw/sol1art7.html

This article investigates the impact of the death notification on a police officer's widow/widower, focusing specifically on the effects of the isolation that are directly due to the manner of notification. The author examines records from personal interviews with spouses of slain officers from various police departments, an organization known as Concerns of Police Survivors, and several sources of published literature.

Plani, Frank, Douglas M. Bowley, and Jaques Goosen. 2003. "Death and Injury on Duty—A Study of South African Police Officers." *South African Medical Journal* 93 (November): 851–53.

[www.ncbi.nlm.nih.gov/pubmed?term=S%20Afr%20Med%20J.%202003%20Nov%3B93\(11\)%3A851-3](http://www.ncbi.nlm.nih.gov/pubmed?term=S%20Afr%20Med%20J.%202003%20Nov%3B93(11)%3A851-3)
(ABSTRACT ONLY)

This article presents a retrospective review of all injured South African Police Service (SAPS) members seen at one trauma center in Johannesburg between June 1993 and June 2002. A total of 134 SAPS members were admitted over this 9-year period. Nineteen SAPS personnel died of their injuries; the majority survived and returned to work in the field.

Sztajnkrzyer, Matthew D. 2008. "Needle Thoracostomy by Non-Medical Law Enforcement Personnel: Preliminary Data on Knowledge Retention." *Prehospital Disaster Medicine* 23 (December): 553–57.

www.tacmedsolutions.com/blog/wp-content/uploads/2010/01/TCCC-Sztajnkrzyer-Needle-DC-Prehosp-Disaster-Med-2008.pdf

According to the author, "tension pneumothorax [air or gas between the lung and chest wall] is the second leading cause of preventable combat death." He conducts a study with members of a combined city/county non-medical tactical response team to determine whether they were able to learn how to conduct a needle thoracostomy (decompression) and to evaluate how they retained this knowledge over time.

Sztajnkrzyce, Matthew D. "Risk Reduction in Officer Rescue: A Scenario-Based Observational Analysis of Medical Care."

http://valorproject.org/uploads/Downed_Officer_Rescue_Analysis.pdf

The author gives an overview of the "phases of risk in officer rescue" (approach, aid, and extraction). He also discusses the risks and benefits associated with rescuing officers from hazardous situations, training scenarios and drills, and stresses that "the key to any successful operation remains appropriate, realistic, and on-going training."

Violanti, John M. "Dying from the Job: The Mortality Risk for Police Officers." *SpiritoftheLaw.org*.

www.stevedavis.org/spiritofthelaw/sol1art11.html

Law enforcement is portrayed as a profession that includes possible psychological stress, danger, rotating shifts, family disruption, and exposure to noxious materials. This article presents an examination of the long-term health effects that can result from a career in law enforcement. Studies have suggested that the high psychological stress of police work may be one factor that plays a role in the origin of disease.

Violanti, John M., John E. Vena, and Robert J. Marshall. 1996. "Suicides, Homicides, and Accidental Death: A Comparative Risk Assessment of Police Officers and Municipal Workers." *American Journal of Industrial Medicine* 30 (July): 99–104.

[www.ncbi.nlm.nih.gov/pubmed?term=Am%20J%20Ind%20Med.%201996%20Jul%3B30\(1\)%3A99-104](http://www.ncbi.nlm.nih.gov/pubmed?term=Am%20J%20Ind%20Med.%201996%20Jul%3B30(1)%3A99-104)
(ABSTRACT ONLY)

This article describes a study that used data from a Buffalo, New York, project to evaluate the risk of suicide, homicide, and accidents among police officers and compares that risk to other municipal workers.

Violanti, John M., John E. Vena, and Sandra Petralia. 1998. "Mortality of a Police Cohort: 1950–1990." *American Journal of Industrial Medicine* 33 (April): 366–73.

www.ncbi.nlm.nih.gov/pubmed/9513643

This study presents findings from an updated study of male police officers from January 1, 1950 to December 31, 1990. Mortality by years of police service showed higher than expected rates for (1) all malignant cancers in the 1- to 9-years-of-service group; (2) all causes of death, bladder cancer, leukemia, and arteriosclerotic heart disease in the 10 to 19-years group; and (3) colon cancer and cirrhosis of the liver in the more than 30-years-of-service group.

Signs and Posters

Occupational Safety and Health Administration. "Fact Sheet: Preventing Falls."

www.osha.gov/OshDoc/data_Hurricane_Facts/fall.pdf

This OSHA fact sheet provides tips on how workers can protect themselves from falls and falling objects.

Links to Websites

Canadian Centre for Occupational Health and Safety

www.ccohs.ca/oshanswers/occup_workplace/police.html

This website of the Canadian Centre for Occupational Health and Safety promotes workplace health and safety and encourages attitudes and methods that will lead to improved worker physical and mental health through a wide range of products and services, some geared specifically towards law enforcement. These products and services are described on the site and offered in both English and French.

Federal Bureau of Investigation. 2010. "Law Enforcement Officers Killed and Assaulted, 2009."

www.fbi.gov/about-us/cjis/ucr/leoka/2009/leoka-2009

The FBI annually collects and presents information on sworn officers who were feloniously killed in the line of duty. The Bureau categorizes the information by victim profile, incident circumstances, officer assignments, weapons and types of body armor used, incident demographics (month, day, and time), and assailant profile.

Injured Police Officers Fund

www.injuredpoliceofficers.com

This website was established to help reduce the financial burden suffered by police officers and their families in the event of a line of duty injury or death.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Fall Injuries Prevention in the Workplace."

www.cdc.gov/niosh/topics/falls/?s_cid=3ni7d2fb071820110830am

This web page gives a brief description of why falls from elevations are a serious workplace safety issue. The site provides links to related NIOSH publications that offer preventive measures and statistics.

National Law Enforcement Officers Memorial Fund

www.nleomf.org/

This website for the National Law Enforcement Memorial Fund, established to generate increased public support for the law enforcement profession by recording and commemorating the service and sacrifice of law enforcement officers, provides information that will help promote law enforcement safety.

Violence Against Law Officer Research Initiative

<https://www.valorforblue.org/Home>

The goal of the VALOR Initiative (Violence Against Law Officer Research) is to empower officers and save lives through evidence-based research. The initiative is a result of a partnership between several U.S. Department of Justice agencies and law enforcement membership agencies. One resource provided by the group is the “Law Enforcement Officer Safety Toolkit,” a set of resources geared toward helping officers prevent and/or survive violent encounters, encourage suspicious activity reporting, and reduce community violence. The website also contains links to publications, on-site training information, and a host of officer safety initiatives.

EYE/EAR SAFETY

Links to Websites

Centers for Disease Control and Prevention. 2011. “Workplace Safety & Health Topics: Indoor Firing Ranges.”

www.cdc.gov/niosh/topics/ranges/

According to CDC, many firing ranges do not have policies in place that protect the health of range personnel and users from airborne lead, noise, and other exposures. This website provides links to related resources, including research articles and guidance on lead monitoring, ventilation, and other business practices.

Kardous, Chucra A. 2009. “Take Aim at Protecting Yourself: Solutions for Preventing Lead Poisoning and Hearing Loss at Indoor Firing Ranges.” *NIOSH Science Blog* (March).

<http://blogs.cdc.gov/niosh-science-blog/2009/05/firingrange/>

Those who work or train at indoor firing ranges are exposed to dangerous levels of lead and noise. This blog presents an overview of symptoms of lead and noise exposure, as well as the opportunity for users to post comments, questions, and information about promising practices.

The National Institute for Occupational Safety and Health. “Workplace Safety & Health Topics: Eye Safety for Emergency Response and Disaster Recovery.”

www.cdc.gov/niosh/topics/eye/eyesafe.html

This web page describes common eye hazards and injuries that can occur during dangerous operations and recommendations for first responders about protective eye gear, first aid, and steps for preventing eye injuries.

MOTOR VEHICLE SAFETY RESOURCES

Journal Articles/Monographs

Ashley, Steve. 2004. "Reducing the Risks of Police Pursuit." *The Police Policy Studies Council*.

www.theppsc.org/Staff_Views/Ashley/reducing_the_risks_of_police_pursuit.htm

This article addresses pursuit-related accidents, which can lead to injury, emotional distress, and even death among law enforcement officers. The author stresses the need for police management and officers to reduce the risks inherent in motor vehicle pursuits and offers strategies for improved pursuit policies.

Gyi, Diane E., and J. Mark Porter. 1998. "Musculoskeletal Problems and Driving in Police Officers." *Occupational Medicine* 48 (December): 153–60.

<http://occmed.oxfordjournals.org/content/48/3/153.full.pdf>

The authors interview two groups of police officers—those whose job mainly involved driving and those with lower levels of driving. Self-reported lower back trouble is significantly higher among those who drove more, and officers who drove motorcycles report higher levels of shoulder trouble.

Links to Websites

ResponderSafety.com

www.respondersafety.com/

The Emergency Responder Safety Institute focuses on providing resources for first responders with traffic-related duties. The website includes links to educational materials, public service announcements, and videos. There are also specific links to articles on incidents where responders were struck by vehicles and traffic-related line of duty deaths.

Tiesman, Hope M., and Rebecca Heick. 2011. "Cops and Cars." *NIOSH Science Blog* (February).

<http://blogs.cdc.gov/niosh-science-blog/2011/02/cops/>

This blog addresses safety concerns related to law enforcement personnel and motor vehicle use, safety, injury, and seat belt use. Readers can post their own blog entries, comment on others, and access other law enforcement-related blogs from this site.

