

**WARNING**  
**HEAT**  
 KILLS OR INJURES  
 CHILDREN AND PETS  
  
 IN PARKED VEHICLES  
 WITH WINDOWS PARTIALLY OPEN,  
 EVEN IN MILD TEMPERATURES LESS THAN 70° F  
 FINE & IMPRISONMENT  
 California Vehicle Code § 15620  
 California Penal Code § 597.7  
 IN CASE OF EMERGENCY  
 CALL 911

**ADVERTENCIA**  
**EL CALOR**  
 MATA O LASTIMA  
 A NIÑOS Y MASCOTAS  
  
 EN CARROS ESTACIONADOS  
 CON VENTANAS ENTREABIERTAS  
 AUN EN TEMPERATURAS MENORES DE 70° F  
 MORA Y PRISION  
 Código de Vehículos de California § 15620  
 Código Penal de California § 597.7  
 EN CASO DE EMERGENCIA  
 LLAME AL 911



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# ADVERTENCIA

## EL CALOR

### MATA O LASTIMA A NIÑOS Y MASCOTAS



### EN CARROS ESTACIONADOS

CON VENTANAS ENTREABIERTAS  
AÚN CUANDO LA TEMPERATURA ES MENOS DE 70° F

**Multa y Prisión**

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**EN CASO DE EMERGENCIA**

**LLAME AL 911**

# WARNING

# HEAT

## KILLS OR INJURES CHILDREN AND PETS



## IN PARKED VEHICLES

WITH WINDOWS PARTIALLY OPEN  
EVEN IN MILD TEMPERATURES LESS THAN 70° F

**Fine & Imprisonment**  
**California Vehicle Code § 15620**  
**California Penal Code § 597.7**

**IN CASE OF EMERGENCY**  
**CALL 911**



## Location of Installed Warning Signs

City Name:

Date:

Name of Contact Representative:

Address:

Phone:

Fax:

Email:

**Number of Signs**

**Address of Location of Sign**

Number of Signs	Address of Location of Sign

# Pediatric Vehicular Heatstroke by the Numbers

Updated through 4/30/2023

100% of heatstroke deaths of children in cars are preventable

TOTAL SINCE 1998

**942** DEATHS

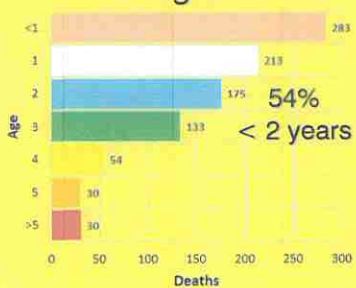
AVERAGE PER YEAR

**38** During summer that's almost **2** per week

## CIRCUMSTANCES

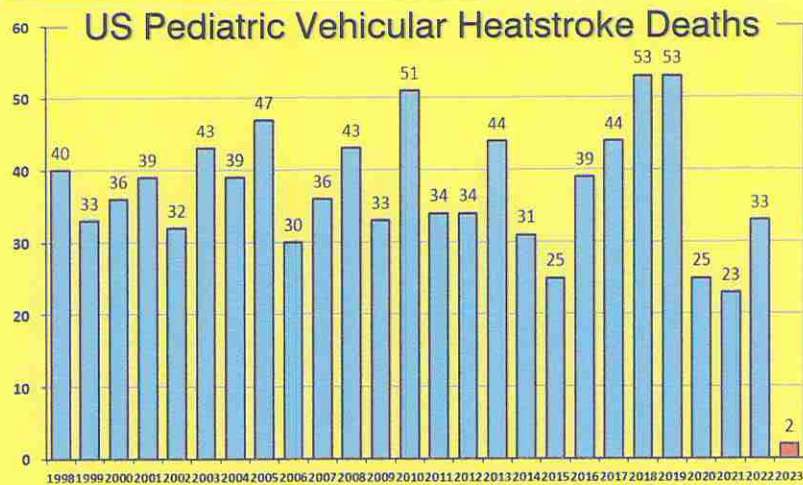


## Ages



## Forgetting Can Happen to Anyone

Mom, Dad, Grandparent, Sitter, Teacher, Administrator, Police, Dentist, Social Worker, Military, Physician, Judge, Barber, Principal, Lawyer, Waiter, Engineer, Coach, Accountant, Secretary, Firefighter, Researcher, Clergy, Childcare Provider, Barista, Tradesman, Student, Anyone.



