

# POLICE

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## Letter From Israel: How You Can FIGHT BACK AGAINST TERRORISTS



## What Causes Prisoners to DIE SUDDENLY IN CUSTODY

### How to Start a Crisis Negotiation Team

### Shooting the New Beretta Px4 Pistol







# SUDDEN

## In-Custody

# DEATH

*A number of factors can cause a subject to suddenly die in police custody. Recognizing and reacting to them may help you save lives.*



**Jeffrey D. Ho, MD, FACEP**

*It's a 20-degree night in a major American city, freezing rain is spitting out of a black sky, and the wind chill factor is well below zero. Local police respond to a call for assistance from the manager of a fast-food restaurant. A young man is running around the restaurant's parking lot naked, screaming nonsensical gibberish at the top of his*

*lungs, and scaring the customers.*

*Two officers approach the man, trying to talk him down and get him to obey their verbal commands. The man repeatedly ignores commands from the officers and a confrontation ensues. Eventually, he is wrestled to the ground, handcuffed, and hauled to a patrol car for transport.*

*On the way to a hospital, the man*

*kicks, screams, and spits. He struggles against the handcuffs. Then suddenly, he's quiet. One officer looks back at the prisoner and says, "This guy doesn't look so good."*

*EMS is called and minutes later the prisoner is under the care of an emergency room team. But despite numerous attempts to revive him, he dies.*

**E**ach year in the United States, hundreds of people die in police custody of no readily apparent reason and without any trauma. In some cases, officers used one or more intermediate weapons on the subject prior to arrest, in others they used no weapons but one or more officers went hands-on with the subject, and in many others, officers barely touched the subject.

Often these cases lead to blaring headlines that

read something like, "Man Dies After Fight with Police." Such reports play on reader prejudice that all cops are brutal, and that the police somehow directly caused the death.

But the truth is deemed a little less newsworthy and is certainly much less sensational. The reality is that many people who die in custody suffer from one or more medical conditions that contribute to their mortality. Others have high volumes of



drugs in their bodies that cause adverse physical reactions. Both conditions are magnified when the subject is confronted, subdued, and restrained by law enforcement officers.

Much of the discussion over what is commonly called in-custody death attempts to assign a single, uniform cause. As a society, we want to blame somebody or something for every unexpected death. This is why, over the years, reporters and human rights advocates have pointed a finger at police hand-to-hand combat techniques, pepper spray, and now Taser weapons as a primary cause of unexplained prisoner deaths.

Lacking in this analysis is an honest, objective, factual discussion of the phenomenon based on surveillance and known medical data. A growing body of documented experiences, autopsy results, and data compiled by various sources supports the theory that many in-custody deaths are not the result of a single cause but a cascade of multiple factors that is often set in motion long before law enforcement ever gets involved.

In-custody death is nothing new. A search of the medical literature shows that various reports and studies have noted the occurrences of in-custody death or syndromes that closely mimic it in institutionalized patients dating back to the 1800s.

More recently, physicians and medical examiners have ascribed these tragedies to cocaine intoxication, restraint/positional asphyxia, and metabolic acidosis. Here is what we do know. Medical post-mortem examinations generally support several distinct factors contributing to many in-custody deaths. In no specific order, these include: cardiomyopathy, excited delirium, metabolic acidosis, stimulant abuse/overdose, and positional/restraint asphyxia. Keep in mind that any or all of these factors may affect a single subject before, during, and after an arrest.

### Cardiomyopathy

Cardiomyopathy means that the person has a structural heart abnormality that predisposes him or her to sudden

cardiac arrest. This condition is often not recognized in younger people until it is found at autopsy. Abnormal heart structure is often an inherited trait. However, there are many lifestyle factors that can put a person at risk for developing the condition. These include excessive alcohol or drug use.

