

## Module 9: Neonatal, Well Baby and Well Child Assessment, and Paediatric Nutrition



Artist: Marc Anthony Jacobson

2017 Update by Aric Rankin RN (EC), MN  
Developed by Jenna Verenka RN (EC), MN



CANADIAN HEALTH CARE AGENCY  
EXPERIENCE THE NORTH

©CHCA 2017

“Canada’s most recent census identifies First Nations  
community as the largest growing segment of our  
population...”

©CHCA 2017



**1. Well Baby Check Components.** Learn the approach and components of well baby/child assessments & overview of growth and development.

**2. History & Physical Assessment.** Review essential components to the history and physical and improve your skills and knowledge.

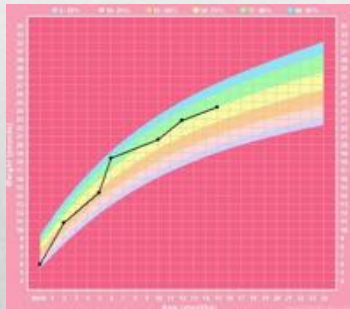
## Learning Objectives

©CHCA 2017

**Full Term:** Born between 37-42 weeks

**Pre Term:** Born before 37 weeks

**Post Term:** Born after 42 weeks



## Review of Well Baby Check Components

©CHCA 2017



## What is the Rourke Baby Record?

It is a Canadian evidence based tool to guide Primary Care providers doing well infant and toddler and child assessments.

## Topics of the Rourke

- Growth
- Nutrition
- Education & Advice
- Development
- Physical Exam
- Problems and Plans
- Immunization

*Tracks these topics from birth to 5 years of age*

## Rourke Baby Record

©CHCA 2017

©2014 Drs. L. Koebel, D. Lytle and J. Rourke  
Revised February 20, 2014  
www.rourkebabyrecord.ca

**Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance** **GUIDE II: 2-6 mos**

NAME: \_\_\_\_\_ Birth Day (dd/mm/yyyy): \_\_\_\_/\_\_\_\_/\_\_\_\_ M | F | I |  
Gestational Age: \_\_\_\_ wks Birth Length: \_\_\_\_ cm Birth Wt: \_\_\_\_ g Birth Head Circ: \_\_\_\_ cm

DATE OF VISIT	2 months	4 months	6 months
GROWTH (see <a href="#">Rourke Baby Record</a> Guide I: 0-2 months) Correct age with 28-day window If < 37 weeks gestation	Length Weight Head Circ.	Length Weight Head Circ.	Length Weight (x 100) Head Circ.
PARENT/CAREGIVER CONCERNS			
NUTRITION <sup>1</sup>	<p>For each Q item discussed, indicate "Y" for no concerns, or "N" if concerns</p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
EDUCATION AND ADVICE Safety Prevention	<p><input type="checkbox"/> <b>Childproofing?</b> <input type="checkbox"/> <b>Childproofing?</b> <input type="checkbox"/> <b>Childproofing?</b></p> <p><input type="checkbox"/> <b>Childproofing?</b> <input type="checkbox"/> <b>Childproofing?</b> <input type="checkbox"/> <b>Childproofing?</b></p> <p><input type="checkbox"/> <b>Childproofing?</b> <input type="checkbox"/> <b>Childproofing?</b> <input type="checkbox"/> <b>Childproofing?</b></p>		
Behavior and Family Issues	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
Environmental Health	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
Other Issues	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
DEVELOPMENT Physical and observation of behavior Notes are on the line of normal variation; significant abnormalities of any item suggests concern for further assessment. (See <a href="#">Rourke Baby Record</a> Guide I: 0-2 months)	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
PHYSICAL EXAMINATION An appropriate age-specific physical examination is recommended at each visit. Indicate based on finding for specific conditions in this column.	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
PROBLEMS AND PLANS	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		
IMMUNIZATION/IMMUNIZATION Discuss immunization plan and/or strategy? Signature: _____	<p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p> <p><input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b> <input type="checkbox"/> <b>Feeding/feeding problems?</b></p>		