## HOW HOT? HOW FAST?

**80%**

of total heat rise occurs in the 1<sup>st</sup> 30 min.

Max temps can exceed: **140°**

Interior temperatures can be 50° higher than outside.



## SAFETY TIPS

**Never** leave children unattended in a vehicle. NOT EVEN FOR A MINUTE!

**Always** check the backseat. Leave your wallet or purse as a reminder.

**Always** keep vehicle locked and keys out of reach.

**Make** arrangements with your childcare provider to call if child is absent.

**CALL 9-1-1** if you see a child alone in a vehicle.



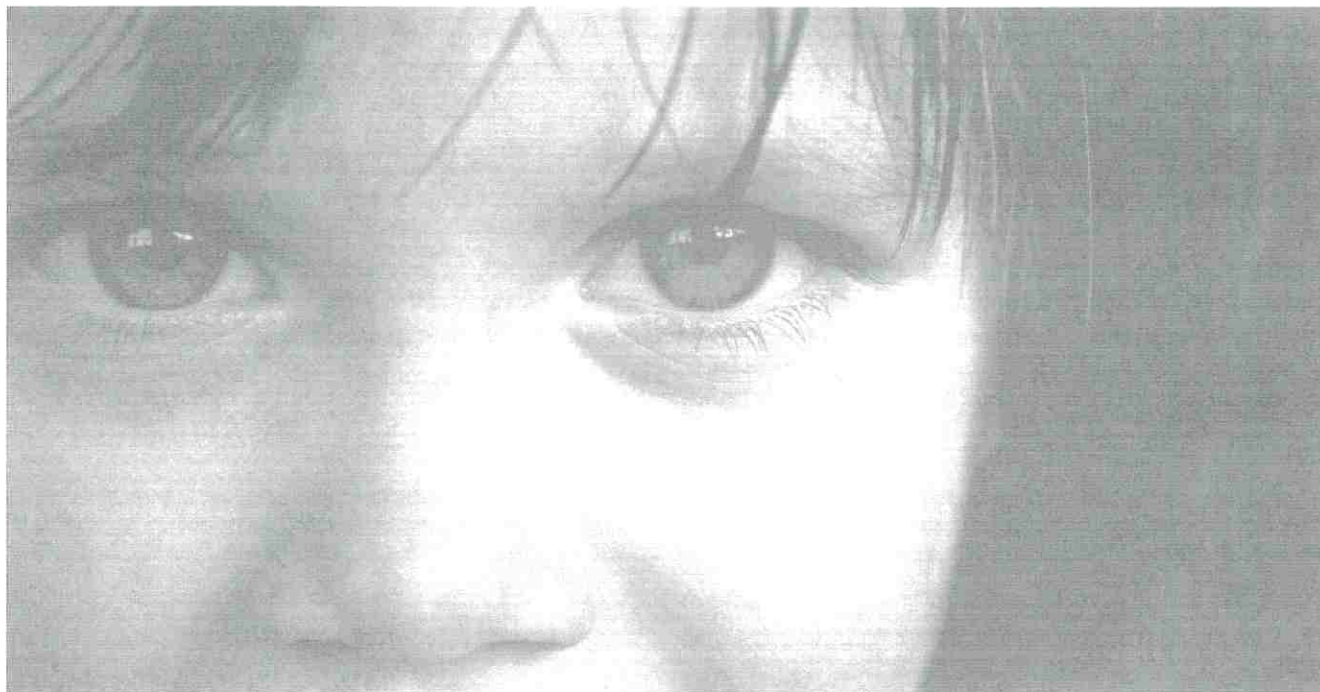
[Noheatstroke.org](http://Noheatstroke.org)





## Executive Summary

**It takes only 10 minutes for the temperature inside a vehicle to rise 20 degrees.<sup>1</sup> For children in particular, this increase is enough to result in death.<sup>2</sup>**



Sadly, children are dying in hot cars at an alarming rate, as vehicular heatstroke - also known as hyperthermia - continues to be one of the leading causes of non-crash vehicular fatalities for this age group.<sup>3</sup> Between 1998 and 2017<sup>4</sup>, 742 children reportedly died due to pediatric vehicular heatstroke (PVH). On average, 37 children die each year in the U.S. as a result of PVH. However, 42 children died during 2017 – up from 39 the previous year.<sup>4</sup> All of these deaths could have been prevented.

