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## Protecting our Children from the Cold And Why we need Coats 4 Children

With the past several Ohio winters being recorded as some of the coldest in the past 30 years, it has become more important than ever to be vigilant against hypothermia in our children. From 1979 to 1988, the Centers for Disease Control recorded approximately 14,000 deaths from hypothermia in the United States alone. <sup>1</sup> However, the total number of cases is likely much larger because the diagnosis is often missed.

Hypothermia is typically defined as a core body temperature below 35°C (95°F) and can be classified according to mild, moderate and severe. For mild hypothermia (35-32°C), the child may display shivering, goose bumps, pallor or a bluish discoloration of the extremities. These changes all arise from physiologic mechanisms designed to preserve core body temperature. Other signs and symptoms include numbness in the extremities, sluggishness, drowsiness or lethargy, and increased heart rate and breathing. With moderate hypothermia (32-28°C), mental function may begin to be impaired consisting of slurred speech, clumsy movements, and impaired thinking (including “paradoxical undressing”). As hypothermia progresses, shivering stops while heart rate, breathing, and blood pressure become variable and then depressed. With severe hypothermia (below 28°C), the child may become unconscious and unresponsive.

Still, a child need not be in subzero temperatures to risk hypothermia. All that is required is for the environmental temperature to be less than the actual body temperature, and the child will start to radiate his or her own heat to the surrounding environment. If the heat generated by the child’s body is less than that lost to the environment, then core body temperature will begin to fall. As such, hypothermia can occur even in warm climates and especially when a child is exposed to wet, cool, or windy conditions.

Compared to adults, children are at greater risk for developing a cold-related injury. For example, due to their smaller ratio of body mass to surface area, children tend to lose heat more rapidly than adults. Additionally, young children have limited glycogen stores necessary to support increased heat production in response to cold. But even more importantly, children are less likely to recognize the dangers of cold exposure, and they are less likely to seek help for a cold-induced injury. This may be especially true for children with developmental delay, attention deficit hyperactivity disorder (ADHD) or oppositional defiant disorder (ODD) who may not be able to assess cold weather risk and thus show poor judgement regarding appropriate attire.

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From the Centers for Disease Control and Prevention. Hypothermia-related deaths - Utah, 2000, and United States, 1979-1998 JAMA 2002; 287:981

It is quite evident that children should be dressed properly for cold weather. Outer wear should be dry and intact. Missing buttons or a malfunctioning zipper can clearly reduce a coat's effectiveness to maintain insulation and thus should be addressed promptly. Parents should also encourage their children to dress in multiple layers. Specifically, children should try to wear at least one layer more than an adult would wear in any given weather condition. And lastly, parents must not neglect the importance of keeping children's heads covered as a child's relatively larger head size is a significant source for heat loss.

The impact of winter clothing donation programs, such as Coats 4 Children, to help needy families dress their children appropriately and safely cannot be overemphasized. Organizations such as these truly understand this fundamental need, and they provide help and support in a way that preserves pride in those that they help. The fact that Coats 4 Children only utilizes brand new coats shows how much value they put into every single child. Knowing that a child has a brand new coat and not necessarily a hand-me-down only encourages that child to wear his or her coat with pride, and this in turn promotes responsible dressing during our cold Ohio winters. We should all commend these organizations for what they do, and I encourage all of you to provide support for them in whichever way that you can.

COATS 4 CHILDREN