Strength of recommendation is based on Rourke review using the classification: Good (all types), Fair (all types), Questionable (evidence/consensus (all types), See Rourke review table at [www.rourkebabyrecord.ca](#)  
See Rourke Baby Record Resources 1: General    See Rourke Baby Record Resources 2: Infant/Child Development    See Rourke Baby Record Resources 3: Immunization/Infectious Diseases

Disclaimer: Once the constantly evolving nature of evidence and changing recommendations, the Rourke Baby Record is meant to be used as a guide only.  
Financial support has been provided by the Government of Ontario. For full use authorization, see [www.rourkebabyrecord.ca](#)

**Rourke Baby Record**

©CHCA 2017

For an Interactive Walk through the Rourke Baby Record

- **Guide I:** visits at up to one week, two weeks, and one month of age;
- **Guide II:** visits at two, four, and six months of age;
- **Guide III:** visits at nine, 12, and 15 months of age;
- **Guide IV:** visits at 18 months, two to three years, and four to five years of age.
- **Guide V:** is a table for charting immunizations.

Guidelines/Resources that accompany the RBR:

1. **Guidelines/resources** dealing with growth monitoring, nutrition, physical examination, and education and advice issues excluding those on development, behaviour, immunization and infectious diseases.
2. **Guidelines/resources** dealing with development, behaviour, and parenting resources.
3. **Guidelines/resources** dealing with immunization and infectious diseases.

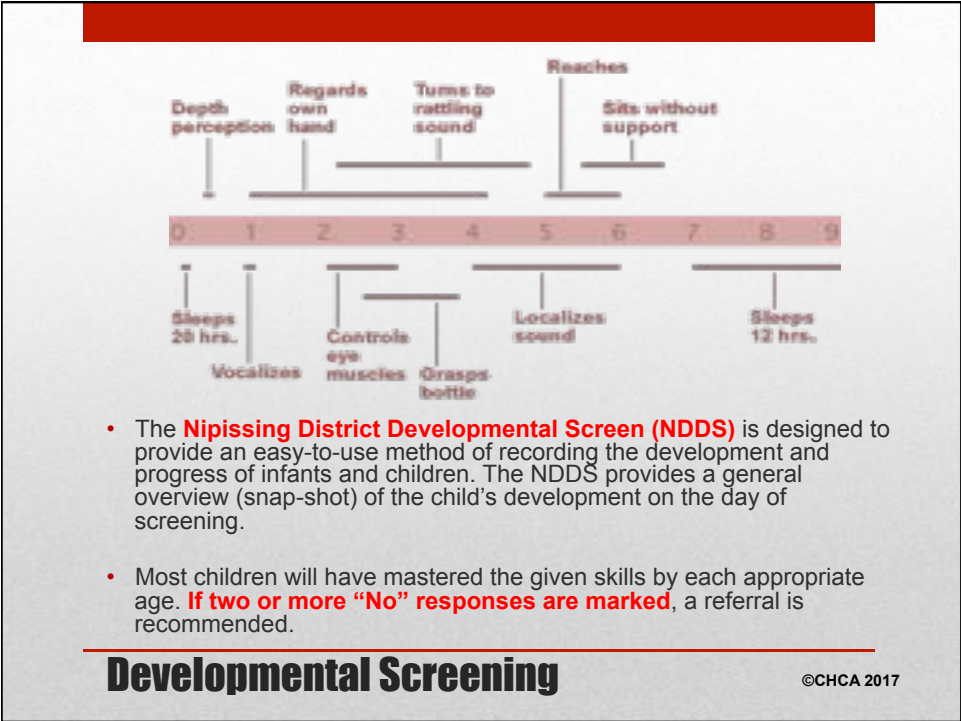
**Rourke Guides & Resources**

©CHCA 2017

The '7' Areas	
The '7' Areas	Rourke Components in Detail
Height, Weight	Every visit: Birth-16 yrs old
Head Circumference	Every Visit: First 2 years of life
Eye Assessment	Every visit
Strabismus Assessment	Every visit: First year of life
Development Assessment	Every visit
Nutrition	Every visit
Parenting	Every visit