The National Safety Council (NSC), whose mission is to eliminate preventable deaths, has focused on PVH for many years. In an effort to better understand and document this risk area, NSC works in collaboration with partners such as Jan Null, a certified consulting meteorologist (CCM)<sup>5</sup> and Adjunct Professor in the Department of Meteorology & Climate Science at San Jose State University. Mr. Null has been [tracking child deaths](#) resulting from vehicular heatstroke since 1998, and his

work provides the basis for data and information in this report, which builds on information NSC released last year.

In 2017, NSC unveiled [The State of Safety: A State-By-State Report](#) that provides a bird's eye view of where states rank on safety-related actions and policies that can remedy preventable deaths and injuries across our roadways, in homes and communities, and in workplaces. The State of Safety report also outlines recommended policy actions and examples of promising practices that can help save lives, and it specifically evaluated PVH laws. This report is a more detailed review on the topic of pediatric vehicular heatstroke. At a time when numbers are rising, so is the need to take action.

With support from the National Highway Traffic Safety Administration ([NHTSA](#)), NSC conducted an analysis of state unattended child laws in combination with a review of sentencing and prosecutions of caregivers over the past 10 years,

<sup>3</sup> All years with tracked PVH fatality data in the states of the U.S. - not including U.S. territories. A more detailed description about the data utilized for this report is found in the Project Description on page 15.

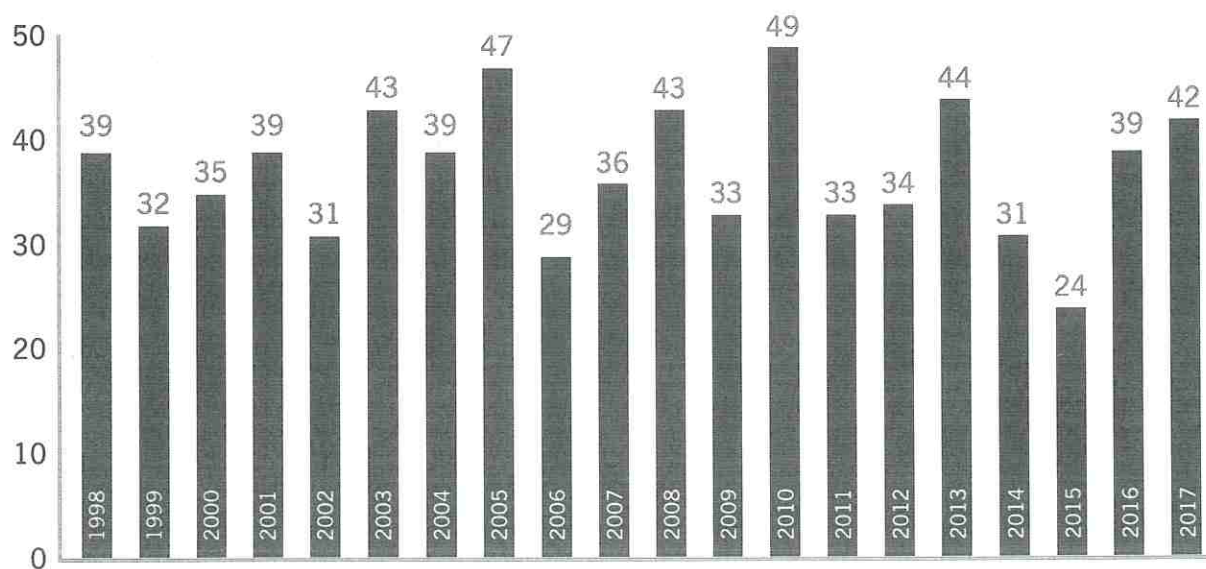
from 2007 through 2017. According to NSC analysis of a report from the National District Attorneys Association (NDAA),<sup>6</sup> only 21 states<sup>a</sup> and Guam have laws in place to address children left unattended in vehicles. In addition, NSC and Jan Null<sup>7</sup> each conducted reviews to confirm any changes to state unattended child laws in comparison to those reported in the [2014 NDAA report](#).<sup>b</sup> The pages that follow outline prevention strategies and state legislative recommendations<sup>c</sup>, while also educating people about why our children are at risk.

