ANTENATAL PSYCHOSOCIAL HEALTH ASSESSMENT (ALPHA)

Antenatal psychosocial problems may be associated with unfavorable postpartum outcomes. The questions on this form are suggested ways of inquiring about psychosocial health. Issues of high concern to the woman, her family or the caregiver usually indicate a need for additional supports or services. When issues of some concern are identified, follow-up and/or referral should be considered. Additional information can be obtained from the ALPHA Guide.* Please consider the sensitivity of this information before sharing it with other caregivers.

<table>
<thead>
<tr>
<th>ANTENATAL FACTORS</th>
<th>COMMENTS/PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FAMILY FACTORS</strong></td>
<td></td>
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<tr>
<td>Social support (CA, WA, PD)</td>
<td>How does your partner/family feel about your pregnancy?</td>
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<td></td>
<td>Who will be helping you when you go home with your baby?</td>
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<tr>
<td>Recent stressful life events (CA, WA, PD, PI)</td>
<td>What life changes have you experienced this year?</td>
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<tr>
<td></td>
<td>What changes are you planning during this pregnancy?</td>
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<tr>
<td>Couple’s relationship (CD, PD, WA, CA)</td>
<td>How would you describe your relationship with your partner?</td>
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<td></td>
<td>What do you think your relationship will be like after the birth?</td>
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<tr>
<td><strong>MATERNAL FACTORS</strong></td>
<td></td>
</tr>
<tr>
<td>Prenatal care (late onset) (WA)</td>
<td>First prenatal visit in third trimester? (check records)</td>
</tr>
<tr>
<td>Prenatal education (refusal or quit) (CA)</td>
<td>What are your plans for prenatal classes?</td>
</tr>
<tr>
<td>Feelings toward pregnancy after 20 weeks (CA, WA)</td>
<td>How did you feel when you just found out you were pregnant?</td>
</tr>
<tr>
<td></td>
<td>How do you feel about it now?</td>
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<tr>
<td>Relationship with parents in childhood (CA)</td>
<td>How did you get along with your parents?</td>
</tr>
<tr>
<td></td>
<td>Did you feel loved by your parents?</td>
</tr>
<tr>
<td>Self esteem (CA, WA)</td>
<td>What concerns do you have about becoming/being a mother?</td>
</tr>
<tr>
<td>History of psychiatric/emotional problems (CA, WA, PD)</td>
<td>Have you ever had emotional problems?</td>
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<tr>
<td></td>
<td>Have you ever seen a psychiatrist or therapist?</td>
</tr>
<tr>
<td>Depression in this pregnancy (PD)</td>
<td>How has your mood been during this pregnancy?</td>
</tr>
</tbody>
</table>

**ASSOCIATED POSTPARTUM OUTCOMES**

The antenatal factors in the left column have been shown to be associated with the postpartum outcomes listed below. **Bold, Italicized** indicates good evidence of association. Regular text indicates fair evidence of association.

CA - Child Abuse  CD - Couple Dysfunction  PI - Physical Illness  PD - Postpartum Depression  WA - Woman Abuse

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### Antenatal Factors

<table>
<thead>
<tr>
<th>Substance Use</th>
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</thead>
<tbody>
<tr>
<td>Alcohol/drug abuse (WA, CA)</td>
</tr>
<tr>
<td>- How many drinks of alcohol do you have per week?</td>
</tr>
<tr>
<td>- Are there times when you drink more than that?</td>
</tr>
<tr>
<td>- Do you or your partner use recreational drugs?</td>
</tr>
<tr>
<td>- Do you or your partner have a problem with alcohol or drugs?</td>
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<tr>
<td>- Consider CAGE (Cut down, Annoyed, Guilty, Eye opener)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Violence</th>
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</thead>
<tbody>
<tr>
<td>Woman or partner experienced or witnessed abuse (physical, emotional, sexual) (CA, WA)</td>
</tr>
<tr>
<td>- What was your parents’ relationship like?</td>
</tr>
<tr>
<td>- Did your father ever scare or hurt your mother?</td>
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<tr>
<td>- Did your parents ever scare or hurt you?</td>
</tr>
<tr>
<td>- Were you ever sexually abused as a child?</td>
</tr>
<tr>
<td>Current or past woman abuse (WA, CA, PD)</td>
</tr>
<tr>
<td>- How do you and your partner solve arguments?</td>
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<tr>
<td>- Do you ever feel frightened by what your partner says or does?</td>
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<tr>
<td>- Have you ever been hit/pushed/slapped by a partner?</td>
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<tr>
<td>- Has your partner ever humiliated you or psychologically abused you in other ways?</td>
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<tr>
<td>- Have you ever been forced to have sex against your will?</td>
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<tr>
<td>Previous child abuse by woman or partner (CA)</td>
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<tr>
<td>- Do you or your partner have children not living with you? If so, why?</td>
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<tr>
<td>- Have you ever had involvement with a child protection agency (ie Children's Aid Society)?</td>
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<tr>
<td>Child discipline (CA)</td>
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<tr>
<td>- How were you disciplined as a child?</td>
</tr>
<tr>
<td>- How do you think you will discipline your child?</td>
</tr>
<tr>
<td>- How do you deal with your kids at home when they misbehave?</td>
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</table>

### Follow-Up Plan:

- Supportive counselling by provider
- Additional prenatal appointments
- Additional postpartum appointments
- Additional well baby visits
- Public Health referral
- Prenatal education services
- Nutritionist
- Community resources / mothers’ group
- Homecare
- Parenting classes / parents’ support group
- Addiction treatment programs
- Smoking cessation resources
- Social Worker
- Psychologist / Psychiatrist
- Psychotherapist / marital / family therapist
- Assaulted women’s helpline / shelter / counseling
- Legal advice
- Children’s Aid Society
- Other: ____________________
- Other: ____________________
- Other: ____________________
- Other: ____________________

### Comments:

____________________________________________________

____________________________________________________

____________________________________________________

Date completed ___________________  Signature ___________________

---

Improving the Odds: Healthy Child Development
THE ALPHA SELF-REPORT QUESTIONNAIRE FOR WOMEN

Name __________________________ Date __________________________ Months Pregnant __________________________

Having a baby usually means changes in your family life. You may wish to discuss some of these topics with your healthcare provider. She/he may help you with these changes. Please answer the questions the best way you can. Your answers are confidential and will be kept private.

Please answer the questions by circling a number on the scale, writing an answer in the space, or marking "yes" or "no". If some of the questions do not apply to you, please circle N/A (not applicable).

Your Family Life Please answer the following questions about your family life.

Family Factors

1. About this pregnancy, my partner feels __________________________ 1 2 3 4 5 __________________________ very unhappy
2. About this pregnancy, my family feels __________________________ 1 2 3 4 5 __________________________ very unhappy
3. I feel supported in this pregnancy __________________________ 1 2 3 4 5 __________________________ not at all
4. My partner will be involved with the baby __________________________ a great deal 1 2 3 4 5 __________________________ not at all
5. When I am home with the baby I will have help from (state relationship) __________________________

Comments:

Recent Life Stresses (moving, job change or loss, family illness or death, money troubles, and so on)

6. Over the past year, my life has been __________________________ very relaxed 1 2 3 4 5 very stressful
7. I am making life changes during this pregnancy __________________________ No___ Yes ___ if yes, describe __________________________

Comments:

Relationship With Partner (if this applies)

8. My relationship with my partner is usually __________________________ very happy 1 2 3 4 5 very unhappy
9. After the baby, I expect my partner and I will get along __________________________ very well 1 2 3 4 5 not at all

Comments:

Your Own Life Please answer the following questions about your own life and feelings.

10. In this pregnancy, I first came for care when I was ___ months pregnant. This is my ___ 1st ___ 2nd ___ 3rd ___ (indicate number) child.
11. I am planning to take prenatal classes __________________________ Yes ___ No ___ Reasons, if no, __________________________

Comments:

Feelings About Being Pregnant

12. My feelings about this pregnancy at first __________________________ very happy 1 2 3 4 5 very unhappy
13. My feelings about this pregnancy now __________________________ very happy 1 2 3 4 5 very unhappy

Comments:

Relationship With Parents

14. When I was a child, I got along with my parent(s) __________________________ very much 1 2 3 4 5 not at all
15. As a young child I felt loved by my mother __________________________ very much 1 2 3 4 5 not at all N/A
16. As a young child I felt loved by my father __________________________ very much 1 2 3 4 5 not at all N/A

Comments:

Feelings About Becoming/Being a Mother

17. I have concerns about becoming/being a mother __________________________ none at all 1 2 3 4 5 very many

Comments:
### Emotional Health

18. I have had some emotional problems
   - No, Yes

19. I have seen a psychiatrist/therapist
   - No, Yes

20. In this pregnancy, my mood has been usually
   - happy/up 1 2 3 4 5 sad/down
   - Comments:

### Stress in Your Life  Please answer the following questions about stress in your life.

#### Alcohol and Drug Use During Pregnancy

21. Each week I drink _______ drinks. (1 drink = 1/2 oz liquor, 12 oz beer, 5 oz wine)
   - No, Yes If yes, describe

22. There are times when I drink more during the week
   - No, Yes Annoyed by people criticizing my drinking No, Yes

23. Sometimes I've felt: A need to cut-down my drinking Guilty about my drinking
   - No, Yes A need for a drink first thing in the morning No, Yes
   - never 1 2 3 4 5 very often

24. I use recreational drugs, e.g., marihuana
   - No, Yes If yes, describe

25. I have some drug problems
   - No, Yes If yes, describe

26. My partner uses recreational drugs, e.g., marihuana
   - No, Yes If yes, describe

27. My partner has some drug problems
   - Comments:

#### Parent’s Relationship (when you were a young child)

28. My parents usually got along
   - very well 1 2 3 4 5 not at all N/A

29. My father sometimes scared or hurt my mother
   - never 1 2 3 4 5 very often N/A

30. My parents sometimes scared or hurt me
   - never 1 2 3 4 5 very often N/A

31. As a child I was sexually abused
   - Comments:

#### Relationship With Partner (if this applies)

32. My relationship with my partner usually has
   - no tension 1 2 3 4 5 a lot of tension N/A

33. We work out arguments with
   - no difficulty 1 2 3 4 5 great difficulty N/A

34. I've sometimes felt scared by what my partner says or does
   - never 1 2 3 4 5 very often N/A

35. I've been hit/pushed/slapped by a partner
   - never 1 2 3 4 5 very often N/A

36. I've sometimes been put down or humiliated by my partner
   - never 1 2 3 4 5 very often N/A

37. I have been forced to have sex against my will
   - Comments:

#### Raising Children

38. I have children not living with me
   - No, Yes

39. My partner has children not living with him
   - No, Yes

40. As a child, I was involved with Children's Protective Services (Children's Aid)
   - No, Yes

41. Children in my care have been involved with Children's Protective Services
   - Comments:

42. As a child, I was harshly disciplined by parents/family
   - never 1 2 3 4 5 very often

43. I think spanking is necessary
   - never 1 2 3 4 5 very often
   - Comments:

44. Overall, how concerned are you about your emotional and family life?
   - not at all concerned 1 2 3 4 5 6 7 extremely concerned

45. What issues in your life are most concerning to you?

46. What help, if any, would you like?
THE ALPHA SELF-REPORT QUESTIONNAIRE FOR WOMEN
Antenatal Psychosocial Health Assessment

PROVIDER SUMMARY

Please refer to the other side of this page for information on antenatal psychosocial factors that are associated with adverse postpartum outcomes. For specific information on how to deal with psychosocial issues refer to the Reference Guide for Providers: The ALPHA Form.

Woman’s Name ___________________________ EDC ___________________________

<table>
<thead>
<tr>
<th>DATE</th>
<th>SUMMARY/REFERRAL</th>
<th>FOLLOW-UP</th>
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Date_________________________ Signature_________________________

Improving the Odds: Healthy Child Development
PROVIDER GUIDE FOR THE ALPHA SELF-REPORT QUESTIONNAIRE FOR WOMEN

Problems in the antenatal psychosocial areas outlined in questions below have been shown to be associated with unfavourable postpartum outcomes. These outcomes include:

- CA  Child Abuse
- CD  Couple Dysfunction
- PI  Physical Illness
- PD  Postpartum Depression
- WA  Woman Abuse

If a woman responds to questions on the ALPHA Self-Report Questionnaire that indicate psychosocial concerns, the following associations with poor postpartum outcomes may apply. Bold italics indicates good association, regular type indicates fair association with adverse postpartum outcomes.