**7 assessment areas for EVERY VISIT in the first year of life**

©CHCA 2017





- Examines 13 developmental stages
- Explores skills in
  - Vision
  - Hearing
  - Speech
  - Language
  - Communication
  - Gross and fine motor
  - Cognitive
  - Social/Emotional
  - Self-help

[www.ndds.ca](http://www.ndds.ca)



## Nipissing District Developmental Screen (NDDS)

©CHCA 2017

Child's Name:   
 Date:

English ☐ First Word ☐ Gross Motor ☐ Basic ☐  
 Self-help ☐ Communication ☐ Learning & Thinking ☐

**The NDDS checklist is designed to help monitor your child's development.**

**Y N** **BY EIGHTEEN MONTHS OF AGE, DOES YOUR CHILD:**

- ☐ I identify pictures in a book? ("show me the baby")
- ☐ I use a variety of familiar gestures? (waving, pointing, giving, reaching up?)
- ☐ I follow directions using "on" and "under"? ("put the cup on the table")
- ☐ I make at least three different consonant sounds? (b, n, d, t, g, w?)
- ☐ I point to at least three different body parts when asked? ("where is your nose?")
- ☐ I say 20 or more words? (words do not have to be clear)
- ☐ I hold a cup to drink? "
- ☐ I pick up and eat finger food?
- ☐ I help with dressing by putting out arms and legs? "
- ☐ I walk up a few stairs holding your hand?
- ☐ I walk alone?
- ☐ I push and pull up a toy and stand back up without falling?
- ☐ I squat to pick up or other objects while walking forward? "
- ☐ I stack three or more blocks?
- ☐ I show affection towards people, pets, or toys?
- ☐ I point to show you something?
- ☐ I look at a person when you are talking or playing together?

**18 months**

English

Examples provided are only suggestions. You may use other examples for your family's experience. You may help your child complete any activity.

Source: Adapted from "Guidelines for Early Developmental Screening and Assessment of Children with Disabilities" by the American Academy of Pediatrics, 2005. Adapted from "Guidelines for Early Developmental Screening and Assessment of Children with Disabilities" by the American Academy of Pediatrics, 2005. Adapted from "Guidelines for Early Developmental Screening and Assessment of Children with Disabilities" by the American Academy of Pediatrics, 2005.

**Following activities for your child will help the play your child in your child's development.**

I feel safe and secure when I know what I expect is of me. You can help me with this by following routines and setting limits. Praise my good behaviour.

I like toys that I can pull apart and put back together—large building blocks, containers with lids, or plastic links. Talk to me about what I am doing using words like "open" and "pull".

I'm not too little to play with large toys. Let's scramble and talk about our art work.

Don't be afraid to let me see what I'm doing with my body. I need to practise climbing, swinging, jumping, running, going up and down stairs, and going down stairs. Stay close to me so I don't get hurt.

Play some of my favourite music. Encourage me to move to the music by swaying my arms, moving slowly, marching to the music, hopping, clapping my hands, tapping my legs. Let's have fun doing actions while listening to the music.

Let me play with balls of different sizes. Take some of the air out of a beach ball. Watch me kick, throw, and try to catch it.

I want to do things just like you. Let me have toys that I can pretend to have tea parties, dress up, and play normally or daddy.

I like new toys, so find the local toy lending library or play groups in our community.

I am learning new words every day. Put pictures of people or objects in a bag and say "1, 2, 3, what do we see?" and pull a picture from the bag.

Pretend to talk to me on the phone or encourage me to call someone.

Help me to notice familiar sounds such as bells chime, car or truck motors, airplanes, dogs barking, snoring, or splashing water. Imitate the noise you hear and see if I will imitate you. Encourage me by smiling and clapping.

I like simple puzzles with two to four pieces and I like to match the pieces by matching them with the pieces by matching them with the pieces.

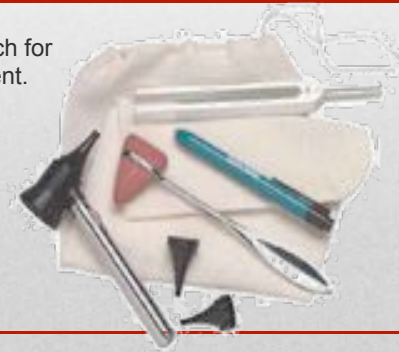
I enjoy exploring the world, but I need to know that you are close by. I may cry when you leave me with others, so give me a hug and tell me you will be back.

