

Module 9:

Neonatal, Well Baby and Well Child Assessment, and Paediatric Nutrition



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CANADIAN HEALTH CARE AGENCY

EXPERIENCE THE NORTH

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

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- Understand and utilize tools to assist with well infant and child assessment including the Rourke Baby Record and LookSee Development Screening
- Establish a systematic approach to perform a history and physical assessment of a infant and child clients and recognize when to consult with RN colleague, or refer to MD or NP
- Recognize concerning findings and identify the body systems involved
- Determine whether the client can be treated effectively in community or if they require a higher level of care.

Learning Objectives

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ROURKE BABY RECORD



A Canadian evidence based tool to guide Primary Care providers
doing well infant and toddler and child assessments

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- **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 (ISC charts immunizations separately)

Guidelines/resources

1. Growth monitoring, nutrition, physical examination, and education and advice issues excluding those on development, behaviour, immunization and infectious diseases.
2. Development, behaviour, and parenting resources.
3. Immunization and infectious diseases.

Rourke Guides & Resources

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- clinical tool to be used in preventive care visits for school-aged children.
- As with the Rourke Baby Record, three fonts are used to reflect the strength of recommendations:
 - **Boldface** for good, *italics* for fair, and regular typeface for recommendations based on consensus or inconclusive evidence.
- Checklist templates are divided into three age ranges: 6 to 9, 10 to 13 and 14 to 17 years (inclusive).
- Section headings include: Weight, Height and BMI, Psychosocial history and Development, Nutrition, Education and Advice, Specific Concerns, Examination, Assessment, Immunization, and Medications.

Family History, Risk Factors, Allergies Preventive Care Visits: Ages 10,11,12,13 Name: _____ Date of Birth: _____

The Greig Health Record
(to be used in the age group recommended every year for two years)

Date	Age 10	Age 11	Age 12	Age 13
Measurements (see RBR growth charts)				
• Weight				
• Height				
• BMI				
Psychosocial History/ Development (HEADSSS)				
• School & Activities				
• Peer relationships				
• Family relationships				
• Mental health				
• Substance & Addictions				
• Sleep				
• Body changes				
• Sexual health & Relationships				
• Menstrual history (if applicable)				
• Healthy choices (smoke / alcohol)				
Nutrition				
• Screenings (CMM)				
• Risk factors (dietary)				
• Physical Activity				
Education & Advice				
• Education (Grade 1-12)				
• Internet Safety / Protection				
• Sexual Health				
• Other (specify)				
Injury Prevention & Safety				
• Helmet safety				
• Vehicle Safety & Seatbelts				
• Violence & Firearms				
• Transportation Safety				
• Sun Safety				
• Environmental Hazards				
• Other (specify)				
Other				
• Sexual Abuse / Assault				
• Other (specify)				
• Sexual Abuse / Assault				
Specific Concerns				
• Blood Pressure				
• Head & Neck				
• Vision / Hearing (VH)				
• Chest				
• Abdomen				
• Skin				
• Sexual Maturation Rating				
Assessment				
Immunization				
Medications				

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Greig Health Record






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NEWBORN ASSESSMENT



Infant: newborn to 12 months
Toddler: greater than 12 months to 4 years
Child: greater than 4 years to 10 years
Adolescent: 11 years to 17 years

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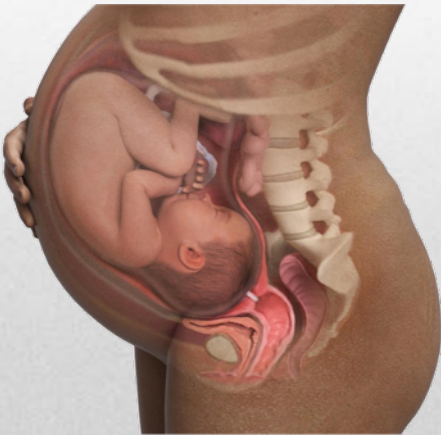
- Length of gestation.
- Age and parity of mother at delivery.
- Any maternal insults [alcohol, smoking, etc.] or illnesses during gestation.
- Mother’s Group B Strep status during labour and delivery
- Where born: city, hospital.
- Birth weight, mode of delivery, difficulties in delivery.
- Resuscitation, intensive care requirement at birth.
- Cyanosis, pallor, jaundice, convulsions, birthmarks, malformations, feeding or respiratory difficulties.
- APGAR score at birth if known.
- Breastfeeding vs. Formula Feeding
- Whether child went home with mother, or is in care.
- Social Supports

