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What's New in the NICU

OBJECTIVES

1. Describe the impact of trauma on infants in the NICU
2. Recognize the importance of reading and responding appropriately to infant behavioral cues
3. Identify key components of developmentally supportive care practices in the NICU
4. Demonstrate knowledge of supportive positioning techniques that promote infant stability and comfort

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NICU ACES

Traumatic experiences of hospitalized infants

- Maternal Deprivation/separation
- Undermanaged pain
- Social isolation
- Nutritional deprivation
- Sleep fragmentation
- Ignoring behaviors of stress

Health Presentation

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Trauma experience

Ignoring Behavioral Expressions of Stress

Participating in cares WITH the infant allows for the opportunity to create positive connections in their brains

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Know the Cues

Subsystem	Signs of Disorganization/Stress	Signs of Self-Regulation
Autonomic	<ul style="list-style-type: none"> Apnea/Tachypnea Bradycardia/Tachycardia Skin color changes (mottled, pale, dusky) Hiccups Gagging Spitting up 	<ul style="list-style-type: none"> Exaggerated startle Tremors Coughing Sneezing Yawning Seizures
Motor	<ul style="list-style-type: none"> Hypertonicity Extension of extremities Finger splaying Fisting Trunk arching Tongue extension Frantic activity of extremities 	<ul style="list-style-type: none"> Smooth regular respiratory rate Pink, stable skin color Stable viscera Appropriate startle reflex Free of tremors and seizures Consistent appropriate muscle tone for post-conceptual age Hand and foot clapping Foot bracing Tucking Hand to mouth Sucking
State/ Attention-Interaction	<ul style="list-style-type: none"> Abrupt state changes Jerky movements during sleep Abrupt state changes Eye fluttering, glossy eyes, gaze averting, raising eyebrows Irritability Weak cry 	<ul style="list-style-type: none"> Calm, focused alertness Smooth transition between sleep states Response to auditory, visual and social stimuli Ability to self-soothe

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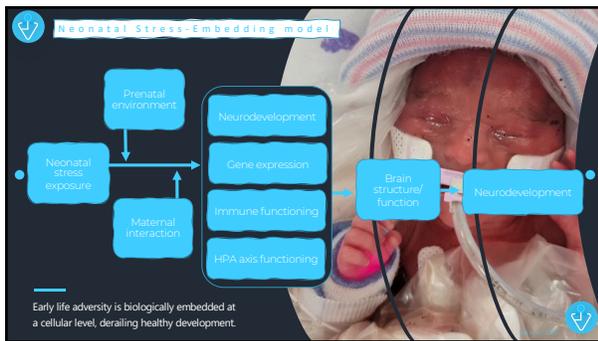
Adverse Childhood Experiences

Stress that is unpredictable, uncontrolled, chronic, and severe is especially bad

Child's attachment relationship will determine how they recover from trauma

Attachment is not only important in recovery but also how the

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Cultivate the capacity to be present

You must be present with the baby to create and sustain the ability to be truly transformative.

Read cues

Respond

Support

Protect

Beyond the Cliff—Laura Van Dermoot-Lipski

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Trauma Informed Care

Bridging the Gap

T O U C H

- Talk softly
- Offer containment
- Understand purpose
- Cues read & respond
- Help find regulation

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Developmental Care

Core Measures

1. The Healing Environment
2. Partnering With Families
3. Positioning and Handling
4. Safeguarding Sleep
5. Minimizing Stress and Pain
6. Protecting Skin
7. Optimizing Nutrition
 - Preparing For Home

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Core Measure 3

Developmentally Supportive Cares

- Talk before touch
- Touch before move
- Plan cares to provide minimal stress
- Support during every care giving activity
- Stay attuned to infant

Flexed · Aligned · Contained · Comfortable

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Core Measure 3

Positioning & Handling

- Muscle tone, posture and movement continue to develop when infants are born prematurely
- Affected by gravity, tactile stimulation and prolonged lying
- Premature musculoskeletal system not prepared to handle these type of motor experiences
- Infants are intended to grow and develop within the limits of the uterus
- Must provide flexion with resistance when born prematurely



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Core Measure 3

Developmental Positioning

- Preterm infants have low tone
- Normal "term" tone enhances head control, midline posture, and suck-swallow proficiency
- Use nested containment and swaddling to provide flexion in arms and legs with adduction of shoulders and midline movements
- Provide a variety of positions and loose swaddling
 - All containment should be supportive and not restrictive