The basic strategies for saving lives remain consistent. Robust documentation and research of the problem must continue to be the cornerstone of any campaign to reach the public – everyone from parents and caregivers to safety professionals, health care providers, policy makers and developers of new technologies. It takes all of us working together and paying attention to this issue through education and legislation in order to save lives.

## Objectives

1. **Support stronger laws to protect children from being *knowingly*<sup>d</sup> left unattended in vehicles for any amount of time**
2. **Increase awareness and understanding about vehicle heating dynamics**
3. **Increase awareness about the risk of children gaining access to vehicles on their own**
4. **Encourage policies for child care providers to ensure all children have exited a parked facility vehicle**
5. **Recommend study of factors that contribute to unknowingly leaving a child unattended in a motor vehicle**

U.S. Pediatric Vehicular Heatstroke Deaths (1998 - 2017)



<sup>a</sup> Includes Missouri - which addresses if an unattended child in a motor vehicle injures another person, but does not address if the unattended child is injured.

<sup>b</sup> Since the time of the 2014 NDAA report, the state of Missouri enacted legislation to address leaving a child unattended in a motor vehicle - effective January 1, 2017.

<sup>c</sup> State legislative recommendations outlined in this report are the result of NSC analysis of the components of existing state laws pertaining to children left unattended in motor vehicles, in combination with best practice recommendations made available by multiple safety organizations in efforts to prevent PVH deaths. (See additional resources list at the end of this report.) The opinions, findings, and conclusions expressed in this publication are those of NSC and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration.

<sup>d</sup> The term "knowingly left" is used in this report to describe when a parent or caregiver knowingly leaves a child in a vehicle. This is typically not with the intention to cause harm to the child. This topic is addressed further later in this report.

