

Good Health Geek

CHEMISTRY AT WORK™
REAL BIOLOGY. REAL PERFORMANCE.

LAW ENFORCEMENT PERFORMANCE BRIEFING

**OFFICER PERFORMANCE
EDITION**

Exploring the Human
Factors Behind Officer
Readiness & Performance

**WHEN SECONDS MATTER,
BIOLOGY MATTERS**

**THE JOB DOESN'T WAIT FOR
RECOVERY**

THE COST CAN ACCUMULATE

**A DIFFERENT APPROACH TO
OFFICER WELLNESS**

HEALTHIER OFFICERS.
SAFER COMMUNITIES.
STRONGER TOMORROWS.

A CLOSER LOOK AT THE BIOLOGY BEHIND HEALTH & PERFORMANCE

Different testing options can provide personal insight into areas of health that influence how the body functions, responds and recovers.

VITAMINS, MINERALS & OTHER NUTRIENTS

Explore nutritional status and the nutrients the body relies on for energy production, nervous-system function, cellular processes and recovery.

ENERGY & METABOLISM

Markers such as glucose, A1c and electrolytes can provide insight into blood-sugar regulation, metabolic health and the body's internal balance.

CARDIOVASCULAR HEALTH

Cholesterol, HDL, LDL, triglycerides and other available markers provide a window into cardiovascular and metabolic health over time.

THYROID FUNCTION

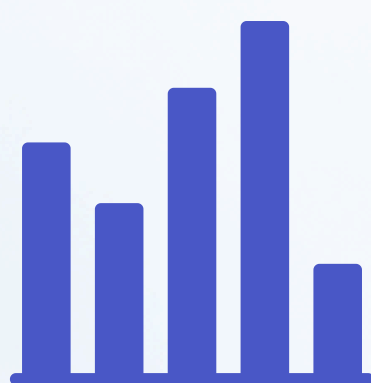
Thyroid markers such as TSH, T4 and T3 uptake help provide insight into a system involved in metabolism, energy use and many fundamental body functions.

GENERAL HEALTH

Blood-cell counts, kidney markers and other clinical measures can provide broader context about health and physiological function.

Available insights depend on the testing option selected.

Personal results are 100% confidential.



EDUCATION • TESTING • SUPPORT

*Information becomes more useful when you understand
what it means and what you can do with it.*

Officer Readiness Has a Biological Foundation

WHEN SECONDS MATTER, BIOLOGY MATTERS.

Police officers train for judgment, situational awareness, physical response and decision-making under pressure.

But when a situation changes in an instant, training is being executed by a living biological system.

During acute stress, physiological changes can occur rapidly. Heart rate and respiration change. Stress mediators are released. Attention can narrow.

Perception and cognitive processing can change as the body prepares to respond.

For police officers, this matters because some decisions cannot wait for ideal conditions.

The body is already responding

while the officer is still assessing what is happening.

Research using realistic police scenarios has found substantial physiological activation during critical incidents, along with changes in perception and cognition. Importantly, greater physiological stress reactivity has also been associated with poorer performance and more lethal-force errors in experimental scenarios.¹

But the response doesn't start at zero.

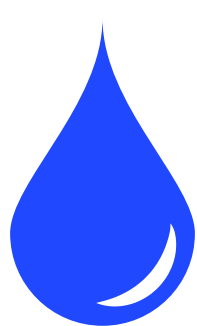
Every officer enters that moment with a biological starting point shaped by the hours and days before it:



SLEEP



NUTRITION



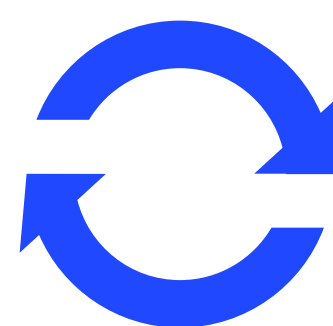
HYDRATION



CIRCADIAN
RHYTHM



STRESS



RECOVERY



PHYSICAL
HEALTH

A critical incident may last seconds.

The biology responding to it has been building all day.

1. Baldwin S, Bennell C, Blaskovits B, et al. *Front Psychol.* 2022;12:759132.
doi:10.3389/fpsyg.2021.759132.

The Job **Doesn't Wait** for Recovery

Police work can challenge the same biology it depends on.

