Pediatric Nutrition Guidelines for Primary Health Care Providers

If child presents with a red flag, further investigation is recommended. Referral to a registered dietitian (RD) for nutrition assessment and ongoing follow-up may be advised.

<table>
<tr><th>Age</th><th>Developmental milestones related to feeding</th><th>Guidelines</th><th>Red flags</th></tr>
<tr>
<td rowspan="3">Birth to 6 months

Note: Milestones and guidelines for pre-term infants are based on corrected age[1]</td>
<td>Birth to 2 months
▪ Demonstrates signs of hunger by increased alertness, increased activity, and mouthing or rooting. Crying is a late indictor of hunger[2]
▪ Opens mouth wide when nipple touches lips[3]
▪ By 2 months, feeds every 2-4 hours during the day[4]</td>
<td rowspan="3">▪ Breastfeed exclusively for 6 months[5,6]
▪ See Infant Formula section on page 6 if infant formula is provided
▪ Feed based on feeding cues[2]
▪ Avoid additional water unless medically indicated[3]
▪ Avoid juice or other liquids[3]
▪ Avoid honey, including pasteurized, as it may cause infant botulism[7]
▪ At 6 months, introduce solid foods[6,8]
▪ Supplement with vitamin D as indicated in chart:

<table>
<tr><th>If infant drinks</th><th>Amount of vitamin D supplement to give daily</th></tr>
<tr><td>Only breast milk</td><td>400 IU</td></tr>
<tr><td>< 500 mL (16 oz) formula</td><td>400 IU</td></tr>
<tr><td>500-1000 mL (16-32 oz) formula</td><td>200 IU every day
OR
400 IU every other day</td></tr>
<tr><td>> 1000 mL (32 oz) formula</td><td>No additional vitamin D required</td></tr>
</table>
[9,10]
</td>
<td rowspan="3">▪ After 5 days of age, has < 6 wet diapers each day[2]
▪ Within the first 2 weeks, loses > 10% of birth weight[2]
▪ By 2 weeks, does not regain birth weight or does not gain ≥ 20 g per day[2]
▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11]
▪ Not being fed based on feeding cues[2]
▪ Infant formula not prepared and stored properly. See Infant Formula section page 6
▪ Cow's milk or homemade formula given[5]
▪ Water, juice or other liquids given[3]
▪ Infant cereal or other pureed foods given < 4 months[6,12]
▪ Infant cereal or other pureed foods given in a bottle[5]
▪ Uses a propped bottle[5,13]
▪ Honey is given[7]
▪ Breastfed or partially breastfed infant drinking < 1000 mL (32 oz) formula is <u>not</u> receiving a vitamin D supplement[5]</td>
</tr>
<tr>
<td>By 4 months
▪ Finishes each feeding within 45 minutes[4]
▪ Holds head steady when supported in a sitting position[4]</td>
</tr>
<tr>
<td>By 6 months
▪ Has increased sucking strength[3]
▪ Brings fingers to mouth[3]
▪ Sits with support[4]</td>
</tr>
</table>

Ontario Society of Nutrition Professionals in Public Health
La société ontarienne des professionnel(le)s de la nutrition en santé publique

Produced by the Ontario Society of Nutrition Professionals in Public Health (OSNPPH) – Family Health Nutrition Advisory Group. Revised May 2011.

Pediatric Nutrition Guidelines for Primary Health Care Providers

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Age	Developmental milestones related to feeding	Guidelines	Red flags
6 to 9 months **Note:** Milestones and guidelines for pre-term infants are based on corrected age[1]	▪ At about 6 months, is physiologically and developmentally ready for solid foods[5] ▪ Sits with minimal support[2] ▪ Has vertical jaw movement (munching) with suckling motion by the tongue while chewing foods[14] ▪ Has some tongue protrusion when beginning to eat solid foods which decreases with experience[14] ▪ May still have early gag reflex hindering ingestion of solid foods until its locus moves further toward the back of the tongue (usually between 3-7 months of age)[2] ▪ Indicates desire for food by opening mouth or leaning in, and satiety by closing mouth or turning away[2]. See *Parenting and the feeding relationship* section on page 7 ▪ Begins to feed self by holding small foods between thumb and fore finger[2]	▪ Continue to breastfeed[2,5] ▪ See *Infant Formula* section on page 6 if infant formula is given ▪ Feed based on feeding cues [2] ▪ At 6 months, introduce iron-rich foods (e.g., iron-fortified infant cereal, meat, beans, tofu). **Note:** meat is a highly bio-available form of iron and zinc[5] ▪ Begin to introduce a variety of vegetables, fruit, grains and milk products (other than fluid milk) in any sequence[12] ▪ May introduce highly allergenic foods (e.g., whole eggs, milk products, fish, and peanuts) after 6 months regardless of family history of allergy[12] ▪ Introduce each new food for 3-5 days before introducing another new food to help identify potential food allergies[2] ▪ Offer solid food 2-3 times a day[15] ▪ Breastfeed before offering solid foods to sustain breast milk supply and to ensure breast milk continues to be the major source of energy and nutrients[15] ▪ Breast milk, infant formula, water and 100% fruit juice are the only acceptable beverage options[5] ▪ If juice is given, limit to 60-125 mL (2-4 oz)[3] ▪ Offer a cup regularly[16] ▪ Avoid honey, including pasteurized, as it may cause infant botulism[7] ▪ Gradually increase texture of foods from pureed to lumpy to small pieces[14] ▪ Give breastfed infants a vitamin D supplement of 400 IU daily until the infant's diet includes ≥ 400 IU per day of vitamin D from other dietary sources. Food sources of vitamin D include: fortified infant formula - 100 IU in 250 mL (1 cup); cow's milk - 100 IU in 250 mL (1 cup); salmon - 103 IU in 30 g (1 oz); egg yolk - 25 IU in one yolk; fortified margarine - 25 IU in 5 mL (1 tsp)[10]	▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ Has < 6 wet diapers each day[2] ▪ By 7 months, not eating iron-containing foods daily[5] ▪ Infant formula not prepared and stored properly. See *Infant Formula* section page 6 ▪ Cow's milk or homemade formula is given[5] ▪ Consumes juice frequently throughout the day or drinks > 125 mL (4 oz) juice per day[3] ▪ Consumes fruit drinks, pop, coffee, tea, hot chocolate, soy beverage, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[5] ▪ Infant cereal or other pureed foods given in a bottle[5] ▪ Uses a propped bottle[5] ▪ Honey is given[7] ▪ Feeding is forced or restricted[2] ▪ Breastfed or partially breastfed infants drinking < 1000 mL (32 oz) formula is **not** receiving a vitamin D supplement[5]

Pediatric Nutrition Guidelines for Primary Health Care Providers

If child presents with a red flag, further investigation is recommended. Referral to a registered dietitian (RD) for nutrition assessment and ongoing follow-up may be advised.

Age	Developmental milestones related to feeding	Guidelines	Red flags
9 to 12 months **Note:** Milestones and guidelines for pre-term infants are based on corrected age[1]	▪ Uses jaw and tongue to bite and mash a variety of textures[17] ▪ Tries to use a spoon[3] ▪ May demand to spoon-feed self[17] See *Parenting and the feeding relationship* section on page 7 ▪ Feeds self by holding small foods between thumb and fore finger[2] ▪ By 12 months, drinks independently from cup with a spout or straw[5,14]	▪ Continue to breastfeed[2,5] ▪ See *Infant Formula* section on page 6 if infant formula is given ▪ Feed based on feeding cues [2] ▪ Offer solid foods 3-4 times per day[15] ▪ Continue to introduce solid foods in any sequence[15] ▪ Gradually increase texture of foods from lumpy to small pieces to encourage acceptance of increased texture[14] ▪ At 9-12 months, preferably 12 months, may introduce whole (3.25%) cow's milk[18]. Avoid skim, 1% or 2% milk and soy beverages[5] ▪ By 12 months, if cow's milk is the primary source of milk, give 500 mL (2 cups) per day plus other food sources of vitamin D[2] ▪ If juice is given, offer 100% juice and limit to 125-175 mL (4-6 oz) per day[2] ▪ Offer a cup with breast milk, formula, cow's milk, water or 100% juice[16] ▪ Avoid honey, including pasteurized, as it may cause infant botulism[7] ▪ Give breastfed infant a vitamin D supplement of 400 IU daily until the infant's diet includes ≥ 400 IU per day of vitamin D from other dietary sources or until the infant reaches 1 year. Food sources of vitamin D include: fortified infant formula - 100 IU in 250 mL (1 cup); cow's milk - 100 IU in 250 mL (1 cup); salmon - 103 IU in 30 g (1 oz); egg yolk - 25 IU in one yolk; fortified margarine - 25 IU in 5 mL (1 tsp)[10]	▪ Has < 6 wet diapers each day[2] ▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ By 10 months, lumpy textures not consumed[14] ▪ Infant formula not prepared and stored properly. See *Infant Formula* section page 6 ▪ Skim milk, low fat milk or soy beverage is given as main milk source[5] ▪ Consumes juice frequently throughout the day[3] ▪ Consumes large amount of fluids[2] – Milk: > 750 mL (3 cups) a day[3] – Juice: > 175 mL (6 oz) a day[2,8] ▪ Consumes fruit drinks, pop, coffee, tea, cola, hot chocolate, soy beverage, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[5] ▪ Honey is given[7] ▪ Feeding is forced or restricted[2] ▪ Not supervised during feeding[5] ▪ Breastfed or partially breastfed infant drinking < 1000 mL (32 oz) formula is **not** receiving a vitamin D supplement[5]