Videos and Podcasts

PoliceOne.com. "Traffic Stop Safety."

<http://blutube.policeone.com/Media/2557-Traffic-Stop-Safety/>

This training video covers the basics of traffic stops from the perspective of the officer and the driver. Steps to reduce risks associated with traffic stops and potential violence are discussed, and two different scenarios for a successful and unsuccessful stop are shown to demonstrate the "do's and don'ts" for officers and drivers.

MOTORCYCLE SAFETY

Journal Articles/Monographs

Gyi, Diane E., and J. Mark Porter. 1998. "Musculoskeletal Problems and Driving in Police Officers." *Occupational Medicine* 48 (December): 153–60.

<http://occm.oxfordjournals.org/content/48/3/153.full.pdf>

The authors interview two groups of police officers—those whose job mainly involved driving and those with lower levels of driving. Self-reported lower back trouble is significantly higher among those who drove more, and officers who drove motorcycles report higher levels of shoulder trouble.

Hough, David L. "Interview with Harry Hurt." *Soundrider.com*.

www.soundrider.com/archive/safety-skills/harry_hurt_interview.htm

The author interviews Harry Hurt, who conducted the only comprehensive motorcycle safety study at the University of Southern California, under contract to the National Highway Traffic Safety Administration, in the late 1970s. According to the article, 30 years after it was published, the Hurt Report remains relevant and is the worldwide standard for motorcycle safety and accident research for the general public and law enforcement personnel.

PROTECTIVE GEAR

Journal Articles/Monographs

Espinoza, Kathy. 2010. "Ergonomics and Police Duty Belts: Easing their Load."

http://govpro.com/public_safety/law/police-officer-ergonomics-20100205/

The author describes the duty belt and its effects on officer comfort. She also lists several alternatives for consideration, including suspenders, moving handcuffs to a different location on the belt, choosing plastic belt buckles over metal, and adding foam to patrol vehicle seats to increase officer comfort.

Taylor, Bruce, Joshua Ederheimer, Bruce Kubu, James Cronin, Nathan Ballard, and Jason Cheney. 2005. "The BJA/PERF Bullet Resistant Armor Survey of the 100 Largest Law Enforcement Agencies: Phase I Final Report." *Police Executive Research Forum* (September).

www.policeforum.org/library/police-equipment/FINAL%20REPORT-BJA-Vest.pdf

In 2005, in response to the shooting of a law enforcement officer where the bullet penetrated his protective vest, the U.S. Department of Justice launched an investigation into the failure of the body armor. This final report describes Phase 1 of the project and includes results of a survey of 100 of the largest law enforcement agencies.

Taylor, Bruce, Bruce Kubu, Kristin Kappleman, Hemali Gunaratne, Nathan Ballard, and Mary Martinez. 2009. "The BJA/PERF Body Armor National Survey: Protecting the Nation's Law Enforcement Officers—Phase II Final Report to BJA." *Police Executive Research Forum* (August).

www.policeforum.org/library/police-equipment/Full%20COLOR%20Body%20Armor%20Report.pdf

The purpose of this phase of the study was to collect information that could inform and assist law enforcement in the development of policies and programs to improve the safety of officers using body armor. During this phase, the researchers collected information on the wearing of body armor from a nationally representative sample of law enforcement agencies.

Videos and Podcasts

PoliceOne.com. "The Importance of Utilizing Your [Gun] Safety."

<http://blutube.policeone.com/police-officer-safety-videos/1001003125001-the-importance-of-utilizing-your-safety/>

This video features an interview with Kyle Lamb, founder of Viking Tactics, who encourages law enforcement officers to use the safety on their firearms during training and operations. Note: A Police One login is needed to access this link.

CONFINED SPACES

Journal Articles/Monographs

Mayers, Michael. 2003. "Technical Rescue Awareness." *WiththeCommand.com* (July).

www.withthecommand.com/2003-July/SC-Mick-techrrr.html

This article summarizes the key points and components of a program geared toward teaching emergency service responders about confined space, structural collapses, and other hazardous rescue situations.

Signs and Posters

National Institute for Occupational Health and Safety. 2009. "Workplace Safety & Health Topics: Confined Spaces."

www.cdc.gov/niosh/topics/confinedspace/

This fact sheet on workplace health and safety defines confined spaces and their hazards, and offers links to NIOSH publications and related sites.

Links to Websites

International Underwater Cave Rescue and Recovery

www.iucrr.org/

The International Underwater Cave Rescue and Recovery is an international nonprofit organization based out of Florida, with the purpose of assisting law enforcement agencies with rescue and recovery tasks. This web page provides information on the organization and its benefits to law enforcement.

SHIFT WORK

Journal Articles/Monographs

Amendola, Karen L., David Weisburd, Edwin E. Hamilton, Greg Jones, and Meghan Slipka. 2011. "An Experimental Study of Compressed Work Schedules in Policing: Advantages and Disadvantages of Various Shift Lengths." *Journal of Experimental Criminology* 7 (September): 407–42.

www.springerlink.com/content/1567381r81111730/ (ABSTRACT ONLY)

The authors test the effects of three shift lengths (8, 10, and 12 hours long) on officer performance, quality of life, sleep, safety, and fatigue. They find that officers who worked 10-hour shifts reported higher quality of life and averaged more sleep than those on 8-hour shifts.

Aveni, Thomas J. 1999. "Shift Work and Officer Survival." *S&W Academy Newsletter* 31 (Summer).

www.theppsc.org/Staff_Views/Aveni/Shift-Survival.htm

This online article presents an overview of shift work and its impact on the health and well-being of police officers. Potential problems associated with shift work include morale issues, lethargy, social isolation, and irritability.

Charles, Luenda E., Ja K. Gu, Michael Andrew, John Violanti, Desta Fekedulegn, and Cecil Burchfiel. 2011. "Sleep Duration and Biomarkers of Metabolic Function among Police Officers." *Journal of Occupational and Environmental Medicine* 53 (8): 831–37.

www.ncbi.nlm.nih.gov/pubmed/21785371 (ABSTRACT ONLY)

This study of 443 police officers finds that those who reported less than 5 and more than 8 hours of sleep had higher levels of leptin, a hormone that regulates energy intake and output. The authors hypothesize that the higher levels may also be related to obesity and similar conditions.

Eriksen, Claire A., and Goran Kecklund. 2007. "Sleep, Sleepiness and Health Complaints in Police Officers: The Effects of a Flexible Shift System." *Industrial Health* 45 (March): 279–88.

www.jniosh.go.jp/en/indu_hel/pdf/IH_45_2_279.pdf

This journal article describes a study conducted to assess the effects of a flexible shift system with respect to sleep/wake complaints and subjective health. The results show that the flexible shift system group who had longer rest times between shifts did not differ with respect to sleep/wake complaints and subjective health.

Kecklund, Goran, Claire A. Eriksen, and Torbjorn Akerstedt. "Police Officers Attitude to Different Shift Systems: Association with Age, Present Shift Schedule, Health and Sleep/Wake Complaints." *Applied Ergonomics* 39 (September): 565–71.

www.ncbi.nlm.nih.gov/pubmed?term=Police%20officers%20attitude%20to%20different%20shift%20systems%3A%20association%20with%20age%2C%20

This journal article describes a study evaluating the attitude toward six new shift systems among a randomly selected sample of police officers. The results showed that the most popular shift system was a rapidly, forward, rotating schedule with at least 16 hours of rest between shifts.

Mohr, David, Kumar Vedantham, Thomas Neylan, Thomas J. Metzler, Suzanne Best, and Charles R. Marmar. 2003. "The Mediating Effects of Sleep in the Relationship between Traumatic Stress and Health Symptoms in Urban Police Officers." *Psychosomatic Medicine* 65:485–89.

www.psychosomaticmedicine.org/content/65/3/485.full.pdf+html

This journal article describes a study examining the relationship between posttraumatic stress symptoms, sleep problems, health functioning, and somatic symptoms among urban U.S. police officers.

Phillips, Barbara, Laura Magan, Clay Gerhardstein, and Barry Cecil. 1991. "Shift Work, Sleep Quality, and Worker Health: A Study of Police Officers." *Southern Medical Journal* 84 (October): 1176–84.

www.ncbi.nlm.nih.gov/pubmed?term=Shift%20work%2C%20sleep%20quality%2C%20and%20worker%20health%3A%20a%20study%20of%20police%20officers

This journal article examines the results of patrol officers' responses to the Florida Sleep Questionnaire, the SCL-90 (a symptom checklist), and absentee data.

Police-Officer-Pages.com. "Shift Work."

www.police-officer-pages.com/shiftwork.html

This fact sheet provides basic information for police officers who are assigned to shift work during the beginning phase of their career. It briefly addresses a variety of consequences, including insomnia, fatigue, hypertension, and mood swings and provides some suggestions for coping with these problems.

Violanti, John M., Cecil M. Burchfiel, Tara A. Hartley, Anna Mnatsakanova, Desta Fekedulegn, Michael E. Andrew, Luenda E. Charles, and Brian J. Vila. 2009. "Atypical work hours and metabolic syndrome among police officers." *Archives of Environmental and Occupational Health* 64 (Fall): 194–201.

www.ncbi.nlm.nih.gov/pubmed/19864222 (ABSTRACT ONLY)

In this study, the authors examine police officers' rate of metabolic syndrome (e.g., high cholesterol and hypertension) and how rates are related to atypical work hours. They find that increased overtime and working the midnight shift contributed to higher rates of metabolic syndrome.