Law enforcement requires around-the-clock readiness. Night shifts, rotating schedules, long hours and disrupted recovery can place repeated demands on the systems responsible for alertness, energy, physical response and cognitive function.

40.4%

screened positive for at least one sleep disorder

In a study of 4,957 North American police officers, most who screened positive had not previously been diagnosed.¹

69%

of night-shift officers had poor sleep quality

Compared with 60% of afternoon-shift and 44% of day-shift officers in the BCOPS police study.²

26.1%

reported falling asleep while driving at least once a month

More than one in four officers in the 4,957-officer study reported this experience.¹

This Isn't Only About Feeling Tired.

Officers screening positive for a sleep disorder were more likely to report:

23.7%

vs. 15.5%

Fatigue-related errors or safety violations¹

17.9%

vs. 12.7%

Serious administrative errors¹

34.1%

vs. 28.5%

Uncontrolled anger toward a suspect¹

The call may be unpredictable.
The biological condition an officer brings isn't created in that moment.

**SAFER OFFICERS
STRONGER COMMUNITIES
A HEALTHIER TOMORROW**

1. Rajaratnam SMW, Barger LK, Lockley SW, et al. Sleep Disorders, Health, and Safety in Police Officers. JAMA. 2011;306(23):2567–2578. doi:10.1001/jama.2011.1851.
2. Fekedulegn D, Burchfiel CM, Charles LE, et al. Shift Work and Sleep Quality Among Urban Police Officers: The BCOPS Study. J Occup Environ Med. 2016;58(3):e66–e71. doi:10.1097/JOM.0000000000000620.

The Cost Can Accumulate

The same biology has to carry the officer home.

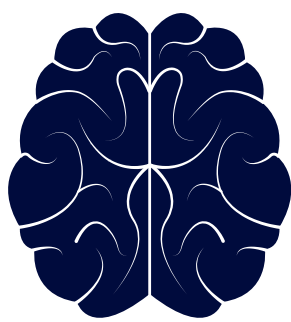
Police work doesn't place demands on the body only during critical incidents. Shift work, repeated stress activation, disrupted sleep and recovery can accumulate across months and years, influencing long-term physical and psychological health.



PHYSICAL HEALTH

26.7%

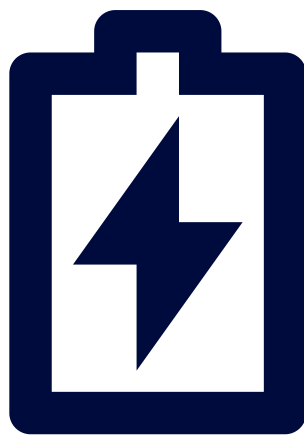
of officers had metabolic syndrome vs. 18.7% of the U.S. employed comparison population.¹



PSYCHOLOGICAL HEALTH

14.2%

pooled prevalence of PTSD among police personnel across a meta-analysis of 272,463 officers in 24 countries.²



RECOVERY & CAREER HEALTH

-17.3 points

in officers reporting excellent or very good health

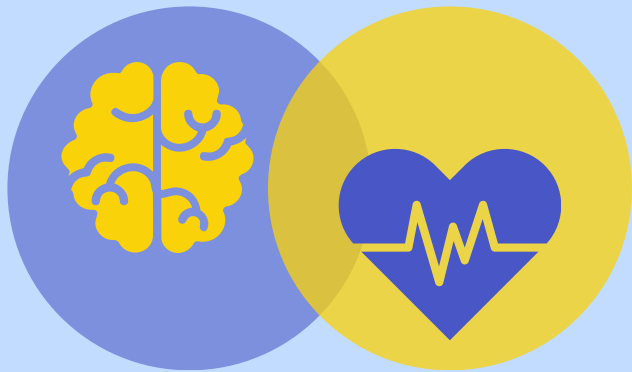
over approximately 12 years of follow-up.³



During the same period, occupational stress and metabolic syndrome also increased significantly.

**PHYSICAL AND
PSYCHOLOGICAL HEALTH
INTERSECT.**

3x



***Different systems.
The same biology.***

Severe PTSD symptoms were associated with approximately three times the prevalence of metabolic syndrome compared with officers reporting the fewest PTSD symptoms.⁴

Supporting officer health isn't only about responding when something goes wrong.