### Family Factors

1. Now that I am pregnant, my partner feels very happy I __________ I very unhappy CA, WA, PD
2. My family/friends/partner support me a great deal I __________ I very little CA, WA, PD
3. When I am home with the baby I will have help from CA, WA, PD
4. Over the past year, my life has been very relaxed I __________ I very stressful CA, WA, PD, PI
5. Are you making any major changes? Yes ____ No ____ If yes, describe CA, WA, PD, PI
6. My partner will be involved with the baby a great deal I __________ I not at all CD, PD, WA, CA
7. At home, my partner shares tasks with me all the time I __________ I not at all CD, PD, WA, CA
8. After the baby, my partner and I will get along very well I __________ I not at all CD, PD, WA, CA
9. I have concerns about my partner relationship none at all I __________ I very many CD, PD, WA, CA

### Maternal Factors

10. I first came for prenatal care when I was 1-6 9-16 17-24 25-30 31+ weeks WA
11. Are you planning to take prenatal classes? Yes ____ No ____ Reasons, if no, CA
12. How did you feel about being pregnant? very happy I __________ I very upset CA, WA
13. How do you feel about being pregnant now? very happy I __________ I very upset CA, WA
14. As a child my parents/family loved me very much I __________ I not at all CA
15. I get along with my parent(s) very much I __________ I not at all CA
16. I will parent exactly like my parents very much I __________ I not at all CA
17. Some things that my parents did that I won’t are CA
18. I am concerned about being a mother. very much I __________ I not at all CA
19. I have had emotional problems. Yes ____ No ____ If yes, describe CA, WA, PD
20. I have seen a therapist/psychiatrist/counselor Yes ____ No ____ If yes, describe CA, WA, PD
21. In this pregnancy, my mood has usually been very up I __________ I very down PD

### Family Violence

22. Do you drink alcohol drinks each day? 0 ____ 1 ____ 2 ____ 3 ____ 4 or more ____ WA, CA
23. Are there times when you drink more than that? Yes ____ No ____ If yes, describe WA, CA
24. Do you/your partner have drug/alcohol problems? Yes ____ No ____ If yes, describe WA, CA
25. What was your parent’s relationship like? very good I __________ I very bad CA, WA
26. Did your parents ever scare or hurt each other? Yes ____ No ____ If yes, describe CA, WA
27. Did either parent ever scare or hurt you? Yes ____ No ____ If yes, describe CA, WA
28. How is your relationship with your partner? very good I __________ I very bad WA, CA, PD
29. Do arguments with your partner scare you? never I __________ I always WA, CA, PD
30. Have fights with your partner ever led to injury? Yes ____ No ____ If yes, describe WA, CA, PD
31. Have you ever been forced to have sex? Yes ____ No ____ If yes, describe WA, CA, PD
32. Do you have any children not living with you? Yes ____ No ____ If yes, describe CA
33. Were you punished by parents with spanking/pain? Yes ____ No ____ If yes, describe CA
34. Do you think spanking is sometimes necessary? Yes ____ No ____ If yes, describe CA

**NOTE:** Although low SES and financial concerns were not found to be associated with the poor postpartum outcomes listed below, they were associated with Low Birth Weight.
Appendix C: Ontario Antenatal Record

A Guide to the Revised Antenatal Record of Ontario

by OMA Subcommittee on the Antenatal Record (Dr. Gail Beck, Chair, Dr. Graham Chance, Dr. Stan Lofsky, Dr. Ian Park, Dr. Gregory Owen Peachey, Dr. Donna Stewart, Dr. Wanda Szymonowicz, Dr. Janice Ann Willett, Dr. Wendy Wolfman)

Between December 1998 and January 2000, a Subcommittee of the OMA Committee on Women’s Issues met to revise and update the Antenatal Record of Ontario. The 2000 version is now being distributed as physicians’ and midwives’ supplies of the 1992 version are phased out. While the 2000 version is, for the most part, self-explanatory, this guide is meant to address those areas where the revisions have been most significant from the previous version.

Historically, the content of the Antenatal Record has been the responsibility of the OMA, with the Ministry of Health and Long-Term Care assuming responsibility for printing and distribution. While completion of the Antenatal Record is not mandatory, it is widely used throughout the province.

The membership of the Subcommittee on the Antenatal Record reflects the diverse range of specialties involved in antenatal care and includes representatives from the Sections on Obstetrics and Gynecology, General and Family Practice, Pediatrics, Anesthesiology and Rural Medicine, as well as a representative from the Committee on Women’s Issues. The OMA Board of Directors is represented by Dr. Stanley Lofsky, who was a member of the 1992 OMA Committee on Reproductive Care, which last revised the Record. As well, the Subcommittee has been grateful for the participation of Dr. Graham Chance, who also contributed to the 1992 revision.

Even at first glance, the revised content and design of the form is evident. Checkboxes are meant to facilitate the clinician’s record-keeping; consideration has been given to the need for more space for the clinician’s notes; and the most important information is given prominence. Antenatal Record Part II (p. 48) retains the organization of the 1992 version, while Antenatal Record Part I (opposite) has been reorganized so that it better reflects usual antenatal practice.

It is the intention of the Subcommittee that the use of the new form by physicians and midwives serve as a “pilot study” for the 2000 version. The Subcommittee has been informed that the ministry supply of Antenatal Record Part I is decreasing to the point where it will have to be reprinted. We are asking therefore for caregivers’ feedback: tell us how the new record is working in your practice. The Subcommittee will use caregiver feedback to evaluate and revise the form. It is our intention that, in this electronic age, revisions can be responsive to clinical needs in a timely fashion. An electronic form is likely to be introduced in the future.

(Contact information is provided at the conclusion of the guide on p. 50.)

A number of caregivers will also be aware of the long-anticipated Antenatal Record Part III, which would be a psychosocial record. The ALPHA form has been considered a natural third page for the record and the 2000 version anticipates Part III with the use of the headings from the ALPHA project.

As chair of the OMA Subcommittee on the Antenatal Record, I would like to express my thanks, on behalf of the Committee on Women’s Issues and the OMA, to the members of the Subcommittee.

This group met for many hours, and several members of the Subcommittee gave additional time to prepare this guide. Dr. Chance, who at the outset told us that his time was limited, in fact attended most meetings. The devotion and obstetrical expertise of Dr. Wendy Wolfman and Dr. Janice Willett were a particular help. Dr. Donna Stewart also provided valuable insight on the psychosocial aspects of antenatal care.

Finally, I want to recognize very particularly the work of Dr. Stan Lofsky. Since the completion of the 1992 version of the Antenatal Record, and throughout the development of the most recent version, Dr. Lofsky has seen that the OMA did not forget this project. He has worked for countless hours on the revision and I’m certain that the members of the Subcommittee would agree that the revised Antenatal Record exists in large part because of Stan’s persistence.

Gail Beck, MD
Chair, OMA Subcommittee on the Antenatal Record
Revised Antenatal Record

Name: Self Explanatory.
Address: Self Explanatory.
Date of Birth: Year, month, day.
Age: Age of the pregnant woman.
Marital Status: M=MARRIED, CL=COMMON LAW, S=Single.
Education Level: Refers to highest level of education that the patient has completed.
Occupation: Patient’s current occupation.
Language: This item was added to facilitate translation if necessary.
Home Phone Number: Self Explanatory.
Work Phone Number: Self Explanatory.
Name of Partner: Refers to name of supportive partner.
Age: Age of partner.
Occupation: Occupation of partner.
Birth Attendants: Person who is the professional planned attendant for delivery. OBS=Obstetrician, Family Physician, or Midwife.
Family Physician: Self Explanatory.
Newborn Care: Ped.=Pediatrician, FP=Family Physician, Midwife. The professional who will be responsible for care of the newborn after birth.
Ethnic Background of Mother/Father: This item was added to alert the person obtaining the history of genetic risks. Often in this diverse global community, mother and father do not share the same ethnic background.
VBAC and Repeat CS (Caesarean Section): This item will alert the labour staff to the planned mode of birth.
Allergies: This item has been moved to the top of Antenatal I because of the importance of this topic.
Medications: This item has been moved to the front of Antenatal I in order to alert the staff about current medications.

Pregnancy Summary
Pregnancy Summary refers to the present pregnancy.
Menstrual History: Refers to the patient’s last menstrual period (year, month, day).

Cycle: Refers first to the frequency of the menses, and second, to the duration in days that the menstrual period lasts.
Regular: Irregular menses may affect the final due date. Comment if irregular.
EDB: Refers to the Expected Date of Birth, which is calculated initially from the last menstrual period.
Contraception IUD, Hormonal: Includes intrauterine device, oral contraceptives, injected and implanted progesterogens.
Other: Refers to rhythm, barrier and natural methods, etc.
Contraception Last Used: Refers to year, month and day.
Final EDB: Refers to the final Expected Date of Birth as determined.
Gravida: Refers to the number of pregnancies.
Term: Refers to the number of term births.
Prem: Refers to pre-term pregnancies.

Obstetrical History
Number of pregnancy losses; living and multipregnancy: The first three topics refer to first trimester losses. Stillbirths (born after 20 weeks gestational age, or greater than 500 g). The two additional categories refer to the number of living children and the number of multiple pregnancies.

Obstetrical History: More than six previous pregnancies will require an additional page. The year of each birth, sex of the baby, gestational age, birth weight, length of labour and place of birth are included. Checkboxes are placed for the type of birth, including spontaneous vaginal birth, cesarean section or an assisted birth, including forceps, vacuum, or breech birth. The comments regarding the pregnancy and birth should include significant diseases, complications or other issues.

Medical History and Physical Examination
The box on current pregnancy, found in the right upper part of the previous Antenatal I form (1992), has been moved to the left lower quadrant. The history for the pregnancy is outlined and divided into four sections, including current pregnancy, medical history, genetic/family history, and infection history. The physical examination is now found in the right column. In order to facilitate data collection, checkboxes have been provided. Comments for any of the historical or physical examination findings should be added in the box beneath the medical history and physical examination, preceded by the number of the specific topic.

Current Pregnancy
The checkboxes are present and should be ticked off only if the patient has these findings.
1. Bleeding: Refers to any vaginal bleeding that has occurred during the pregnancy. Although many patients experience bleeding with a normal pregnancy, abnormalities of gestation, such as threatened abortion, ectopic or molar pregnancies, should be considered.
2. Vomiting: Refers to significant vomiting.
3. Smoking, cig./day: Refers to the number of cigarettes per day that the patient is smoking.
4. Drugs: Refers to any non-prescription drugs, herbal remedies, or other preparations that the patient has used during the pregnancy.
5. Alcohol, drinks/day: Refers to the number of alcoholic drinks per day.
6. Infertility: Refers to the history of infertility which may put the patient at risk for complications of pregnancy.
7. Radiation: Refers to radiation exposure.
8. Occup./Env. Hazards: Refers to environmental situations which may put the current pregnancy at risk, such as exposure to radioactive substances, second-hand smoke, toxins, solvents in the workplace.

Nutrition Assessment
Refers to the adequacy of nutrition during the present pregnancy.

Folic Acid/Vitamins: Periconcep-
Improving the Odds: Healthy Child Development

<table>
<thead>
<tr>
<th>Genetic and Family History</th>
<th>Infections During Pregnancy</th>
<th>Infections During Childhood</th>
<th>Other Medical Problems</th>
<th>Current Family Members/History</th>
<th>Medical History</th>
<th>Other Medical Conditions</th>
<th>Previous Medical History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Defects: Includes neural tube defects, cardiac or any other congenital anomaly.</td>
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<td>Previous Birth Defects: Refers to all previous births that included a defect or abnormality.</td>
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<tr>
<td>Obstetric history: Refers to any history of problems related to pregnancy or childbirth.</td>
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<tr>
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39. HIV: Refers to the fact that HIV testing has been discussed and offered, and the benefit of HIV treatment for the fetus has been reviewed.