Pediatric Nutrition Guidelines for Primary Health Care Providers

If child presents with a red flag, further investigation is recommended. Referral to a registered dietitian (RD) for nutrition assessment and ongoing follow-up may be advised.

Age	Developmental milestones related to feeding	Guidelines	Red flags
12 to 24 months **Note:** Milestones and guidelines for pre-term children are based on corrected age[1]	12 to 18 months ▪ Growth slows compared with the first year of life resulting in decreased or sporadic appetite[2] See *Parenting and the feeding relationship* section on page 7 ▪ Unfamiliar foods are often rejected the first time[2] ▪ By 15 months, can self-feed with spoon and firmer table foods[2] 18 to 24 months ▪ Able to consume most of the same foods as the rest of the family with some extra preparation for prevention of choking[2] ▪ Fluctuating appetite and playing with food is common[2]. See *Parenting and the feeding relationship* section on page 7 ▪ May refuse all but 4-5 foods, consume only preferred foods and refuse previously accepted foods[2]	▪ Continue to breastfeed[2,5] ▪ If not breastfeeding, offer whole (3.25%) cow's milk.[2,16] Avoid skim, 1% or 2% milk[5] ▪ Offer 500-750 mL (2-3 cups) per day of 3.25% milk or breast milk each day[3] ▪ Serve 3 small meals and 2-3 snacks a day[3]. Avoid additional food or beverages except water between planned meals and snacks[2,3] ▪ Offer water when child is thirsty[2] ▪ If juice is provided, offer 100% juice and limit to 125-175 mL (4-6 oz) per day[2] ▪ Avoid fruit drinks that are not 100% juice and pop[2] ▪ By 15 months, wean from bottle[2] ▪ Allow child to self-feed[2] ▪ If breast milk is their only milk source, consider offering a vitamin D supplement[2] ▪ Consider offering a vitamin/mineral supplement if child is not growing well, has a specific health condition that requires it, and/or is not eating a variety of foods from each of the food groups[2]	▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ Not eating a variety of table foods including iron containing foods daily[5] ▪ Dietary fat intake is restricted[5] ▪ Lumpy or textured foods are refused[5] ▪ Skim milk, low fat milk or soy beverage regularly given[5] ▪ Soy (except formula), rice, other vegetarian beverages or herbal teas are given[5] ▪ Consumes large amount of fluids and very little food[2] – Milk: > 750 mL (3 cups) a day[3] – Juice: > 175 mL (6 oz) a day[2] ▪ Regularly consumes fruit drinks, pop, coffee, tea, cola, hot chocolate, soy beverage, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[2,5] ▪ Feeding is forced or restricted[2]

Pediatric Nutrition Guidelines for Primary Health Care Providers

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Age	Developmental milestones related to feeding	Guidelines	Red flags
2 to 6 years **Note:** Milestones and guidelines for pre-term children are based on corrected age[1]	▪ Eats most foods without coughing and choking[4] ▪ Eats with a utensil with little spilling[4] ▪ May have periods of disinterest in food[2]. See *Parenting and the feeding relationship* section on page 7 ▪ May be resistant to new foods[2]	▪ May continue to breastfeed[5] ▪ Follow Canada's Food Guide to meet nutritional needs[19] ▪ Offer 500 mL (2 cups) of milk or fortified soy beverage daily to help meet vitamin D needs[19] ▪ Gradually offer lower fat milks (skim, 1% or 2%) or milk alternatives[20] ▪ Serve 3 small meals and 2-3 snacks a day[3]. Avoid additional food or beverages except water between planned meals and snacks[2,3] ▪ Offer water when child is thirsty[2] ▪ If juice is provided, offer 100% juice and limit to 125-175 mL (4-6 oz) per day[2] ▪ Avoid fruit drinks that are not 100% juice and pop[5] ▪ Consider offering a vitamin/mineral supplement if child is not growing well, has a specific health condition that requires it, and/or is not eating a variety of foods from each of the food groups[2]	▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ Does not eat a variety of table foods from the 4 food groups[19] ▪ Consumes large amount of fluids and very little food[2] – Milk: > 750 mL (3 cups) a day[3] – Juice: > 175 mL (6 oz) a day[2] ▪ Regularly consumes fruit drinks, pop, coffee, tea, cola, hot chocolate, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[2,5] ▪ Feeding is forced or restricted[2] ▪ 3-5 year old scores "high nutrition risk" on NutriSTEP® nutrition screen. See *NutriSTEP®* section on page 7

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Additional information

Growth Monitoring

- Use the WHO Growth Charts for Canada when assessing growth[11]. Available at: www.dietitians.ca/growthcharts
- Serial measures are more useful than unique measures and are ideal for assessing and monitoring growth patterns[11]
- When seeing an infant or toddler for the first time, weight-for-age, length-for-age or weight-for-length < 3rd percentile are recommended cut-off criteria for underweight, stunting (shortness), and wasting (thinness) that could be used to identify need for investigation/intervention/referral. Weight for length measures > 85th percentile indicate risk of overweight[11]
- Use Body Mass Index (BMI) when assessing body weight status relative to height in children ≥ 2 years old. Use age and gender-specific growth charts to determine the BMI-for-age percentile. A child's actual BMI value will not correspond to the adult cutoffs or ranges for underweight, healthy weight, overweight and obesity. The percentile will allow for assessment of growth status, < 3rd percentile indicates wasting, while > 85th percentile indicates risk of overweight[11]

Selecting infant formula

For babies that are partially or exclusively given infant formula, select a formula based on baby's medical and family's cultural/lifestyle needs.

- **Cow's milk-based iron-fortified infant formula** - most appropriate breast milk substitute[5,13]. Iron in infant formula does not cause constipation[13]
- **Soy-based formula** - for infants who cannot take cow's milk-based products for health (e.g., galactosemia), cultural, religious or personal reasons (e.g., vegan diet)[5,13]
- **Hypoallergenic formula** - most appropriate if a cow's milk allergy is suspected[13]
- **Lactose free formula** - rarely needed and only appropriate with a diagnosis of congenital lactase deficiency[13]

Preparing infant formula

- The use of liquid concentrate and ready-to-feed formulas (sterile products) over powdered formulas (not sterile products) reduces the risk of bacterial contamination for infants considered "at risk"[13,21]
- Safe water sources include municipal tap water, regularly tested well water or commercial bottled spring or tap water.[13,22]
- If previously boiled water is needed, bring the water to a rolling boil for 2 minutes[22]
- If sanitized equipment is needed, place the clean feeding equipment into a pot of water at a rolling boil for 2 minutes or use a commercial baby bottle sanitizer[22]
- **Ready-to-feed** - Do not mix with additional water. Sanitize equipment for babies < 4 months of age[22]
- **Liquid concentrate** - Mix with water (previously boiled water for babies < 4 months of age). Sanitize equipment for babies < 4 months of age[22]
- **Powdered** - Pour previously boiled water (cooled to no less than 70°C to reduce the risk of bacterial contamination) in bottle and then add powder. Prepare 1 bottle at a time, if possible. Sanitize equipment for babies of any age[13,21,22]

