

The Responder

"Progress Saves Lives..."

Edition 74 | December 2024

From the Editor's Desk

Greetings friends, clients, and fellow healthcare professionals, welcome to the December edition of The Responder.

...and just like that, we have made it all the way through to December. Our year-end break is just around the corner and we are all hard at work prepping to ensure that our clients are stocked up for the busy days to come. We do hope you placed your orders in early December so that we can ensure that you have sufficient stock to cover you for our closing period. Please also take note that our online store will be closed during our shutdown period, this being from the 13th of December 2024 until the 6th of January 2025.

Our thoughts over the coming weeks will very much be with our Emergency Medical Services. I know from personal experience that December is a very busy month for you. I have noticed that the roads have suddenly become much busier than just a few weeks ago. It is our greatest hope that you stay safe over this period as you go about saving lives. Our emergency care workers sacrifice so much to be there when you have an emergency. Time away from their families on those special days, we all take for granted. To each and every one of you we say a huge thank you, we do appreciate what you do.

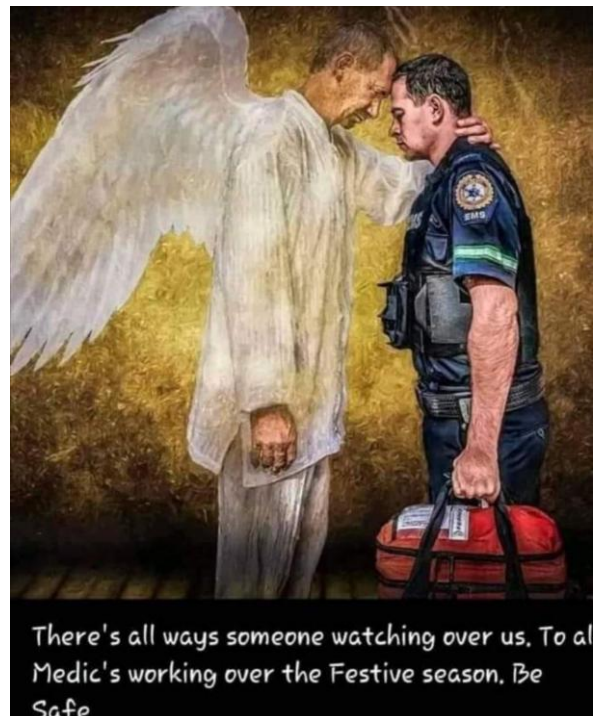
December can be a very hot month and so for this reason I thought I would run an article I wrote a little while ago for a baby magazine. Although the article focuses on infants, it would equally apply to animals of all types. I hope you find the read interesting because it is something that happens a lot more frequently than you think.

As always, we have some great specials lined up for you, so you will definitely want to check them out for some great savings.

With that said, I would like to wish all our readers and clients a wonderful and safe festive season. Thank you so much for your support during 2024. Be Safe Paramedical would not be where it is without your loyal support. We wish you a wonderful and prosperous 2025 and look forward to being of continued service to you during the coming year.

Yours in Healthcare

Gavin Sutton



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Healthcare Article

Beat the heat, check the back seat...

I was recently chatting to a good friend of mine who works for an Emergency Medical Service in the USA. It was the usual banter, where we chat about some of the calls he had responded to and any newsworthy developments in terms of emergency care. The one thing that he mentioned was that they he had responded to an average of 2 calls per day during the month for kids who had been locked in or forgotten in cars. Now this is not something that is completely new to me, I have seen my fair share of this over the past 25 years. However, two kids a day in a smallish rural Emergency Service? Something is very wrong. So, the question is what is happening?



I'm just popping into the store for 5 minutes to pay an account...

The car seat is tricky to secure, so I'll just leave little "Annie" strapped in. I won't be long. In reality, it is so easy for those 5 minutes to become 60 minutes. We are human beings after all and when we are relaxed and away from work deadlines and other stressors, our level of attention takes a tumble. It is therefore very easy for us to bump into an old friend on our way back to the car and have a chat or take advantage of a must have special at the hardware or clothing store.