40. Varicella: Refers to a past history of varicella. Should the patient not have a history of varicella, their varicella antibody titre can be offered. Varicella may be a serious disease for the mother and fetus during pregnancy. Should the patient be exposed to varicella during the pregnancy and be antibody negative, then consideration should be given to offering VZIG.

41. Toxoplasmosis, Cytomegalovirus, and Parvovirus: These issues should be discussed so that preventive measures can be taken, such as avoiding contact with cats or people (Toxoplasmosis). Child care or hospital workers may have an increased risk of CMV virus exposure. Handwashing after changing diapers is suggested to avoid CMV. Pregnant women exposed to anyone with an infectious rash should report this to their physician/obstetrician. In particular, exposure to a child with signs of fifth disease (exanthem subitum, parvovirus) may require parvovirus titre. If serological conversion has occurred during the pregnancy, the fetus should be evaluated for the rare development of hydrops.

42. TB/Others: It is important to bear in mind that the incidence of Tuberculosis is increasing. Any additional infectious disease may be added here.

Social Support: Poor social support is an important risk factor in pregnancy associated with postpartum depression, child abuse, and woman assault. Questions about how the patient’s partner or family feel about the pregnancy, and who will be helping with the baby when she goes home, are useful ways to elicit this information.

44. Couple’s Relationship: Problematic relationships have been found to be associated with increased dysfunction in the postpartum period, postpartum depression, woman abuse, and child abuse. For women who are in a relationship, useful questions are: “How would you describe your relationship with your partner?” and “What do you think the relationship will be like after the baby arrives?”

45. Emotional/Depression: Women should be advised that some women feel more emotional or sad during the pregnancy or postpartum period. While some degree of this is normal, severe depression or depression lasting more than two weeks requires evaluation for possible treatment. Women with a past history of depression are particularly vulnerable to difficulties at this time. Useful questions are: “Have you ever had emotional problems?” or “Have you ever been depressed?” A history of psychiatric or emotional problems has been found to be associated with child abuse, woman abuse, and postpartum depression. Depression during pregnancy is associated with postpartum depression. A useful question to elicit this is: “How has your mood been during this pregnancy?”

46. Substance Abuse: Alcohol and substance abuse present a problem to the pregnant woman and to her unborn baby, and have also been found to be strongly associated with woman abuse and child abuse. Useful questions to elicit this information are: “How many drinks of alcohol do you have per week?” “Are there times when you drink more than that?” “Do you and your partner use any drugs?” and “Do you and your partner have a problem with alcohol or drugs?”

47. Family Violence: Canadian statistics indicate that 20 per cent to 30 per cent of women experience violence at some time in their lives, and approximately seven per cent will experience violence during a pregnancy. Abuse may be physical, emotional, or sexual, and may worsen during pregnancy and the postpartum period. Useful questions to elicit this are: “Do you ever feel frightened by what your partner says or does?” “Have you ever been hit, pushed, slapped, or emotionally abused by a partner?” “Have you ever been forced to have sex against your will?” Women may have also witnessed or experienced physical, emotional, or sexual abuse in the past, including childhood, which may be associated with difficulties in childbearing and birth. Previous child abuse by the woman or her partner is a warning sign for future child abuse.

48. Parenting Concerns: Parenting concerns may be related to the physical or emotional aspects of child care. Concerns around feeding, sleeping, health, and bathing are common. There may also be concerns about coping with crying and “discipline.” Helpful questions are: “Do you expect any difficulties looking after the baby?” and “How do you deal with your children at home if they misbehave?” Parenting concerns are not only for the child to be born, but also for the children at home.

Physical Examination

Height, weight, pre-pregnancy weight: Self-explanatory.
Blood pressure: Should be obtained sitting.

Check mark if the Examination is Normal

Pertinent history or physical findings can be noted in this box. Space is provided for an estimation of uterine size by weeks of pregnancy.
Overview of Changes

- Box added for identification of the newborn caregiver.
- Division of the top of the page comment box into risk factors, allergies and medication history.
- Final EDB is only EDB noted.
- Addition of MCV and MSS to top result row.
- Antibodies no longer restricted to 8th antibodies.
- Fetal heart column is now labelled FHR/FM and has room for comment about fetal movements.
- Gestational age, not weight, is second notation in subsequent visit record.
- Risk assessment column is deleted.
- For smokers, a column for cigarettes used per day has been added. The vertical line is in soft type which may be overwritten in non-smoking patients.
- Symphysis fundus height diagram is truncated to start at 20 weeks and explanatory graphic has been deleted.
- Ultrasound has been given columnar headings to allow up to four results to be recorded.
- Referral plan box has been altered to include other caregivers.
- Expanded list of other optional investigations to reflect current knowledge.
- Expanded list of discussion topics to reflect realities of current practice.
- Box added to note psychosocial issues identified or changed during subsequent visits.

Summary of Risk Factors, Allergies and Medications

This area is a convenient location to summarize relevant findings from Antenatal I and to note new risk factors or allergies identified in subsequent visits.

Allergies have been specifically separated out to flag potential reactions (e.g., medications, latex), information on which may be required throughout the pregnancy.

Beneath this area, the obstetrical history is summarized from Antenatal I into the categories of G (number of pregnancies), T (number of term births, 37 completed weeks and more), P (total number of pre-term pregnancies from 20 weeks on), A (number of pregnancy losses before 20 weeks) and L (number of live births).

Further along on this row is the Hemoglobin and the newly added Mean Corpuscular Volume (MCV). If the MCV is less than 79fl, then the patient may have either an iron deficiency anemia or is a carrier of a thalassemia-related condition. Further investigations should include a serum ferritin and a hemoglobin electrophoresis. A similarly positive test in the partner of an affected pregnant woman should prompt a referral for genetic counselling as soon as possible.

Note the results of down’s syndrome, neural tube defects, or declined test for Maternal Serum Screening in this box. Women who are screen positive for Down’s syndrome should be offered genetic counselling regarding amniocentesis. Women who are screen positive for a neural tube defect should be offered Level 2 ultrasound, and possibly genetic counselling and amniocentesis.

The space for Rh antibodies has been changed to antibodies to allow notation of any antibodies, such as c & Kell, etc. If the patient is not rubella immune, she will need to avoid exposures to children with rashes in the first trimester and report such exposures. Serological testing may be considered in such cases and if there is conversion, then genetic counselling should be considered. Women who are rubella susceptible should be immunized after their child’s birth.

Women positive for HbsAg (hepatitis B surface antigen) will require extra attention to testing for close family members with immunization for those susceptible. The infants of HbsAg positive women will require hepatitis B immune globulin at birth and the first of a three-dose series of hepatitis B immunization. Please note that local public health departments will provide the vaccine free of charge for the subsequent doses.

Women positive for VDRL will require further testing and treatment if appropriate. Detailed assessment and treatment protocols are provided in the Canadian STD Guidelines (1998).

ABO Rh blood type is noted, along with any Rh or other antibodies. If Rh antibody is positive, then specialized assessment and treatment will be required. Other irregular antibodies, such as c & Kell, may require added surveillance. The date when Rh IC is given to Rh negative women should be noted in the box provided. The usual time in most normal pregnancies is 28 weeks. Special indications for giving Rh IC at other times include spontaneous or induced abortion, ectopic or molar pregnancy, antenatal bleeding, trauma, CVS, amniocentesis or delayed prenatal care.
## Antenatal Record 2

**Ministry of Health and Long-Term Care**  
In conjunction with the **Ontario Medical Association**

### Summary of Risk Factors, Allergies, and Medications

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Allergies</th>
<th>Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Final EDB (yyyy/mm/dd)

<table>
<thead>
<tr>
<th>Final EDB</th>
<th>G</th>
<th>T</th>
<th>P</th>
<th>A</th>
<th>L</th>
<th>Hb</th>
<th>MCV</th>
<th>MSS</th>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Pre-preg. wt.

<table>
<thead>
<tr>
<th>Rubella</th>
<th>Hbs Ag</th>
<th>VDRL</th>
<th>Blood group</th>
<th>Rh type</th>
<th>Antibodies</th>
<th>Rh Ig</th>
<th>Given</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Subsequent Visits

<table>
<thead>
<tr>
<th>Date</th>
<th>G-age wk</th>
<th>S-f Ht</th>
<th>Wt (kg)</th>
<th>Presn PAIN</th>
<th>FHR/FM</th>
<th>Urine</th>
<th>B.P.</th>
<th>Comments</th>
<th>Crg / Day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ultrasound

#### Date

<table>
<thead>
<tr>
<th>Date</th>
<th>GA</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Selected Tests

1. Peeph
2. GC/Chlamydia
3. HIV
4. B. vaginalis
5. Group B strep
6. Urine culture
7. Sickle dex
8. Hb electo
9. AmnioCyt
10. Glucose screen
11. Other

#### Psychosocial issues

Signature of attendant

Date (yyyy/mm/dd)  

Canary – Mother’s chart forward to hospital  
Pink – Attendant’s copy  
White – Infant’s chart  

Improving the Odds: Healthy Child Development
Improving the Odds: Healthy Child Development
Revised Antenatal Record

Postnatal Depression: Postpartum depression occurs in 10 per cent to 20 per cent of postpartum women and is often undiagnosed. Untreated, it may persist for many months to years, and in addition to causing the woman distress, it may interfere with the relationship with her infant, and consequent delays in cognitive and social development. A useful question to elicit postpartum depression may be: “How much of the time during the past two weeks have you felt downhearted and blue?” Severe depression may be accompanied by suicidal ideation, delusions, or hallucinations, any of which require an emergency psychiatric assessment. Past history of depression or previous postpartum depression are risk factors for depression after the birth.

Revised Postnatal Visit Form

The Revised Postnatal Visit Form is printed on the reverse side of the pink copy of Antenatal Record II. Following is an overview of some of the key revisions to the form:

Sexual Function/Relationship Concerns: Inquiries should be made about whether sexual relations have resumed and any difficulties anticipated or experienced. As relationships invariably change with the addition of a new member to the family, the woman should be asked if she has any concerns about her family relationships.

Emotional Problems and Depression: Other emotional problems which may occur in the postpartum period include anxiety, obsessive-compulsive disorders, schizophrenia, and other psychoses.

Family Violence: Recent studies suggest that family violence may increase in the postpartum period, perhaps exacerbated by sleep deprivation, a crying baby, relationship changes, and/or financial concerns. Useful questions may include: “How are you and your partner coping with the new baby?” “Are there any changes in your family relationship that are worrying you?” “How do you and your partner solve arguments?” “Do you ever feel frightened by what your partner says or does?” “Have you ever been hit, pushed, or slapped by a partner?”

Social Support: Inquiries about support from family members, friends, neighbours, and work colleagues should be elicited.

Parenting Concerns: Parenting concerns may be related to physical or emotional aspects of child care. Concerns around feeding, sleeping, health, and bathing are common. There may also be concerns about coping with crying and discipline. Helpful questions are: “Do you expect any difficulties looking after the baby?” “How do you deal with your children at home if they misbehave?”

Mood Evaluation: Downcast spirits, undue pessimism, sadness, and tearfulness are all reasons for concern. Delusions, hallucinations, incoherent thought, or inability to answer questions appropriately are all indications for an urgent psychiatric referral.

Other: It may be helpful to evaluate ongoing coping with child care issues. In particular, women who are returning to work may wish to discuss their concerns about combining working and motherhood.

Feedback

Feedback to the OMA Subcommittee on the Antenatal Record may be forwarded to Giota Curitti, OMA Health Policy Department, 525 University Ave., Suite 300, Toronto, Ont., M5G 1K7; tel. (416) 599-2580 or 1-800-268-7215, ext. 3272; fax (416) 340-2996; e-mail: giota_curitti@oma.org

References

Improving the Odds: Healthy Child Development
A Guide to Pregnancy Assessment

In the event of maternal transfer, please photocopy the front sheet and send to referral hospital.

This assessment system is intended as a basis for planning the on-going management of the pregnancy and should reflect local resources. The risk factors or problems listed below are intended as examples only.