Bisphenol A (BPA) and bottle feeding

- BPA is a chemical used to make some types of plastic which may be harmful to infants and young children. Use bottles that do not contain BPA[23]
- Regulations require new baby bottles manufactured and sold in Canada to be BPA free, however older bottles may still be in use and their use should be discouraged[23]

Choking prevention

- Children ≤ 3 years of age are at higher risk of choking. Supervise children when eating and avoid foods that are hard, small and round or smooth and sticky including:[5,24]

Popcorn	Hard candies/cough drops	Raisins	Peanuts or other nuts
Sunflower seeds	Fish with bones	Raw carrots	Snacks using toothpicks or skewers
Gum	Grapes	Hot dogs	Peanut butter spread thick or on a spoon

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Fish consumption and methylmercury

- Many types of fish are an excellent source of omega-3 fatty acids[19]
- Some types of fish and shellfish contain high levels of methylmercury. The predominant health affects in humans are associated with the impaired functions of the central and peripheral nervous systems. For example, elevated methylmercury exposure in a young child can cause a decrease in I.Q., delays in walking and talking, lack of coordination, blindness and seizures[25]
- Limit consumption of the following high mercury containing fish - fresh/frozen tuna, shark, swordfish, escolar, marlin, orange roughy, and canned albacore (white) tuna as follows:[25]
  - < 1 year of age - 40 g **per month** of these fresh/frozen types of fish **or** 40 g **per week** of canned albacore tuna
  - 1-4 years of age - 75 g **per month** of these fresh/frozen types of fish **or** 75 g **per week** of canned albacore tuna
  - 5-11 years of age - 125 g **per month** of these fresh/frozen types of fish **or** 150 g **per week** of canned albacore tuna

Parenting and the feeding relationship

A healthy relationship between the parent/caregiver and the baby/child with respect to feeding and responding to hunger and satiety cues is important[2]. Early childhood food experiences and the social environment in which the child is fed are critical to the development of healthy eating habits later in life.[26] The following points will be especially effective when counselling parents of picky eaters:

- It is the parent's role to offer a selection of nutritious, age-appropriate foods and decide when and where food is eaten; Parents should trust their child/ren to decide to how much to eat or if to eat at all[2,5]
- The amount of food eaten will vary day-to-day depending on the child's appetite, activity level and whether they are experiencing a growth spurt, or if they are excited or overly tired[19]
- In a non-controlling, non-coercive environment, healthy children have the ability to self-regulate the amount of food and energy consumed[2]
- Provide structure and routine for meals in a pleasant setting without distractions from television or other activities[2,19]
- Encourage parents to be patient when introducing unfamiliar foods and to support the acceptance of new foods. If a food is rejected the first few times, it should be offered again on a different day (may require up to 10 times)[2,19]
- Avoid pressuring children to eat particular foods (e.g., praise, rewards, bribery, punishment) as this is counterproductive in the long-term because it is likely to build resistance and food dislikes rather than acceptance[2]
- 15-20 minutes is an appropriate length of time for preschoolers to stay at the table[2]
- Encourage positive mealtime role modeling by eating together as a family whenever possible, with adults eating at least some of the same foods as children[2]

NutriSTEP® (Nutrition Screening Tool for Every Preschooler)

- A validated Canadian nutrition risk screening questionnaire for parents of preschoolers aged 3-5 years
- Screens preschoolers for food and fluid intake, factors affecting eating behaviour (e.g., does the parent allow the child to decide how much to eat, can the parents afford to buy sufficient food), physical growth (e.g., parent's comfort level with how the child is growing) and physical activity and sedentary behaviour
- Takes parents approximately 5 minutes to complete
- Available in 8 languages: English, French, Simplified Chinese, Traditional Chinese, Punjabi, Vietnamese, Tamil and Spanish
- Available free in Ontario through local health units or with a license through *Flintbox Technologies* at: http://www.flintbox.com/public/project/2069/
- A toddler (18-35 months) version of NutriSTEP® will be available in 2012

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Appendix Q: Key Resources and Services in Ontario

This is a selection of key healthy child development resources and services that are available across Ontario to service providers and/or the general public. A range of supports is provided, including helpful websites, documents, programs and phone lines. The emphasis is on linking to critical supports, rather than providing an extensive list of all resources and services. Resources and services are organized by category, in alphabetical order.

Bereavement Services/Supports

Contact Information	Brief Description
Perinatal Bereavement Service Ontario Phone: 888-301-7276 Website: www.pbso.ca	Support services tailored specifically to meet the special needs of perinatally bereaved families.
Canadian Foundation for the Study of Infant Deaths Phone: 800-363-7437 Website:www.sidscanada.org	Education and support services for parents and families affected by Sudden Infant Death Syndrome (SIDS).

Breastfeeding

Contact Information	Brief Description
Breastfeeding Committee for Canada Website: www.breastfeedingcanada.ca	The national authority for the WHO/UNICEF Baby-Friendly™ Hospital Initiative in Canada.
Health Canada Website: www.hc-sc.gc.ca/fn-an/nutrition/index-eng.php	Resources and information about breastfeeding
La Leche League Canada Phone: 800-665-4324 Website: www.lalecheleaguecanada.ca	Assistance to breastfeeding women through support and education.
Ontario Breastfeeding Committee Website: www.breastfeedingontario.org	
Ontario Hospital Association Phone: 416-205-1300 Website: www.oha.com/Pages/Default.aspx	Contact information for hospital based breastfeeding clinics.

Child and Youth Mental Health

Contact Information	Brief Description
Children's Mental Health Ontario Website: www.kidsmentalhealth.ca	A provincial umbrella association representing over 80 children's mental health services.
Provincial Centre of Excellence for Child and Youth Mental Health, Children's Hospital of Eastern Ontario (CHEO) Website: www.onthepoint.ca	An organization dedicated to improving the child and youth mental health care system in Ontario through knowledge sharing and partnership building.

Child Health & Development – General

Contact Information	Brief Description
Canadian Association of Pediatric Health Centres Website: www.caphc.org	Information, knowledge & expertise, best practices, resources related to health and welfare of children, youth and their families.
Canadian Health Network – Children's Affiliate Website: www.canadian-health-network.ca/1children.html	Searchable database on child health and development, including information on play, learning, behaviour, parenting, nutrition, safety, immunization, illness and special needs.
Canadian Institute of Child Health Phone: 613-230-8838 Website: www.cich.ca	Publications and resources for parents.

Pediatric Nutrition Guidelines for Primary Health Care Providers

If child presents with a red flag, further investigation is recommended. Referral to a registered dietitian (RD) for nutrition assessment and ongoing follow-up may be advised.

<table>
<tr><th>Age</th><th>Developmental milestones related to feeding</th><th>Guidelines</th><th>Red flags</th></tr>
<tr>
<td rowspan="3">Birth to 6 months

Note: Milestones and guidelines for pre-term infants are based on corrected age[1]</td>
<td>Birth to 2 months
▪ Demonstrates signs of hunger by increased alertness, increased activity, and mouthing or rooting. Crying is a late indictor of hunger[2]
▪ Opens mouth wide when nipple touches lips[3]
▪ By 2 months, feeds every 2-4 hours during the day[4]</td>
<td rowspan="3">▪ Breastfeed exclusively for 6 months[5,6]
▪ See Infant Formula section on page 6 if infant formula is provided
▪ Feed based on feeding cues[2]
▪ Avoid additional water unless medically indicated[3]
▪ Avoid juice or other liquids[3]
▪ Avoid honey, including pasteurized, as it may cause infant botulism[7]
▪ At 6 months, introduce solid foods[6,8]
▪ Supplement with vitamin D as indicated in chart:

<table>
<tr><th>If infant drinks</th><th>Amount of vitamin D supplement to give daily</th></tr>
<tr><td>Only breast milk</td><td>400 IU</td></tr>
<tr><td>< 500 mL (16 oz) formula</td><td>400 IU</td></tr>
<tr><td>500-1000 mL (16-32 oz) formula</td><td>200 IU every day
OR
400 IU every other day</td></tr>
<tr><td>> 1000 mL (32 oz) formula</td><td>No additional vitamin D required</td></tr>
</table>
[9,10]
</td>
<td rowspan="3">▪ After 5 days of age, has < 6 wet diapers each day[2]
▪ Within the first 2 weeks, loses > 10% of birth weight[2]
▪ By 2 weeks, does not regain birth weight or does not gain ≥ 20 g per day[2]
▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11]
▪ Not being fed based on feeding cues[2]
▪ Infant formula not prepared and stored properly. See Infant Formula section page 6
▪ Cow's milk or homemade formula given[5]
▪ Water, juice or other liquids given[3]
▪ Infant cereal or other pureed foods given < 4 months[6,12]
▪ Infant cereal or other pureed foods given in a bottle[5]
▪ Uses a propped bottle[5,13]
▪ Honey is given[7]
▪ Breastfed or partially breastfed infant drinking < 1000 mL (32 oz) formula is <u>not</u> receiving a vitamin D supplement[5]</td>
</tr>
<tr>
<td>By 4 months
▪ Finishes each feeding within 45 minutes[4]
▪ Holds head steady when supported in a sitting position[4]</td>
</tr>
<tr>
<td>By 6 months
▪ Has increased sucking strength[3]
▪ Brings fingers to mouth[3]
▪ Sits with support[4]</td>
</tr>
</table>

Ontario Society of Nutrition Professionals in Public Health
La société ontarienne des professionnel(le)s de la nutrition en santé publique

Produced by the Ontario Society of Nutrition Professionals in Public Health (OSNPPH) – Family Health Nutrition Advisory Group. Revised May 2011.