Links to Websites

Centers for Disease Control and Prevention. 2010. "Work Schedules: Shift Work and Long Work Hours."

www.cdc.gov/niosh/topics/workschedules/

According to CDC, long work hours and shift work have been linked to safety and health risks. This website provides links to related resources, including publications and conference proceedings. Topics include strategies for coping with shift work and information on sleep disorders.

CANINE AND MOUNTED OFFICER RESOURCES

Journal Articles/Monographs

Fox, Phillip R., Birgit Puschner, and Joseph G. Ebel. 2008. "Assessment of Acute Injuries, Exposure to Environmental Toxins, and Five-Year Health Surveillance of New York Police Department Working Dogs Following the September 11, 2001, World Trade Center Terrorist Attack." *Journal of the American Veterinary Medical Association* 233 (July): 48–59.

[www.ncbi.nlm.nih.gov/pubmed?term=J%20Am%20Vet%20Med%20Assoc.%202008%20Jul%201%3B233\(1\)%3A48-59](http://www.ncbi.nlm.nih.gov/pubmed?term=J%20Am%20Vet%20Med%20Assoc.%202008%20Jul%201%3B233(1)%3A48-59)

This journal article describes a study conducted to better understand injuries and illnesses in New York Police Department working dogs that assisted in relief efforts at the World Trade Center site. The authors listed types and rates of related acute injuries and illnesses, identified environmental toxin exposures, and determined long-term (i.e., 5-year) health effects of deployment.

Proctor, Paul, and Louise Aubin. 2010. "Vector Bourne Disease Prevention Plan 2010." Region of Peele.

www.peelregion.ca/health/vbd/pdfs/vector-borne-dis-prev-plan2010.pdf

This Canadian prevention plan for vector-borne diseases was created in 2010 to focus mainly on West Nile Virus. The plan also mentions two other vector-borne diseases: Lyme disease and eastern equine encephalitis. The authors also provide summaries of the diseases, trends, and plans for prevention. It would also serve as a good resource for mounted officers.

Signs and Posters

The National Institute for Occupational Safety and Health. "Protecting Yourself from Ticks and Mosquitoes."

www.cdc.gov/niosh/docs/2010-119/pdfs/2010-119.pdf

This printable fast facts guide focuses on tick- and mosquito-borne diseases and protective strategies for those who work outdoors.

Occupational Safety and Health Administration, U.S. Department of Labor. 2005. "OSHA Fact Sheet: West Nile Virus."

www.osha.gov/OshDoc/data_Hurricane_Facts/west_nile_virus.pdf

This OSHA fact sheet defines the vector-borne disease West Nile Virus and details the symptoms. In addition, this document discusses what employers can do to reduce the risk to their employees.

Videos and Podcasts

Connecticut State Police K-9 Academy. "K-9 Police Academy."

www.youtube.com/watch?v=tVDAUk1SnBA

This You Tube video produced by the Connecticut State Police K9 Academy explores the role of the K-9 officer and the importance of training and agility. The video simulates intoxicated driver vehicle stops, building searches for suspects, and car chases.

PoliceOne.com. 2009. "Working with Your K-9 Team."

www.policeone.com/K-9/tips/1858716-Working-with-your-K-9-team/

This video features San Francisco Police Department officer Michelle Liddicoet and her Belgian Malinois Shepherd dog, Draco. She explains the role of the canine officer and how to apprehend suspects safely and efficiently.

Links to Websites

Centers for Disease Control and Prevention. 2011. "It's Spring – Time to Prevent Lyme Disease."

www.cdc.gov/Features/LymeDisease/

This CDC web page provides information on Lyme disease, including details on the disease, protective strategies, and a map of the United States that displays reported cases of Lyme disease.

Mounted Police.com

<http://mountedpolice.com/>

This website is devoted to providing information on patrol horses and mounted police officers. It contains links to news articles, resources, national and international training events, and historical information on equestrian law enforcement.

North American Police Work Dog Association (NAPWDA)

www.napwda.com/

This is the website for NAPWDA, an organization working to enhance the use of police work dogs by law enforcement agencies through continuing education in the form of local, state, and national workshops, held periodically throughout the year.

Police Dog Home Page

www.policek9.com/

This website is devoted to law enforcement canine officers and their dogs. The page links to information on related conferences, articles, merchandise, courses, and consultants that might be of interest to canine officers.

Police K-9 Training Institute

www.policek9traininginstitute.com/index2.html

This is the website of an institute formed to provide high level police canine training. The page provides links to instructors, seminars, memorials, a photo gallery, and related resources.

PoliceOne.com. “K-9 Range Training.”

www.policeone.com/K-9/page-2/

This K-9 topic web page provides law enforcement canine handlers with news and information to increase the effectiveness of a K-9 team. The page is geared toward officers who work with cadaver dogs, bomb-detection dogs, search-and-rescue dogs, or enforcement dogs.

United States Park Police—Horse Mounted Unit

www.nps.gov/uspp/fhorsepage.htm

This web page describes the history, mission, and activities of the U.S. Park Police Horse Mounted Unit, one of the oldest established police equestrian units in the nation.

United States Police Canine Association

www.uspcak9.com/

This is the website of the United States Police Canine Association, the largest and oldest active organization of its kind, formed in August 1971 when two existing canine associations, the Police K-9 Association and the United States K-9 Association, merged. The association meets twice a year.

FEMALE OFFICERS

Journal Articles/Monographs

Price, Barbara R. 1996. “Female Officers in the United States.” In *Policing in Central and Eastern Europe: Comparing Firsthand Knowledge with Experience from the West*, edited by Milan Pagon, Ljubljana, Slovenia: College of Police and Security Studies.

www.ncjrs.gov/policing/fem635.htm

This article presents a historical overview of female police officers in the United States and the challenges they still face in a male-dominated field. The author follows the early history of female police work in the 19th century through the present, and then shows results of her own research involving the integration of women into the New York Police Department.

Links to Websites

National Center for Women & Policing (NCWP)

www.womenandpolicing.org/aboutus.asp

This is the website of a division of the Feminist Majority Foundation, NCWP, promoting increased numbers of women at all ranks of law enforcement as a strategy to improve police response to violence against women, reduce police brutality and excessive force, and strengthen community policing reforms.

Sameshield.com

www.sameshield.com/

This website is a repository of information, history, links, a photo gallery, and press reports, all related to women in the military and law enforcement arena.

Women in Law Enforcement ENEWS

www.wifle.org/newsletters/june2011/index.htm

WIFLE is a nonprofit organization created to recruit and retain more women in federal law enforcement. Their web site includes information on programs and resources, career opportunities, conferences, scholarships, programs, and awards, and links to a newsletter and press releases.

VACCINATION

Journal Articles/Monographs

Essortment.com. "Adult Immunizations and Vaccines."

www.essortment.com/adult-immunizations-vaccinations-62315.html

This online article provides an overview of adult immunizations and vaccinations, especially for adults who work in special environments, suffer from various diseases, and who live certain lifestyles. Special populations mentioned in this article include healthcare personnel, law enforcement personnel, and firefighters.

Futty, John. 2009. "Law-Enforcement Officers Lobby for H1N1 Vaccine Priority." *The Columbus Dispatch* November 12.

www.dispatch.com/content/stories/local/2009/11/12/cop_flu.ART_ART_11-12-09_B4_A0FL82F.html

This newspaper article describes efforts to initiate regular H1N1 vaccinations for police officers following the death of an Ohio deputy. This article also describes the challenge associated with CDC's list of vaccination priority groups and how this affects law enforcement in particular.

Goldstein, Sarah F. 2009. "PS109 Improving Influenza Immunizations for Police Officers." Session presented at the 43rd National Immunization Conference, Dallas, Texas.

<http://cdc.confex.com/cdc/nic2009/webprogram/Paper18175.html> (ABSTRACT ONLY)

This abstract summarizes a study being undertaken to measure approximate influenza vaccination coverage rates for Chicago police officers, identify knowledge about the influenza vaccine among police officers, and improve knowledge and coverage rates of the officers by providing additional vaccine clinics and educational materials.

PHYSICAL FITNESS

Journal Articles/Monographs

Arokoski, Jari P., Merja Juntunen, and J. Luikku. 2002. "Use of Health-Care Services, Work Absenteeism, Leisure-Time Physical Activity, Musculoskeletal Symptoms and Physical Performance After Vocationally Oriented Medical Rehabilitation—Description of the Courses and a One-and-a-Half-Year Follow-Up Study with Farmers, Loggers, Police Officers and Hairdressers." *International Journal of Rehabilitation Research* 25 (June): 119–31.

[www.ncbi.nlm.nih.gov/pubmed?term=Int%20J%20Rehabil%20Res.%202002%20Jun%3B25\(2\)%3A119-31](http://www.ncbi.nlm.nih.gov/pubmed?term=Int%20J%20Rehabil%20Res.%202002%20Jun%3B25(2)%3A119-31)

This journal article describes a study conducted to evaluate the effectiveness of vocationally oriented medical rehabilitation (VOMR) courses carried out in institutions with regard to the use of health-care services, work absenteeism, leisure-time physical activity, musculoskeletal symptoms and physical performance during follow-up. VOMR courses have a beneficial effect on physical performance and subjective pain caused by neck and back musculoskeletal diseases of farmers, loggers, police officers, and hairdressers within 1.5 years of follow-up, but VOMR courses do not decrease the use of health care services.