Pregnancy and Birth History

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Full Term: Born between 37-42 weeks
Pre Term: Born before 37 weeks
Post Term: Born after 42 weeks



Length of Gestation

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APGAR Score completed at 1 minute and 5 minutes

Sign	Score: 0	Score: 1	Score: 2
Heart Rate	0	Under 100 beats per minute	Over 100 beats per minute
Respiratory Effort	Apnea	Weak, irregular or gasping	Good crying
Muscle Tone	Flaccid	Some flexion of arms and legs	Well flexed or active movements of extremities
Reflex or Irritability	No response	Grimace or weak cry	Good cry
Colour	Blue all over or pale	Body pink and hands and feet blue	Pink all over

APGAR Score

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Case Study:

Mother and child are in the waiting room awaiting a well child assessment. You are running behind.

What is essential for your to review prior to the client entering the exam room?



Pre-Visit Tips

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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)

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CHCA Video – Newborn and Infant Assessment

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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

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Key Point:

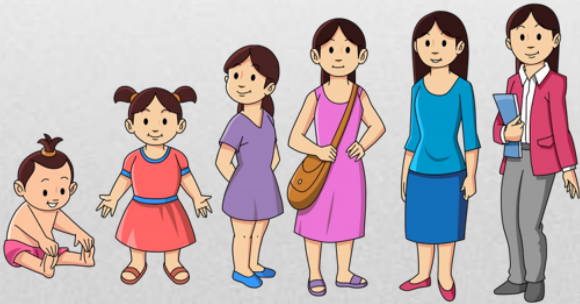
- 1. Healthy infants follow their curve
- 2. Healthy infants are proportionate

For example:

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

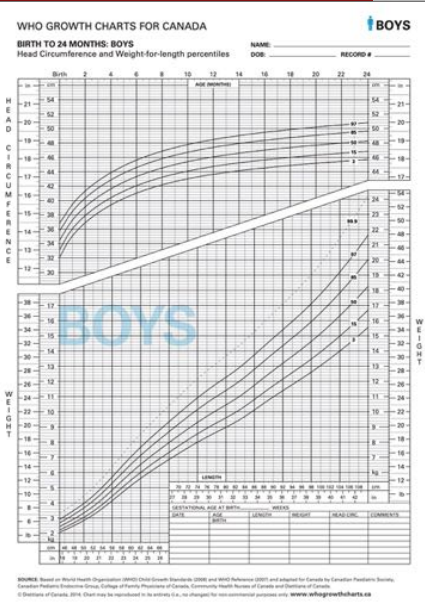
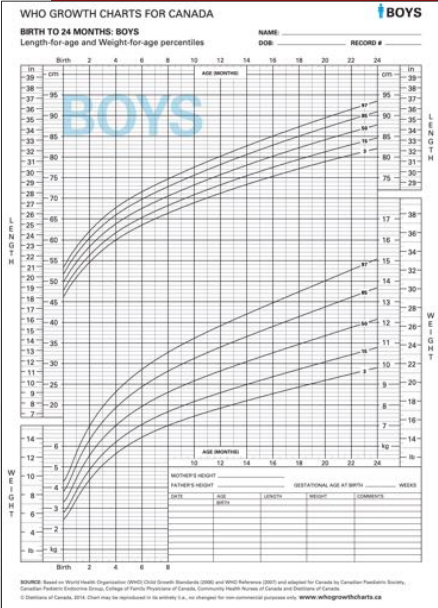
Question... what should you do?

- 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 – WHO Charts

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WHO Growth Charts - Boys

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Know

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

Note: FAS infants/children are mild to moderately microcephalic

Head Circumference

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Do

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

Ask

- Hydration status
- Sleeping Position
- Tummy Time

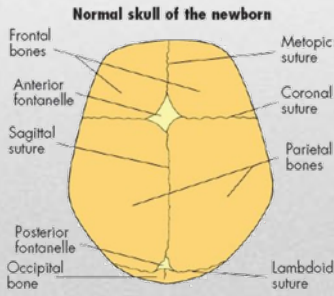
Know

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

Red Flags

- Anterior closes before 9 months is an EMERGENCY.
- An increase in palpable tension of the fontanelle can indicate increased intracranial pressure.
- A decrease can indicate dehydration.