I may get gut infections. Talk to your doctor about signs and symptoms.

©CHCA 2017

## Part II History and Physical Assessment

Establishing a systematic approach for each history & physical assessment.




©CHCA 2017

- Birth History
- FASD screening
- Child abuse
- Parents concerns
- Ask about Nutrition
- Breastfeed or bottle feds how long
- Fluoride supplementation
- 20% feed condensed milk-FYI-teaching to avoid this
- Benefits of breast feeding

### History Taking Tips

©CHCA 2017



The Apgar score rates:

- Respiration, crying
- Reflexes, irritability
- Pulse, heart rate
- Skin color of body and extremities
- Muscle tone

- Length of gestation.
- Age and parity of mother at delivery.
- Any maternal insults [alcohol, smoking] or illnesses during gestation.
- Where born: city, hospital.
- Birth weight, mode of delivery, difficulties in delivery.
- Resuscitation, intensive care requirement at birth.
- Cyanosis, pallor, jaundice, convulsions, birthmarks, malformations, feeding or respiratory difficulties.
- APGAR score at birth if known.
- How baby was fed in first few days.
- Whether child went home with mother.

**Birth History**

©CHCA 2017

## Complete History Should Include:

- Pregnancy and Birth history (previous slide)
- Immunization history
- Diet including vitamin use and fluoride use
- Development history
- Social history

*"It is recommended the entire history be taken before the physical exam"*

## General History & Review of Systems (ROS)

©CHCA 2017



## Case Study:

### Check that you have:

- Assessment tools
- Documentation
- Labs / Bloodwork pending or due
- Immunizations due
- Follow up paper work

Remember the other staff may know where to find what you are looking for!



## Pre-Visit Tips

©CHCA 2017

### Eleven Areas of Assessment:

1. General Appearance
2. Growth and Development
3. Vital Signs
4. Heart & Lungs
5. Eyes, Ears, Nose, Throat, Mouth
6. Neurological Examination
7. Skin
8. Abdomen
9. Genitalia
10. Musculoskeletal
11. Feeding and Elimination Patterns



## Physical Assessment

©CHCA 2017

### Tips for a smooth start....

#### Newborn:

- Place the newborn on the examination table, and observe, listen to the heart and lungs.
- Once this is accomplished proceed with the rest of your exam.



#### Infant/Toddler:

- Start Slowly and examine the child in the caregiver's lap, start with a non-threatening area, and try to end with the head, ears and throat exam last.

**General Approach:** needs to remain flexible and the more rapport with the child before the physical exam the better. This is especially true for patient's between the ages of 8 months and 4 years.

## General Exam Approach

©CHCA 2017

### Birth Weight

- 10% loss in first 3-4 days is normal
- Should gain 1lb a month

### Weight Gain for Infants

- Should double in weight by 6 months
- Triple in weight by 12 months



## Weight

©CHCA 2017

### Key Point:

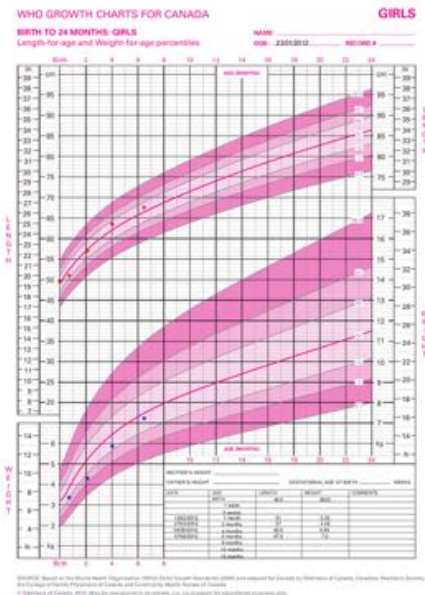
1. Healthy infants follow their curve
2. Healthy infants are proportionate

### For example:

- If you measure a child at 3 months and she is in 75<sup>th</sup> percentile, but at 9 months she measures in the 50<sup>th</sup> percentile...