Bonneau, Jean, and J. Brown. 1995. "Physical Ability, Fitness and Police Work." *Journal of Clinical Forensic Medicine* 2 (September): 157–64.

[www.ncbi.nlm.nih.gov/pubmed?term=J%20Clin%20Forensic%20Med.%201995%20Sep;2\(3\):157-64.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=J%20Clin%20Forensic%20Med.%201995%20Sep;2(3):157-64.%20)

The authors conducted a literature review on police work and fitness variables, and the method used to develop a tool that measures the physical abilities required for police work is also presented.

De Loes, Marianne, and B. Jansson. 2002. "Work-Related Acute Injuries from Mandatory Fitness Training in the Swedish Police Force." *International Journal of Sports Medicine* 23 (April): 212–17.

www.ncbi.nlm.nih.gov/pubmed/11914986 (ABSTRACT ONLY)

This journal article describes a study exploring acute injuries in the Swedish Police Force from on-duty fitness training. The study examines incidence, gender differences, and resulting degree of disability.

Ma, Claudia C., Cecil M. Burchfiel, Desta Fekedulegn, Michael E. Andrew, Luenda E. Charles, J.K. Gu, Anna Mnatsakanova, and John M. Violenti. 2011. "Association of Shift Work with Physical Activity among Police Officers: the Buffalo Cardio-Metabolic Occupational Police Stress Study." *Journal of Occupational and Environmental Medicine* 53 (9): 1030–36.

www.ncbi.nlm.nih.gov/pubmed/21866054

The authors examine the relationship between shift work and physical activity among 350 police officers. They find that those who worked afternoon shifts tended to be more active.

Nabeel, Ismail, Beth A. Baker, Michael P. McGrail Jr., and Thomas J. Flottemesch. 2007. "Correlation between Physical Activity, Fitness, and Musculoskeletal Injuries in Police Officers." *Minnesota Medicine* 90 (September): 40–43.

[www.ncbi.nlm.nih.gov/pubmed?term=Minn%20Med.%202007%20Sep;90\(9\):40-3.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Minn%20Med.%202007%20Sep;90(9):40-3.%20)

(ABSTRACT ONLY)

In this study, a cross section of active-duty members of the Minneapolis Police Department are surveyed about their level of fitness, physical activity, and prevalence of injury and chronic pain within the past year. The authors use this data to explore the correlation between physical activity, fitness, and injury among police officers.

Pollock, Michael L., L.R. Gettman, and Bernd U. Meyer. 1978. "Analysis of Physical Fitness and Coronary Heart Disease Risk of Dallas Area Police Officers." *Journal of Occupational Medicine* 20 (June): 393–98.

www.ncbi.nlm.nih.gov/pubmed/671115 (ABSTRACT ONLY)

This journal article describes an analysis of 213 male police officers who participated in a physical education and conditioning program in the Dallas, Texas, area. The study supports the need for physical fitness and preventive medicine programs for police officers.

Rhodes, Edward C., and D.W. Farenholtz. 1992. "Police Officer's Physical Abilities Test Compared to Measures of Physical Fitness." *Canadian Journal of Sport Sciences* 17 (September): 228–33.

[www.ncbi.nlm.nih.gov/pubmed?term=Can%20J%20Sport%20Sci.%201992%20Sep;17\(3\):228-33.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Can%20J%20Sport%20Sci.%201992%20Sep;17(3):228-33.%20)

(ABSTRACT ONLY)

This journal article describes a study comparing results from the Police Officer's Physical Abilities Test with selected field and laboratory tests of physical fitness.

Sorensen, Lars, Junani Smolander, Veikko Louhevaara, O. Korhonen, and Pekka Oja. 2000. "Physical Activity, Fitness and Body Composition of Finnish Police Officers: A 15-Year Follow-Up Study." *Occupational Medicine* 50 (January): 3–10.

[www.ncbi.nlm.nih.gov/pubmed?term=Occup%20Med%20\(Lond\).%202000%20Jan;50\(1\):3-10.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Occup%20Med%20(Lond).%202000%20Jan;50(1):3-10.%20)

(ABSTRACT ONLY)

This article describes a study evaluating changes in the physical activity, fitness level, and body composition of 103 Finnish police officers during a 15-year follow-up.

Stamford, Bryant A., A. Weltman, Robert J. Moffatt, and Charles Fulco. 1978. "Status of Police Officers with Regard to Selected Cardio-Respiratory and Body Compositional Fitness Variables." *Medicine and Science in Sports* 10 (Winter): 294–97.

www.ncbi.nlm.nih.gov/pubmed/750850

This journal article describes an assessment of the physical performance and body composition characteristics of members (n = 75) and recruits (n = 61) of the Louisville Police Department (total n = 136).

Steinhardt, Mary, Linda Greenhow, and Joy Stewart. 1991. "The Relationship of Physical Activity and Cardiovascular Fitness to Absenteeism and Medical Care Claims among Law Enforcement Officers." *American Journal of Health Promotion* 5 (July-August): 455–60.

www.ncbi.nlm.nih.gov/pubmed/10171669

This journal article describes a study examining the relationship between physical activity and cardiovascular fitness to absenteeism and medical care claims among law enforcement officers.

Strating, Mathilde, Robert H. Bakker, Geke J. Dijkstra, Koen A. Lemmink, and Jaap W. Groothoff. 2010. "A Job-Related Fitness Test for the Dutch Police." *Occupational Medicine* 60 (June): 255–60.

[www.ncbi.nlm.nih.gov/pubmed?term=Occup%20Med%20\(Lond\).%202010%20Jun;60\(4\):255-60.%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Occup%20Med%20(Lond).%202010%20Jun;60(4):255-60.%20)

This journal article describes a study conducted as a first step toward standardizing the administration of a job-related test to assess a person's ability to perform the physical demands of the core tasks of police work. The authors focus on the role of gender, age, body mass index, and the number of hours of physical exercise.

Yoo, Hye L., Joey C. Eisenmann, and Warren D. Franke. 2009. "Independent and Combined Influence of Physical Activity and Perceived Stress on the Metabolic Syndrome in Male Law Enforcement Officers." *Journal of Occupational and Environmental Medicine* 51 (January): 46–53.

www.ncbi.nlm.nih.gov/pubmed?term=%22Independent%20and%20combined%20influence%20of%20physical%20activity%20and%20perceived%20stress%20on%20the%20metabolic%20syndrome%20in%20male%20law%20enforcement%20officers.%22%20

This journal article describes a study examining the link between physical activity, perceived stress, and a diagnosis of metabolic syndrome (e.g., coronary artery disease, stroke) in law enforcement officers.

Videos and Podcasts

PoliceOne Video. "Dave Pletti: Fitness for Lower Back Strength & Flexibility."

www.policeone.com/policeonetv/videos/1763193-dave-pletl-fitness-for-lower-back-strength-flexibility/

This online video demonstrates techniques for maintaining and improving lower back strength and flexibility for police officers.

GENERAL

Journal Articles/Monographs

International Labour Organization. 2000. "International Hazard Datasheets on Occupation: Police/Law Enforcement Officer."

www.ilo.org/legacy/english/protection/safework/cis/products/hdo/htm/offcr_police.htm

This electronic data sheet lists the most relevant hazards to police and information related to law enforcement officer occupational safety. The rest of the web page includes specific information on these hazards as well as suggestions for preventative measures.

Mayhew, Claire. 2001. "Occupational Health and Safety Risks Faced by Police Officers." *Australian Institute of Criminology Trends and Issues* (196):1–6.

www.aic.gov.au/documents/E/D/9/%7BED946A67-E4C8-4C46-A294-9B982325EF4D%7Dti196.pdf

The author conducts a literature review on occupational health and safety risks regularly faced by officers, focusing on the following categories: death and homicide, assault, communicable disease, and other illnesses and injuries.

Mayhew, Claire. 2001. "Protecting the Occupational Health and Safety of Police Officers." *Australian Institute of Criminology Trends and Issues* (197):1–6.

www.aic.gov.au/documents/5/A/8/%7B5A881AE7-17A8-4932-B322-6AB955F02422%7Dti197.pdf

As a follow-up to her literature review on the occupational health and safety risks to police officers, the author presents a variety of preventive strategies, such as the use of body armor, improving combat skills, and providing information on preventing the spread of communicable disease.

National Occupational Research Agenda Public Safety Sub Council. 2009. "National Public Safety Agenda for Occupational Safety and Health Research and Practice in the U.S. Public Safety Sub Sector."

www.cdc.gov/niosh/nora/comment/agendas/pubsafsub/pdfs/PubSafSubApr2009.pdf

This document explains how CDC's NIOSH reviewed occupational health and safety data for public safety employees (fire, law enforcement, corrections, and emergency medical services) and created a research agenda to address the gaps in each sector and attain a host of research-specific goals.

Parsons, Jennifer R.L. 2004. "Occupational Health and Safety Issues of Police Officers in Canada, the United States and Europe: A Review Essay." *SafetyNet: Centre for Occupational Health & Safety Research* (www.safetynet.mun.ca).

www.safetynet.mun.ca/pdfs/Occupational%20H&S.pdf

The author conducts a literature review on occupational health and safety risks regularly faced by officers. She groups the literature into five risk categories: physical, chemical, biological, ergonomic, and psychosocial. She also compares the literature produced by each country listed in the title and notes gaps in the research.