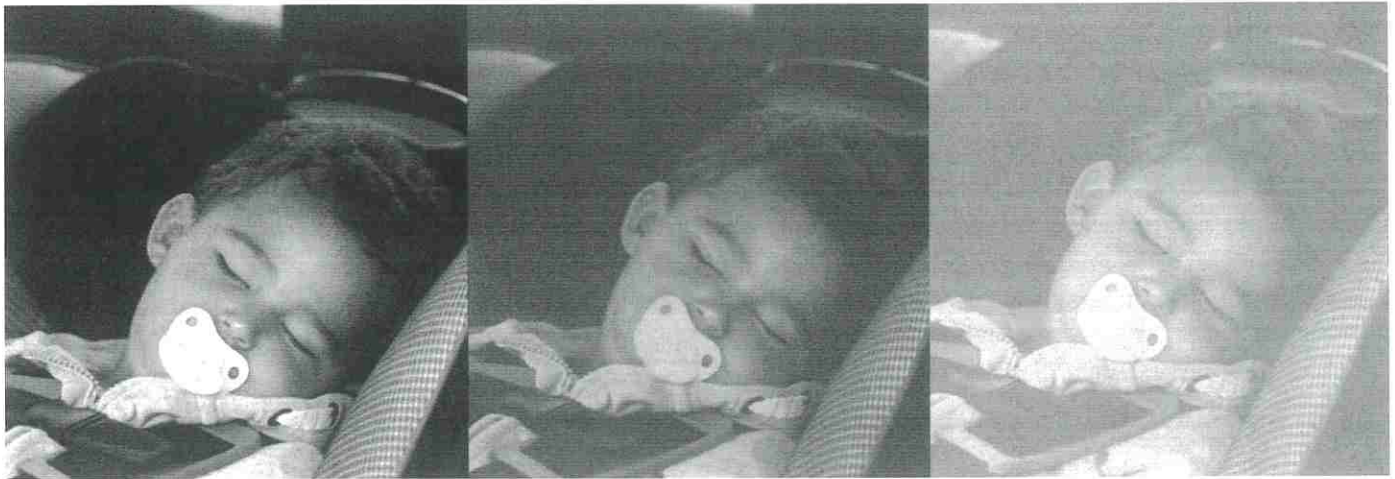


## How Does This Happen?

# What is Heatstroke?

Also known as hyperthermia, according to the American Academy of Pediatrics (AAP)<sup>8</sup>, a child's body heats up three to five times faster than an adult's. When left in or gaining access to a hot car, a child's major organs begin to shut down when his or her body temperature reaches 104 degrees Fahrenheit (F).

A child can die when his or her temperature reaches 107 degrees F. The AAP also warns that vehicular heatstroke can happen when outside temperatures surrounding the vehicle are as low as 57 degrees F.



## It Can Happen to Anyone, Anywhere

Pediatric vehicular heatstroke fatalities can happen to anyone, anywhere and from any socioeconomic class, and they have – even with loving and attentive parents and caregivers. Articles have been written asking the question, “How is it possible to forget a child?”<sup>9</sup> Often it happens when parents or caregivers are especially busy<sup>a</sup> or tired<sup>b</sup>, or there is a change in the responsible adults' regular routine – all of which increase the risk of making a potentially fatal mistake. Further study and documentation of PVH deaths would need to be conducted in order to clearly identify factors that may have contributed to known PVH deaths.

In addition, almost half of all PVH deaths are not related to a caregiver unknowingly leaving their child in a vehicle. Twenty-seven percent of children gained access to a vehicle on their own,

and 18 percent died after knowingly, or intentionally, being left inside a vehicle.

In incidents where children reportedly gained access to vehicles on their own, locking vehicles is an important barrier to prevent children from gaining access to the inside of vehicles. Teaching children cars are not play areas, and that keys and key fobs are not toys provide additional protection.

Furthermore, *knowingly* leaving a child unattended does not typically equal malintent. Parents and caregivers have been known to leave children unattended in a car as they intend to do something quickly. In some cases, vehicles have served as a substitute for childcare. In general, a better understanding by caregivers of the risks involved due to vehicle heating dynamics is needed.

<sup>a</sup> More information about the human brain and multitasking can be found at <http://www.nsc.org/DistractedDrivingDocuments/Cognitive-Distraction-White-Paper.pdf>

<sup>b</sup> Additional information about the general affects of fatigue can be found at [nsc.org/fatigue](http://nsc.org/fatigue).



# Vehicle Heating Dynamics

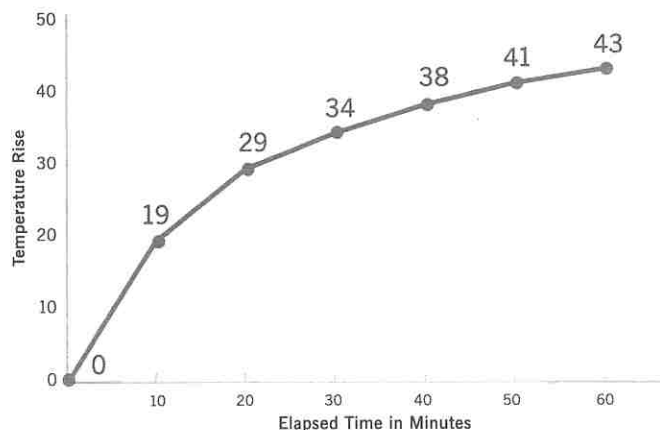
## Vehicles Quickly Become Too Hot

**Vehicular heatstroke can occur any time of the year, in any state or community, and to any parent or caregiver. Even on relatively mild days, vehicles can reach life-threatening temperatures quickly.**

Leaving windows open does not prevent heatstroke from occurring, nor do particular vehicle exterior colors lessen the sun's heating effects. What does matter is how the rays from the sun interact with vehicle windows, creating a greenhouse effect.

