



# Prehospital Pediatric Partners



August 2025, Volume 3

## Coordinator's Corner

### Welcome Terry Weldon!

Terry Weldon has joined the DCH EMS and Trauma Outreach Coordinator team! Terry has been with Dayton Children's for 25 years and has 28 years of experience in the fire service. He currently serves as Battalion Chief at Bethel Township Miami County.

### Regional PI points

#### Airway management

Airway management protocol compliance has shown major improvement in the last year.

- Supraglottic airway is the pediatric advanced airway of choice per GMVEMSC protocol
- Pediatric patients can be effectively bagged
- There is no significant benefit from intubation
- Intubation is time consuming
- PALS recommends the first dose of epi to be

## Mathile Center now open

The Mathile Center for Mental Health and Wellness is now open. Here's a couple of hiccups we've encountered...

- The sally port clearance is 11 feet tall. Width is 12 feet.
- When taking patients inside, the patient will be entered into the computer by registration and report will be taken by a social worker. Per Ohio EMS, you can transfer care to social workers in this setting.



## Per your request

## Pediatric heat injuries: recognition and management

Heat-related illness in children ranges from mild heat exhaustion to life-threatening heat stroke. Rapid recognition and appropriate intervention are critical, as children have a higher surface-area-to-mass ratio, produce more metabolic heat during activity, and often have less physiologic reserve to compensate.

### Heat Exhaustion vs. Heat Stroke

- **Heat Exhaustion** is a *moderate* form of heat-related illness caused by salt and water depletion. Core temperature is usually normal or mildly elevated (<40°C / 104°F), and patients remain alert, oriented, and able to drink. Symptoms include profuse sweating, tachycardia, dizziness, nausea, headache, and weakness. Untreated, it can progress to heat stroke.
- **Heat Stroke** is a *medical emergency* defined by a core temperature ≥40°C / 104°F **and** central nervous system dysfunction (confusion,





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given within 5 minutes of initiation of CPR

### IO needle selection

Please remember the protocol weights for IO needle selection and location. The pink needle is for neonates only (per the manufacturer). Protocol has made it easier with weight-based guidelines of less than 3 kg. Think spontaneous deliveries, home births, and preemies.

**Pink:** <3kg

**Blue:** 3-44kg

**Yellow:** 45kg

### Claim CE here!

This newsletter is not only a communication tool between prehospital and Dayton Children's Hospital, but also a CE opportunity! Read the content, take the quiz, get 0.5 hours of pediatric CE! Link expires Dec. 1

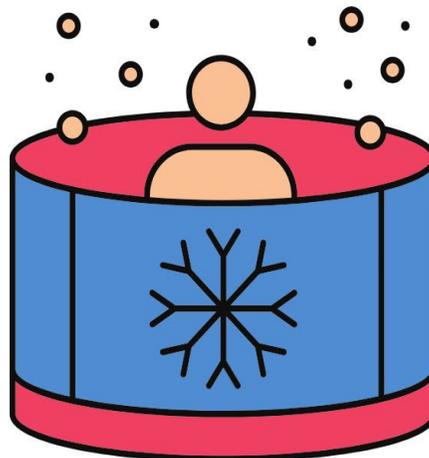


[Newsletter evaluation link](#)

seizures, altered mental status, coma). It is further classified as *exertional* (common in young athletes) or *classic* (often in infants/young children during environmental heat exposure). Heat stroke requires immediate, aggressive cooling to prevent permanent organ injury or death.

### Pediatric Management Principles

1. **Assess Core Temperature Early** — Use a rectal thermometer for accuracy; oral, tympanic, and axillary methods are unreliable in heat illness.
2. **Differentiate Based on CNS Status** — Altered mental status with hyperthermia = heat stroke until proven otherwise.
3. **Cooling Strategies**
  - **Heat Exhaustion:** Move to a cool environment, remove excess clothing/equipment, hydrate orally if able, and monitor closely. No need for aggressive whole-body ice immersion if the child is alert and improving.
  - **Heat Stroke:** *Cool first, transport second* — Rapid, whole-body cold-water immersion (35–59°F / 1.6–15°C) is the gold standard if feasible, aiming to reduce core temperature to <39°C (102.2°F) within 30 minutes. If immersion isn't possible, use high-flow cold water dousing, wet towels with fanning, or ice packs to neck, axillae, and groin.