Rotkowska, Dolores, Jiri Moc, Jitka Kautska, Alena Bartonickova, Jarmila Keprtova, and Michal Hofer. 1993. "Evaluation of the Biological Effects of Police Radar RAMER 7F." *Environmental Health Perspectives* 101 (June): 134–36

www.ncbi.nlm.nih.gov/pmc/articles/PMC1519743/?tool=pubmed

The authors conduct experiments on mice to discover the effects of electromagnetic radiation emitted by a law enforcement radar device. The results of this study can be of particular importance for public safety officers whose primary assignment is patrol.

Sanberg, Elizabeth L., Corina Solé Brito, Andrea M. Luna, and Shannon M. McFadden. 2010. *A Guide to Occupational Health and Safety for Law Enforcement Executives*. Occupational Health and Safety Series. Washington, D.C.: Police Executive Research Forum.

www.policeforum.org/library/police-public-health/OccupationalGuide_v4.pdf

This report is one in a series of documents created by the Police Executive Research Forum on the law enforcement response to public health emergencies. This occupational health and safety guide focuses on steps a law enforcement agency can take to ensure the best possible health of the agency's workforce. The guide provides an overview of occupational health and safety for law enforcement, explains the benefits of these programs for police agencies, presents a comprehensive three-part approach to occupational health and safety programs, and offers solutions to various obstacles a department may encounter while implementing a plan or program of this nature.

Links to Websites

Canadian Centre for Occupational Health and Safety

www.ccohs.ca/oshanswers/occup_workplace/police.html

This is the website of a Canadian organization established to promote workplace health and safety and encourage attitudes and methods that can lead to improved worker physical and mental health, through a wide range of products and services. One section of the site is dedicated to health and safety issues related to police officers.

Justice Technology Information Network

www.justnet.org/index.html

"Justnet" is a product of the National Institute of Justice' Office of Justice Programs National Law Enforcement and Corrections Technology Center. The website provides safety-specific information on body armor, explosives detection and remediation, less-lethal technology, personal protective equipment, pursuit management, and standards and testing.

National Institute of Justice, Office of Justice Programs, Officer Performance and Safety Page

<http://nij.gov/topics/law-enforcement/officer-safety/welcome.htm>

This website describes the work that the National Institute of Justice supports in the following areas: officer safety and performance awards, body armor, police roadside safety, equipment standards and testing, stress and fatigue, and use of force. There are also links to data on law enforcement officers killed or injured and workplace injuries.

The Police Policy Studies Council, Staff Views, PPSC Staff: Professional Perspectives

www.theppsc.org/Staff_Views/Main.htm

This website includes links to selected articles on various law enforcement related topics, including chemical hazards in law enforcement and lead poisoning.

SafetyNet—Centre for Occupational Health & Safety Research

www.safetynet.mun.ca/index.htm

SafetyNet is a product of the Community Alliance for Health Research (funded primarily by the Canadian Institutes of Health Research). This comprehensive research program studies occupational health and safety of marine and coastal work and could be pertinent to law enforcement agencies involved in harbor patrol.

HAZARDS

Public safety personnel are exposed to a variety of hazards daily. These hazards range from slight to potentially life-threatening. Since knowledge is power, law enforcement should have as much information as possible about these hazards and exposures, and how to avoid them. What follows are resources on a wide range of hazards, from lead exposure and loud firing range noises to extreme temperatures and chemical hazards at an illicit drug manufacturing site. This section provides links to resources on many hazards and offers suggestions for prevention and protection from these threats.

POISONOUS PLANTS

Signs and Posters

The National Institute for Occupational Safety and Health. “Protecting Yourself from Poisonous Plants.”

www.cdc.gov/niosh/docs/2010-118/pdfs/2010-118.pdf

This National Institute for Occupational Safety and Health (NIOSH) fact sheet provides an overview of common poisonous plants, such as poison ivy, and tips for protecting oneself from coming into contact with them. The fact sheet also provides information on symptoms of exposure and first aid.

National Park Service. 2008. “Outsmarting Poison Ivy and other Poisonous Plants.”

www.fda.gov/downloads/ForConsumers/ConsumerUpdates/UCM143611.pdf

This U.S. Food and Drug Administration fact sheet provides illustrations of poison ivy, poison oak, and sumac and presents basic strategies for avoiding contact and transmission, symptoms of exposure, and treatment options.

Links to Websites

The National Institute for Occupational Safety and Health. 2010. “Workplace Safety & Health Topics: Poisonous Plants.”

www.cdc.gov/niosh/topics/plants/

This website offers a full spectrum of information and illustrations on poisonous plants. It outlines the U.S. geographic distribution of these plants, plant identification, symptoms of exposure, recommendations for protection, and first aid. Additional resources are provided.

WEATHER HAZARDS

Journal Articles and Monographs

U.S. Environmental Protection Agency. 2006. "Sun Screen: The Burning Facts."

www.epa.gov/sunwise/doc/sunscreen.pdf

This monograph educates readers about sunscreen and other important sun protection measures. It defines ultraviolet radiation (UV, a known carcinogen), explains how sunscreen works to protect skin, and spells out the ingredients in sunscreen products. Instructions for proper sunscreen application are also included.

Signs and Posters

The National Institute for Occupational Safety and Health. "Protecting Yourself from Sun Exposure."

www.cdc.gov/niosh/docs/2010-116/pdfs/2010-116.pdf

This NIOSH fact sheet offers practical guidelines for protecting oneself from sun exposure, especially for those who work outdoors. The document provides an overview of sunburn, first aid, skin cancer, and protection approaches.

The National Institute for Occupational Safety and Health. "Fast Facts: Protecting Yourself from Heat Stress."

www.cdc.gov/niosh/docs/2010-114/pdfs/2010-114.pdf

This NIOSH fact sheet explains how exertion or working in hot environments can put workers at risk for illnesses that include heat stroke, heat exhaustion, and heat cramps. Each illness is described in greater detail, including symptoms and first aid. Tips for protecting oneself from heat exposure are summarized.

The National Institute for Occupational Safety and Health. "Fast Facts: Protecting Yourself from Cold Stress."

www.cdc.gov/niosh/docs/2010-115/pdfs/2010-115.pdf

Workers who are exposed to cold weather environments may be at risk for related illnesses and injuries. This fact sheet identifies and describes each of these, and briefly outlines the symptoms and first aid tactics for hypothermia and frostbite. General cold weather precautionary tips are also provided.

Videos and Podcasts

PoliceOne.com. "Winterize Yourself for Patrol."

<http://blutube.policeone.com/Media/6579-Winterize-Yourself-for-Patrol/>

Public safety officers working in cold climates must consider extreme weather conditions. Cold weather clothing and gear can alter officers' ability to defend themselves and maintain firearm access. The narrator suggests that officers undergo firearm and other tool and equipment training while wearing extra layers. He also stresses the importance of cold weather maintenance of all equipment. Note: A Police One login is needed to access this link.

PoliceOne.com. "Staying Hydrated on Duty."

<http://blutube.policeone.com/Media/6978-Staying-hydrated-on-duty/>

Law enforcement officers must be aware of the potential effects of dehydration on their physical well-being and their critical thinking skills. The narrator explains the importance of remaining hydrated and the danger of waiting for a sensation of thirst before consuming fluids. He encourages viewers to maintain their fluid intake regardless of their whereabouts or the season.

Links to Websites

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Cold Stress."

www.cdc.gov/niosh/topics/coldstress/

This web page presents an overview of cold stress pertaining to workers exposed to extreme cold or who regularly work in cold environments. The web page addresses the symptoms and first aid for hypothermia, frostbite, and other related conditions. It also contains links to additional resources and websites.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics, Emergency Response Resources: Natural Disasters."

www.cdc.gov/niosh/topics/emres/natural.html

This web page provides information and links for emergency responders who may encounter hazards associated with responding to natural disasters (e.g., wild fires, tornados, and earthquakes).

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Emergency Response Resources, Storm/Flood and Hurricane Response."

www.cdc.gov/niosh/topics/emres/flood.html

This NIOSH web page discusses the hazards associated with storm and flood cleanup activities, including electrical hazards, exposure to carbon monoxide, working in confined spaces, and general injuries. Links to related resources are also provided.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Heat Stress."

www.cdc.gov/niosh/topics/heatstress/

This web page presents an overview of heat stress pertaining to workers exposed to extreme heat or who regularly work in hot environments. The web page addresses the symptoms and first aid tactics for heat stress and heat stroke. It also contains links to additional resources and websites.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: UV Radiation."

www.cdc.gov/niosh/topics/uvradiation/

This web page presents a summary of UV rays and UV radiation and the potential risk of exposure to UV rays for workers who are outside for prolonged time periods. The risks of UV radiation are listed and described (e.g., sunburn and skin cancer). Sources of additional resources and information are also provided.

The Occupational Safety and Health Administration. "Protecting Yourself in the Sun."

www.osha.gov/Publications/OSHA3166/osha3166.html

This OSHA fact sheet includes the fundamentals of skin health as it pertains to protection from UV radiation. The risks of skin cancer and the importance of self examination for skin changes are emphasized and strategies for blocking out UV rays are summarized.

The Occupational Safety and Health Administration. "Water, Rest, Shade."

