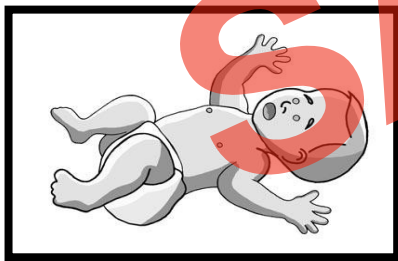


The **Popcorn Song** was written to help children feel a sense of calm and safety. In recent years we've seen a dramatic increase in the number of children with anxiety, hyper-sensitivities, and an inability to self-regulate. We believe the reason for the increase in these behaviors can be at least partially attributed to an un~~integrated~~ Moro Reflex.

The Moro Reflex may be referred to as the **infant-startle reflex** or '**fight or flight**' response. It is an automatic reaction to excessive sensory stimuli such as sounds, light, touch and movement.



This reflex can easily be understood by thinking of how infants, when they get startled, take a deep breath and stretch their arms and legs out away from their body. Then the arms and legs are bent into the middle of the body and the infant starts to cry. This reaction only lasts seconds.



The purpose of the Moro Reflex is to provide babies with an internal alarm system to protect themselves from danger. When the Moro Reflex is activated, the defence mechanisms of the body are alerted. The sympathetic nervous system and the adrenals are stimulated and the stress hormones epinephrine and cortisol are secreted. Epinephrine causes the senses to become oversensitive. This primitive Moro Reflex should normally be integrated about four to six months after birth.

However, if the Moro Reflex remains present after six months and still evident in school-age children, it can become an uncontrolled overreaction – a "fight or flight" response to stimuli – and makes it difficult for a child to cope with everyday experiences at home or in the classroom. These heightened senses can cause anxiety, uncontrolled behavior, and learning challenges. A child with an active, un~~integrated~~ Moro Reflex may quickly respond by hitting ("fight") or withdrawing ("flight").

Some possible signs that the Moro Reflex may not be fully Integrated:

Z ○ Withdrawal from difficult situations

- **Fear of trying new things**
- **Difficulty socializing**
- **Anxiety and hyper-reactivity**
- **Overly tired after excessive exposure to stimuli**
- **Hypersensitivity to light, sound, touch, movement**
- **Hypersensitivity to vestibular stimulation, and being prone to motion sickness and balance issues**
- **Poor adaptability; dislikes changes or surprises**
- **Problems having confident contact with children their own age**
- **Weak immune system, asthma, allergies, and poor digestion**
- **Z**

It is important to teach children calming techniques, so they can regulate their own behavior!

Activities and Games to Assist Integration of the Moro Reflex

Pretend you are a firework or **popcorn** kernel about to burst open.



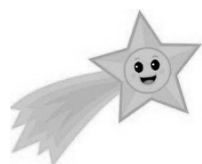
Moro Reflex part 1: Roll up into a ball by bending the legs and folding the hands around your knees. Lift your head, tucking in your chin. The forehead should come close to the knees. Squeeze tightly and count down from 10.

Moro Reflex part 2: When you get to zero, burst open like a firework or **popcorn**.



Explore with the children you are working with what else could burst or explode open (e.g., fireworks, shooting star, rocket ship, exploding can of pop).

For added fun, wrap the child tightly in a blanket and then explode. This activity provides extra proprioceptive stimuli some children require to self-regulate.



"The Turtle" Moro Pattern: a more-advanced self-integration technique

The "Moro Reflex Self-Integration" is a technique created by Dr. Harald Blomberg.



Pretend you are a turtle that is stuck on its back. Lie on your back, knees bent, feet off the floor. Cross arms, and press hands gently on the front of the knees. Lift head and tuck in the chin, while looking at the knees. Exhale for 6 – 7 seconds. Repeat 4 or 5 times.



Next, Imagine the turtle is trying to stretch or push out of its shell. Keep head down on the floor, with a slightly tucked-in chin. Then slide hands over the knees to hold legs as shown in illustration (left), and gently push legs up to the ceiling, with hands providing some resistance. Exhale for 6 – 7 seconds. Repeat 4 or 5 times.

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**Created from the work of Dr. Harold Blomberg
www.blomberggmt.com**

SEE ALSO:

"Tuesdays with Twomey" (on YouTube.com), "Matthew's Self-Regulation Techniques for the Classroom"

www.youtube.com/watch?v=TbV7ZyiPbmw&t=58s