

BRUE

A Brief Resolved Unexplained Event (BRUE), previously known as Apparent Life Threatening Event (ALTE) is defined as an event occurring in an infant younger than 1 year when the observer reports a sudden, brief (< 1 min), and now resolved episode that includes one or more of the following features:

- Cyanosis or pallor
- Absent, decreased or irregular breathing
- Marked change in tone (hyper - or hypotonia)
- Altered level of responsiveness

A BRUE is diagnosed only when there is no explanation or qualifying event after conducting an appropriate history and physical examination.

HISTORY

History should be taken from an adult who witnessed the event. Key features of the history may include:

- Description of the event including any gagging, choking, difficulty breathing including pauses in breathing or apnea, pt.'s color during the event (normal, pallor, cyanosis), distress, tone, movement (purposeful/repetitive) and conscious state (response to voice, touch or visual stimulus)
- Circumstances and environment prior to the event such as, if the pt. was awake or asleep, feeding, history of vomiting, pt.'s position (supine/prone/side), sleeping arrangements such as co-sleeping, temperature, bedding, objects nearby that could potentially be swallowed, any illness in the preceding days
- End of the event including duration, how the event resolved (self-resolved, re-positioning, stimulation, mouth to mouth and/or chest compressions), recovery phase (rapid or gradual)
- Any other pertinent history such as past medical history, sick contacts, medications in the home, social history, previous similar events, family history of sudden death or significant childhood illness
- **Be mindful of potential non-accidental injury** when multiple or changing versions of the history are provided or circumstances are inconsistent with the pt.'s developmental stage/abilities

PHYSICAL EXAMINATION

- All patients should be completely exposed for a thorough head-to-toe physical exam
- Other relevant measures include vital signs, growth parameters and general appearance including age-appropriate responsiveness to the environment
- Any bruising, subconjunctival hemorrhage, bulging fontanelle, epistaxis, oral injury, head circumference crossing centiles, or irritability/drowsiness should raise suspicion for non-accidental injury

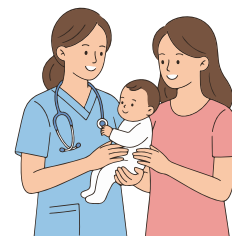


BRUE

RISK ASSESSMENT

To be designated as **low risk**, the following criteria should be met:

- Age >60 days
- Born ≥ 32 weeks gestation and corrected gestational age ≥ 45 weeks
- No CPR required by a trained healthcare professional
- First BRUE
- Duration of the event < 1 min
- No concerning historical features
- No concerning physical exam findings



Patients not meeting these criteria have a higher risk BRUE. These patients may have a serious, undiagnosed condition (seizure, non-accidental trauma, pertussis etc.)

INVESTIGATIONS

- A low risk BRUE does not require any investigations
- For higher risk BRUE, consider the following investigations as clinically indicated:
 - ECG - if dysmorphism, family history of arrhythmia or sudden death
 - NPA - if history of pertussis exposure, symptoms, apnea
 - EEG/Neurology consult - if abnormal movements, eye deviation, altered neurology, event recurrence
 - ENT consult - if epistaxis, stridor, obstructive symptoms, apnea

MANAGEMENT

- It is important to acknowledge the distress that the event may have caused to the caregiver. Provide education and reassurance that these infants experiencing low risk BRUEs are not at an increased risk of death
- If the infant requires ongoing, acute treatment, the event is **NOT** a BRUE
- Infants who have had a low risk BRUE may be safely discharged home if the parents feel reassured and capable of caring for their infant at home
- For a low risk BRUE, shared decision making with families regarding admission for clinical observation is of benefit
 - Admission for observation and monitoring may provide reassurance to caregivers but rarely leads to a diagnosis
- If discharged, families should receive clear advice about when to return to hospital

CONSULT PEDIATRIC HOSPITAL

- Consider consultation with pediatric tertiary care facility when the event does not meet low risk BRUE criteria
- Any concerns of non-accidental injury
- Consider transfer if serious, underlying disorder is suspected

TREKK Bottomline Recommendations



[Physical Child Abuse](#)

American Academy of Pediatrics



[BRUE](#)

There will be no IWK Nursing Grand Rounds or Pediatric Grand Rounds during the summer. However, The Canadian Pediatric Society has monthly [National Grand Rounds](#) anyone can register for and attend. Recordings available to members only.

Comfort Corner



[Solutions for Kids in Pain \(SKIP\)](#) has created the [SKIP Resource Navigator](#). It allows you to access over 400 trusted evidence-based tools for youth, caregivers, health professionals, decision makers, and others.

The resources are available in a variety of formats including videos, booklets, infographics, toolkits, handouts, and more. These resources cover pain from birth to emerging adulthood. With search filters to find what fits your needs best based on language, audience, age group, type of pain, type of resource, and more!



Join our Maritime-wide IWK Pain Champion group [here](#), or email painchampions@iwk.nshealth.ca to learn more!



References

AAP (2016). *Brief Resolved Unexplained Events and Evaluation of Lower Risk Infants*.
<https://publications.aap.org/pediatrics/article/137/5/e20160590/52195/Brief-Resolved-Unexplained-Events-Formerly-autologincheck=redirected>

RCH (2026). *Clinical Practice Guidelines: Brief Resolved Unexplained Event*.
https://www.rch.org.au/clinicalguide/guideline_index/Brief_resolved_unexplained_event/

Up to Date (2026). *Acute Events in Infancy Including Brief Resolved Unexplained Events*.
<https://www.uptodate.com/contents/acute-events-in-infancy-including-brief-resolved-unexplained-event-brue>

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