<http://osha.gov/SLTC/heatillness/edresources.html>

This web page provides an overview of heat-related illnesses and links to posters, fact sheets, and videos (some in several languages) for workers and employers.

INSECTS, VENOMOUS SNAKES AND SPIDERS

Signs and Posters

Centers for Disease Control and Prevention (CDC). "Emergency Preparedness and Response: How to Prevent or Respond to a Snake Bite."

www.bt.cdc.gov/disasters/snakebite.asp

This fact sheet, provided by the CDC, includes information on preventing snake bites as well as procedures to follow in the event of a bite.

The National Institute for Occupational Safety and Health. "Fast Facts: Protecting Yourself from Stinging Insects."

www.cdc.gov/niosh/docs/2010-117/pdfs/2010-117.pdf

This NIOSH fact sheet provides an overview of first aid and protective strategies on stings from insects such as bees, wasps, and hornets. A map that shows actual and potential fire ant infestations sites is also included.

The Occupational Safety and Health Administration. "Fact Sheet: Protect Yourself! Workers May Be Exposed to Black Widow Spider."

www.osha.gov/OshDoc/data_Hurricane_Facts/black_widow_spider.pdf

This fact sheet describes how to identify a black widow spider, its habitat, symptoms of a bite, and protective strategies.

The Occupational Safety and Health Administration. "Fact Sheet: Protect Yourself! Workers May Be Exposed to Brown Recluse Spider."

www.osha.gov/OshDoc/data_Hurricane_Facts/brown_recluse_spider.pdf

This factsheet describes how to identify a brown recluse spider, its habitat, symptoms of a bite, and protective strategies.

Videos and Podcasts

PoliceOne.com. "Handling Exotic Animals."

<http://blutube.policeone.com/Media/3911-Handling-Exotic-Animals/>

This video highlights a document on law enforcement procedures for encountering or using force against an exotic animal when responding to a call for service. The narrator also provides a link to a free use of force continuum established by an experienced officer.

Links to Websites

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Venomous Snakes."

www.cdc.gov/niosh/topics/snakes/

Characteristics of venomous snakes (e.g., water moccasins, rattlesnakes) and how to spot and treat a bite are offered on this web page. NIOSH also provides information on protective strategies and links to additional resources on snake bites.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Venomous Spiders."

www.cdc.gov/niosh/topics/spiders/

Characteristics of venomous spiders (e.g., hobo spiders, black widows, and brown recluse) and how to spot and treat a bite are offered on this web page. NIOSH also provides information on protective strategies and links to additional resources on spiders and spider bites.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Insects and Scorpions."

www.cdc.gov/niosh/topics/insects/

This NIOSH web page provides information on insects and scorpions, including their habitat, how to prevent and recognize a sting, and strategies for protecting employees. Links to additional information are provided throughout the web page.

The University of Oklahoma Police Department. "The Police Notebook: Oklahoma's Perilous Partners."

www.ou.edu/oupd/peril.htm

The University of Oklahoma Police Department hosts this web page that provides information on how to prevent, recognize, and treat bites from insects, snakes, spiders, and more, with a focus on species that can be found in Oklahoma.

FIRING RANGES

Links to Websites

Kardous, Chucri A. 2009. "Take Aim at Protecting Yourself." *NIOSH Science Blog* (May).

<http://blogs.cdc.gov/niosh-science-blog/2009/05/firingrange/>

Those who work or train at indoor firing ranges are exposed to dangerous levels of lead and noise. This blog presents an overview of lead and noise exposure symptoms, as well as the opportunity for users to post comments, questions, and information about promising practices.

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Indoor Firing Ranges."

www.cdc.gov/niosh/topics/ranges/

This page provides links to information about the level, control, and problems associated with airborne lead exposures at indoor firing ranges.

NUCLEAR, BIOLOGICAL, AND CHEMICAL HAZARDS

Journal Articles/Monographs

California Commission on Peace Officer Standards and Training. 2004. "Model Respiratory Protection Program for Law Enforcement."

www.nbpc1613.org/Pages/MemberResources/SafetySecurity/Docs/respiratory_program2.pdf

This article describes a program covering equipment selection, medical screening, fit testing, training, use, and maintenance of respirators to be used by the following types of officers: those who are issued respirators to be used to escape from hazardous atmospheres; officers who maintain perimeters at hazardous materials incidents, during crowd-control incidents, and to prevent exposure to tuberculosis; and officers who enter an area where tearing agents have been expelled.

Crebelli, Ricardo, Francesco Tomei, Andra Zijno, Sergio Ghittori, Marcello Imbriani, Daniele Gamberale, A. Martini, and Angelo Carere. 2001. "Exposure to Benzene in Urban Workers: Environmental and Biological Monitoring of Traffic Police in Rome." *Occupational and Environmental Medicine* 58 (March): 165–71.

www.ncbi.nlm.nih.gov/pmc/articles/PMC1740101/?tool=pubmed

The authors of this study examine the effects of benzene from traffic fumes on urban traffic police in Italy. From December 1998 to June 1999, nearly 200 police officers participated in this study.

Edleman, Phillip., John Osterioh, James Pirkle, Sam P. Caudill, James Grainger, Robert Jones, Ben Blount, Antonia Calafat, Wayman Turner, Debra Feldman, Sherry Baron, Bruce Bernard, Borts D. Lushniak, Kerry Kelly, and David Prezant. 2003. "Biomonitoring of Chemical Exposure among New York City Firefighters Responding to the World Trade Center Fire and Collapse." *Environmental Health Perspective* 111 (December): 1906–11.

www.ncbi.nlm.nih.gov/pmc/articles/PMC1241765/pdf/ehp0111-001906.pdf

This study explores the chemical exposure that first responders faced at the World Trade Center in New York City after September 11, 2001. Estimates of exposure were determined through the biological monitoring of blood and urine of more than 300 firefighters who responded to the attacks on the Twin Towers.

Nolan, Patricia A., Cynthia Vanner, Utpala Bandy, Gregory Banner, Walter S. Combs, John Fulton, Gregory V. Hayes, Kenneth Jones, and Robert J. Marshall Jr. 2003. "Public Health Response to Bioterrorism with Bacillus Anthracis: Coordinating Public Health Laboratory, Communication, and Law Enforcement." *Journal of Public Health Management and Practice* 9 (September-October): 352–56.

www.ncbi.nlm.nih.gov/pubmed?term=Public%20health%20response%20to%20bioterrorism%20with%20Bacillus%20anthracis%3A%20coordinating%20public%20health%20laboratory%2C%20communication%2C%20and%20law%20enforcement (ABSTRACT ONLY)

This article examines the response to the bioterrorism event that occurred in October 2001 when anthrax spores were placed in packages delivered by the United States Postal Service. The authors discuss the event and response taken by public health and law enforcement, as well as the importance of flexible communication strategies when handling similar situations.

Promisloff, Robert A., Gregory S. Lenchner, A. Phan, and Andrew V. Cichelli. 1990. "Reactive Airway Dysfunction Syndrome in Three Police Officers Following a Roadside Chemical Spill." *Chest* 98 (October): 928–29.

<http://chestjournal.chestpubs.org/content/98/4/928.long>

This study describes the cases of three Philadelphia police officers who developed reactive airway dysfunction syndrome after being exposed to toxic fumes from a roadside truck accident. The authors document the officers' exposure experience and the aftermath.

Videos and Podcasts

PoliceOne.com. "Arizona Department Training: Chemical Suits."

<http://blutube.policeone.com/swat-videos/935523036001-ariz-department-training-chemical-suits/>

This video provides an inside look at a special chemical hazards training exercise held by the Glendale Police Department. The training requires officers to practice responding to a chemical emergency wearing a high level chemical suit.

PoliceOne.com. "Centers for Disease Control Bio-Terrorism."

<http://blutube.policeone.com/police-training-videos/935330702001-centers-for-disease-control-bioterrorism/>

This video outlines biological diseases deemed high priority agents for bioterrorism by the CDC. The diseases include anthrax, botulism, plague, smallpox, tularemia, and viral hemorrhagic fever.

Links to Websites

Centers for Disease Control and Prevention. "Workplace Safety & Health Topics: Correctional Health Care Workers."

www.cdc.gov/niosh/topics/correctionalhcw/

This website provides information on exposure to bloodborne diseases (e.g., hepatitis B, human immunodeficiency virus) in correctional health care settings. The page includes information on safe work practices, how to report exposures, and model plans.

CROETweb.com. "Police and Firefighters: Police Work and Law Enforcement"

www.ohsu.edu/croetweb/links.cfm?topicID=16

This web page provides links to documents on a variety of topics for law enforcement officers, including chemical hazards, biological hazards, and workplace safety issues. The page is published by the Center for Research on Occupational and Environmental Toxicology, a component of the Oregon Health & Science University.

Indiana University of Pennsylvania. "Police: Nuclear Power Plant Emergencies."

www.iup.edu/page.aspx?id=11477

This web page includes a list of tips and procedures public safety officers should follow in the event of nuclear power plant emergencies. (Note: some of the information is specific to the Indiana University of Pennsylvania but can be used as a model.)

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Emergency Response Resources, Chemical Hazards."

www.cdc.gov/niosh/topics/emres/chemagent.html

This web page serves as a guide for emergency responders who may encounter chemical hazards. The page includes links to chemical databases for specific exposure scenarios.