Because cardiomyopathy is often a silent condition that can present problems during times of extreme exertion such as fleeing law enforcement or re-

sisting arrest, it's a common factor in many in-custody death cases. The most likely symptoms are chest pain, shortness of breath, and/or the sensation of an abnormal heart beat. However, it's not uncommon for the person to die so suddenly that no symptoms are reported. Medical researchers are still not entirely clear on how or why cardiomyopathy occurs or why it causes sudden death in some people and not others.

### Taser Weapons and In-Custody Death

Often police who are confronted with subjects who are suffering from one or more of the conditions that contribute to in-custody death employ an intermediate weapon to effect an arrest.

This has led some civil rights organizations and popular media to conclude that there is a direct correlation between intermediate weapons and in-custody death.

A recent inquiry shows that this is not the case. In more than 50 percent of in-custody deaths over the last year, intermediate weapons were never used.

Of particular media interest are the conducted electrical weapons manufactured by Taser International. The Taser X26 and M26 stun pistols carried by police have been the subject of much recent public discussion, fueled in large part by some human rights organizations alleging that Taser application was the cause of death in more than 100 in-custody incidents.

It has never been scientifically proven that a Taser has directly caused an in-custody death. The type and magnitude of the electrical charge that the Taser employs makes this association extremely unlikely.

The Taser is a conducted electrical weapon that incapacitates its target through involuntary muscle contraction. It achieves this with a short-duration charge of 50,000 volts with extremely low amperage. This is the same type of shock deliv-

ered by a static discharge from a doorknob in your home.

OK. So if that's the case, why doesn't a static charge from a doorknob send you crashing to the floor? The difference is that the Taser's charge is applied in many repetitive cycles per second and that does not allow the external muscles of the subject to voluntarily move during its application.

Since the Taser is an electrical weapon, if it were to directly cause death from electrical shock, someone would succumb immediately upon contact with it, just as if being struck by lightning or touching an overhead power line. People who die from electrical shock typically succumb due to an immediate abnormal heart rhythm. Since the physical properties of electricity do not allow it to be stored within the body for later use, you would not expect to see someone die later from a direct electrical insult as a result of an irregular heart rhythm. This concept is well established in the medical literature.

In all cases that I have reviewed, subjects who have died after Taser exposure have died minutes, hours, and even days after the Taser was applied. What this suggests is that the electrical stimulus did not cause death due to heart rhythm abnormality. This finding is supported by a recent study that demonstrated the Taser to have an excellent cardiac rhythm safety margin.





## Excited Delirium

Another major factor contributing to in-custody deaths is excited delirium. The term refers to a behavioral condition whereby a person exhibits extremely agitated and non-coherent behavior, elevated temperature, and excessive en-

### Who Dies in Custody

A review of available media sources reveals the following statistics about people who die in police custody without trauma.

**97%**

were between the ages of 34 and 44



**11%**

were shot with chemical spray



**8%**

were hit with impact weapons



**27%**

were Tasered



**63%**

went hands-on with officers



**53%**

ingested illegal drugs



**60%**

exhibited bizarre behavior before arrest



Note: Some subjects fit multiple categories, so numbers are not intended to add up to 100%

durance without fatigue. Excited delirium is often seen in the context of people under the influence of an illicit stimulant substance such as cocaine or in people with a history of mental illness who are not taking their medication properly.

Here's how medical authorities believe that excited delirium kills. Your body can only do so much before it will quite literally give out. Under normal conditions, your brain sends signals to your body to calm down before something really bad happens. But a person experiencing excited delirium does not have this safety mechanism.

Because they are not fully aware of reality, people experiencing excited delirium have taken their brains out of the loop. It is believed that they are able to push themselves past the exhaustion point into a potentially fatal medical condition known as metabolic acidosis.

The human body is essentially a self-regulating machine. However, it can only perform these functions up to a certain level. Fortunately, the body sends cues to the brain when it's about to redline and the brain sends back a signal to the body to slow down.