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Core Measure 3

GOALS OF POSITIONING

Create positioning that supports musculoskeletal and motor development

- Optimize Alignment
- Support Posture
- Allow Movement w/in Containment
- Promote Regulation
- Neutral Midline Semiflexed
- Containment Nesting Swaddle
- Unrestrictive Supportive Loose
- Hands together/to face Foot bracing



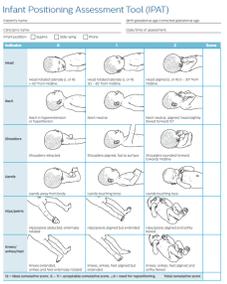
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Core Measure 3

IPAT TOOL

Validated tool
Used to evaluate posture in 6 areas

Goal
Achieve proper positioning and maintain consistency and accountability by staff



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Core Measure 3

Nested Containment

- Soft flexion in arms and legs
- Rounded shoulders
- Supportive, not restrictive
- Neutral hips
 - Avoid over abduction
 - Avoid mermaid position



Swaddling

- Continues to offer opportunities to build tone
- Bringing to midline
- Cares
- Bathing/Weights
- Feeding

Transition to blanket swaddle when infant is 32 weeks CGA and medically stable per AAP recommendations

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Core Measure 3

Head Shaping

- Alternate positions prior to BTS
- Alternate head position with each care time
- Skin to skin
- Offer midline support prior to 32 weeks
- Hold in a variety of positions
- Change head of bed weekly
- Approach from non-preferred side



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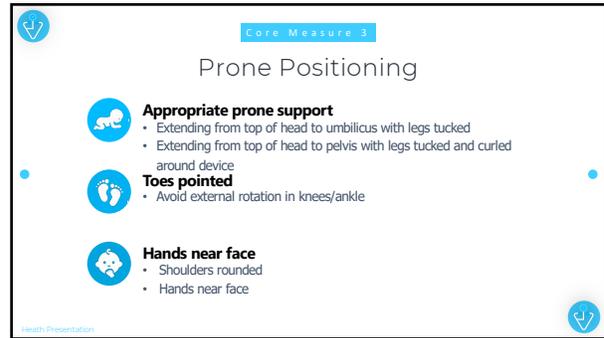


Core Measure 2

Partnering with Families

- Two person cares
- Connecting families
- Giving opportunities to parent
- Opportunities to teach about self-regulation and stress

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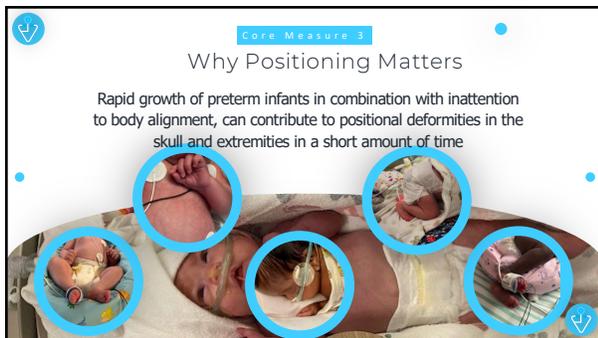


Core Measure 3

Prone Positioning

- **Appropriate prone support**
 - Extending from top of head to umbilicus with legs tucked
 - Extending from top of head to pelvis with legs tucked and curled around device
- **Toes pointed**
 - Avoid external rotation in knees/ankle
- **Hands near face**
 - Shoulders rounded
 - Hands near face

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Core Measure 3

Why Positioning Matters

Rapid growth of preterm infants in combination with inattention to body alignment, can contribute to positional deformities in the skull and extremities in a short amount of time

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Core Measure 3

Supportive Positioning

- Promotes organized motor behaviors
- Improves sleep patterns
- Decreases stress

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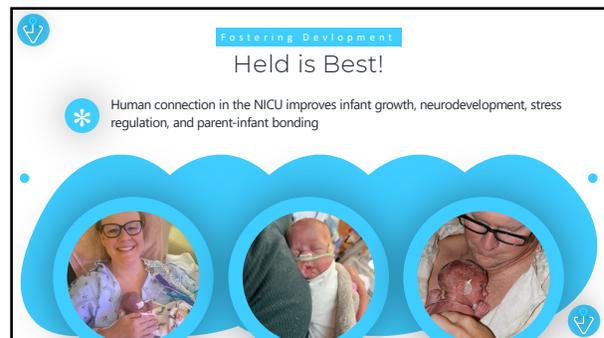


Skin to Skin

Connecting infants with their parents

- Standing transfer
- Guidelines
- Proper positioning with skin to skin
- AAP recommendations

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Fostering Development

Held is Best!

- Human connection in the NICU improves infant growth, neurodevelopment, stress regulation, and parent-infant bonding

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