Police Policy Studies Council. "PPSC Staff: Professional Perspectives."

www.theppsc.org/Staff_Views/Main.htm

This web page includes links to selected articles on various law enforcement-related topics, including chemical hazards in law enforcement and lead poisoning.

U.S. Department of Health and Human Services. "Chemical Hazards Emergency Medical Management."

<http://chemm.nlm.nih.gov/>

This U.S. Department of Health and Human Services website focuses on chemical hazards emergency medical management. An entire section is devoted to first responders, with information and guidelines for responding to a chemical hazard emergency. Protective measures are highlighted.

AIR QUALITY (AFFECTING TRAFFIC OFFICERS)

Journal Articles/Monographs

Michal, Lou. 2010. "Police Station Air Quality Deemed Safe." *BuffaloNews.com* June 4.

www.buffalonews.com/city/article52983.ece

Published in August 2010 after the Northwest District Police Station in Buffalo was reopened after a temporary closure due to insufficient air-quality levels, this news article describes how poor air quality was traced to mold growing inside of the building from leaks and an inadequate sump pump.

Soogarun, Suphan, Viroj Wiwanitkit, and Jamsai Siwamsaksri. 2004. "Urine Phenol Levels among Thai Police, Implications for Occupational Health." *The Southeast Asian Journal of Tropical Medicine and Public Health* 35 (December): 1034–35.

[www.ncbi.nlm.nih.gov/pubmed?term=Southeast%20Asian%20J%20Trop%20Med%20Public%20Health.%202004%20Dec%3B35\(4\)%3A1034-5](http://www.ncbi.nlm.nih.gov/pubmed?term=Southeast%20Asian%20J%20Trop%20Med%20Public%20Health.%202004%20Dec%3B35(4)%3A1034-5) (ABSTRACT ONLY)

This study presents results of analyses of urine phenol levels in 45 Thai police officers whose main responsibility was directing traffic in an urban area. Results yield that police who worked for longer periods of time had significantly higher urine phenol levels.

Vimercati, Luigi., Antonio Carrus, Lucia Bisceglia, I. Tato, Maria R. Bellotta, A. Russo, G. Martina, Carmela Daprile, Elisabetta Di Leo, E. Nettis, and Giorgio Assennato. 2006. "Biological Monitoring and Allergic Sensitization in Traffic Police Officers Exposed to Urban Air Pollution." *International Journal of Immunopathology and Pharmacology* 19 (October-December): 57–60.

www.ncbi.nlm.nih.gov/pubmed?term=%22Biological%20monitoring%20and%20allergic%20sensitization%20in%20traffic%20police%20officers (ABSTRACT ONLY)

This study aims to assess the occupational exposure to urban pollution among 122 traffic officers in Bari, Italy. The authors use biological pollutant monitoring to determine pollution's role in participants' allergic respiratory diseases.

Links to Websites

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: Indoor Environmental Quality."

www.cdc.gov/niosh/topics/indoorenv/

This web page provides information on indoor environmental quality, including links to specific information on dampness and mold in buildings, building ventilation, and chemicals and odors.

ELECTRICAL HAZARDS

Videos and Podcasts

PoliceOne.com. "Your Safety on the Line."

<http://blutube.policeone.com/videos/935621457001-your-safety-on-the-line/>

This video, created as part of an electrical hazards awareness program in Connecticut, includes electrical safety tips and best practices for first responders.

EMERGENCY PREPAREDNESS

Public health emergencies (such as the 2009 H1N1 swine flu pandemic) and recent natural disasters like Hurricane Katrina highlight the need for law enforcement agencies to develop internal (agency-specific) emergency plans. They also must devise plans for working with other agencies and the public during a crisis. This section includes sample plans and emergency preparedness resources that agencies can tailor to suit their own specific needs and criteria.

GENERAL EMERGENCY PLANNING RESOURCES

Journal Articles/Monographs

International Association of Chiefs of Police. 2006. "QUARANTINES: The Law Enforcement Role." *The Police Chief* 73 (February).

http://policechiefmagazine.org/magazine/index.cfm?fuseaction=display&article_id=807&issue_id=22006

If a large-scale quarantine is declared at any point in time to disrupt the spread of a disease in the United States, law enforcement will be relied upon to assist with enforcing the orders. This publication details the role that law enforcement might take in such an event by discussing issues such as preparation, deployment of personnel, and communications.

Richards, Edward P., Katherin C. Rathbun, Corina Solé Brito, and Andrea Luna. 2006. "The Role of Law Enforcement in Public Health Emergencies—Special Considerations for an All-Hazards Approach." Washington, D.C.: U.S. Department of Justice, Office of Justice Programs' Bureau of Justice Assistance, and Police Executive Research Forum.

www.policeforum.org/library/police-public-health/Pandemic%20FINAL.pdf

This document discusses the challenges presented for law enforcement during public health emergencies and outlines the key issues and concerns that law enforcement officials must address in preparation for them.

Solé Brito, Corina, Andrea M. Luna, and Elizabeth Lang Sanberg. 2010. *Communication and Public Health Emergencies: A Guide for Law Enforcement*. Occupational Health and Safety Series. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs' Bureau of Justice Assistance, and Police Executive Research Forum.

www.policeforum.org/library/police-public-health/Risk%20Comm_Jan%202010.pdf

This document presents the components that law enforcement agencies should consider including in their public health communications plans. Specifically, this report discusses the type and extent of information that should be shared internally (within the law enforcement agency) and externally (with other agencies or the public).

“State of California Emergency Plan 2009.”

http://cms.calema.ca.gov/prep_sep.aspx

This 2009 Emergency Plan for the State of California outlines their local and state-wide plans and strategies to respond to a large scale emergency. The document also includes a law enforcement mutual aid plan with details about emergency services and mobilizing resources.

Trust for America's Health. 2011. “Remembering 9/11 and Anthrax: Public Health's Vital Role in National Defense.” *Robert Wood Johnson Issue Report*.

<http://healthyamericans.org/health-issues/anthrax-report>

This monograph contains more than 30 accounts from public health professionals who responded to the 2001 anthrax incidents. The editors group the accounts into the following categories: public health provider response, federal response, public health laboratory response, local public health response, and state public health response.

Signs and Posters

The Occupational Safety and Health Administration. “OSHA Fact Sheet: Search and Rescue Operations.”

www.osha.gov/OshDoc/data_Hurricane_Facts/search_and_rescue.pdf

This fact sheet created by OSHA provides emergency responders the information they need to successfully conduct search and rescue procedures following a catastrophe, such as a hurricane. The facts include information on potential hazards, recommendations, and general precautions.

Links to Websites

Federal Communications Commission, Public Safety and Homeland Security Bureau. “Emergency Planning: Law Enforcement.”

<http://transition.fcc.gov/pshs/emergency-information/guidelines/law-enforcement.html>

This web page features information on disaster preparedness and recovery planning by law enforcement agencies. The FCC’s Public Safety and Homeland Security Bureau offers communications-specific guidance on all areas of emergency management. This website is an excellent resource for law enforcement departments looking to create, update, or improve the communications component of emergency management plans.

Flowers, Christina M. 2010. “Pathogens for Knuckleheads’: Invisible and Infectious.” *Domestic Preparedness Journal* 6 (November): 7–10.

www.domesticpreparedness.com/pub/docs/DPJNov10.pdf

This article is geared toward first responders and provides an overview of the nature of pathogens, how to understand and deal with them, and how they affect current policymaking in the United States. The author explains CDC’s pathogen categorization and includes tips for responding to an incident involving pathogens and communicating with the public during an emergency.

The National Institute for Occupational Safety and Health. “Workplace Safety & Health Topics: Emergency Response Resources, Disaster Site Management.”

www.cdc.gov/niosh/topics/emres/sitemgt.html

This web page provides resources that can help emergency responders prepare for disasters. The site links to work plan essentials and team leader checklists and also includes information on potential hazards found on disaster sites (e.g., silica, asbestos, and carbon monoxide).

Public Health Agency of Canada. “Emergency Preparedness and Response.”

www.phac-aspc.gc.ca/ep-mu/index-eng.php

This emergency preparedness website section, created by the Public Health Agency of Canada, provides various resources, including links to tool kits; links on chemical, biological, radiological and nuclear hazards; and public health security issues that relate to law enforcement.

Public Safety Canada. “Emergency Management Planning.”

www.publicsafety.gc.ca/prg/em/emp/index-eng.aspx

This page emphasizes the responsibilities of Federal Government institutions in emergency planning for all types of hazards. Canada’s emergency management planning guide and information as to how it was developed is made available and can help Canadian law enforcement departments develop their own plans.

U.S. Department of Homeland Security. "Preparedness, Response & Recovery."

www.dhs.gov/files/prepresprecovery.shtm

This U.S. Department of Homeland Security page offers resources for first responders on disaster response, preparedness, disaster recovery, communications, and links on how to be prepared. In addition there are links to information on training exercises, laws and regulations, and more.

PANDEMIC FLU-H1N1

Journal Articles/Monographs

Colwell, Lee. 2006. "The Pandemic Influenza Plan: Implications for Local Law Enforcement." *The Police Chief* 73 (January).

www.policechiefmagazine.org/magazine/index.cfm?article_id=784&fuseaction=display&issue_id=12006

This article discusses the U.S. Department of Health and Human Services (HHS) Pandemic Influenza Plan released by the U.S. Department of Health and Human Services and the implications this plan has on local law enforcement. The additional roles and responsibilities law enforcement agencies would take in the event of a pandemic are outlined and described in detail.