Studies have found that - on days when temperatures exceeded 86 degrees - the temperatures inside of vehicles quickly reached 134 to 154 degrees Fahrenheit. On average, in the first 10 minutes, the temperature inside a vehicle rises by 19 degrees. This quick rise in temperature inside a car can become fatal for children living anywhere. In areas where outside temperatures are at 90 degrees, however, temperatures inside of vehicles can become fatal for children in just 10 minutes.

One such observational study published in *Pediatrics*<sup>10</sup> in 2005 measured the rise of temperatures during a 60-minute period over 16 different days. During each observation, the starting outdoor temperatures ranged between 72 and 96 degrees. On two of these days, observations were documented while the vehicle windows were open 1.5 inches.



The study found that regardless of the starting temperature, the rate at which temperatures increased inside the vehicles were consistent. Eighty percent of the overall rise in temperature occurred within 30 minutes. On average, the temperature inside the vehicle rose more than 40 degrees during the 60 minute period of observation. The study also found that "cracking" windows open did not reduce the rate of temperature rise inside of the vehicle. The study concluded that vehicles heat up quickly, with most of the temperature increase occurring in the first 15 to 30 minutes.

### On an 80 degree day

Elapsed Time

**10 min**



Temperature Outside	Temperature Inside
80F	99F

Elapsed Time

**20 min**



Temperature Outside	Temperature Inside
80F	109F

## Recommendations

**Unattended children cannot be left in vehicles, or allowed to gain access to them, due to the nature of vehicle heating dynamics. In order to prevent pediatric vehicular heatstroke, there are many safety recommendations that must be conveyed clearly, consistently and proactively.**

### Recommendations for Lawmakers

#### 1. Eliminate “safe” time periods from legislation

- Some states define a time period before a person can act to rescue a child from distress. For example, Florida allows for 15 minutes, Louisiana 10 minutes, and Hawaii and Texas specify that bystander action can be taken if the driver or adult passenger leaves a child unattended in a vehicle for five minutes or longer. Some include language such as “reasonable time,” “significant risk,” “unreasonable risk,” and “substantial risk.”<sup>a</sup>
- All language relating to “safe” time periods should be struck from laws. Children should not be left unattended, even for a minute.<sup>11</sup> Temperatures inside a vehicle rise to lethal levels quickly, and the public is generally unaware of this danger. Safety of children should be the priority.

#### 2. Expand laws to pertain to any person providing supervision of any child who *knowingly* leaves a child unattended in a motor vehicle and clearly define the age of responsible individuals

- Emphasis is placed here on individuals who *knowingly* leave a child unattended in a motor vehicle. Typically, a parent or caregiver who knowingly leaves a child unattended does not intend to harm the child. In general, continued education and increased awareness are needed to help parents and caregivers understand vehicle heating dynamics and why our children are at risk, even if they plan to leave the child unattended for a few minutes.

- Some states have enacted unattended child laws pertaining only to child care providers, centers and facilities. Meanwhile, other states cite responsible parties as any person providing supervision of any child. Guam goes so far as to specify responsible persons over the age of 12 years, and Hawaii includes responsibility for adults even if they were not charged with the care of the child.
- NSC supports requirements to ensure child care providers implement policies and procedures to confirm all children have exited a parked facility vehicle driven by child care personnel.

#### 3. Clearly define and/or increase the age of persons that should not be left unattended

- States vary on what age they define as “child.” State definitions range from 6 years old or younger<sup>b</sup> to anyone younger than 18. While some may consider protection to everyone younger than 18 extreme, a 14-year-old died from heatstroke inside of a vehicle in 2013.<sup>12</sup> While vehicle features may have played a role in that case, education, awareness and legislation could prevent individuals from remaining in a vehicle, thus averting similar future scenarios.
- NHTSA defines a child as age 14 and younger.<sup>13</sup> At a minimum, laws should take this definition in to account. Some states already define a child as older than 14. In this case, that is an option for stronger protections.

<sup>a</sup> A chart is provided on pages 12 and 13 to reference which states include components of each recommendation.

<sup>b</sup> Guam defines an unattended child as 5 years of age or younger.



#### 4. Include protection for vulnerable individuals

- Like children, vulnerable individuals may not be able to remove themselves from a hot vehicle and increasingly dangerous situations. Alabama has incorporated language pertaining to “incapacitated” persons, and Oklahoma’s law includes protections for “vulnerable adults.” Likewise, Oklahoma specifies that a supervising person should not be mentally incompetent as defined by state statutes.