Normal skull of the newborn



Fontanelle Assessment

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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 immediate referral to MD/NP



Eye Exam

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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
- Otitis Media is most common in 3 months to 3 years.

Chronic ear infections require further investigation.


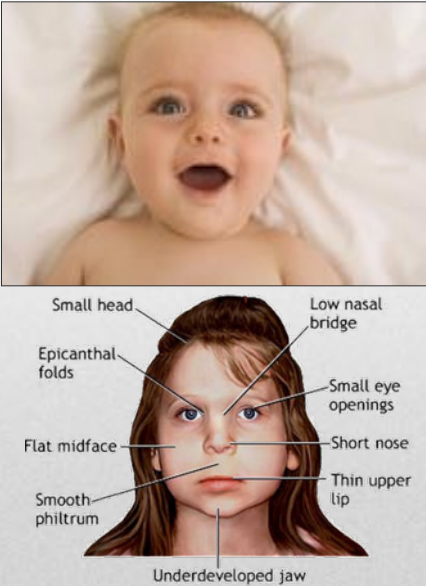


Ear Exam

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- Assess and palpate palate
- Assess suck reflex,
- Assess mouth, tongue gums, teeth
- FASD Features

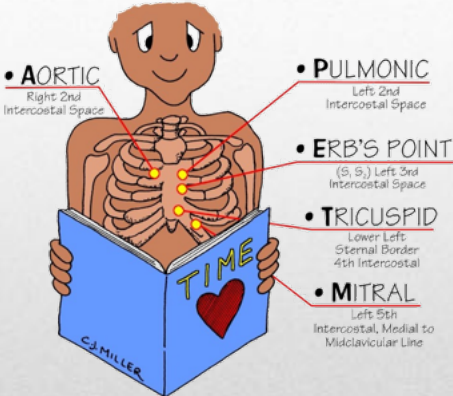
Mouth Assessment

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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/S2 and S3 or S4 sounds
- Murmurs
- Rate and rhythm



All People Enjoy Time Magazine

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Cardiovascular Assessment

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- 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

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DO

Assess Reflexes:

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

Tonic neck reflex



Grasp reflex



Step reflex



Crawl reflex



ADAM.

Neurological Examination

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KNOW

Reflexes:

- Should be symmetric and persistent primitive reflexes are a signal of underlying dysfunction.

Movement:

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

Tone:

- Hypertonia vs hypotonia
- “Floppy” tone can indicate neurological deficits.

Cranial Nerve Assessment:

- At what age can this assessment be completed?

New Born Reflexes, Movement & Tone

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

Abdomen & Genitalia

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Test for congenital hip dysplasia:

- Barlow Maneuver
- Ortolani Test
- 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 sublux-able hip
- **Consult with MD/NP for positive findings**

Hip Exam

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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
- Note presence of Jaundice, consider consulting if needed.

KNOW

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

Skin Assessment

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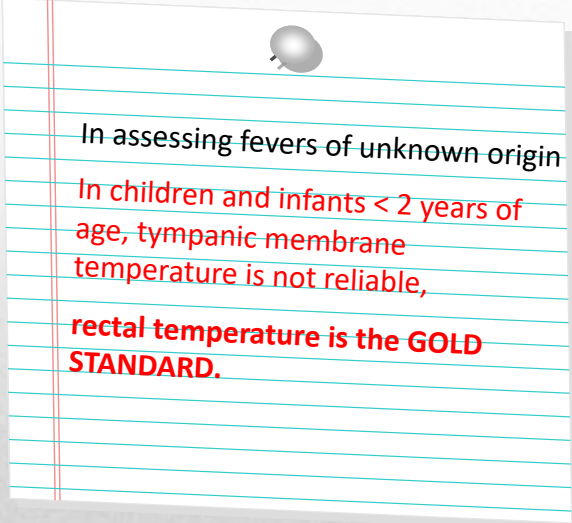
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Skin Exam

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A Note on Fevers

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Breastfeeding should be encouraged for the first 6 months to 2 years of life (and beyond!).

Advantages:

- Convenient, always the right temperature and always available
- It is free
- Promotes bonding
- Environmentally friendly
- Reduces health care costs

Note:
































- Vitamin D
- Trouble Shooting



Remember to check hemoglobin at 6 months of age!