International Association of Chiefs of Police. 2007. "Considerations for Pandemic Flu Planning and Response." *The Police Chief* 74 (August).

www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display&article_id=1239&issue_id=82007

The purpose of this article is to provide guidelines in developing a multitude of materials that are necessary for a comprehensive law enforcement pandemic flu plan. This publication presents information on developing plans, organizing resources, and establishing department protocols that will prove useful in a pandemic influenza or similar public health emergency.

Luna, Andrea M., Corina Solé Brito, and Elizabeth A. Sanberg. 2007. *Police Planning for an Influenza Pandemic: Case Studies and Recommendations from the Field*. Critical Issues in Policing Series. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs' Bureau of Justice Assistance, and Police Executive Research Forum.

www.policeforum.org/library/police-public-health/Pandemic_v4.pdf

This monograph discusses the seriousness of an influenza pandemic and the effects that one could have on law enforcement. The authors provide planning recommendations, including data collected from four case studies. The case studies reveal four very different law enforcement agencies' experiences with pandemic flu planning.

Solé Brito, Corina, Andrea M. Luna, and Elizabeth L. Sanberg. 2009. *Benchmarks for Developing a Law Enforcement Pandemic Flu Plan*. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs' Bureau of Justice Assistance, and Police Executive Research Forum.

www.policeforum.org/library/police-public-health/Benchmarks%20Guide_v6.pdf

This monograph is the first of three documents centered on a response by law enforcement to public health emergencies. The benchmarks in this report illustrate a step-by-step planning process to ensure an effective law enforcement response to a flu pandemic, but can also be applied to any public health emergency.

SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

Journal Articles/Monographs

Fantino, Julian. "2003 SARS Outbreak: The Response of the Toronto Police Service." *The Police Chief* 72 (April).

www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&article_id=565&issue_id=42005

This article details the SARS outbreak that occurred in Toronto in March 2003. This was the first outbreak of this respiratory disease in North America, and the response by the Toronto Police Service is detailed in this report.

SEPTEMBER 11th TERRORIST ATTACKS

Journal Articles/Monographs

Jackson, Brian A., John C. Baker, M. Susan Ridgely, James T. Bartis, and Herbert I. Linn. 2004. *Protecting Emergency Responders, Volume 3: Safety Management in Disaster and Terrorism Response*. Santa Monica, California: RAND Corporation.

www.cdc.gov/niosh/docs/2004-144/

This report, the third volume of "Protecting Emergency Responders," focuses on the protection of emergency responders against injury, illness, and death during disaster situations. This preparedness publication discusses the role of planning and training as means of controlling and reducing the hazards emergency workers face.

Jackson, Brian A., D.J. Peterson, James T. Bartis, Tom LaTourrette, Irene T. Brahmakulam, Ari Houser, and Jerry M. Sollinger. 2002. *Protecting Emergency Responders: Lessons Learned from Terrorist Attacks*. Santa Monica, California: RAND Corporation.

www.rand.org/pubs/conf_proceedings/CF176.html

This publication aims to help key decision-makers recognize the labor and safety issues associated with terrorist incidents, comprehend the needs of first responders, and improve education and activities directed at the health and safety of emergency workers. The focus is on specific terrorist attacks, including the responses to the September 11, 2001 attacks at the World Trade Center and the Pentagon, the 1995 Oklahoma City Bombing, and the emergency responses to the anthrax incidents that occurred in 2001.

LaTourrette, Tom, D. J. Peterson, James T. Bartis, Brian A. Jackson, and Ari Houser. 2003. *Protecting Emergency Responders, Volume 2: Community Views of Safety and Health Risks and Personal Protection Needs*. Santa Monica, California: RAND Corporation.

www.rand.org/pubs/monograph_reports/MR1646.html

The authors of this study interviewed 190 emergency responders including police officers to discuss the primary situations and hazards they face that put their lives in danger and what could be implemented in order to improve their protection.

Willis, Henry H., Nicholas G. Castle, Elizabeth M. Sloss, and James T. Bartis. 2006. *Protecting Emergency Responders, Volume 4: Personal Protective Equipment Guidelines for Structural Collapse Events*. Santa Monica, California: RAND Corporation.

www.rand.org/pubs/monographs/MG425.html

This document is a guide for incident commanders to help them through emergency response of a large structural collapse (e.g., the Twin Towers in New York City). The guidelines address three issues that agencies must consider when responding to a structural collapse: (1) biological hazards, (2) inhalation of hazardous materials, and (3) modifications to responders' typical personal protective equipment ensembles because of the duration and intensity of the situation.

Links to Websites

The National Institute for Occupational Safety and Health. "Workplace Safety & Health Topics: World Trade Center Health Program."

www.cdc.gov/niosh/topics/wtc/

This web page offers information related to all aspects of the World Trade Center Health Program. The Program offers support and treatment for emergency responders involved in any of the September 11 terrorist attacks. Specific sections offer information on health programs for survivors, first responders, and Pentagon and Shanksville responders.

HURRICANE KATRINA

Journal Articles/Monographs

Anderson, Willoughby. 2006. "This Isn't Representative of Our Department: Lessons from Hurricane Katrina for Police Disaster Response Planning." *Berkeley Law Library, University of California* (April).

www.law.berkeley.edu/library/disasters/Anderson.pdf

This report presents lessons learned from Hurricane Katrina that can be used for future law enforcement disaster response planning. The authors offer a history of the New Orleans Police Department and detail the failures of planning and lack of the department's execution of response tactics that contributed to devastating loss during and after Hurricane Katrina.

Bernard, Bruce P., Richard J. Driscoll, Margaret Kitt, and Christine A. West. 2006. "Health Hazard Evaluation of Police Officers and Firefighters after Hurricane Katrina—New Orleans, Louisiana, October 17–28 and November 30–December 5, 2005." *Morbidity and Mortality Weekly Report* 55 (April): 456–58.

www.cdc.gov/mmwr/preview/mmwrhtml/mm5516a4.htm

CDC surveys New Orleans Police and Fire Department employees 7–13 weeks after Hurricane Katrina to assess health effects they experienced as a result of being exposed to certain hazards. The most common symptoms reported by the sample include upper respiratory problems and skin rashes.

Deflem, Mathieu, and Susan Sutphin. 2009. "Policing Katrina: Managing Law Enforcement in New Orleans." *Policing* 3 (February): 41–49.

www.cas.sc.edu/socy/faculty/deflem/zKatrina.html

The authors of this article reviewed functional and organizational adaptations of the New Orleans Police Department, focusing on the effects of Hurricane Katrina. Also discussed are the social implications of natural disasters and the variety of police concerns that occurred after the storm, including: getting emergency relief to the site of damaged police infrastructure; the breakdown of police communications; the effect of the storm on traditional transportation systems; and the need for coordination between police and other first responders.

Sims, Benjamin. 2007. "The Day After the Hurricane: Infrastructure, Order, and the New Orleans Police Department's Response to Hurricane Katrina." *Social Studies of Science* 37 (February): 111–18.

<http://sss.sagepub.com/content/37/1/111.extract> (ABSTRACT ONLY)

This article discusses the infrastructure collapse and the problematic emergency response that occurred after Hurricane Katrina. The author details the role infrastructure plays in institutions designed to protect the public in the event of a natural disaster, including law enforcement.

Links to Websites

Smith, Michael R., and Jeffery Rojek. "An Assessment of the Law Enforcement Response to Hurricane Katrina." University of South Carolina.

www.sc.edu/katrinacrisis/smith_rojek.shtml

This website, created by a group of researchers at the University of South Carolina, provides an in-depth look at the crisis response of state and local law enforcement agencies to Hurricane Katrina. The page includes an assessment of the law enforcement response to the storm collected through on-site observations, interviews, and document reviews to examine the strengths and weaknesses of the state and local law enforcement response to Katrina.

ATTACKS ON PUBLIC TRANSIT SYSTEMS (LONDON, JAPAN, AND SPAIN)

Journal Articles/Monographs

Prieto, Daniel B. 2005. "Mass Transit Security after the London Bombings." *Belfer Center for Science and International Affairs, Harvard University*.

http://belfercenter.ksg.harvard.edu/publication/3275/mass_transit_security_after_the_london_bombings.html

This document is a written testimony of Daniel B. Prieto, former research director of the Homeland Security Partnership Initiative. Prieto discusses the London train bombings and examples of bombings in other countries and expresses the United States' vulnerability to a similar attack.

Strom, Kevin J., and Joe Eyerman. 2008. "Interagency Coordination: A Case Study of the 2005 London Train Bombings." *National Institute of Justice Journal* 260 (July).

www.nij.gov/nij/journals/260/interagency-coordination.htm

This article summarizes the response of London's emergency services and transportation system in 2005 when they experienced a terrorist bombing on three underground trains. The article discusses the multiagency response to the incident, including challenges they experienced and ways to overcome them. Data gleaned from interviews with law enforcement officials and other emergency response personnel are also included in this report.

Strom, Kevin J., and Joe Eyerman. 2008. "Interagency Coordination: Lessons Learned from the 2005 London Train Bombings." *National Institute of Justice Journal* 261 (October).

www.nij.gov/journals/261/coordination.htm

This article, the second in a two part series, provides a summary of the lessons learned by emergency responders and other agencies when faced with responding to the 2005 train bombings.



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July 2012
ISBN: 978-1-932582-58-1
e031228445