That's how it works under normal conditions. But people experiencing excited delirium appear to be able to disregard these normal cues of exhaustion and can exceed their exhaustion threshold by running, fighting with law enforcement, and continuing to resist even after they are handcuffed.

The continued struggling by these individuals worsens metabolic acidosis. It is believed that if the buildup of lactic acid in the bloodstream is allowed to become too severe, the heart will experience a dangerous rhythm pattern that is uniformly fatal and the subject will die from cardiac arrest.

The biggest mystery about excited delirium is why it occurs in some people and not others. Solving that will help us keep more people alive.

### Restraint/Positional Asphyxia

Metabolic acidosis is deadly, and it's believed that certain other factors can worsen the condition. These factors include using restrictive restraint devices such as handcuffing behind the back and/or the hobble tie, poor positioning of the person once in custody such as

laying the prisoner face down, and having multiple officers on top of the person during the restraint process.

All of these things have the potential to restrict a person's ability to take normal breaths. Since breathing is the primary method of ridding the body of waste factors quickly, it stands to reason that restricting this process can injure or kill someone. But the medical community is torn on the issue of positioning and restraints as contributing factors in the sudden death of people in custody because there have been studies demonstrating variable effects of these factors on the process of metabolic acidosis.

### Drug Abuse/Overdose

Another factor that is commonly reported in cases of in-custody death is the acute ingestion of an illicit substance, usually in doses well over the norm for recreational users.

What is often discovered at autopsy is that the subject ingested a massive amount of drugs in an attempt to destroy or hide evidence. Subjects have choked on packages of drugs that they swallowed to avoid arrest and effectively suffocated themselves to death. Others who have successfully swallowed the drugs or hid them in their rectums have been unfortunate enough to have the wrappers or bags break, and they have absorbed massive doses of the drug.

If the substance is a stimulant and the dose is sufficiently large, the body experiences the equivalent of a massive adrenaline dump. This leads to the risk of the heart taking on an abnormal rhythm which is almost uniformly fatal, and the subject will die of cardiac arrest.

In-custody deaths have also resulted from recreational stimulant use. It appears that long-term abusers of illicit stimulants (such as cocaine and methamphetamine) develop substantial changes in their brain. These changes appear to correlate with substantial risk for developing the condition.

### Cascade Effect

People who die unexpectedly in police custody often have more than one of these conditions. In fact, it appears that excited delirium is the result of a multifactorial cascade of events.

These factors may include but are not



limited to: use of illicit substances such as cocaine or methamphetamine, misuse of legal substances such as alcohol and mental health medications, non-compliance with prescribed medications such as failing to take some mental health medications, and physical exertion such as resisting arrest.

### Who Dies in Custody?

People who die shortly after arrest without trauma appear to have some things in common. I have conducted an inquiry into this phenomenon and have reviewed eight months of in-custody death data. The findings of this inquiry are:

- The overwhelming majority (97%) of people who die suddenly in police custody are males between 34 and 44 years old. The average age of these men is 36.

**Drug users who fight with police before, during, and even after arrest, may be showing signs of excited delirium and could be prone to sudden and unexplained death.**