It is also about giving officers better ways to understand and support the biology they rely on every day.

1. Hartley TA, et al. Int J Emerg Ment Health. 2011;13(4):211-220.
2. Syed S, et al. Occup Environ Med. 2020;77(11):737-747. doi:10.1136/oemed-2020-106498.
3. Violanti JM, et al. Int Arch Occup Environ Health. 2025;98:451-465. doi:10.1007/s00420-025-02142-x.
4. Violanti JM, et al. Int J Emerg Ment Health. 2006;8(4):227-237.

A Different Approach to Officer Wellness

Support the biology behind the badge.

Officers don't need another checklist. They need practical, science-based support that fits the realities of police work - and respects their privacy. Chemistry at Work™ (CAW) helps departments give officers the knowledge and tools to understand and support the biology they rely on every day.

PERSONAL INSIGHTS

Voluntary nutritional and clinical screening provides officers with personal health and nutritional insights based on the testing option selected. Individual results remain private.

PRACTICAL LEARNING

Relevant, engaging education
Short, science-based lessons on sleep, stress resilience, nutrition, hydration and more - designed for real life, not the classroom.

EXPERT SUPPORT

Registered dietitian guidance
Access to a licensed dietitian to help officers make sense of their results and create realistic, personalized strategies.

STRONGER OUTCOMES

Healthier officers. Stronger departments.
Support for the biology behind energy, focus and resilience today, and health across the career.

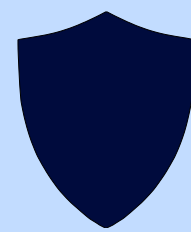


**It's a
Strong
Investment**



PEOPLE

Greater well-being
Improved resilience
Longer, healthier careers



DEPARTMENTS

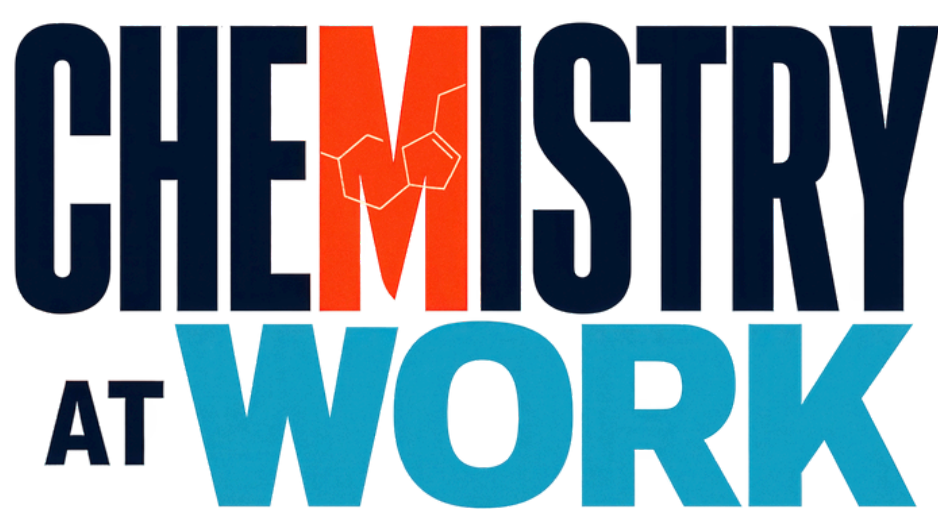
Reduced risk
Stronger performance
A culture of care



COMMUNITIES

Safer communities
More engaged officers
A stronger tomorrow

**When officers thrive,
communities do too.**



Chemistry at Work™ partners with employers to bring confidential testing, science-based education and registered dietitian support to the people who serve and protect.

**REAL BIOLOGY. REAL PEOPLE.
A STRONGER TOMORROW.**



You protect us. Let us protect you!

THE **CRITICAL MOMENT** BEGINS BEFORE THE CALL

Every call is answered by a human biological system shaped by sleep, nutrition, recovery, stress, physical health and the demands of the job.

That system depends on chemistry. Vitamins, minerals and other nutrients help power the processes behind energy, cognition, nervous-system function, stress response and recovery. Giving officers the opportunity to understand that biology is a different kind of investment in readiness, health and the people behind the badge.



<https://goodhealthgeek.com/law-enforcement>