#### 5. Protect “any person” who acts to rescue a child in good faith

- Several states have language to protect only law enforcement officers from being held liable in any civil action for any act performed in good faith. Some states expand this protection to include law enforcement and emergency personnel. NSC supports this protection and recommends expanding it to all persons acting in good faith, as is currently the situation in a number of states.

#### 6. Expand scope to allow individuals to take action if a child is in physical danger or “poses a danger to others”

- Hawaii’s unattended child law directs law enforcement or rescue team personnel to take action if they observe a child left unattended in a motor vehicle and determine “that the unattended child is in physical danger, or poses a danger to others...” Inclusion of similar language could lead to opportunities to educate people about the dangers of leaving children unattended beyond heatstroke. These dangers include, but are not limited to, abduction, strangulation with seat belts or power windows, and shifting a vehicle out of park, whether the engine is on or not.<sup>14</sup>

#### 7. Direct funds received from fines to support education programs for parents, caregivers and offenders

- Several state laws include the option to sentence offenders to participate in training courses about the dangers of vehicular heatstroke and leaving children unattended in vehicles.
- California allows the court to waive the \$100 fine if the defendant establishes to the satisfaction of the court that he or she is economically disadvantaged. In lieu of this fine, offenders can be required to attend an education program.

- Tennessee provides additional information about which agencies can operate and conduct these education programs, and even outlines allowable registration fees (\$50.00 - \$175.00).

## Additional Considerations

Policymakers should take the following actions into consideration when drafting new legislation or amending existing laws:

- Clearly define “unattended” as the act of knowingly leaving a child unsupervised and alone in a motor vehicle for any period of time
- Clearly define “unsupervised,” “child” and age of responsible person; states that include such definitions are identified in the following section, *Components of Existing State Unattended Child Laws*
- Include language to clarify that an enclosed compartment means any enclosed area of a motor vehicle, including the passenger compartment, regardless of whether a door, window, sunroof/ moonroof or hatch is left open
- Clearly state that persons are breaking the law whenever a child is knowingly left unattended inside of a motor vehicle, regardless of whether the vehicle is running and/or the keys are in the ignition
- Make it a separate offense for each child knowingly left unattended – not a single offense regardless of the number of children
- Punishments should increase for second and subsequent convictions, such as fines or license revocation
- Consider specifying separate punishment if a child is left unattended in a place that sells alcohol
- Provide guidance about how to involve child protective services agencies or whether law enforcement will hold a child until a caregiver returns

# 'No one ever told me not to leave my dog in the car' said woman accused of animal cruelty

Posted on: 11:45 am, April 11, 2013, by [Scott Wise](http://wtvr.com/author/scottwise/) (<http://wtvr.com/author/scottwise/>) and [Lorenzo Hall](http://wtvr.com/author/wtvrlorenzohall/) (<http://wtvr.com/author/wtvrlorenzohall/>), updated on: 11:16pm, April 11, 2013

CHESTERFIELD COUNTY, Va. (WTVR) – “No one ever told me not to leave my dog in the car,” Linda Pegram said as she left Chesterfield County court Thursday morning.

Pegram is charged with two felony counts of animal cruelty after police said two dogs died in her locked car Wednesday afternoon. Police said they were called to Pegram's vehicle parked outside the Walmart at 12000 Iron Bridge Plaza around 1:15 p.m. Wednesday to investigate a report of a dog locked inside the car. Once on scene, police said they found two dogs inside. After they forced their way into the car, police discovered both dogs were dead.

“I didn't intentionally kill my animals. I love my animals with everything,” Pegram said. She added she parked close to the store, in a shaded area.

Police said it appeared the dogs were in the car for about an hour before police were notified. CBS 6 meteorologist Carrie Rose said temperatures in Central Virginia were in the mid-80's at that time. She said temperatures inside vehicles could rise 20 – 30 degrees over outside temperatures.

“I was devastated. My daughter was crying. I was crying. Some lady walked up to me and called me a stupid bitch. Police didn't do anything,” Pegram said. “We just made a mistake, a human mistake and I don't know what the outcome will be.”