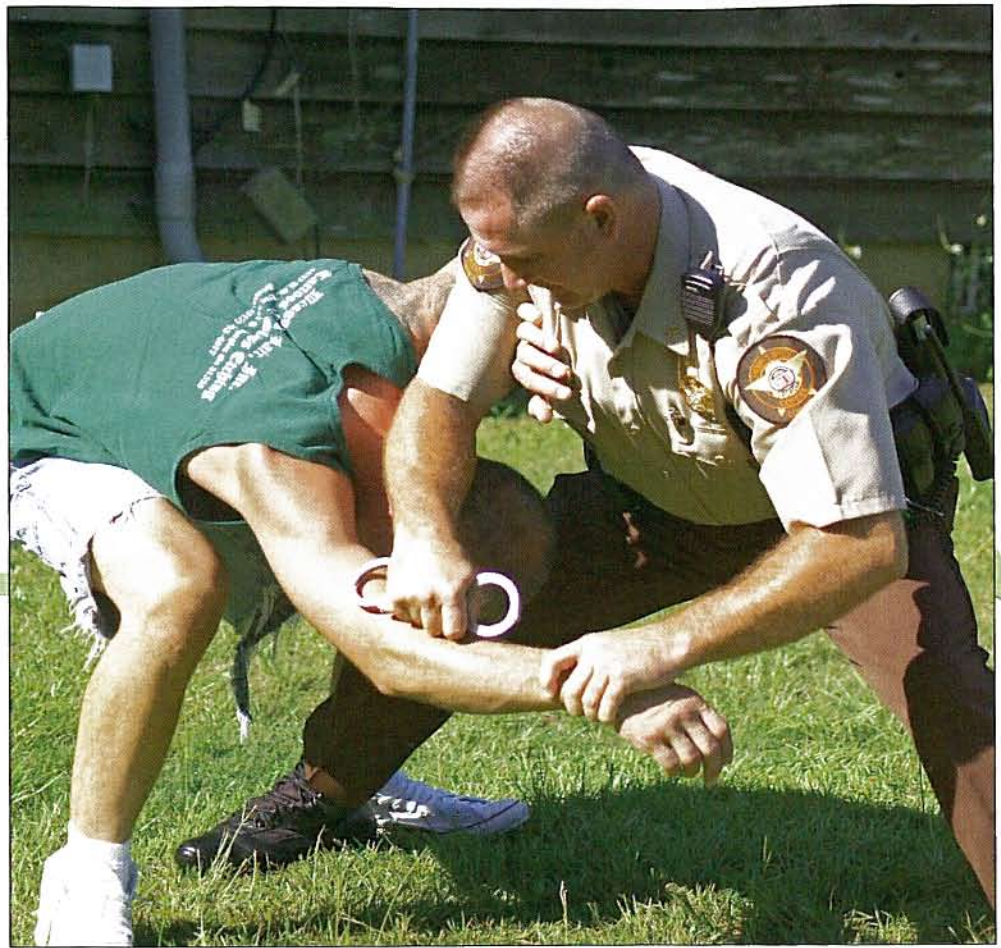


PHOTO: COPSHOTS

- There does not appear to be a geographic prevalence to these incidents.

- With regard to officer use of force issues, there appear to be two factors that have a high association with in-custody death incidents: handcuffs and empty-hand control techniques.

Do not misread this data. This does not mean that placing someone in handcuffs or using empty-hand control techniques are the causes of in-custody deaths. It just shows that people who are confronted by police who are likely to suffer an in-custody death often behave in a manner that requires officers to go hands-on with them and restrain them.

Contrary to popular belief and the contention of Amnesty International and the American Civil Liberties Union, my data shows that in-custody death is not necessarily associated with the use of intermediate weaponry such as chemical sprays, impact weapons, or conductive stun weapons such as the Taser.

Of the subjects that I reviewed, 11 percent were sprayed with aerosolized

chemical spray, eight percent were struck with an impact weapon, and 27 percent were subjected to a Taser application. To keep this in perspective, it is also important to note that a full 63 percent of these subjects received no application of an intermediate weapon. Therefore, public calls for intermediate weapon moratoriums appear to be unjustified and are based solely on anecdotal evidence or speculative conjecture.

Police weapon use does not appear to be a predictive factor for in-custody death, but personal behavior does. The same inquiry shows that 53 percent of people who die suddenly in police custody have ingested illicit substances proximal to their collapse. Additionally, in 60 percent of all in-custody deaths that I reviewed the subjects exhibited odd or bizarre behavior just prior to their collapse.

Exhibition of these behaviors appears to correlate with an increased risk for in-custody death. So it would behoove any responding officers to keep this in mind and consider seeking immediate

medical attention for any subject taken into custody who fits this profile.