**Healthy Pregnancy, no predictable risk:**
- No pregnancy complications now or in the past
- No significant maternal medical disease

**Pregnancy at risk:**
The fetus/mother may be at risk. Closer observation of the pregnancy may be necessary. In addition, consultation with an appropriate specialist (obstetrician, internist, paediatrician, etc.) may be necessary. These patients may be managed by continuing collaborative care and birth in an obstetrical unit with intermediate level nursing facilities OR they may be returned to the care of the referring provider with a suggested plan of management for the remainder of the pregnancy.

### Maternal factors:
- Diabetes, White Classes B, C, or D
- Chronic hypertension
- Other significant medical illness
- Obesity (BMI ≥ 35)
- Significant tobacco, alcohol, drug use
- Severe psychosocial issues
- Family history genetic disease or congenital anomalies
- Other significant family history, e.g. DVT/PE and recurrent pregnancy losses

### Prior pregnancy history of:
- Preterm labour < 36 weeks
- Stillbirth or neonatal death
- Intrauterine growth restriction
- Previous uterine surgery including lower segment Cesarean section
- Cervical incompetence

### Current pregnancy complicated by:
- Gestational hypertension
- Placenta previa (with or without bleeding)
- Other significant antepartum hemorrhage
- Twin pregnancy
- Gestational diabetes (White Class A)
- Abnormal fetal growth (suspected intrauterine growth restriction or large for dates)
- Fetal congenital anomaly
- PROM 32-36 weeks
- Preterm labour 32-36 weeks
- Rh or atypical blood group sensitization
- Hydramnios or oligohydramnios
- Fetal malposition (breach, transverse) at 36 weeks
- Postdates ≥ 41 weeks
- Anemia not responding to Fe (Hb <100 g/l)

**Pregnancy at high risk:**
Pregnancies which are so complicated that the fetus and/or mother are obviously in danger. If at all possible, these patients should be transferred to a regional perinatal centre (level III) for intensive care and birth. Clearly, there are patients who deserve to be placed in this risk category (with problems such as excessive antepartum bleeding, cord prolapse, or advanced uncontrolled premature labour) who cannot be transferred safely or in time to benefit the fetus or mother.

- High order multiple gestation (triplets or greater)
- Fetal congenital anomaly (significant/severe)
- Diabetes beyond Class D (end-organ involvement)
- Renal disease with hypertension ± function
- Heart disease, especially with failure
- Other significant severe medical illness

**Pregnancy < 32 weeks with:**
- Preterm labour and/or premature rupture
- Gestational hypertension with adverse conditions
- Antepartum hemorrhage ongoing
- Oligohydramnios
- IUGR, ≤10th, reverse flow Doppler

**Two or more** risk problems can combine to produce a high pregnancy risk. Such a patient may need to be placed in a higher risk category.
## Appendix D: Larson Prenatal Screening Tool

**Larson Prenatal Screening Tool – 3 Questions Used by Healthy Babies Healthy Children**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mother’s education</td>
<td>0 – 7 years</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>8 – less than h.s. degree</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>high school degree</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>college – no degree</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>college – degree or more</td>
<td>0</td>
</tr>
<tr>
<td>2. Has mother ever attended a prenatal course (3 or more attendances)?</td>
<td>No</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>0</td>
</tr>
<tr>
<td>3. Mother’s present smoking habit (cigarettes/day)</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>16 – 20 years</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>11 – 15 years</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>6 – 10 years</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>1 – 5 years</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**NOTE:** if a mother scores 13 or more she would receive a more detailed assessment. (Larson, et.al, 1987)
Appendix E: Parkyn Postpartum Screening Tool

Postpartum Tool, Healthy Babies Healthy Children (Parkyn Screen)

Mother’s Name:.................................................................................................................................

Fathers Name:.................................................................................................................................

A. Children with Congenital or acquired Health Challenge:
   1. Major (probability of permanent disability) e.g.: down’s syndrome, cerebral palsy 9
   2. Moderate (correction may be possible) e.g.: cleft palate, loss of limb 6

B. Development Factors:
   3. Low birthweight:  
      a) 0-1499 gm 9
      b) 1500-1999 gm 8
      c) 2000-2499 gm 6
   4. Complications of pregnancy:  
      a) Infections that can be transmitted in utero and may damage the fetus  
         (e.g.: AIDS, rubella) 9
      b) Drugs (e.g.: alcohol or drug abuse diagnosed in mother) 9
   5. Complications of labour and delivery:  
      a) Labour requiring mid forceps including breech delivery or emergency caesarean 4
      b) Infant trauma or illness (e.g.: convulsions, respiratory distress syndrome) 6
      c) If Apgar less than 7 at 5 min., deduct score from 10 _
   6. Family history of a genetic health challenge (e.g.: deafness, mentally challenged) 4

C. Family Interaction Factors
   7. Age of mother  
      a) 15 and under 9
      b) 16 or 17 8
      c) 18 or 19 5
   8. Social situation:  
      a) One parent family with adequate support 2
      b) One parent family - no support 7
      c) Two parent family - no social support and/or severe isolation related to culture, 
         language or geography 4
   9. Financial difficulties 3
   10. No prenatal care before sixth month 4
   11. Mental illness/mental challenge in mother and/or father:  
      Double score if both parents positive in a) or c)  
      a) Schizophrenia or bipolar affective disorder 7
      b) Postpartum depression or psychosis 9
      c) Mentally challenged parent 6
   12. Prolonged postpartum maternal separation (5 days or more):  
      a) With frequent infant contacts (visits or phone as feasible) 2
      b) Little or no contact 6
   13. Assessed lack of bonding (e.g.: minimal eye contact or touching) 6
   14. > 3 hospitalizations in 1 year in absence of known chronic illness or condition 6
   15. Other e.g.: marital distress, low education status, failure to thrive, parenting difficulties, 
      family violence, prenatal class attendance, maternal smoking during pregnancy (Score 0 to 9)...

Specify reason:..................................................................................................................................

Priority score: 9 and over = high, 6 to 8 = moderate, 3 to 5 = low, 0 to 2 = minimal TOTAL SCORE......

Signature                                                                                                               Date

ADAPTED FROM PARKYN’S PRIORITY ASSESSMENT (Parkyn, 1985)
## Appendix F: Neurological Examination of the Newborn

<table>
<thead>
<tr>
<th>Neurological Signs</th>
<th>Description</th>
<th>Significance</th>
<th>Developmental change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Posture</strong></td>
<td>All limbs flexed</td>
<td>Asymmetry or extension -hypotonia suspected</td>
<td>Hyperflexion past 2 months suspect spasticity</td>
</tr>
<tr>
<td><strong>Motor Activity</strong></td>
<td>Vigorous, constant motor activity alternating limb flexion and extension</td>
<td>Asymmetry or minimal-CNS or PNS problem</td>
<td></td>
</tr>
<tr>
<td><strong>Passive Tone</strong> *</td>
<td>Resistance to passive stretch</td>
<td>Best indicator of CNS maturation Earliest sign of neurologic dysfunction</td>
<td></td>
</tr>
<tr>
<td><strong>Upper limb:</strong></td>
<td>Extend both upper limbs by pressing on forearms. Hold – release a brisk symmetrical flexion not forceful nor clonus</td>
<td>Absent or poor: Hypotonia or muscle weakness Exaggerated: spasticity</td>
<td></td>
</tr>
<tr>
<td><strong>Lower limb:</strong></td>
<td>Hold feet and flex over abdomen then pull to extension. Hold then release. A symmetrical flexion should occur</td>
<td>As for upper limbs</td>
<td></td>
</tr>
<tr>
<td><strong>Scarf sign:</strong></td>
<td>Hold baby’s hand and bring to opposite shoulder: elbow should be in line with sternum</td>
<td>Wraps around neck may be hypotonia Resists before midline -may be spasticity</td>
<td></td>
</tr>
<tr>
<td><strong>Adductor’s angle</strong></td>
<td>Hold knee in extension and abduct until resistance -note asymmetry – measure angle with pubis and midline 40-80 degrees</td>
<td>A wider angle – hypotonia. Less-spasticity</td>
<td>Gradually increases to 100-140 degrees by 6-9 months</td>
</tr>
<tr>
<td><strong>Popliteal Angle</strong></td>
<td>Flexing of the thighs over abdomen, then gently extending the leg until resistance – measure angle between the thigh and leg and compare sides – 80-100 degrees</td>
<td>Early sign of spasticity -hemiplegia or diplegia</td>
<td>By six months – 120-140 degrees -baby can put feet in his mouth</td>
</tr>
<tr>
<td><strong>Active neck muscle tone</strong></td>
<td>1. Hold baby in sitting position allow head to extend backwards by moving his trunk back. Infant should move head to vertical axis and hold briefly. 2. Ventral extension: hold baby in prone position hold under trunk and abd. – should straighten back and redress head. Limbs in flexion</td>
<td>1. Headlag may indicate CNS depression or hypotonia 2. In hypotonia the infant hangs limp exaggerated spinal curve-limbs more extended, no extensor neck activity. Spasticity may show exaggerated response</td>
<td>Landau response: By 3 months more sustained straightening of head and trunk. Increasing from head downwards -response complete by 4-6 months. Now forced flexion of the head causes flexion of all the limbs. By 12 months the infant can inhibit the Landau response.</td>
</tr>
</tbody>
</table>
Deep tendon reflexes: Biceps, knee and ankle jerks present in newborn. Up to two months knee jerk causes crossed adduction response and the ankle jerk has a few clonic beats. Responses should be brisk and symmetrical to be normal. Triceps; present after a few weeks.

The response to a single reflex not very significant but a poor response to 2 or 3 may be important neurologically. Absence of habituation is also important. The persistence beyond appropriate time may signify pathology. They should be checked until one year.

Moro Reflex: Lift baby by hands to raise shoulders off the bed about 3 cm – release-extension and abduction of arms with opening of hands then smooth adduction and flexion and a cry. An asymmetrical response possible focal defect eg brachial plexus palsy. Prolongation of phases – may indicate brain damage. After three months a positive Moro response is abnormal.

Palmar Grasp: Slight stimulation to palm leads to strong grasp. Between three and four months, this response lessens. After this period a positive response is abnormal.

Foot Grasp: Light pressure on sole of foot -flexion and grasp response in the toes. This reflex disappears after 9 months.

Rooting Reflex: Light stroke on corner of mouth – leads to rotation of head in the direction plus sucking movements. Response disappears after 3-4 months when awake and 7-8 months when drowsy.

Sucking Reflex: Placing a finger in infant's mouth produces sustained sucking. Weaker if fed. Absence or weak response in presence of feeding problem – may mean brain involvement. Same as rooting *Poor sucking and latch can be associated with future speech and language problems.

Crossed Extension Reflex: Stroke the sole of infants foot – flexion and abduction then extension and adduction and other leg crossing over the extended one. Full response in full term infant – a test of maturity of the nervous system. Disappears after 1st month.

Tonic Neck Reflex: Lying on back rotate baby's head to one side – arm on same side extends and other arm flexes- rotate the other opposite way to obtain similar response. This reflex appears at 1-2 months – important if sustained. Disappears by 7-8 months.

Placing reaction: Hold baby by trunk in upright – one leg touching table. Baby steps on the table then takes step with other. Response should disappear by 5-6 weeks.