Sadly, while you are away, your car is turning into a greenhouse. The temperature is climbing very rapidly with each minute that passes and your child is been exposed to a life-threatening increase in body temperature. You made sure the windows were closed before your left, so your little one would be safe and of course, this just exacerbates the terrible reality that is about to occur.

Where are Mike and Julie?

Kids are inquisitive by nature and for the better part it is an important part of their development. All that is needed to ensure healthy development is supervision. Kids also tend to emulate what their parents do. What could be more fun that pretending to drive dad's luxury BMW? The problem is that cars are becoming more sophisticated with pretty advanced technology. It may be pretty easy to get into an unlocked car; however certain cars with sensors make it extremely difficult to get out.

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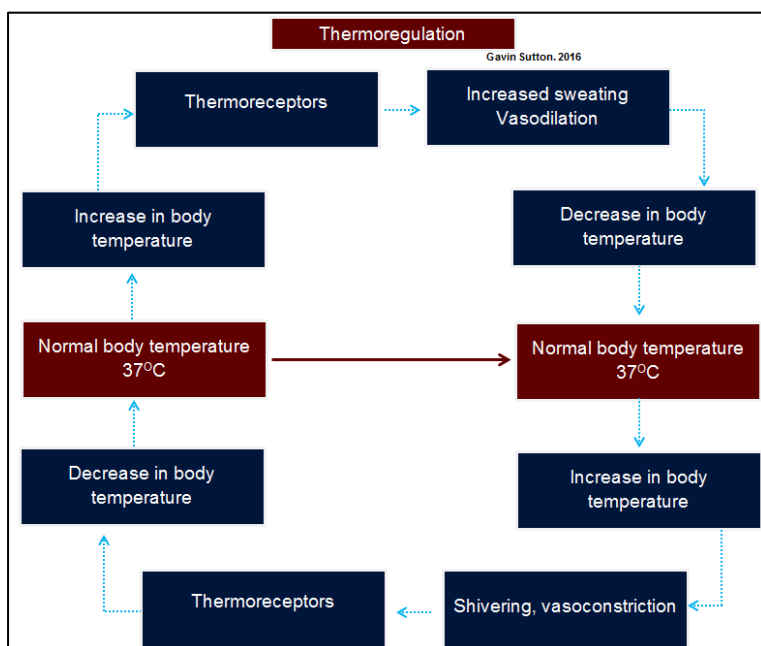
I can remember a while ago trying to help an elderly gentleman park his luxury imported car. He had already scraped the wall a couple of times and so he took me up on my offer for help. Well, gosh, I felt like I was in Alcatraz. I couldn't start it, couldn't open the door or even a window. I was trapped. Nothing worked because it required that I had to push several buttons to switch it on. Now imagine two kids playing in the car, while mom and dad are taking an afternoon nap. They eventually get bored and try to open the door and simply can't. 2 hours later mom and dad wake up and realize that they are still outside. By now the temperature in the car has exceeded what their little bodies can cope with and so begins a lifetime of regret.

Why didn't you drop Tammy at Day care this morning?

Believe it or not the leading cause of incidents leading to vehicular heat stroke is that the caregiver simply forgot that the child was in the car. Statistically, this is the cause in around 54% of vehicular heat stroke deaths in children. It sounds really over the top. How on earth is this even possible? How do you forget your child strapped into the back seat of your car? Receiving that pre-meeting call that you have been dreading, a call from the bank saying you have overdrawn on your credit card or bad news from a beloved friend can completely change your train of thought. Add in that your child may be soundly asleep and well, you can understand where I am going with this. It happens, even to absolutely model parents.

Children and Heatstroke

Heatstroke occurs when the body is exposed to prolonged high ambient temperatures. The body temperature exceeds 40°C and the thermoregulatory mechanism, or heat control mechanism, is overwhelmed and fails. At a core body temperature of around 41°C, cell damage occurs and internal organs begin to shut down.