### Question... what should you do?

- Crossing over 2 curves is a **red flag**
- You should explore the potential reasons for this change and refer the patient.



## Tips For Measuring Growth

©CHCA 2017



### Know

- Microcephaly = less than 3rd percentile
- Macrocephaly = greater than the 97th percentile.

Note: FAS infants/children are mild to moderately microcephalic

## Head Circumference

©CHCA 2017

### Do

- Palpate the anterior fontanel for firmness and size
- Palpate the posterior fontanel

### Ask

- Hydration status
- Sleeping Position
- Tummy Time

### Know

- **Posterior Fontanelle**
  - Fontanel closes by 6 weeks
- **Anterior Fontanelle**
  - Fontanelle closes by 18 months

### Red Flags

- Anterior closes before 9 months is an EMERGENCY.

### Next Steps:

- Ultrasound of skull. Fontanelle to determine if there is enough space for growth and emergency craniotomy- premature closure
- **An increase** in palpable tension of the fontanelle can indicate increased intracranial pressure.
- **A decrease** can indicate dehydration.

## Fontanelle Assessment

©CHCA 2017

### DO

- Assess for red reflex
- Test for corneal light reflex
- Cover and uncover test (after 6 months)

### KNOW

- Absence of a red reflex suggests cataracts or intraocular disease
- Non symmetric corneal light reflex indicates strabismus, imbalance of ocular muscle tone.

These findings require referral



## Eye Exam

### DO

- Perform the ear exam with the child in the parent's lap or while lying down.

### KNOW

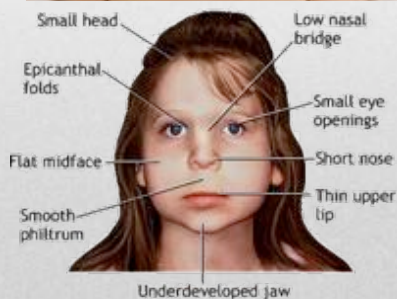
- Bulging or red tympanic membrane is abnormal, and suggest Otitis media
- Otitis Media is most common in 3 months to 3 years.



**Chronic ear infections  
require ENT referral**

## Ear Exam

- Observe/palpate palate
- Observe mouth
- Observe tongue
- Observe Gums
- Observe Teeth



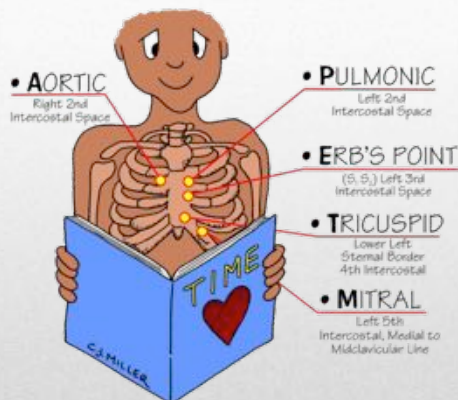
## Mouth Assessment

©CHCA 2017



### 5 AREAS FOR LISTENING TO THE HEART

- Pulses are important, check bilaterally brachial and femoral pulses
- Auscultate with diaphragm and the bell
- Identify point of maximal impulse (PMI)
- S1 or S2 and S3 or S4 sounds
- Rate and rhythm



All People Enjoy Time Magazine

©2007 Nursing Education Consultants, Inc.

## Cardiovascular Assessment

©CHCA 2017

- Assess breathing effort, rate and pattern
- Assess accessory muscles movements and chest symmetry
- Skin color; central and peripheral (cyanosis?)
- Assess nipple and breast development



Remember to inspect first and auscultate last!

## Respiratory Assessment

©CHCA 2017

**DO**

Assess Reflexes:

- Sucking Reflex
- Moro Reflex
- Rooting Reflex
- Plantar Grasp
- Step Reflex
- Babinski

Assess Movement

- Spastic, Rigid or Smooth?

Assess Muscle Tone

- Pick the child up and hold her under the arms. Does she have good tone?

Cranial Nerve Assessment

- When can you complete this?

