



YOUTUBE FREEBIE

The Asymmetrical Tonic Neck Reflex (ATNR)

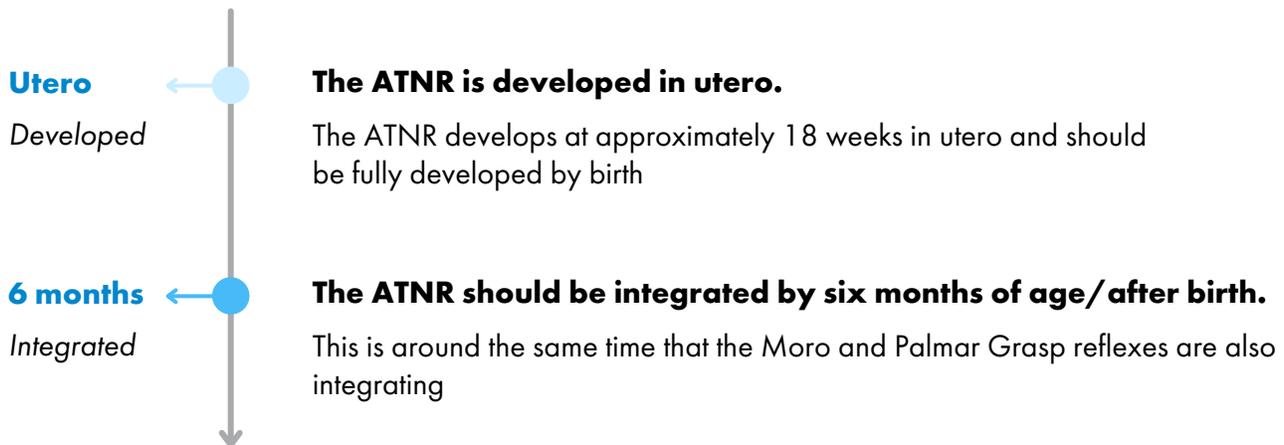
What is the ATNR?

- The Asymmetrical Tonic Neck Reflex (ATNR) is elicited by a simple head turn or visual stimuli to either the right or the left.
- When an infant is lying on their back and their head is turned to one side, the arm on that same side will extend while the opposite arm will flex in towards the body.
- Additionally, there is leg movement that coordinates with the arm movement however it is not typically as pronounced as the arm movement.
- The ATNR is often called the “fencing reflex.”
- The kicking that is felt in utero is due to the ATNR!
- The ATNR assists the birth process, along with the Spinal Galant. It allows the baby to descend down the birth canal and the process of birth actually helps develop the ATNR, as it is reinforced by the birth process. The ATNR plays a role by assisting with “unscrewing” down the birth canal.
- Because the ATNR is elicited with head movement, it is also connected directly to the vestibular system, which affects balance and muscle tone.
- Another big role that the ATNR takes part in is hand-eye coordination and developing skills on each side of the body - think of turning your head to reach and grab an item.
- Integration of the ATNR is around the same time that the Moro and Palmar Grasp reflexes are also integrating, as well as around the same time, the infant is intentionally reaching for objects, has gained head control, and may start crawling.



Source:
Reflexes, Learning and Behavior

ATNR Integration:



Special Notes on Integration:

Special Note #1

If a child has successfully integrated their primitive reflexes, a sudden or chronic bout of trauma, stress or injury can re-activate these reflexes.

Special Note #2

While there is no guarantee for reflex integration, there are contributing factors to consider if the child has an unintegrated ATNR.

Special Note #3

Because of the connection between the ATNR and the vestibular system, if a child has an unintegrated ATNR it is likely that they will have challenges with vestibular processing.

Source:

journals.plos.org/plosone/article?id=10.1371/journal.pone.0214548

What an unintegrated ATNR looks like:

Because the ATNR is directly related to the vestibular system and consists of a physical reaction, it has a direct impact on movement, balance, muscle tone, and coordination.

Additionally, due to the movement of the arm in relation to the head, it also has a direct impact on hand-eye coordination.

With a retained (unintegrated) ATNR, we can see a host of abnormalities including cognitive and learning challenges, as well as joint and bone misalignment issues, such as scoliosis, which can create obstacles for crawling and walking to occur.

Additional symptoms of a potentially retained ATNR:

- Challenges with crawling as an infant
- Decreased engagement with toys as an infant
- Poor balance when learning to walk
- Challenges with reading and writing
- Left / right confusion
- Challenges with visual tracking
- Gravitational insecurity and fear with movement
- Challenges crossing midline
- Poor hand dominance establishment
- Difficulty bringing hands to midline in infancy
- Poor coordination for bilateral integration tasks and ball handling skills
- Dyslexia and/or Dysgraphia