Children's thermoregulatory systems aren't as efficient as adults' and their body temperatures warm at a rate 3 to 5 times faster. A child's body has a greater skin surface area to mass ratio than an adult's, which means they absorb heat far quicker.

Thermoregulation is under control of the Hypothalamus in the brain. There is a very fine line between heat generation and heat dissipation. The Hypothalamus constantly monitors body temperature by means of sensors found mainly in the skin and responds to



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changes, either up or down. So, for example, it's a hot day and the Hypothalamus picks up a rise in body temperature and it responds by stimulating the sweat glands to secrete sweat. The sweat evaporates from the skin taking heat with it and body temperature drops. Another mechanism is when the blood vessels underneath the skin dilate in order to move the warmer blood closer towards the skin's surface where it is able to give off its heat by means of radiation. This can be seen physically in the flushed appearance of the skin on a hot day.

Again, children do not have an as efficient thermoregulatory system as adults do and a prolonged high ambient temperature will result in some very detrimental effects. Children have smaller fluid volumes and prolonged sweating will cause dehydration in a relatively short period. Their circulating blood volume is also far less than adults so prolonged dilation of blood vessels can significantly decrease blood pressure and flow of blood to the brain. Add all these negatives together and it gives you a very good idea of just how dangerous a prolonged hot environment is for kids.

Cars and heat stroke

Vehicular heat stroke was always thought to be directly proportional to car ambient temperature. A study conducted a couple of years ago at Stanford University Medical School found that this was not actually the case. The study referenced several cases where death from vehicular heat stroke had occurred in ambient temperatures as low as 21°C. They also found that all that was required to cause dangerously high temperatures inside a car was for the sun to be shining, much the same way as the sun warms a greenhouse on mild days.

According to research, the temperature inside a parked car during a typical summer's day in South Africa can be 20 – 30 degrees hotter than the outside temperature. On a 29°C day a car can reach 44°C in just 10 minutes and 60°C in 20 minutes. Leaving the windows slightly open has very little effect on both the internal temperature of the car and the progressive deterioration in the child's condition.

What you should do

Firstly, the only thing that truly guarantees your child's safety is prevention. Never leave your child alone in a car, irrespective of how mild you think the weather conditions are. It is also always a good idea to leave an item you know you will need at work on the backseat of the car. This could be your mobile phone, wallet or lunch. This way you will always open the back door of your car before you disappear into your office for the day. Remember that statistically one of the most prominent causes leading to vehicular heat stroke is that the minder simply forgot that the child was in the car. Thirdly, make a habit of always locking your car and hanging up the keys when you get home, even if you park your car in a driveway behind locked gates. Make it impossible for your young kids to access any of your cars for playtime.

These are important preventative measures; however, what should you do should you be faced with a heat stroke emergency? Firstly, and most importantly, immediately remove the child from the hot environment to a cool or shaded area. Activate the Emergency Medical Services and assess the child for breathing. If no signs of breathing, immediately begin with CPR and continue until the paramedics arrive.



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If the child is breathing, remove any excess clothing, lay him or her down with legs slightly elevated and begin cooling by sponging down with tepid water. Take a newspaper or anything you have access to that can be used as a manual fan and continue to sponge down and fan. Never use ice cold water. Ice cold water will cool the skin too rapidly and may cause shivering, which will ultimately cause a further increase in body temperature. Ice cold water will also cause constriction of blood vessels beneath the skin and cause retention of heat in the body's core. Continue with cooling until the paramedics arrive.

The tragic loss of precious little lives through vehicular heat stroke is 100% preventable. Prevention begins with accepting the reality that it could happen in any family and most often involves really good parents. This article is dedicated to the hundreds of children who have lost their lives due to vehicular head stroke. We should have learnt our lesson by now, but somehow, we simply are not there yet. Please share this message with everyone who has kids and most importantly, please make sure you always check the back seat first; it may just save your child's life.

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Specials

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R130.00 Inclusive of Vat each

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R1 507.00 Inclusive of Vat each

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