Tonic neck reflex

Grasp reflex

Step reflex

Crawl reflex

ADAM

---

**Neurological Examination**

©CHCA 2017

**KNOW**

**Reflexes:**

- Should be symmetric and persistent primitive reflexes are a signal of underlying dysfunction.
- At what age can this assessment be completed?

**Movement:**

- Watch for lack of neck movement.
- At 4 months they should be able to hold their head up well.

**Tone:**

- “Floppy” tone can indicate neurological deficits.

**Cranial Nerve Assessment:**

- At what age can this assessment be completed?

---

**New Born Reflexes, Movement & Tone**

©CHCA 2017



- Auscultate in all 4 quadrants
- Palpate, note liver, spleen and kidneys
- Umbilical cord
- Check for hernias: umbilical or inguinal
- Inspect anal area for patency
- Inspect genitalia

## Abdomen & Genitalia

©CHCA 2017



### DO

Test for congenital hip dysplasia:

- Barlow Maneuver
- Ortolani Test

### DO

- If you feel a click during the adduction or abduction or if there is spasm or discomfort of the adductors.
- This is a positive finding and may indicate a dislocated or subluxable hip

## Hip Exam

©CHCA 2017

### DO

- Inspect the whole body
- Describe the size, shape, color and location of any rashes or lesions
- Ask the parents how often the child is bathed and if any topical products are used

### KNOW

- Common benign Lesions parents may ask about
  - Café au Lait Spots
  - Strawberry Marks
  - Stork Bite
  - Mongolian Spot

## Skin Assessment



## Skin Exam

©CHCA 2017

In assessing fevers of unknown origin

In children and infants < 2 years of age, tympanic membrane temperature is not reliable, **rectal temperature is the GOLD STANDARD.**

## A Note on Fevers

©CHCA 2017

### Nutritional Principals

- Pediatric Clinical Practice Guidelines (7-1)
- Breastfeeding vs. Formula
- Advantages and Contraindications
- Feeding times and habits
- Weight gain
- Diapers? Colour of stool?
- Vitamin D



Its likely you will have to review technique or trouble shoot breastfeeding problems!

Remember to check hemoglobin at 6 months of age!

## Nutrition

©CHCA 2017





- Introduce cereal at 4 months start with rice, if constipated increase water and or switch to oatmeal
  - No wheat or mixed cereal until 9 months
  - At 6 months veggies & some meats can be introduced
  - At 7 months fruits can be introduced
- Remember no fish, no pork, no whole eggs, no honey,  
until after one year.  
But what about peanuts?

### When to start which foods?

©CHCA 2017



### Safety Reminders

- Clinical Practice Guidelines (3-1)
- Fire alarms
- Medications and cleaning supplies
- Water safety
- CSA approved cribs
- NO Co-sleeping
- Car Seats are the Law!

### Safe Practices

©CHCA 2017



Remind new moms that the Tikanowen/ Tikinagen board should be limited to a few hours a day.

**Important!** Prolonged use can lead to hip problems and dysplasia



## Safe Practices

©CHCA 2017

### Child and Family Services Act

- appears to be suffering from abuse and/or neglect
- Reasonable grounds
- Applied to children 16 and younger



## Professional Duty to Report

©CHCA 2017

- Rourke Baby Record
- Grieg Health Record
- Health Canada - Pediatric Clinical Practice Guidelines
- Physical Examination and Health Assessment (Jarvis 2004)

---

### **Document Resources**

©CHCA 2017

- NAPS – Nishnawbe Aski Police Services
- Family and Children Services (Tikinagen, Payukotayno)
- NODIN
- Counseling Services
- Elders
- Band Office

---

### **Community Resources**

©CHCA 2017

### Suggested Books

Goldbloom, R.B. Pediatric Clinical Skills, 3<sup>rd</sup> Edition. (2003). Elsevier, Philadelphia.

### Web sites

Rourke & Growth Charts: [www.cfpc.ca](http://www.cfpc.ca).

Immunization Guide: <http://www.phac-aspc.gc.ca/publicat/cig-gci/>

Nippissing Developmental Screen: <http://www.ndds.ca>

---

## References

©CHCA 2017