## Only ice stroke

Core temp:  $\geq 104^{\circ}\text{F}/40^{\circ}\text{C}$

CNS dysfunction

Only cool to target temp



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## Upcoming Events

### 3<sup>rd</sup> annual DCH Pediatric EMS Symposium

November 3, 2025  
Full-day in person and  
virtual options  
DCH Inspiration Center  
241 Taylor Street  
More information coming  
soon!

**Never miss an  
update!**

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### Coordinator contacts

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4. **Stop Cooling at Target Temp** — Overcooling can cause shivering, vasoconstriction, and rebound hypothermia, particularly in smaller children. Once core temp is  $<39^{\circ}\text{C}$  (heat stroke) or symptoms resolve (heat exhaustion), stop active cooling and maintain normothermia.
5. **Hydration** — Oral fluids are preferred in mild illness if the patient can tolerate them; IV fluids for moderate/severe cases or those with vomiting or altered mental status.

### Special Pediatric Considerations

- **Infants and young children** are at higher risk due to immature thermoregulation, dependence on caregivers, and limited communication of symptoms.
- Avoid antipyretics — heat injury is not a fever, and acetaminophen/ibuprofen do not address the underlying problem.
- Monitor for complications: rhabdomyolysis, electrolyte derangements, acute kidney injury, and DIC in severe cases.
- Emphasize *prevention* — acclimatization, scheduled hydration breaks, shaded rest periods, and environmental monitoring (WBGT index) during sports.
- **Bottom line:** Ice baths save lives in heat stroke — but they are *not* indicated for every overheated child. Correct classification, rapid temperature measurement, and matching the cooling method to severity are the keys to safe and effective pediatric heat illness care.

### GMVEMSC protocol

Treatment Algorithm	
<ul style="list-style-type: none"> <li>• Move patient to a cool environment</li> <li>• Remove patient's clothing</li> <li>• Continuously apply water to the skin to cool the patient, use fan for evaporation if available</li> <li>• Apply cold packs to underarms and groin area</li> <li>• Cold water submersion is an acceptable method for cooling heat stroke patients. You may encounter patients in cooling body bags. The goal is to lower temperature to less than <math>102.5^{\circ}\text{F}</math></li> <li>• If conscious and not vomiting or extremely nauseous, provide oral fluids</li> <li>• Be prepared for seizures</li> <li>• Consider other medical conditions (e.g., overdose, hypoglycemia, CVA) and treat accordingly</li> </ul>	EMR
<ul style="list-style-type: none"> <li>• Hyperthermia patients should be transported to a Trauma Center</li> </ul>	EMT
<ul style="list-style-type: none"> <li>• If hypotensive or mental status changes:               <ul style="list-style-type: none"> <li>A IV fluid 500 ml IV</li> <li>P IV fluid 20 ml/kg IV (max 500)</li> </ul> </li> <li>• May repeat both adult and <b>pediatric</b> fluid bolus one time</li> <li>• ♦ Additional IV fluid, if indicated</li> <li>• Consider other medical conditions (e.g., overdose, hypoglycemia, CVA) and treat accordingly</li> </ul>	AEMT
<ul style="list-style-type: none"> <li>• No additional orders at this level</li> </ul>	Paramedic

# The Mathile Center for Mental Health and Wellness opens August 13

## What?

This specialty care center for mental health will house an emergency crisis evaluation center for walk-ins, EMS, and police arrivals. Patients needing crisis evaluations may be taken to this center for assessment and possible admission for mental health complaints.



 860 Valley Street  
Dayton, Ohio

## When? 10 a.m. to midnight

If you need assistance in choosing which facility to transport to, just call our Comm Center at 937-641-4444.

## Who?

Stable pediatric mental health patients up to age 17 can be treated and admitted to this facility.

- Remember, per GMVEMSC protocol, a pediatric mental health patient is 17 and under.
- Stable is defined as patients who do not need emergency medical intervention. Patients who have received ketamine in the field, have ingested substances for self harm or recreation, or a concern for sexual assault need to be taken to the main emergency department.
- If the patient is pregnant, they need to be screened at an adult facility for the pregnancy prior to being admitted into the pediatric mental health facility.
- ACE Alert patients CAN be brought to this facility - please follow same procedure as calling into main campus.

## How?



1. Pass main hospital and proceed to new traffic light



2. Turn right at new light (if traveling northbound)



3. Drive down to the gate and press button on speaker to gain access



4. Turn left at end of drive 5. Sally port is to the left - gate will be opened for you