Pediatric Nutrition Guidelines for Primary Health Care Providers

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Age	Developmental milestones related to feeding	Guidelines	Red flags
6 to 9 months **Note:** Milestones and guidelines for pre-term infants are based on corrected age[1]	▪ At about 6 months, is physiologically and developmentally ready for solid foods[5] ▪ Sits with minimal support[2] ▪ Has vertical jaw movement (munching) with suckling motion by the tongue while chewing foods[14] ▪ Has some tongue protrusion when beginning to eat solid foods which decreases with experience[14] ▪ May still have early gag reflex hindering ingestion of solid foods until its locus moves further toward the back of the tongue (usually between 3-7 months of age)[2] ▪ Indicates desire for food by opening mouth or leaning in, and satiety by closing mouth or turning away[2]. See *Parenting and the feeding relationship* section on page 7 ▪ Begins to feed self by holding small foods between thumb and fore finger[2]	▪ Continue to breastfeed[2,5] ▪ See *Infant Formula* section on page 6 if infant formula is given ▪ Feed based on feeding cues [2] ▪ At 6 months, introduce iron-rich foods (e.g., iron-fortified infant cereal, meat, beans, tofu). **Note:** meat is a highly bio-available form of iron and zinc[5] ▪ Begin to introduce a variety of vegetables, fruit, grains and milk products (other than fluid milk) in any sequence[12] ▪ May introduce highly allergenic foods (e.g., whole eggs, milk products, fish, and peanuts) after 6 months regardless of family history of allergy[12] ▪ Introduce each new food for 3-5 days before introducing another new food to help identify potential food allergies[2] ▪ Offer solid food 2-3 times a day[15] ▪ Breastfeed before offering solid foods to sustain breast milk supply and to ensure breast milk continues to be the major source of energy and nutrients[15] ▪ Breast milk, infant formula, water and 100% fruit juice are the only acceptable beverage options[5] ▪ If juice is given, limit to 60-125 mL (2-4 oz)[3] ▪ Offer a cup regularly[16] ▪ Avoid honey, including pasteurized, as it may cause infant botulism[7] ▪ Gradually increase texture of foods from pureed to lumpy to small pieces[14] ▪ Give breastfed infants a vitamin D supplement of 400 IU daily until the infant's diet includes ≥ 400 IU per day of vitamin D from other dietary sources. Food sources of vitamin D include: fortified infant formula - 100 IU in 250 mL (1 cup); cow's milk - 100 IU in 250 mL (1 cup); salmon - 103 IU in 30 g (1 oz); egg yolk - 25 IU in one yolk; fortified margarine - 25 IU in 5 mL (1 tsp)[10]	▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ Has < 6 wet diapers each day[2] ▪ By 7 months, not eating iron-containing foods daily[5] ▪ Infant formula not prepared and stored properly. See *Infant Formula* section page 6 ▪ Cow's milk or homemade formula is given[5] ▪ Consumes juice frequently throughout the day or drinks > 125 mL (4 oz) juice per day[3] ▪ Consumes fruit drinks, pop, coffee, tea, hot chocolate, soy beverage, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[5] ▪ Infant cereal or other pureed foods given in a bottle[5] ▪ Uses a propped bottle[5] ▪ Honey is given[7] ▪ Feeding is forced or restricted[2] ▪ Breastfed or partially breastfed infants drinking < 1000 mL (32 oz) formula is **not** receiving a vitamin D supplement[5]

Pediatric Nutrition Guidelines for Primary Health Care Providers

If child presents with a red flag, further investigation is recommended. Referral to a registered dietitian (RD) for nutrition assessment and ongoing follow-up may be advised.

Age	Developmental milestones related to feeding	Guidelines	Red flags
9 to 12 months **Note:** Milestones and guidelines for pre-term infants are based on corrected age[1]	▪ Uses jaw and tongue to bite and mash a variety of textures[17] ▪ Tries to use a spoon[3] ▪ May demand to spoon-feed self[17] See *Parenting and the feeding relationship* section on page 7 ▪ Feeds self by holding small foods between thumb and fore finger[2] ▪ By 12 months, drinks independently from cup with a spout or straw[5,14]	▪ Continue to breastfeed[2,5] ▪ See *Infant Formula* section on page 6 if infant formula is given ▪ Feed based on feeding cues [2] ▪ Offer solid foods 3-4 times per day[15] ▪ Continue to introduce solid foods in any sequence[15] ▪ Gradually increase texture of foods from lumpy to small pieces to encourage acceptance of increased texture[14] ▪ At 9-12 months, preferably 12 months, may introduce whole (3.25%) cow's milk[18]. Avoid skim, 1% or 2% milk and soy beverages[5] ▪ By 12 months, if cow's milk is the primary source of milk, give 500 mL (2 cups) per day plus other food sources of vitamin D[2] ▪ If juice is given, offer 100% juice and limit to 125-175 mL (4-6 oz) per day[2] ▪ Offer a cup with breast milk, formula, cow's milk, water or 100% juice[16] ▪ Avoid honey, including pasteurized, as it may cause infant botulism[7] ▪ Give breastfed infant a vitamin D supplement of 400 IU daily until the infant's diet includes ≥ 400 IU per day of vitamin D from other dietary sources or until the infant reaches 1 year. Food sources of vitamin D include: fortified infant formula - 100 IU in 250 mL (1 cup); cow's milk - 100 IU in 250 mL (1 cup); salmon - 103 IU in 30 g (1 oz); egg yolk - 25 IU in one yolk; fortified margarine - 25 IU in 5 mL (1 tsp)[10]	▪ Has < 6 wet diapers each day[2] ▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ By 10 months, lumpy textures not consumed[14] ▪ Infant formula not prepared and stored properly. See *Infant Formula* section page 6 ▪ Skim milk, low fat milk or soy beverage is given as main milk source[5] ▪ Consumes juice frequently throughout the day[3] ▪ Consumes large amount of fluids[2] – Milk: > 750 mL (3 cups) a day[3] – Juice: > 175 mL (6 oz) a day[2,8] ▪ Consumes fruit drinks, pop, coffee, tea, cola, hot chocolate, soy beverage, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[5] ▪ Honey is given[7] ▪ Feeding is forced or restricted[2] ▪ Not supervised during feeding[5] ▪ Breastfed or partially breastfed infant drinking < 1000 mL (32 oz) formula is **not** receiving a vitamin D supplement[5]