From: Larbrisseau, A. Neurologic Examination of the newborn,. Diagnosis, June: 69 – 79, 1986
Appendix G: Rourke Record

For more information about the Rourke Record see:

<table>
<thead>
<tr>
<th>DATE / AGE</th>
<th>within 1 week</th>
<th>2 weeks (optional)</th>
<th>1 month (optional)</th>
<th>2 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Date</td>
<td>Birth Weight</td>
<td>Length</td>
<td>Head Circ</td>
<td>Birth Weight</td>
</tr>
</tbody>
</table>

**GROWTH**

**PARENTAL CONCERNS**

**NUTRITION:**
- Breast feeding*
- Formula feeding (prescribed)
- Weight gain
- Pattern & urine output

**EDUCATION & ADVICE**
- Safety
- Behaviour
- Family
- Other

**DEVELOPMENT**
- Incontinence
- Motor milestones
- Hearing screening

**PHYSICAL EXAMINATION**
- Skin
- Eyes
- Ears
- Heart/Lungs
- Fetal movements
- Reflexes
- Tenderness
- Male genitalia

**PROBLEMS & PLAN**
- PKU, thyroid
- Newborn screening

**IMMUNIZATION**
- Guidelines may vary by province
- Hepatitis B vaccine

**Grade of evidence:**
- A: Strong evidence
- B: Fair evidence
- C: Poor evidence

(*) see Infant/Child Health Maintenance: Selected Guidelines on reverse of Guide
INFANT/CHILD HEALTH MAINTENANCE: SELECTED GUIDELINES

NUTRITION
“See Nutrition for Healthy Term Infants for details” (Resource 4)

- Breastfeeding:
  Breastfeeding reduces gastrointestinal and respiratory infections. Support (both ante- and post-partum) increases breastfeeding and prolongs its duration. Early and frequent method of comforting, nursing in mother’s arms, and bonding handouts of free infant formula increase breastfeeding rates. Routine Vi.D supplementation of 10 mg x 400 IU/kg (20 mg x 800 IU/kg in northern communities) is recommended for all breastfed full-term infants until the diet provides a sufficient source of Vi.D.

- Fluoride:
  Fluoride supplement recommendations have changed significantly. The use of fluoride supplements before the eruption of the first permanent tooth is generally not recommended. Fluoride supplements are only required for high dental caries risk patients who do not have an adequate fluoride source from fluoridated water or dentifrice. Canadian Dental Association, March 2000.

SAFETY

Injuries:
In Canada childhood injuries cause 4 times more deaths than does disease. Between the ages 1-24 months, 43% of deaths are from injuries.

The leading causes are:
1. motor vehicle accidents
2. drownings
3. burn
4. choking
5. falls

Preventive measures:
1. Motor vehicle accidents:
   - Car seats – infant/toddler: Use infant (rear facing) car seat until baby weighs 20 lbs. (9 kg). Ensure proper installation of toddler (forward-facing) car seat, using tether straps to secure car seat to the car frame. Do not place a car seat or a child under 12 years of age in a front passenger seat.
2. Drowning:
   - Bath safety: Never leave a young child alone in the bathtub.
   - Water safety: Encourage swimming lessons, diving safety and boating safety to reduce the risk of drowning.
3. Burns:
   - Install smoke detectors in the home.
   - Use non-inflammable cleaner.
   - Keep hot water at a temperature <54°C.
4. Choking:
   - Use safe toys and safe food (avoid hard, small and round, smooth and sticky solid foods)
5. Falls:
   - Assign home hazards, e.g. Use caution when changing baby; do not use baby walkers; use window and stair guards; wear bike helmets.
6. Poison:
   - Have Poison Control Centre number handy
   - Safety proof cupboards & drawers containing medicines, cleaners & solvents

BEHAVIOUR

- Night waking/crying:
  Night waking/crying occurs in 20% of infants and toddlers who do not require sleep feeding. Cooing around positive bedtime routines (including the child to fall asleep alone), removing nighttime positive reinforcers, keeping morning awakening time consistent, and rewarding good sleep behaviour has been shown to reduce the prevalence of night waking/crying.

HIGH RISK INFANTS

- Day Care:
  Specialized day care or preschool is beneficial for children living in poverty (family income at or below Statistics Canada low-income cut-off). These disadvantaged children are at increased risk of mortality and morbidity, including physical, emotional, social and educational deficits.

- Home Visits:
  Regular home visiting has been shown to prevent physical abuse and neglect.

OTHER

- Dental Care:
  Tooth brushing is recommended for children. Flossing should also be encouraged, to develop the habit. (Flossing is an ‘A’ recommendation for adults.)

- Second hand smoke exposure:
  Second hand smoke contributes to childhood illnesses such as URI, middle ear infection, persistent cough, pneumonia, asthma, and SIDS.

- Sleep position & SIDS: “Back to Sleep”
  Healthy infants should be positioned on their backs for sleep. Counsellors at the dangers of such contributory causes of SIDS an overheating and second hand smoke.

DEVELOPMENT

There is no validated developmental surveillance tool for this setting.

Maneouvers are based on the Nipissing Development Screener (modified January 2000). They are not a developmental screen, but rather a developmental surveillance tool. They are set after the time of normal milestones acquisition. This absence of any one or more items suggests the need for further developmental assessment, as does parental concern about development at any stage.

PHYSICAL EXAMINATION

- Cover/cover over test & inquiry for strabismus:
  With the child focusing on a light source, the light reflex on the cornea should be symmetrical. Each eye is then covered, in turn, for 2-3 seconds, and then, quickly uncovered. The covered eye “wanders” and when uncovered moves inward, or out ward to focus or “fix” on the light source.

PROBLEMS & PLANS (SCREENING)

- Hemoglobin screening:
  All infants from high-risk groups for iron deficiency anaemia require high determination between 6-12 months of age, e.g. Lower SES, Asian, First Nations children, low birth weight infants, and infants fed whole cow’s milk during their first year of life.

- Hemoglobinaemia screening:
  Some all screeners from high-risk groups, e.g. Asian, African, and Mediterranean.

- Lead Screening is recommended for children:
  - who live, or regularly visit homes built before 1950, with peeling paint or recent renovation;
  - who have a sibling, housemate, or playmate exposed to lead;
  - who live with an adult who (from work or hobby) is exposed to lead;
  - who live near lead industries or busy highways.

IMMUNIZATION

- Hep B Ig & Immunization:
  Infants with HbsAg-positive parents or siblings require Hep-B vaccine at birth. At 1 month, and 6 months of age. Infants of HbsAg-positive mothers also require HepA Ig at birth.

- TB skin testing:
  TB skin testing should be done if the infant is living with anyone being investigated or treated for TB.

- Varicella vaccine:
  Varicella vaccine is an ‘A’ recommendation for infants 12-15 months of age, and for all older susceptible children, adolescents, and adults.

Resources:
### Improving the Odds: Healthy Child Development

### Rourke Baby Record: EVIDENCE BASED INFANT/CHILD HEALTH MAINTENANCE GUIDE II

<table>
<thead>
<tr>
<th>DATE / AGE</th>
<th>4 months</th>
<th>6 months</th>
<th>9 months (optional)</th>
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<td>Wt.</td>
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### PARENTAL CONCERNS

- **Nutrition:**
  - Breastfeeding
  - VILD. 10g=0mIU/L/day
  - Formula Feeding (if fortified)
  - Iron-fortified cereal

- **Education & Advice:**
  - Car seat (safety)
  - Sitter/walker
  - Bath safety: safe toy
  - Night waking/crying

### DEVELOPMENT (Age & observation of milestones)

- Turns head towards sounds
- Laughs/spreads at parent
- Head control
- Grasps objects
- No parent concerns

- Follows moving object
- Responds to own name
- Babbles
- Rolls from back to stomach or stomach to back
- Sits with support
- Brings hands/eyes to mouth
- No parent concerns

- Looks for hidden toy
- Babbles different sounds & to get attention
- Stims without support
- Stands with support
- Opposes thumb & index finger
- Reaches to be picked up & held
- No parent concerns

- Understands simple requests, e.g., find your shoe
- Chatters using 3 different words
- Crawls or “bare” shuffles
- Pulls to stand/walks holding on
- Shows many emotions
- No parent concerns

### PHYSICAL EXAMINATION

- **Eyes (red reflex)**
- **Cover/ uncover test & inquiry**
- **Hearing (Hearing)**
- **Hands**
- **Feet**
- **Hands**
- **Eyes (red reflex)**
- **Cover/uncover test & inquiry**
- **Hearing (Hearing)**
- **Hips**

### PROBLEMS & PLANS

- Inquire about possible TB exposure
- Anti-HbA & HbAAG
- High (if at risk)
- Serum test (if at risk)

### IMMUNIZATION

- **HIB**
- **HbAAG**
- **HbAAG-positive parent or sibling:**
- **TB skin test**
- **MMR**
- **Varicella vaccine**

---

**Grades of evidence:**
- **(A)** Bold type = Good evidence
- **(B)** Italic = Fair evidence
- **(C)** Plain = Consensus with no definitive evidence

**Disclaimer:** Given the constantly evolving nature of evidence and changing recommendations, the Rourke Baby Record: EB is meant to be used as a guide only.

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*Trademark*
ROURKE BABY RECORD - MALE GROWTH MONITORING CHARTS

WEIGHT BY AGE PERCENTILES

LENGTH / HEIGHT BY AGE PERCENTILES

HEAD CIRCUMFERENCE BY AGE PERCENTILES

**Improving the Odds: Healthy Child Development**

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### Rourke Baby Record: Evidence Based Infant/Child Health Maintenance Guide III

- **NAME:** ___
- **Birth Date (dd/mm/yy):** __M__ | __F__
- **Length:** __cm__ 
- **Head Circ:** __cm__ 
- **Birth Wt:** __g__ 
- **Discharge Wt:** __g__

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<tr>
<td>Ht. Circ</td>
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</tr>
<tr>
<td><strong>PARENTAL CONCERNS</strong></td>
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<td><strong>NUTRITION:</strong></td>
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<td>○ No bottles</td>
<td>○ Homogenized or 2% milk</td>
<td>○ 2% milk</td>
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<tr>
<td>○ Canada's Food Guide</td>
<td>○ Canada's Food Guide</td>
<td>○ Canada's Food Guide</td>
<td></td>
</tr>
</tbody>
</table>

| **EDUCATION & ADVICE** |            |           |           |
| ○ Bath safety* | ○ Bike Helmet* | ○ Bike Helmet* |
| ○ Choking/no toys* | ○ Matches | ○ Matches |
| ○ Temperament | ○ Carbon monoxide/smoke detectors* | ○ Carbon monoxide/smoke detectors* |
| ○ Limit setting | ○ Parent/child interaction | ○ Parent/child interaction |
| ○ Socializing opportunities | ○ Socializing opportunities | ○ Socializing opportunities |
| ○ Points to show parent something | ○ Assess day care & preschool needs* | ○ Assess day care & preschool needs* |
| ○ Looks at you when talking/playing together | ○ Dental care checkup* | ○ Dental care checkup* |
| ○ No parent concerns | ○ Toilet training | ○ Toilet training |

| **DEVELOPMENT** (Inquiry & observation of milestones) |            |           |           |
| ○ Points to pictures (e.g., show me the,...) and to 3 different body parts | ○ At least 1 new word/week | ○ 2 years |
| ○ Points to show parent something | ○ 3-word sentences | ○ 2 years |
| ○ Looks at you when talking/playing together | ○ Tries to run | ○ 2 years |
| ○ No parent concerns | ○ Puts objects into small container | ○ 2 years |

| **PHYSICAL EXAMINATION** |            |           |           |
| ○ Eyes (red reflex) | ○ Visual acuity | ○ Visual acuity |
| ○ Cover/recover test & inquiry* | ○ Hearing inquiry | ○ Hearing inquiry |
| ○ Hearing examination* | ○ Blood pressure |

| **PROBLEMS & PLANS** |            |           |           |
| ○ Serum lead (if at risk)* |

---

* (**) see Infant/Child Health Maintenance: Selected Guidelines on reverse of Guide 1

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80 Improving the Odds: Healthy Child Development
Improving the Odds: Healthy Child Development
Appendix H: Nipissing District Developmental Screen
Instructions for the Nipissing District Developmental Screen™

The Nipissing District Developmental Screen™ (NDDS) is a tool designed to provide an easy-to-use method of recording the development and progress of infants and children. The areas of development covered by the Screen Forms include vision, hearing, communication (note: the language items refer to the child’s ability in his/her first language), gross and fine motor, cognitive, social/emotional, and self-help. The Screens coincide with immunization schedules as well as key developmental stages up to age six. The ages are noted at the top of each Screen. The child’s chronological age will determine which Screen to use. If the child falls between two ages, use the earlier Screen (e.g. for a 4 1/2 year old use the Screen for a 4 year old).

The skills in each Screen are expected to be mastered by most children by the age shown. If two or more “No” responses are marked a referral to a health care and/or child care professional is recommended. While the NDDS was designed to be completed by a parent or caregiver, the Screen Forms are not meant to be a substitute for professional advice, assessment and/or treatment from a health care and/or child care professional.