Pegram is due back in court on June 19.

Outside Temp (F)	Inside Temp (F)	
	10mins	30mins
70°	80°	104°
75°	94°	109°
80°	99°	114°
85°	104°	119°
90°	109°	124°
95°	114°	129°

**DOGS DIE EVERY SUMMER**  
in minutes your car temps are deadly!

VeterinaryClinic.com

## Please help!

If you see a distressed dog in a car, have the owner paged in nearby stores immediately. Call the local humane society authorities or the police.

If a dog shows any of the symptoms of heat exhaustion, place the dog in a shady or air conditioned area immediately. Lower body temperature gradually by providing water to drink; applying a cold towel or ice pack to the head, neck and chest; or immersing the dog in cool (not cold) water. Seek veterinarian help immediately.

## Some signs of Heat Exhaustion

- glazed eyes
- restlessness
- excessive thirst
- lethargy
- lack of appetite
- dark tongue
- heavy panting
- rapid pulse
- fever
- vomiting
- dizziness
- lack of coordination.



# It's The Law!

## Do Not Leave Your Dog In The Car

BILL NUMBER: SB 1806 CHAPTERED  
BILL TEXT  
CHAPTER 431  
FILED WITH SECRETARY OF STATE SEPTEMBER 22, 2006  
APPROVED BY GOVERNOR SEPTEMBER 22, 2006  
PASSED THE SENATE AUGUST 22, 2006 PASSED THE ASSEMBLY AUGUST 14, 2006 AMENDED IN ASSEMBLY AUGUST 7, 2006  
AMENDED IN SENATE APRIL 24, 2006 AMENDED IN SENATE APRIL 6, 2006 AMENDED IN SENATE MARCH 27, 2006  
INTRODUCED BY Senator Figueroa (Principal coauthor: Assembly Member Levine)

FEBRUARY 24, 2006

### An act to add Section 597.7 to the Penal Code, relating to animals.

#### LEGISLATIVE COUNSEL'S DIGEST

SB 1806, Figueroa Animals: abuse. Existing law provides that any person who subjects any animal to needless suffering.....

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. The Legislature finds and declares all of the following:

(a) Leaving companion animals unattended inside closed vehicles in the heat, even for short periods of time, has caused severe injury and death to animals.

(b) Moderately warm temperatures outside can quickly lead to deadly temperatures inside a closed car, for example, within one hour an outside temperature of 72 degrees Fahrenheit can cause unhealthful conditions inside a vehicle that can adversely affect the health, safety, or well-being of an animal.

(c) With the vehicle windows left slightly open, an outside temperature of 85 degrees can cause a temperature of 102 degrees inside a vehicle within 10 minutes, and 120 degrees within half of an hour. A healthy dog, whose normal body temperature ranges from 101 to 102.5 degrees, can withstand a body temperature of 107 to 108 for only a short time before suffering brain damage or death.....

SEC. 2. Section 597.7 is added to the Penal Code, to read

597.7. (a) No person shall leave or confine an animal in any unattended motor vehicle under conditions that endanger the health or well-being of an animal due to heat, cold, lack of adequate ventilation, or lack of food or water, or other circumstances that could reasonably be expected to cause suffering, disability, or death to the animal.

(b) Unless the animal suffers great bodily injury, a first conviction for violation of this section is punishable by a fine not exceeding one hundred dollars (\$100) per animal. If the animal suffers great bodily injury, a violation of this section is punishable by a fine not exceeding five hundred dollars (\$500), imprisonment in a county jail not exceeding six months, or by both a fine and imprisonment.

Any subsequent violation of this section, regardless of injury to the animal, is also punishable by a fine not exceeding five hundred dollars (\$500), imprisonment in a county jail not exceeding six months, or by both a fine and imprisonment.

(c) (1) Nothing in this section shall prevent a peace officer, humane officer, or an animal control officer from removing an animal from a motor vehicle if the animal's safety appears to be in immediate danger from heat, cold, lack of adequate ventilation, lack of food or water, or other circumstances that could reasonably be expected to cause suffering, disability, or death to the animal.....