### **What Can You Do?**

As law enforcement officers, it is imperative that you have a good understanding of the facts surrounding in-custody death. If you know what to look for, you may be able to take action that will save the subject's life.

Police administrators should dictate that when a subject is encountered who is exhibiting some of the danger signs, the officers involved should use every means available to immediately bring the person under control. Allowing the subject to continue to exert himself through agitated and resistive behavior only heightens the risk for sudden cardiac death from metabolic acidosis.

If a subject continues to resist, despite being in restraints, it is imperative that you recognize this as a potential medical emergency. The subject needs prompt evaluation by emergency medical personnel.

Additionally, until the debate on position and restraint is definitively set-



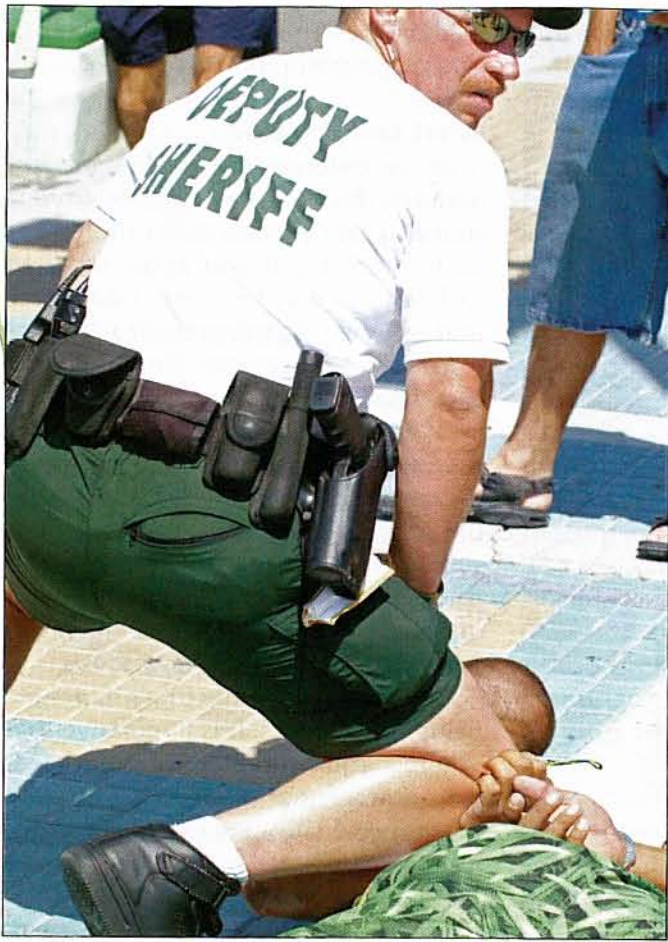


PHOTO: COPSHOTS

**Sometimes cops have no other choice but to place an arrested subject on his or her stomach, but care should be taken to prevent positional asphyxia.**

ted, it is recommended that officers avoid placing the subject in any type of position or restraint that could impair the ability of the person to breathe normally. This includes avoiding devices such as anti-spit face masks and the use of multiple officers to pin the person on the ground.

It would also behoove individual agencies to ensure that their emergency medical services systems

and medical communities are educated in the potential causes of in-custody death. There have been numerous cases of subjects experiencing excited delirium that is mistaken for psychiatric illness. The subject is then taken to a psychiatric facility where he or she subsequently dies. Persons exhibiting excited delirium should be rushed to an emergency department, not a mental health center.

By learning to recognize the warning signs and subject profiles of persons at risk for sudden in-custody death, you will be armed with important information. You will also realize that such deaths are the result of multiple factors and conditions, and they may be preventable to some degree. Armed with this information, you can save lives. ☉

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*Dr. Jeffrey Ho is a board-certified emergency medicine physician and a license-eligible peace officer. He has been involved with caring for several actual and near-miss in-custody death subjects. Dr. Ho consults with law enforcement agencies nationwide on this issue.*