Nutrition

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Your Baby's Age	1 DAY	2 DAYS	1 WEEK	2 WEEKS	3 WEEKS
How Often Should You Breastfeed? <small>Per day, on average over 24 hours</small>	         <p>At least 8 feeds per day (every 1 to 3 hours). Your baby is sucking strongly, slowly, steadily and swallowing often.</p>				
Your Baby's Tummy Size	    <p>Size of a cherry Size of a walnut Size of an apricot Size of an egg</p>				
Wet Diapers: <small>How Many, How Wet</small> <small>Per day, on average over 24 hours</small>	         <p>At least 1 WET At least 2 WET At least 3 WET At least 4 WET At least 6 HEAVY WET WITH PALE YELLOW FOR CLEAR URINE</p>				
Soiled Diapers: <small>Number and Colour of Stools</small> <small>Per day, on average over 24 hours</small>	         <p>At least 1 to 2 BLACK OR DARK GREEN At least 3 BROWN, GREEN, OR YELLOW At least 3 large, soft and sticky YELLOW</p>				
Your Baby's Weight	<p>Babies lose an average of 7% of their birth weight in the first 3 days after birth. For example, a 5.2 kilogram or 7-pound baby will lose about 230 grams or 1/2 a pound.</p> <p>From Day 4 onward your baby should gain 20 to 35g per day (5/16 to 1/4 oz) and regain his or her birth weight by 10 to 14 days.</p>				
Growth Spurts	<p>Babies often experience a sudden burst in growth—a growth "spurt"—at certain times within their first few weeks. During these growth spurts your baby may want to nurse more than usual.</p>				
Other Signs	<p>Your baby should have a strong cry, move actively and wake easily. Your breasts feel softer and less full after breastfeeding and your baby comes off the breast looking relaxed and content.</p>				

Nutrition

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When the infant can:

- Hold their head steadily
- Sit up and lean forward
- Open mouth wide when food is offered
- Inform when they are full (i.e. turn head away)
- Pick up food and place in their mouth
- Introduce solid foods as early as 4 months, but ideally no later than 6 months of age. Begin with savory foods, before introducing sweet.
- Along with breast milk offer solid foods which are iron-rich and a variety of soft textures such as lumpy and tender-cooked, and finely minced, pureed, mashed or ground.
- Minced traditional/country meats can be introduced at this time as well.

When to start which foods?

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Well cooked meat and meat alternatives

- Beef, chicken, turkey, moose, deer, fish, pork, whole egg, tofu, beans, lentils, chickpeas


Iron-fortified cereals







- Rice , oat, barely, wheat and mixed infant cereals

Cow’s Milk and milk products

- Can be introduced around one year

Monitor for choking hazards: cut hotdogs, grapes etc. into smaller pieces





 Finely minced	 Ground	 Lumpy
 Pureed	 Mashed	 Finger foods

Nutrition

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- Include common allergy causing foods by 12 months in an age appropriate form, such as well cooked egg and smooth peanut butter/paste.
- These foods include egg, peanut, cow's milk (dairy), tree nuts, soy, sesame, wheat, fish and other seafood.
- Introduce the mid-day meal, in the middle of the week (in case a reaction occurs, quick access to medical services)
- Continue to give these foods twice weekly as part of a varied diet.

Introduction of Allergenic Foods

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Safety Reminders

- Smoke / CO alarms
- Medications and cleaning supplies
- Firearm security
- Water safety
- CSA approved cribs
- Avoid bed-sharing
- Car Seat use is promoted, and is the law off-reserve

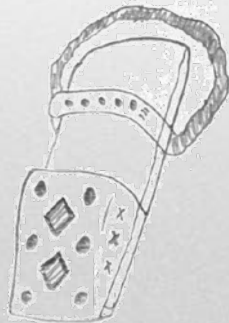
Safe Practices

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- Remind new moms that using the Tikanowen/ Tikinagen board should be limited to a few hours a day.
- Prolonged use can lead to hip problems



Safe Practices

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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

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- Rourke Baby Record
- LOOKSEE Checklist
- Grieg Health Record
- WHO Growth Charts for Canada

Document Resources

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- Community Health Representative
 - Band Run children's services like Healthy Baby, Healthy Child etc.
- Maternal Child Health Program (if available)
- Jordan's Principle
- Family and Children Services
 - (Tikinagen, Payukotayno)
- Counseling Services



Community Resources

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