Parents should always talk to their health care and/or child care professional if they have questions or concerns about their child’s development or well being.

Additional information is available on our website. Visit us at www.ndds.ca.

Activities for Your Baby/Child

The “Activities for Your Baby/Child” section of the Screen Forms is intended to provide parents and other caregivers with some information and activities to enhance their infant’s/child’s development. Each activity is coded with an icon to represent a primary area of development. If parents have questions or concerns about the appropriateness of any activity for their infant/child they should contact a health care or child care professional.

Limitation of Liability

Nipissing District Developmental Screen Inc. (NDDS Inc.) has created and provides the Screen Forms to assist parents, health care and child care professionals (users) with a convenient and easy to use method of recording the development and progress of infants and children within certain age groupings. The Screen Forms are not meant to be a substitute for the advice and/or treatment of health care and child care professionals trained to properly and professionally assess the development and progress of infants and children. As such, the Screen Forms are not intended or designed to be “do it yourself” substitutes for proper and professional advice and/or treatment.

Although the Screen forms may help users to determine when they need to seek out the advice and/or treatment of health care and child care professionals, it must be clearly understood by users that the Screen Forms can not substitute for the advice and/or treatment of health care and child care professionals.

Users of the screen forms should consult with competent health care and child care professionals for advice and/or treatment respecting specific children and their particular needs.

Users should bear in mind the following when using the Screen Forms:

(i) The needs of each infant/child are unique. Each infant/child will develop differently and as such, any perceived limitations in development must be reviewed by a health care and/or child care professional to be properly assessed;

(ii) While every effort has been made to make the Screen Forms as culturally, economically and geographically neutral as possible, it must be understood by users that they may still reflect some cultural, economic or geographic prejudices. As such, these prejudices may affect a specific infant/child’s results in a Screen Form without actually reflecting a developmental limitation. Again, users should contact a health care and/or child care professional to review the needs of an individual infant/child;

(iii) The Screen Forms cannot contain every possible indicator of developmental limitations or goals to be met. As such, the Screen Forms are not designed for and should not be used to diagnose or treat perceived developmental limitations or other health needs.

Every effort has been made to ensure that the Screen Forms have been formulated with a reasonable standard of care. Except for this representation, and as otherwise specifically provided in the Screen Forms, NDDS Inc. make no representation or warranties, express or implied. This includes, but is not limited to, any implied warranty or merchantability of fitness for a particular use or purpose, and specifically disclaims any such warranties and representations. NDDS Inc. expressly disclaims any liability for loss, injury or damages incurred or occasioned as a consequence, directly or indirectly, of the use of the Screen Form.

The Screen Forms are sold with the understanding that NDDS Inc. is not engaged in rendering medical or child care advice or other professional services.
Improving the Odds: Healthy Child Development

The Nipissing District Developmental Screen is a checklist designed to help monitor your child's development.

By Eighteen Months, does your child...

Yes  No

1. Identify pictures in a book (e.g. “Show me the baby”)?
2. Use familiar gestures (e.g. waving, pushing away)?
3. Follow directions when given without gestures (e.g. “Throw me the ball”, “Bring me your shoes”)?
4. Use common expressions (e.g. “all gone” or “oh-oh”)?
5. Point to at least three different body parts when asked (e.g. “Where is your nose”)?
6. Say five or more words? (Words do not have to be clear.)
7. Hold a cup to drink?*
8. Pick up and eat finger food?
9. Help with dressing by putting out arms and legs?*
10. Crawl or walk up stairs/steps?
11. Walk alone?
12. Squat to pick up a toy without falling?
13. Push and pull toys or other objects while walking? (Picture A)
14. Stack three or more blocks?
15. Show affection towards people, pets or toys?
16. Point to show you something?
17. Look at you when you are talking or playing together?

* item may not be common to all cultures

ACTIVITIES FOR YOUR CHILD...

The following activities will help you play your part in your child's development.

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

I am learning new words every day. Play games to help me learn the names of things. Put pictures of familiar things such as toy animals, people or objects in a bag and say “One, two, three, what do we see?” and pull a picture from the bag.

Let me play with objects and make things happen, such as opening and closing, putting things together and taking them apart.

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

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

Play some of my favorite 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, etc. 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 like toys that I can pull apart and put back together: large “LEGO”, containers with lids, or plastic links. Talk to me about what I am doing using words like “push” and “pull”.

I’m not too little to play with large crayons. Let’s scribble and talk about our art work.

I like simple puzzles with two to four pieces and shape-sorters with simple shapes. Encourage me to match the pieces by taking turns with me.

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

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

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

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.

Always talk to your health care or child care professional if you have any questions about your child’s development or well being. See reverse side for instructions, limitation of liability, and product license.
Appendix I: Developmental Monitoring in Primary Care – Journal Article

Developmental monitoring in primary care

CYNTHIA E. GOLDFARB, MD, FRCPG
WENDY ROBERTS, MD, FRCPG

SUMMARY
Monitoring child development is an essential part of primary health care. Successful surveillance depends on physicians’ thorough knowledge of normal progress along the four developmental streams: motor, language, cognitive, and social and emotional. Being alert to “red flags” that suggest problems is important. Effective interventions can minimize developmental problems.

RÉSUMÉ
La surveillance du développement de l’enfant est une composante essentielle des soins de première ligne. La réussite de cette surveillance dépend du niveau de connaissances que possèdent les médecins de la croissance normale en fonction des quatre axes de développement: moteur, langage, cognitif, et développement social et émotionnel. Il est important d’être vigilant pour bien identifier les « drapeaux rouges » indiquant la présence de problèmes. Les interventions efficaces peuvent minimiser les problèmes de développement.

EARLY DETECTION OF DEVELOPMENTAL PROBLEMS IS INCREASINGLY BEING IDENTIFIED AS ONE OF THE IMPORTANT TASKS OF PHYSICIANS PROVIDING PRIMARY CARE TO CHILDREN. EMERGING EVIDENCE SUPPORTS THE EFFICACY OF EARLY INTERVENTION. RECENT STATEMENTS BY THE AMERICAN ACADEMY OF PEDIATRICS AND THE BRITISH JOINT WORKING PARTY OF CHILD HEALTH SUPERVISION RECOMMEND THAT DEVELOPMENTAL MONITORING BE AN INTEGRAL PART OF CHILD HEALTH SUPERVISION. BOTH ORGANIZATIONS SUGGEST THAT MONITORING BE DONE BY THE PROCESS OF “DEVELOPMENTAL SURVEILLANCE.”

Developmental surveillance is a flexible, continuous process in which knowledgeable professionals observe children during all health care encounters. It encompasses both identification and anticipatory guidance and can be accomplished by monitoring developmental milestones.

Dr. Goldfarb is a fellow in child development at the Hospital for Sick Children in Toronto, Ont. Dr. Roberts, a developmental pediatrician, is Education Program Director in Developmental Pediatrics and an Associate Professor in Pediatrics at the University of Toronto.

Getting started
The process of development can be conceptualized as the result of interaction between a child and his or her environment, each profoundly influencing the other. Development proceeds along four basic streams: motor, language, cognitive, and social and emotional development. While these are clearly interdependent, they should be assessed individually in each child. The skills we use when we listen to heart sounds or examine cranial nerves (focusing attention on a series of objective findings) can be applied to developmental assessment.
Equally important to the process of surveillance are the skills of good listening and sensitive questioning. These lead to trusting relationships with parents that facilitate sharing concerns. This atmosphere is conducive to early discovery of developmental problems and to a more thorough understanding of the environmental factors (e.g., psychosocial, health, economic) that affect child development.

Although most physicians find assessing child development enjoyable and often enriching, many

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</tr>
<tr>
<td>4-5 mo</td>
<td>Does not pull up to sit</td>
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<tr>
<td>5 mo</td>
<td>Does not roll over</td>
</tr>
<tr>
<td>7-8 mo</td>
<td>Does not sit without support</td>
</tr>
<tr>
<td>9-10 mo</td>
<td>Does not stand while holding on</td>
</tr>
<tr>
<td>15 mo</td>
<td>Not walking</td>
</tr>
<tr>
<td>2 y</td>
<td>Not climbing up or down stairs</td>
</tr>
<tr>
<td>2.5 y</td>
<td>Not jumping with both feet</td>
</tr>
<tr>
<td>3 y</td>
<td>Unable to stand on one foot momentarily</td>
</tr>
<tr>
<td>4 y</td>
<td>Not hopping</td>
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<tr>
<td>5 y</td>
<td>Unable to walk a straight line back and forth or balance on one foot for 5 to 10 seconds</td>
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<tr>
<td>3.5 mo</td>
<td>Persistence of grasp reflex</td>
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<td>Unable to hold rattle</td>
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<tr>
<td>7 mo</td>
<td>Unable to hold an object in each hand</td>
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<td>10-11 mo</td>
<td>Absence of pincer grasp</td>
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<td>Unable to put in or take out</td>
</tr>
<tr>
<td>20 mo</td>
<td>Unable to remove socks or gloves alone</td>
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<tr>
<td>2 y</td>
<td>Unable to stack five blocks, not scribbling</td>
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<td>2.5 y</td>
<td>Not turning a single page of a book</td>
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<tr>
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<tr>
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<td>Unable to stack 10 blocks or copy a circle</td>
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<tr>
<td>4.5 y</td>
<td>Unable to copy a square</td>
</tr>
<tr>
<td>5 y</td>
<td>Unable to build a staircase of blocks or copy a cross</td>
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</tr>
<tr>
<td>5-6 mo</td>
<td>Not babbling</td>
</tr>
<tr>
<td>8-9 mo</td>
<td>Not saying “da” or “ba”</td>
</tr>
<tr>
<td>10-11 mo</td>
<td>Not saying “dada” or “baba”</td>
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<tr>
<td>18 mo</td>
<td>Has less than three words with meaning, unable to achieve shared attention</td>
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<tr>
<td>2 y</td>
<td>No two-word phrases or repetition of phrases</td>
</tr>
<tr>
<td>2 ½ y</td>
<td>Not using at least one personal pronoun</td>
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<td>3 ½ y</td>
<td>Speech only half understandable</td>
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<tr>
<td>4 y</td>
<td>Does not understand prepositions</td>
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<td>5 y</td>
<td>Not using proper syntax in short sentences</td>
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<td>COGNITIVE</td>
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</tr>
<tr>
<td>2-3 mo</td>
<td>Not alert to mother with special interest</td>
</tr>
<tr>
<td>6-7 mo</td>
<td>Not searching for dropped object</td>
</tr>
<tr>
<td>8-9 mo</td>
<td>No interest in peek-a-boo</td>
</tr>
<tr>
<td>12 mo</td>
<td>Does not search for hidden object</td>
</tr>
<tr>
<td>15-18 mo</td>
<td>No interest in cause-and-effect games</td>
</tr>
<tr>
<td>2 y</td>
<td>Does not categorize similarities (e.g., animals vs vehicles)</td>
</tr>
<tr>
<td>3 y</td>
<td>Does not know full name</td>
</tr>
<tr>
<td>4 y</td>
<td>Cannot pick shorter or longer of two lines</td>
</tr>
<tr>
<td>4 ½ y</td>
<td>Cannot count sequentially</td>
</tr>
<tr>
<td>5 y</td>
<td>Does not know colours or any letters</td>
</tr>
<tr>
<td>5 ½ y</td>
<td>Does not own birthday or address</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA and AGE</th>
<th>FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCHOSOCIAL</td>
<td></td>
</tr>
<tr>
<td>3 mo</td>
<td>Not smiling socially</td>
</tr>
<tr>
<td>6-8 mo</td>
<td>Not laughing in playful situations</td>
</tr>
<tr>
<td>1 y</td>
<td>Hard to console, stiffens when approached</td>
</tr>
<tr>
<td>2 y</td>
<td>Kicks, bites, and screams easily and without provocation. Rocks back and forth in crib. No eye contact or engagement with other children or adults</td>
</tr>
<tr>
<td>3-5 y</td>
<td>In constant motion. Resists discipline. Does not play with other children</td>
</tr>
</tbody>
</table>

Adapted from First and Polivy.