Pediatric Nutrition Guidelines for Primary Health Care Providers

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Age	Developmental milestones related to feeding	Guidelines	Red flags
12 to 24 months **Note:** Milestones and guidelines for pre-term children are based on corrected age[1]	12 to 18 months ▪ Growth slows compared with the first year of life resulting in decreased or sporadic appetite[2] See *Parenting and the feeding relationship* section on page 7 ▪ Unfamiliar foods are often rejected the first time[2] ▪ By 15 months, can self-feed with spoon and firmer table foods[2] 18 to 24 months ▪ Able to consume most of the same foods as the rest of the family with some extra preparation for prevention of choking[2] ▪ Fluctuating appetite and playing with food is common[2]. See *Parenting and the feeding relationship* section on page 7 ▪ May refuse all but 4-5 foods, consume only preferred foods and refuse previously accepted foods[2]	▪ Continue to breastfeed[2,5] ▪ If not breastfeeding, offer whole (3.25%) cow's milk.[2,16] Avoid skim, 1% or 2% milk[5] ▪ Offer 500-750 mL (2-3 cups) per day of 3.25% milk or breast milk each day[3] ▪ Serve 3 small meals and 2-3 snacks a day[3]. Avoid additional food or beverages except water between planned meals and snacks[2,3] ▪ Offer water when child is thirsty[2] ▪ If juice is provided, offer 100% juice and limit to 125-175 mL (4-6 oz) per day[2] ▪ Avoid fruit drinks that are not 100% juice and pop[2] ▪ By 15 months, wean from bottle[2] ▪ Allow child to self-feed[2] ▪ If breast milk is their only milk source, consider offering a vitamin D supplement[2] ▪ Consider offering a vitamin/mineral supplement if child is not growing well, has a specific health condition that requires it, and/or is not eating a variety of foods from each of the food groups[2]	▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ Not eating a variety of table foods including iron containing foods daily[5] ▪ Dietary fat intake is restricted[5] ▪ Lumpy or textured foods are refused[5] ▪ Skim milk, low fat milk or soy beverage regularly given[5] ▪ Soy (except formula), rice, other vegetarian beverages or herbal teas are given[5] ▪ Consumes large amount of fluids and very little food[2] – Milk: > 750 mL (3 cups) a day[3] – Juice: > 175 mL (6 oz) a day[2] ▪ Regularly consumes fruit drinks, pop, coffee, tea, cola, hot chocolate, soy beverage, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[2,5] ▪ Feeding is forced or restricted[2]

Pediatric Nutrition Guidelines for Primary Health Care Providers

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Age	Developmental milestones related to feeding	Guidelines	Red flags
2 to 6 years **Note:** Milestones and guidelines for pre-term children are based on corrected age[1]	▪ Eats most foods without coughing and choking[4] ▪ Eats with a utensil with little spilling[4] ▪ May have periods of disinterest in food[2]. See *Parenting and the feeding relationship* section on page 7 ▪ May be resistant to new foods[2]	▪ May continue to breastfeed[5] ▪ Follow Canada's Food Guide to meet nutritional needs[19] ▪ Offer 500 mL (2 cups) of milk or fortified soy beverage daily to help meet vitamin D needs[19] ▪ Gradually offer lower fat milks (skim, 1% or 2%) or milk alternatives[20] ▪ Serve 3 small meals and 2-3 snacks a day[3]. Avoid additional food or beverages except water between planned meals and snacks[2,3] ▪ Offer water when child is thirsty[2] ▪ If juice is provided, offer 100% juice and limit to 125-175 mL (4-6 oz) per day[2] ▪ Avoid fruit drinks that are not 100% juice and pop[5] ▪ Consider offering a vitamin/mineral supplement if child is not growing well, has a specific health condition that requires it, and/or is not eating a variety of foods from each of the food groups[2]	▪ Growth measures plotted at < 3rd or > 85th percentile OR sharp incline or decline in growth in serial growth measures, or a growth-line that remains flat, on the WHO Growth Charts for Canada[11] ▪ Does not eat a variety of table foods from the 4 food groups[19] ▪ Consumes large amount of fluids and very little food[2] – Milk: > 750 mL (3 cups) a day[3] – Juice: > 175 mL (6 oz) a day[2] ▪ Regularly consumes fruit drinks, pop, coffee, tea, cola, hot chocolate, other vegetarian beverages (e.g., rice or almond beverage) or herbal teas[2,5] ▪ Feeding is forced or restricted[2] ▪ 3-5 year old scores "high nutrition risk" on NutriSTEP® nutrition screen. See *NutriSTEP®* section on page 7

Pediatric Nutrition Guidelines for Primary Health Care Providers

Additional information

Growth Monitoring

- Use the WHO Growth Charts for Canada when assessing growth[11]. Available at: www.dietitians.ca/growthcharts
- Serial measures are more useful than unique measures and are ideal for assessing and monitoring growth patterns[11]
- When seeing an infant or toddler for the first time, weight-for-age, length-for-age or weight-for-length < 3rd percentile are recommended cut-off criteria for underweight, stunting (shortness), and wasting (thinness) that could be used to identify need for investigation/intervention/referral. Weight for length measures > 85th percentile indicate risk of overweight[11]
- Use Body Mass Index (BMI) when assessing body weight status relative to height in children ≥ 2 years old. Use age and gender-specific growth charts to determine the BMI-for-age percentile. A child's actual BMI value will not correspond to the adult cutoffs or ranges for underweight, healthy weight, overweight and obesity. The percentile will allow for assessment of growth status, < 3rd percentile indicates wasting, while > 85th percentile indicates risk of overweight[11]

Selecting infant formula

For babies that are partially or exclusively given infant formula, select a formula based on baby's medical and family's cultural/lifestyle needs.

- **Cow's milk-based iron-fortified infant formula** - most appropriate breast milk substitute[5,13]. Iron in infant formula does not cause constipation[13]
- **Soy-based formula** - for infants who cannot take cow's milk-based products for health (e.g., galactosemia), cultural, religious or personal reasons (e.g., vegan diet)[5,13]
- **Hypoallergenic formula** - most appropriate if a cow's milk allergy is suspected[13]
- **Lactose free formula** - rarely needed and only appropriate with a diagnosis of congenital lactase deficiency[13]

Preparing infant formula

- The use of liquid concentrate and ready-to-feed formulas (sterile products) over powdered formulas (not sterile products) reduces the risk of bacterial contamination for infants considered "at risk"[13,21]
- Safe water sources include municipal tap water, regularly tested well water or commercial bottled spring or tap water.[13,22]
- If previously boiled water is needed, bring the water to a rolling boil for 2 minutes[22]
- If sanitized equipment is needed, place the clean feeding equipment into a pot of water at a rolling boil for 2 minutes or use a commercial baby bottle sanitizer[22]
- **Ready-to-feed** - Do not mix with additional water. Sanitize equipment for babies < 4 months of age[22]
- **Liquid concentrate** - Mix with water (previously boiled water for babies < 4 months of age). Sanitize equipment for babies < 4 months of age[22]
- **Powdered** - Pour previously boiled water (cooled to no less than 70°C to reduce the risk of bacterial contamination) in bottle and then add powder. Prepare 1 bottle at a time, if possible. Sanitize equipment for babies of any age[13,21,22]

Bisphenol A (BPA) and bottle feeding

- BPA is a chemical used to make some types of plastic which may be harmful to infants and young children. Use bottles that do not contain BPA[23]
- Regulations require new baby bottles manufactured and sold in Canada to be BPA free, however older bottles may still be in use and their use should be discouraged[23]

Choking prevention

- Children ≤ 3 years of age are at higher risk of choking. Supervise children when eating and avoid foods that are hard, small and round or smooth and sticky including:[5,24]

Popcorn	Hard candies/cough drops	Raisins	Peanuts or other nuts
Sunflower seeds	Fish with bones	Raw carrots	Snacks using toothpicks or skewers
Gum	Grapes	Hot dogs	Peanut butter spread thick or on a spoon

Pediatric Nutrition Guidelines for Primary Health Care Providers

Fish consumption and methylmercury

- Many types of fish are an excellent source of omega-3 fatty acids[19]
- Some types of fish and shellfish contain high levels of methylmercury. The predominant health affects in humans are associated with the impaired functions of the central and peripheral nervous systems. For example, elevated methylmercury exposure in a young child can cause a decrease in I.Q., delays in walking and talking, lack of coordination, blindness and seizures[25]
- Limit consumption of the following high mercury containing fish - fresh/frozen tuna, shark, swordfish, escolar, marlin, orange roughy, and canned albacore (white) tuna as follows:[25]
  - < 1 year of age - 40 g **per month** of these fresh/frozen types of fish **or** 40 g **per week** of canned albacore tuna
  - 1-4 years of age - 75 g **per month** of these fresh/frozen types of fish **or** 75 g **per week** of canned albacore tuna
  - 5-11 years of age - 125 g **per month** of these fresh/frozen types of fish **or** 150 g **per week** of canned albacore tuna

Parenting and the feeding relationship

A healthy relationship between the parent/caregiver and the baby/child with respect to feeding and responding to hunger and satiety cues is important[2]. Early childhood food experiences and the social environment in which the child is fed are critical to the development of healthy eating habits later in life.[26] The following points will be especially effective when counselling parents of picky eaters:

- It is the parent's role to offer a selection of nutritious, age-appropriate foods and decide when and where food is eaten; Parents should trust their child/ren to decide to how much to eat or if to eat at all[2,5]
- The amount of food eaten will vary day-to-day depending on the child's appetite, activity level and whether they are experiencing a growth spurt, or if they are excited or overly tired[19]
- In a non-controlling, non-coercive environment, healthy children have the ability to self-regulate the amount of food and energy consumed[2]
- Provide structure and routine for meals in a pleasant setting without distractions from television or other activities[2,19]
- Encourage parents to be patient when introducing unfamiliar foods and to support the acceptance of new foods. If a food is rejected the first few times, it should be offered again on a different day (may require up to 10 times)[2,19]
- Avoid pressuring children to eat particular foods (e.g., praise, rewards, bribery, punishment) as this is counterproductive in the long-term because it is likely to build resistance and food dislikes rather than acceptance[2]
- 15-20 minutes is an appropriate length of time for preschoolers to stay at the table[2]
- Encourage positive mealtime role modeling by eating together as a family whenever possible, with adults eating at least some of the same foods as children[2]

NutriSTEP® (Nutrition Screening Tool for Every Preschooler)

- A validated Canadian nutrition risk screening questionnaire for parents of preschoolers aged 3-5 years
- Screens preschoolers for food and fluid intake, factors affecting eating behaviour (e.g., does the parent allow the child to decide how much to eat, can the parents afford to buy sufficient food), physical growth (e.g., parent's comfort level with how the child is growing) and physical activity and sedentary behaviour
- Takes parents approximately 5 minutes to complete
- Available in 8 languages: English, French, Simplified Chinese, Traditional Chinese, Punjabi, Vietnamese, Tamil and Spanish
- Available free in Ontario through local health units or with a license through *Flintbox Technologies* at: http://www.flintbox.com/public/project/2069/
- A toddler (18-35 months) version of NutriSTEP® will be available in 2012

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Healthy Babies, Healthy Children Info line: 800-268-1154, TTY 800-387-5559 Website: www.children.gov.on.ca/htdocs/English/topics/earlychildhood/health/index.aspx	Prevention and early intervention for families with children from before birth up to six years of age, including support and services.
Infant Mental Health Promotion Program Phone: 416-813-6062 Website:www.sickkids.on.ca/imp	Education, information, networking, and advocacy to support best practices for enhancing infant mental health.
Nipissing District Developmental Screen Phone: 705-752-5081 or 888-582-0944 Website:www.ndds.ca	Screening method for identifying problem areas in child development.
Public Health Units Info line: 800-268-1154, TTY 800-387-5559 Website: www.health.gov.on.ca/english/public/contact/phu/phu_mn.html	Range of preconception, prenatal and child health services.
Rourke Baby Record Website: www.rourkebabyrecord.ca/	System of care for well baby and child from birth to 5 years of age.

Dental Health

Contact Information	Brief Description
Ontario Government Website on Dental Health: Website: www.health.gov.on.ca/english/hlinks/dental.html	Publications on oral health for pregnant women and children.
Use Children in Need of Treatment Website: www.mhp.gov.on.ca/english/health_promotion/cinot.asp	
Ontario Association of Public Health Dentistry Website: www.oaphd.on.ca/	

Fetal Alcohol Spectrum Disorder

Contact Information	Brief Description
FASD Information and Consultation Service Phone: (613) 235-4048 / 800-559-4514 Website: www.ccsa.ca/Eng/KnowledgeCentre/OurDatabases/FASD/Pages/default.aspx	Information and resources about Fetal Alcohol Spectrum Disorder (FASD).
Health Canada Website: www.phac-aspc.gc.ca/fasd-etcaf/index.html	Resources and information about Fetal Alcohol Spectrum Disorder
Motherisk Alcohol and Substance Use in Pregnancy Helpline: 877-327-4636 Website: www.motherisk.org	Information and guidance to pregnant or lactating patients and health care providers regarding the fetal risks associated with alcohol and drug use during pregnancy.

Immunization

Contact Information	Brief Description
Canadian Coalition for Immunization Awareness and Promotion Website: www.immunize.cpha.ca	Information and resources for parents and health care providers about immunization.
Health Canada, Immunization Division Website: www.phac-aspc.gc.ca/irid-diir/index.html	Immunization schedules and answers to questions about immunization.
Ontario Government Website: www.health.gov.on.ca/english/public/pub/immun/immunization.html	Information on immunization.

Multiple Births

Contact Information	Brief Description
Multiple Births Canada Phone: 705-429-0901, 866-228-8824 Website: www.multiplebirthscanada.org	Health information and support networks for multiple birth individuals and their families.
Society of Obstetricians and Gynaecologists of Canada's Multiple Births Website: www.sogc.org/health/pregnancy-multiple_e.asp	Information and links related to multiple births.

Nutrition Resources

Contact Information	Brief Description
Canada Prenatal Nutrition Program Website: www.phac-aspc.gc.ca/dca-dea/programs-mes/cpnp_goals_e.html#what	Information and nutrition supplements during pregnancy and breast feeding.
EatRight Ontario Website: www.eatrightontario.ca	
Health Canada Eating Well with Canada's Food Guide Website: www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index-eng.php#1	
Health Canada Infant Nutrition Information Website: www.phac-aspc.gc.ca/dca-dea/prenatal/nutrition_e.html	Information and links related to infant nutrition.
How to Feed your Growing Child Website: www.beststart.org/resources/nutrition/index.html	Resource on nutrition for 1-5 year old children.
NRP Website: www.nutritionrc.ca	

Parenting

Contact Information	Brief Description
Canadian Child Care Federation Website: www.cccf-fcsge.ca/	Information and resources related to child care.
Caring for Kids, Canadian Paediatric Society Website: www.caringforkids.cps.ca	Information on caring for newborns, immunization, healthy eating, common childhood illnesses, behaviour and development, etc.
Centre of Excellence for Early Childhood Development Website: www.excellence-earlychildhood.ca/home.asp	
Child and Family Canada Website: www.cccf-fcsge.ca/home_en.html	Information and resources about children and families.
Community Action Programs for Children Website: www.phac-aspc.gc.ca/dca-dea/programs-mes/	Community based programs for families with young children.
Family Resource Programs Phone: 866-637-7226 Website: www.frp.ca	Drop-in programs, parenting groups, parent relief, toy libraries and information on caring for children, child development, health and safety, healthy eating, recreation and literacy.
Family Service Canada Phone: 800-668-7808 Website: www.familyservicecanada.org	Links to family service agencies across Canada that provide programs to help families in day-to-day living, in times of crisis, and in strengthening relationships.
Growing Healthy Canadians: A Guide to Positive Child Development Website: www.growinghealthykids.com	Information on healthy child development

Invest in Kids Phone: 877-583-5437/ 416-977-1222 Website: www.investinkids.ca	Resources and information for parents about healthy child development and parenting.
One Parent Families Association of Canada Phone: 877-773-7714 or 905-83 7098 Website: www.oneparentfamiliesassociation.ca/	Social activities and emotional support for single parents and their children, including sports and other activities.
Ontario Early Years Centres Phone: 1 866 821 7770 and TTY 1 800 387 5559 Website: www.ontarioearlyyears.ca	Support and information for parents on learning, development, and health of children birth to six years old. Links parents to needed services.
Ontario Federation of Indian Friendship Centres Phone: 416-956-7575 Website: www.ofifc.org	Support and programs for Aboriginal people on health, justice, family, and employment and training.
Rainbows Canada – Rainbows Peer Support Program Website: www.rainbows.ca/helpforfamily.aspx	
Vanier Institute of the Family Website: www.vifamily.ca	Information and commentary about families.

Physical Activity

Contact Information	Brief Description
Best Start Resource Centre: Have a Ball Together Website: www.haveaballtogether.ca	
Canadian Society for Exercise Physiology Website: www.csep.ca	Guidelines on physical activity in pregnancy
Canada's Physical Activity Guide Phone: 888-334-9769 Website: www.phac-aspc.gc.ca/pau-uap/paguide/index.html	Information about physical activity including its benefits, risks of being inactive and ideas about various ways to increase levels on a daily basis.
Mothers in Motion Website: www.caaws.ca/mothersinmotion/home_e.html	Information for mothers with young children on how lead an active lifestyle and how to encourage children to do the same.
Society of Obstetricians and Gynecologists of Canada Guidelines Website: www.sogc.org/guidelines/public/129E-JCPG-June2003.pdf	Clinical Practice Guideline: Exercise in Pregnancy and the Postpartum Period.