86 Improving the Odds: Healthy Child Development
dread detecting abnormalities because they are unsure how to intervene effectively in the face of diminishing community resources. This is particularly true for physicians in isolated or remote communities that lack medical specialists and ancillary services, such as speech pathologists, psychologists, physiotherapists, and occupational therapists. Finding whatever local resources are available, private and public, is the first step to being able to make recommendations that can be carried out.

Many areas in Canada now have, or will soon have, access to early interventionists, professionals from many backgrounds (such as speech therapy, nursing, and early childhood education) who are trained to work with parents and preschool staff to provide optimal developmental programming. Some local day-care centres and preschools have highly skilled professionals, and interested nurses can be trained to administer formal developmental assessment tools such as the DISC³ (Diagnostic Inventory for Screening Children). Where no intervention services are readily available, family members can be taught how to stimulate a child’s development. Physicians can advocate for their communities by lobbying for improved developmental intervention services.

A physician’s role in dealing with developmental problems goes well beyond referral for assessment and therapy by other professionals. Having a child with a developmental problem can cause parents grief, a sense of loss, and feelings of helplessness. As the child develops, new issues and concerns are likely to arise. Appreciating this and providing ongoing support and guidance can improve the quality of life of the whole family.

Making objective observations, creating a setting in which parents are comfortable sharing concerns, finding the best available resources, and providing support are important aspects of surveillance, regardless of which stream of development is being examined. Each stream has unique features relevant to the surveillance process.

**Motor development**

When parents boast about a child’s early ability to sit, crawl, or walk, or fearfully mention that a child seems behind in these skills, they convey the widely held belief that a close connection exists between motor development and intelligence. Of all the streams of development, however, gross motor development is the least predictive of cognitive potential.³ Monitoring motor development is important primarily because of the many underlying medical conditions that can manifest as motor delays.

For genetic counseling or therapeutic intervention, such conditions should be identified as early as possible. A range of normal variation in the development of gross and fine motor skills makes it necessary for physicians to recognize “red flags” that suggest problems (Table 1).

Physicians should be concerned if an infant is not sitting independently at 7 to 8 months, or is unable to hold an object in each hand at that age. A 15-month-old should be walking and well able to put objects in and out of large containers. Attention is warranted if a 2-year-old cannot climb up or down stairs or scribble or if a 3-year-old cannot stand briefly on one foot or draw a straight line. A 4-year-old should be able to hop and copy a circle, and a 5-year-old should be able to walk a straight line and copy a cross.

Even if normal milestones are being attained, more subtle clinical findings might suggest underlying motor problems: persistent fisting of the hands (more than 50% of the time) at 3 months is not normal and might be an early sign of cerebral palsy; development of hand dominance before 15 months is unusual, and might reflect neurologic impairment of the contralateral side; precocious ability to elevate the head and neck in ventral suspension (before 3 months) might suggest hypertonia.

**What to do if motor delay is detected**

Delays in motor development might indicate underlying disease. Problems of the central nervous system, such as cerebral palsy, or the peripheral nervous system, such as muscular dystrophy, must be considered. Metabolic conditions (eg, hypothyroidism) and genetic syndromes (eg, fragile X syndrome) might be responsible. Clues to underlying etiology should be sought through a thorough history and physical examination. Particular attention to birth history, family histo-
ry, and developmental history could yield valuable information.

Abnormal physical findings, such as dysmorphic features; persistent primitive reflexes; asymmetric deep tendon reflexes; or abnormal muscle bulk, tone, or strength, are all especially relevant. If an underlying neurologic or medical condition is suggested, referral to a pediatrician or neurologist for further evaluation might be warranted.

Whether or not disease is suspected, referral for early intervention is indicated. Local availability and local practice patterns will dictate whether this is to an occupational therapist, physical therapist, early intervention therapist, or other professional. Children with no specific etiology for delays should be monitored every 3 to 4 months to ensure continued progress and to detect the emergence of new factors. Because many families believe that motor delays imply diminished intelligence, educating them about the nature of a child’s difficulties can often be highly reassuring. Families also often underestimate the important role they have in creating an environment conducive to optimal motor development. Being taught specific techniques for helping motor skills develop can be both empowering for parents and therapeutic for children.

Language development
The fascination of baby with parent and parent with baby ensures attachment in the baby’s first social relationship and facilitates the natural emergence of language in normal babies. Within a few years, a child progresses from a few words to virtual mastery of language. This magical process follows a predictable pattern, but has considerable normal variation in the rate and quality of its unfolding.

Significant deviations from normal development can be identified early if doctors are familiar with prelinguistic and linguistic milestones. Some physicians keep a checklist of milestones nearby; others use formal instruments, such as the Early Language Milestone Scale. This tool has been shown to have relatively good sensitivity and specificity for children younger than 3 years.

Red flags that signal a need for further evaluation include not beginning to babble by 8 months and having fewer than three meaningful words at 18 months. By 1 ½ years, a child should be able to achieve shared attention (Figure 1). A 2-year-old should be putting two words together, and a 3 ½-year-old’s speech should be almost fully understandable. We should be concerned if a 4-year-old cannot use prepositions or if a 5-year-old is not speaking in grammatically correct, albeit short, sentences.

Physicians should remember some other important points.

- Recurrent otitis media rarely produces long-term language delays.
- Congenitally deaf children typically have normal motor, cognitive, and psychological development in the first year of life and reach essentially normal language milestones in the first 6 to 8 months of life. Examiners must assess auditory responses in young infants very carefully. Up to two thirds of congenitally deaf children can be
identified if all infants on the High Risk Registry (Table 2) are screened early.13

- Deterioration or plateauing of language skills at 18 to 24 months is cause for serious concern.13

In the past, parents reporting this were often ignored. However, it is now well recognized that, when combined with flat affect, social withdrawal, or poor engagement, this pattern can signify the onset of pervasive developmental disorder (PDD).

What to do if language delay is detected

Language is a complex skill; its development can have aberrations ranging from dysfluencies and articulation deficits to pure expressive or receptive delays to aberrant nonfunctional use of language, as in PDD. Possible causes include structural or functional abnormalities of the oromotor apparatus, hearing impairment, global developmental delay, pure language disorders, and PDD. History or physical examination sometimes suggest that referral to speech pathologists, audiologists, psychologists, neurologists, or psychiatrists could help.

Whether or not a child has a specific, intrinsic abnormality, the environment strongly influences development of language skills. Assessing such influence can help identify avenues for intervention, or, less commonly, actually determine the cause of language delay. Factors that can render a parent ineffective at teaching language include poverty, substance abuse, depression, and cognitive impairment.15

Reliable audiology is indicated for all children with language delay, as is referral to local early intervention services. In areas where speech and language evaluation is accessible, refer early. Putting a child into nursery school can usually be achieved fairly quickly and some children benefit greatly. Some communities have the Hanen program, a course of short workshops designed to teach parents how best to foster language development in their children.

Physicians can make practical suggestions for promoting language skills and enhancing cognitive and social skills that parents can implement immediately.

- When you have a young infant’s gaze or obvious attention, make noises and sounds or sing softly.
- Repeat sounds or words the child utters.
- Repeat simple nursery rhymes in a predictable way.
- Ask questions or make comments that naturally lead to response.
- Label concrete objects in a child’s environment.
- Emphasize action words in conversation with the child.
- Read to the child, and let the child see you reading for pleasure.
- Use simple language delivered slowly.

<table>
<thead>
<tr>
<th>Table 2. High Risk Registry of risk factors for sensorineural hearing loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history of hearing loss</td>
</tr>
<tr>
<td>Craniofacial anomalies</td>
</tr>
<tr>
<td>Hyperbilirubinemia at level exceeding indication for transfusion</td>
</tr>
<tr>
<td>Bacterial meningitis</td>
</tr>
<tr>
<td>Prolonged mechanical ventilation</td>
</tr>
</tbody>
</table>

Adapted from American Speech-Language-Hearing Association.13

Cognitive development

Most parents delight in watching their children learn to understand the world and marvel as they acquire basic intellectual skills. One of the greatest fears parents have is that a child might be cognitively impaired. The tremendous emotional overlay associated with cognitive deficits might lead to confusion regarding terminology. The term “mental retardation” has much more serious social and prognostic implications than the term “developmental delay.” The latter term
implies that a child will continue to make cognitive gains throughout development. This is often reassuring to parents, but they must understand that with time the gap between global delay and the norm typically widens.

Detecting cognitive impairment in children can be difficult. While profound mental retardation is hard to miss, milder forms can be subtly manifested in young children. Most globally delayed children achieve gross motor milestones at approximately normal times. Red flags for cognitive impairment include not alerting to mother by 3 months or not looking for dropped objects by 7 months. By 1 year babies should be searching for hidden objects, revealing a well established concept of object permanence. Two-year-olds should be able to categorize similarities (e.g., big, red), and 3-year-olds should be able to say their full names when asked. By 4 ½ years a child should be able to count, and by 5 years should know several colours and some letters. Psychological testing can usually be attempted by 3 years, but might not be predictive of later outcome until a child is older than 5 years.

What to do if cognitive delay is detected
Differential diagnosis of global developmental delay is vast and is well documented elsewhere. A detailed history and physical examination are essential for finding causative factors. History should particularly include prenatal factors, such as exposure to toxins or infection, and perinatal factors, such as complicated deliveries. Although birth events are generally poor predictors of developmental problems, reviewing birth records can help parents who have unresolved concerns about that period. Family history should be probed for similarly affected relatives, possibly suggesting inherited conditions (e.g., neurofibromatosis or fragile X syndrome). History can also clarify the adequacy of a child’s environment and identify factors that might prevent a child from reaching maximum potential.

Physical examination must likewise be thorough. Focus should be on head growth, neurologic findings, and associated dysmorphic or neurocutaneous features. While investigations will be guided by historical and physical findings, hearing and vision should also be assessed. If the child is not microcephalic, DNA might be analyzed for the fragile X syndrome mutation. Doing karyotype, lead level, metabolic screen, or thyroid-stimulating hormone tests should be based on findings. Computed tomography is rarely clinically useful; magnetic resonance imaging sometimes aids diagnosis.

Cognitive impairment in a child is usually devastating for parents. Physicians can help immeasurably in an advocacy role. Helping families find appropriate preschools and ensuring that the child is properly identified by the school is helpful. If the community has an Association for Community Living, a family might benefit from contact with it. Parents sometimes feel cheated if a referral is made without fully explaining the child’s diagnosis to them first.

Primary care physicians can help access support groups, ministry-funded social workers, respite care, and government benefits and tax credits. Although no clear evidence indicates that globally delayed children’s intelligence quotients can be improved by early intervention, children can be helped to function better and avoid secondary behavioural problems, and parents could experience less stress.

Most families require emotional support and ongoing guidance as they come to terms with having a cognitively impaired child, work out plans for the future, and deal with the still-present social stigma.

Social and emotional development
The relationship between parent and child that develops in the first years of life is the springboard for the child’s future interactions with other people, the template of how he or she views himself or herself, and the raw material for functioning in society, achieving happiness, and being emotionally intact.

Sadly, disruptions to this process are all too common. Countless examples of undesirable
social conduct and people with emotional disability are easily found. Primary prevention and pre-empting development of these problems has profound ramifications for both individuals and society. Understanding a child’s biological endowment (i.e., temperament) and knowing a child’s psychosocial environment are key to successfully monitoring social and emotional development.

Since the landmark work of Chess and Thomas,\textsuperscript{20} we have recognized that an infant’s mind, far from being a tabula rasa, has a complex, unique pattern of responsiveness innate to his or her personality. Differences between infants are termed temperament and include a baby’s activity level, rhythmicity, mood, and intensity and threshold of responding. Infants typically have been classified as “easy,” “difficult,” or “slow to warm up.”

A child’s temperament influences the parents’ attitude and behaviour toward him or her; a child’s temperament, and the degree to which it matches the parents’ temperament, mediates a child’s response to parental practices. Helping parents understand the role that temperament plays in a child’s behaviour can be very useful. For example, if the parents of a “slow to warm up” child, who is reluctant to start a new preschool, view the behaviour as part of the child’s normal style, they will allow him or her time to adapt positively and will not be concerned. If they do not appreciate this, they might view the child as timid or anxious and, instead of being patient, pressure the child to join the group, resulting in an even more difficult situation.