Postpartum Depression and Mood Disorder Services

Contact Information	Brief Description
Best Start Resource Centre: Life with a new baby Website: www.lifewithnewbaby.ca	
Canadian Mental Health Association Website: www.cmha.ca/bins/index.asp	Postpartum depression resource.
Centre for Addiction and Mental Health	
Our Sisters' Place Website: www.oursistersplace.ca	Support network for women, with a focus on mood disorders associated with hormonal changes throughout the lifespan.
Pregnancy and Depression Website: www.pregnancyanddepression.com	Website for professionals.

Preconception and Prenatal Services

Contact Information	Brief Description
Association of Ontario Midwives Phone: 416-425-9974 or 866-418-3773 Website: www.aom.on.ca	List of midwifery practices available in Ontario

Best Start Resource Centre Website: www.beststart.org	Range of resources on preconception and prenatal issues.
Doulas Website: www.canadiandoulas.com/ontario.htm	Contact information for Doulas, prenatal educators, breastfeeding support and midwives in Ontario.
Healthy Babies Healthy Children Info line: 800-268-1154, TTY 800-387-5559 Website: www.children.gov.on.ca/htdocs/English/topics/earlychildhood/health/index.aspx	A prevention and early intervention initiative to provide support and services to families with children from before birth up to six years of age. Includes prenatal components.
Motherisk Phone: 416-813-6780 Alcohol and Substance Use in Pregnancy Helpline: 877-327-4636 Nausea and Vomiting in Pregnancy Helpline: 800-436-8477 HIV Treatment in Pregnancy: 888-246-5840 Website: www.motherisk.org	Information and guidance to pregnant or lactating patients and their health care providers regarding the fetal risks associated with drug, chemical, infection, disease and exposure(s) during pregnancy, as well as nausea and pregnancy.
Prenatal HIV Testing Website: www.health.gov.on.ca/english/providers/program/hivaids/prenatal/prenatal_mn.html	Ontario government discussion guide and checklist on prenatal HIV testing.
Society of Obstetricians and Gynaecologists of Canada Website: www.sogc.org	Information on care before, during and after pregnancy.
Women's Health Matters Pregnancy Resource Centre Website: www.womenshealthmatters.ca/centres/pregnancy/index.html	Information for expectant families about healthy pregnancy.

Pregnancy and Parental Leave

Contact Information	Brief Description
Services Canada Website: www.servicecanada.gc.ca/eng/lifeevents/baby.shtml	Information about pregnancy and parental benefits.
Ontario Government Website: Website: www.ontario.ca/en/life_events/baby/012214	Fact sheet on pregnancy and parental leave.
Ontario Human Rights Commission Phone: 800-387-9080 Website: www.ohrc.on.ca/en/issues/pregnancy	Information about rights related to pregnancy and breastfeeding.

Safety & Protection

Contact Information	Brief Description
Lifesaving Society Phone: 416-490-8844 Website: www.lifesavingsociety.com	Information on how to prevent drowning and other water-related injuries as well as training in emergency rescue skills.
Ontario Association of Children's Aid Societies Phone: 416 987-7725 Website: www.oacas.org	Help, support and protection for children. Information on how to report child abuse.
Ontario Poison Centre Toll-free: 800-268-9017 or 416-813-5900 Website: www.ontariopoisoncentre.com/poisoncentre/	Hotline for parents' questions and concerns about a product their child may have eaten, drank or otherwise ingested. **24 hour service.**
Safe Kids Canada Phone: 888-723-3847 Website: www.safekidscanada.ca	Information about how to prevent injuries in children.

Smoking Cessation

Contact Information	Brief Description
PREGNETS Website: http://pregnets.org	Health care provider and patient resources about the negative consequences of smoking and environmental tobacco smoke.
Health Canada Smoking Information Website: www.hc-sc.gc.ca/hc-ps/tobac-tabac/quit-cesser/index-eng.php	Fact sheets and resources on smoking cessation and pregnancy.
Canadian Cancer Society Smokers' Helpline Phone: 877-513-5333 Website: www.smokershelpline.ca	Phone line and website with smoking cessation advice.

Special Needs

Contact Information	Brief Description
Autism Society Ontario Website: www.autismontario.com/	Support and information for parents on learning, development, Information and referral sources on autism.
CanChild Centre for Childhood Disability Research Website: www.fhs.mcmaster.ca/canchild	Information and current research on children with disabilities and their families.
Hanen Centre Website: www.hanen.org	Helps young children to communicate to the best of their abilities through programs and resources for parents, educators etc.
Ontario Association of Children's Rehabilitation Services Website: www.oacrs.com	Services for children with multiple disabilities and their families, including assessment, diagnosis, treatment and community programs.
Ontario Ministry of Children's Services – Children with Special Needs Website: www.children.gov.on.ca/htdocs/English/topics/specialneeds/index.aspx	Information and services for children with special needs.

Speech, Language and Hearing

Contact Information	Brief Description
Infant Hearing Program Website: www.children.gov.on.ca/htdocs/English/topics/earlychildhood/hearing/index.aspx	Information and services for families of children with permanent hearing loss.
Ontario Association of Speech Language Pathologists and Audiologists Website: www.osla.on.ca	Links to service providers and groups working to address issues surrounding hearing loss and communications impairments
Preschool Speech and Language Program Website: www.children.gov.on.ca/htdocs/English/topics/earlychildhood/speechlanguage/index.aspx	Information and services related to preschool speech and language.

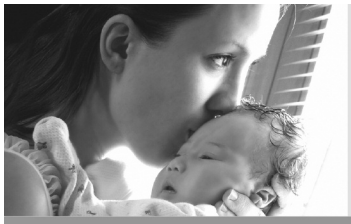
Woman Abuse

Contact Information	Brief Description
Assaulted Women's Helpline Phone: 866-863-0511 or 416-863-0511 866-863-7868 (TTY)	Crisis line for assaulted women across Ontario with simultaneous translation into 150 languages. 24 hour service.
Ending Violence Against Women Website: www.springtideresources.org/	Information and education about physical, psychological, emotional and sexual violence against women.
National Clearinghouse on Family Violence Website: www.phac-aspc.gc.ca/ncfv-cnivf/index-eng.php	Links to resources about violence within the family and how to address it.
Shelternet Website: www.shelternet.ca	Lists of shelters and helplines related to woman abuse.

Vision

Contact Information	Brief Description
Canadian Paediatric Society Website: www.cps.ca/english/statements/CP/cp98-01.htm	Vision screening information.
Blindness and Low Vision Program Website: www.children.gov.on.ca/htdocs/English/topics/earlychildhood/blindnesslowvision/index.aspx	

Appendix R: Edinburgh Postpartum Depression Screen (EPDS) checklist



Life with a new baby is not always what you expect.

Please underline the answer that most accurately describes your feelings in the last 7 days.

1. **I have been able to laugh and see the funny side of things.**
   - As much as I always could
   - Not quite so much now
   - Definitely not so much now
   - Not at all

2. **I have looked forward with enjoyment to things.**
   - As much as I ever did
   - Rather less than I used to
   - Definitely less than I used to
   - Hardly at all

3. **I have blamed myself unnecessarily when things went wrong*.**
   - Yes, most of the time
   - Yes, some of the time
   - Not very often
   - No, never

4. **I have been anxious or worried for no good reason.**
   - No, not at all
   - Hardly ever
   - Yes, sometimes
   - Yes, very often

5. **I have felt scared or panicky for no very good reason*.**
   - Yes, quite a lot
   - Yes, sometimes
   - No, not much
   - No, not at all

6. **Things have been getting on top of me*.**
   - Yes, most of the time I haven't been able to cope at all
   - Yes, sometimes I haven't been coping as well as usual
   - No, most of the time I have coped quite well
   - No, I have been coping as well as ever

7. **I have been so unhappy that I have had difficulty sleeping*.**
   - Yes, most of the time
   - Yes, sometimes
   - Not very often
   - No, not at all

8. **I have felt sad or miserable*.**
   - Yes, most of the time
   - Yes, quite often
   - Not very often
   - No, not at all

9. **I have been so unhappy that I have been crying*.**
   - Yes, most of the time
   - Yes, quite often
   - Only occasionally
   - No, never

10. **The thought of harming myself has occurred to me*.**
    - Yes, quite often
    - Sometimes
    - Hardly ever
    - Never

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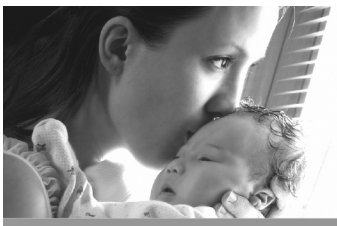

Life with a new baby is not always what you expect.

Edinburgh Postnatal Depression Scale

Response categories are scored 0, 1, 2, and 3 according to increased severity of the symptoms. Items marked with an asterisk are reverse scored (i.e. 3, 2, 1, and 0). The total score is calculated by adding together the scores for each of the ten items.
A woman scoring 10 or higher should be refered to a physicians or mental health specialist for further assessment. A score of 13 or higher could indicate major depression. Any positive score on item 10 warrants further clinical assessment. Some women scoring below the cut-off scores may also have PPD and/or will benefit from support services. These scores may not be applicable to all populations.

Instructions for users:

1. The mother is asked to underline the response which comes closest to how she has been feeling in the previous 7 days.
2. All ten items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading

The EPDS was developed at health centers in Livingston and Edinburgh. It consists of ten short statements. The mother underlines which of the four possible responses is closest to how she has been feeling during the past week. Most mothers complete the scale without difficulty in less than 5 minutes. The validation study showed that a score above the threshold was an indication of possible depression. Nevertheless the EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt during the previous week and in doubtful cases it may be useful to repeat it one to two weeks later. The scale will not detect mothers with anxiety neuroses, phobias or personality disorder.

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EPDS is a tool used to assist health care professionals to screen mothers for postpartum depression.

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Appendix S: Postpartum Depression Desk Reference

USE PASS-CAN QUICK ASSESSMENT TOOL. OR USE THE EDINBURGH POSTNATAL DEPRESSION SCREEN (EPDS)

1. Can you sleep when baby sleeps?
2. Are you eating? What are you eating?
3. Do you get out?
4. Are you having any scary or repetitive thoughts about you or your baby?

Ask all new moms about past births and postpartum experiences and family history of mental illness.

TOP 5 RISK FACTORS FOR PPMD:

- Depression and anxiety in pregnancy
- Recent stressful life events
- Lack of social supports
- Personal history of mental illness
- Family history of mental illness

IF THERE ARE ANY CONCERNS – REASSURE

- Listen to her feelings and validate them
- Reinforce that it took courage to share her feelings
- Reassure that she is not alone and that there is help and she will get better
- Go to the decision tree for assessment and referral

EFFECTIVE TREATMENTS FOR PPMD

- **Emotional, practical, and social support** from the mother's partner or spouse, friends, relatives
- Developing **realistic expectations** of motherhood
- **Self-care** strategies such as getting as much rest as possible, eating well, getting moderate exercise, getting out and building a strong support network
- **Peer support groups** allow new moms to identify with other women in similar situations, normalize their experiences and realize that others share their feelings
- **Psychotherapy**, such as Interpersonal (IPT) or Cognitive Behavioural Therapy (CBT) and non-directive counselling has good evidence for effectiveness and is recommended for mild to moderate PPMD
  - **IPT:** focuses on the changing roles of parenthood and improving relationship dynamics; can help resolve the marital or relationship conflicts that are common among new parents
  - **CBT:** aims to replace negative thought patterns with a more reality-based, positive cognitive style that improves coping skills
  - **Non-directive counseling** promotes a safe, non judgmental, confidential space for women to explore their feelings
- **Antidepressants:** SSRIs are the most frequently prescribed antidepressants with good evidence that they are effective in treating depression and safe to take while breastfeeding

  For information about safety or risk of drugs during pregnancy and lactation please contact **Motherisk at www.motherisk.org or call 416 813 6780**
- **Refer to psychiatric consultation or consider hospitalization when patients:**
  - Have psychotic or manic symptoms
  - Endorse suicidal or homicidal ideation
  - Have a history of severe depression or another mental illness
  - Exhibit moderate to severe symptoms and do not respond to the treatment you can provide
  - Need more support and monitoring than you can provide

A service provider, a new mother or her family is concerned about the new mother's mood or behaviour

OR

The new mother has symptoms of PPD or you identified concerns using the Pass-Can questions

OR

The new mother may have a high screening score on a screening scale such as the EPDS, a cut-off score of 11 -12 is recommended

IF YES

Is she exhibiting bizarre or unusual behaviours or beliefs (e.g. extremes of mood, especially elation; seeming lack of need for sleep; strange ideas about the baby or harming the baby)?

IF NO

IF YES

1. Refer immediately to emergency psychiatric services or a hospital emergency room for evaluation for postpartum psychosis or severe depression.

Is she exhibiting suicidal or infanticidal thoughts or behaviours, including fantasies about running away (eg. does she have thoughts of harming her baby; does she have a plan or ideas only)?

IF NO

IF YES

2. Until this assessment occurs, ensure that the mother is not left by herself or alone with the baby. Make a referral to child protection services if you are concerned that a child is or may be in need of protection.

3. Follow up in 24 hours to ensure that the assessment has occurred and that a treatment plan is in place.

Do the symptoms impair the new mother's ability to care for herself, the baby or other children (e.g. she is unable to get our of bed or prepare meals)?

IF NO

IF YES

1. Consider effective treatment options (see list) and begin suitable treatment or combination of treatments or refer to a family doctor or another physician.

Have symptoms (the mood or behavioural changes) been present for two or more weeks?

IF NO

IF YES

2. Follow up in one or two weeks to ensure
- an assessment has occurred
- a treatment plan is in place and acceptable to the mother
- the mother's condition is improving

Have symptoms resulted in significant disruptions to appetite or sleeping patterns, or are physical symptoms such as racing heart, shortness or breath, dizziness or gastrointestinal disturbances present?

IF NO

IF YES

3. If the new mother has not improved in two weeks or her condition worsens, arrange for possible specialist referral or revise the treatment.

1. Recommend self-care strategies.
2. Assess for any chronic stressors (e.g. inadequate / unsafe housing, social isolation) and refer to social programs as appropriate.
3. Refer to community supports, including new mom's groups or any PPD groups in the area.
4. Provide with emergency mental health telephone hot lines with instructions to call if symptoms worsen.
5. Follow up in approximately two weeks to reassess symptoms.

RESOURCES:

The Best Start Resource Centre's PPMD Campaign
www.lifewithnewbaby.ca

Centre for Addiction and Mental Health Postpartum Depression: A guide for front line health and social service providers
http://www.camh.net/Publications/

Telehealth Ontario
1 866 797 0000 / TTY 1 866 797 0007

Mental Health Service Information Ontario
1 866 531 2600 http://www.mhsio.on.ca/

INFO line to find your public health agency:
1 866 532 3161 / TTY 1 800 397 5559

Adapted with permission from: Postpartum Depression: A guide for front-line health and social service providers, 2005, produced by the Centre for Addiction and Mental Health, authored by Lori Ross, Cindy-Lee Dennis, Emma Robertson Blackmore, and Donna Stewart.

To order more desk references, call 1 800 397 9567 ext. 2260

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Appendix T: Resources and Referral Services Form

Your Guide to Local Services

Preconception and Prenatal Resources •Groups: •Information: •Programs for teens: •Programs for fathers:	**Contact:**
Parenting Resources •Groups: •Tapes: •Phone lines: •Counselling: •Programs for teens: •Programs for fathers:	**Contact:**
Early Education Experiences •Play groups: •Nursery school: •Library programs: •Toy lending services:	**Contact:**
Hearing Services •Infant Hearing Program – Birth to 2 years •Blind and Low Vision Program •Audiological Services	**Contact:**
Preschool Speech and Language Program – Birth to S.K. •Local contact number	**Contact:**
Autism •Autism Society •Preschool Autism Services	**Contact:**
Other Developmental Programs and Services •Developmental Pediatrician •Child and Family Assessment •Child Development Centre •Children's Services •Central Dispatch Number •Infant Development Program •Learning Disability Association	**Contact:**
Nutrition Services: •Canada Prenatal Nutrition Programs •Breastfeeding information and services •School Breakfast programs •Nutrition assessment and counselling •Food banks and other emergency food programs	**Contact:**
Other Local Services: •Bereavement Services •Postpartum Depression Support Services •Children in Need of Dental Treatment (CINOT)	**Contact:**