Among the myriad environmental variables that affect social and emotional development are family, health, economics, and culture. Children born into poverty, for example, experience not only economic deprivation but different psychological and social experiences from their better off peers.\textsuperscript{21} Families under stress from marital conflict, parental depression, extended family problems, and so on often have difficulty nurturing their children’s psychological development.

At the heart of social and emotional development lies the foundation upon which all future interactions with the social world rest: attachment of child to primary caregiver. This should be well established and evident by 12 to 14 months and is characterized by proximity-seeking behaviour, separation anxiety, and fear of strangers. Office visits are often ideal for witnessing these phenomena. Ample evidence now supports a link between secure attachment and later social development.\textsuperscript{22}

Problems in social and emotional development are shown through a child’s temperament, environmental factors, and attachment experience. Red flags include not developing a social smile by 3 months or not laughing in playful situations by 8 months. Poor eye contact or inability to be comforted by a parent is worrying at any age, as are excessive aggression, repetitive movements, and lack of interest in people.

Pervasive developmental disorders, characterized by impaired social interaction and communication and restricted, repetitive, and stereotypical patterns of behaviour, are being shown increasingly to respond to intervention, which should be sought early.\textsuperscript{14} These conditions are biologically based, and are not the result of suboptimal social circumstances.

**What to do if social and emotional problems are detected**

Early intervention is essential. If a child’s environment is highly disturbed, abusive, or neglectful, physicians must advocate for the child and might need to enlist child protection services.

In less severe social situations, physicians could support and guide families to remove obstacles preventing children from reaching maximum potential. Pointing out the child’s temperament, and providing basic information on common behavioural challenges at different stages could help parents give better care.

Many children with social or emotional problems, even those with PDDs, appear to benefit from increased contact with other children, perhaps through play groups or library programs. Extended family members playing and reading with a child can provide the extra attention that parents sometimes cannot give.

Finally, children with social or emotional problems should be referred to early intervention therapists, if available. Some communities have more
specific supportive or therapeutic programs that might be appropriate, such as groups for depressed parents and their children or nursery programs for autistic children.

Conclusion
Watching over children as they grow and develop is one of the most rewarding, enjoyable, and challenging aspects of medical practice. Having a solid knowledge of the four streams of development enables physicians to take on the task with confidence and pleasure. Knowing the spectrum of normal and the indicators of serious delays is an ongoing learning process and is key to managing developmental surveillance effectively. Because developmental disabilities are so common (up to 10% prevalence), physicians who look for them are likely to find them. Putting needed services into place in a timely fashion can be frustrating and time-consuming, particularly for those in rural areas. Once you are familiar with the services in your area, advocating for improved services might be necessary.

Despite the frustrations, watching the process of development, establishing supportive and trusting relationships with parents, and being able to make early developmental diagnoses that result in effective interventions are uniquely satisfying and enjoyable aspects of primary care medicine.

Correspondence to: Dr. W. Roberts, Child Development Clinic, Hospital for Sick Children, 555 University Ave, Toronto, ON M5G 1X8

References
## Assessment of Developmental Delay

<table>
<thead>
<tr>
<th>Developmental Area</th>
<th>Significant Red Flags</th>
<th>Intervention</th>
</tr>
</thead>
</table>
| **Growth**                 | - Weight and height below 3rd percentile  
- Growth velocity less than expected  
- Crosses 2 percentile lines  
- Weight less than 80% expected for age and height  
- Weight below 5th percentile on weight for height chart | - Examine re intake, output  
- Physical examination and tests to rule out syndromes, chronic disease  
- Psychosocial — eating and sleeping behaviour  
- Referral: pediatric, public health  
- Growth charts are available for children with Down syndrome |
| **Motor**                  | - 41/2 mo not pulling to sit  
- 5 mo not rolling over  
- 7-8 mo not sitting unsupported  
- 9-10 mo not standing holding on  
- 15 mo not walking | - Look for neurological signs  
- Clues from birth history, family history  
- Abnormal physical findings?  
- Referral: pediatric or neurological, early infant development, physiotherapy  
- No specific cause – monitor and educate family, encourage motor development |
| **Cognitive**              | - 2-3 mo not alert to mother  
- 6-7 mo not searching for dropped object  
- 8-9 mo no interest in peek a boo  
- 12 mo doesn’t search for hidden object | - Detailed history and physical – prenatal, review birth records (not usually significant), family history  
- Child’s environment  
- Support for parents re diagnosis  
- Advocate for support for parents and family  
- Look to avoid secondary problems |
| **Language and Communication** | - 5-6 mo not babbling  
- 8-9 mo not saying da or ba  
- 10-11 mo not saying dada or baba  
- 12 mo no gesturing – pointing or waving  
- 24 mo no 2 word phrases  
- Loss of language at any age | - Audiology testing  
- Environment strongly influences language skills.  
Assess these influences – parental time, substance abuse, depression etc  
- Referral: speech and language evaluation, psychology, neurology, psychiatry  
- Possible problems: hearing problem, global delay, pure language disorders, autism spectrum disorder  
- Practical suggestions  
- Nursery school, Hanen programs etc |
| **Social and Emotional**   | - 3 mo not smiling socially  
- 6-8 mo not laughing in playful situations  
- 1 year hard to console, stiffens  
- 2 years bites, kicks, screams easily, poor eye contact or engagement | - Early intervention needed – is child's environment abusive, neglectful, disturbed – child protection issue?  
- Parent training – re difficult behaviour  
- Increase contact with other children, extended family, extra attention  
- Referral: early intervention therapist – public health, developmental pediatrics etc |

The **Key to Developmental Surveillance** is the knowledge of the spectrum of normal and the indicators of serious delays – this is an ongoing learning process. Developmental delays are common and occur in up to 10% of children.

**Sources:**

**Improving the Odds: Healthy Child Development**
Appendix J: Speech, Language and Hearing

Facts about Speech, Language and Hearing

**What is Communication?**
Communication is the sending and receiving of information. There are four main aspects to communication:

1. **Hearing** is essential for the acquisition of oral communication, speech and language.
2. **Language** is the coded system which enables understanding, organization and expression of meaning, thoughts and ideas. It takes the form of words and patterns of words in grammatical structures. Language can be conveyed in an oral, written or gestural/sign form. It can be further subdivided into expressive language (how we express ourselves using words, gestures, etc.) and receptive language (how we understand words, gestures, etc.).
3. **Speech** is the production of sounds and sequences of sounds. This can be further subdivided into voice quality, fluency and articulation that all contribute to the intelligibility of what is said.
4. **Pragmatics** is the social aspect of turn-taking and joint attention that facilitates communication.

**Causes of Speech and Language Problems**
Historically causes of most communication disorders have not been known. Genetic research in the past decade has linked the most common disorder, specific language impairment, to inherited cerebral structure and function. Other speech, language and hearing disorders have been attributed to a variety of factors including maternal infection, genetics, traumatic brain injury, maxillo-facial anomalies such as cleft lip/palate, birth trauma, or syndromes (e.g. Autism Spectrum Disorder, Down Syndrome).

The home environment is also a factor to consider. Limited stimulation and family stressors can cause delay in speech/language development, but do not cause disorders. Delays due to environmental factors can be reversed with good language stimulation.

When a family member has a speech/language/hearing disorder, the children are at higher risk for communication difficulties. Pay special attention if there is a positive family history for: learning disabilities, permanent early childhood hearing loss, congenital syndromes, or if the parent indicates concern.

**Key Warning Signs**

**Emotion and Use of Eye Gaze**
- Limited ability to share attention and/or emotions with eye gaze and facial expressions
- Delayed ability to understand and follow others’ eye gaze and finger pointing

**Use of Communication**
- Limited use of gestures and/or vocalizations to communicate
- Low rate of communication using gestures and/or vocalization
- Limited number of reasons for communication (e.g., child only communicates to protest and request food, but not to greet, label objects, etc.)
- Limited use of communication to share interest/attention with another

**Use of Gestures**
- Limited number of gestures (e.g., giving, showing, reaching, pointing)
- Limited use of symbolic gestures (e.g., waving, nodding head, gesture for talking on phone)
- Reliance on gestures and a limited use of vocalizations to communicate

**Use of Sound**
- Limited number of consonants
- Immature syllable structure (e.g., uses only consonant plus vowel combinations to represent words of varying lengths, such as na/banana or wa/water)

**Understanding and Use of Words**
- Delayed in understanding language and using language

**Use of Objects**
- Limited use of symbolic play (e.g., use of toy object to represent real object - phone, feed baby)
- Delayed spontaneous use of actions on objects in symbolic play
- Limited ability to imitate actions on objects

**Other**
- Positive family history
- Heightened parental concern

**When to Refer**
Refer all children to the Preschool Speech and Language System when the parent expresses concern or the child presents with high risk indicators or does not meet developmental milestones on the Rourke Record or Nipissing District Developmental Screen.
### Communication Checklist for Children from Birth to Age Five

If the answer is NO to any of the following questions, call Preschool Speech and Language Services. Refer to an audiologist for any concerns about hearing.

<table>
<thead>
<tr>
<th>By 3 Months – Does the child:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Startle to a sudden sound?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Turn to where a sound is coming from?</td>
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<td></td>
</tr>
<tr>
<td>– Make sounds (ooh, ah)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Look at you with interest when you talk with him/her?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Smile in response to you?</td>
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<td></td>
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<table>
<thead>
<tr>
<th>By 6 Months – Does the child:</th>
<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>– Make several different sounds?</td>
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<td></td>
</tr>
<tr>
<td>– Try to get your attention by looking at your face and/or making sounds?</td>
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<td></td>
</tr>
<tr>
<td>– Make sounds and smile in response to your facial expressions and sounds?</td>
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<table>
<thead>
<tr>
<th>By 9 Months – Does the child:</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>– Reach out to be picked up?</td>
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<td></td>
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<tr>
<td>– Respond to his/her name?</td>
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<td></td>
</tr>
<tr>
<td>– Make speech like sounds (baba, gaga)?</td>
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<td></td>
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<tr>
<td>– Babble tunefully (sing-song voice) while playing alone?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Turn to where a voice is coming from?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Enjoy being played with and does he/she take turns making sounds back and forth?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Understand no?</td>
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<tr>
<th>By 12 Months – Does the child:</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>– Use a finger to point things out to you in the environment?</td>
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<td></td>
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<tr>
<td>– Imitate or use gestures like waving bye-bye?</td>
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<tr>
<td>– Let you know what he/she wants by using a combination of sounds and actions?</td>
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<tr>
<td>– Bring you toys he/she wants to show you and/or play with?</td>
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<tr>
<td>– Enjoy playing games like Peek-a-Boo and Pat-a-Cake and will he or she sometimes start the game?</td>
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<tr>
<td>– Understand some simple phrases (Come here, Don’t touch)?</td>
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<thead>
<tr>
<th>By 15 Months – Does the child:</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>– Usually look at you when communicating?</td>
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<td></td>
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<tr>
<td>– Repeat words he/she hears?</td>
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<td></td>
</tr>
<tr>
<td>– Seem to be talking in sentences but not using real words?</td>
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<td></td>
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<tr>
<td>– Say one or two words?</td>
<td></td>
<td></td>
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<tr>
<td>– Understand some simple questions and commands (Where is the ball?)</td>
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<thead>
<tr>
<th>By 18 Months – Does the child:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Point, look at you, and then at what he/she is talking about?</td>
<td></td>
<td></td>
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<tr>
<td>– Use the word no?</td>
<td></td>
<td></td>
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<tr>
<td>– Say 10 or more words?</td>
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<tr>
<td>– Understand and use the names of familiar objects (ball, light, bed, car)?</td>
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**Improving the Odds: Healthy Child Development**
By 2 Years – Does the child:

- Follow 2-part discussions (Go to the kitchen and get your cup)?
- With a diagnosis of cleft lip/palate, hearing loss, PDD/Autism, developmental delay (who is not receiving services)
- Whose voice sounds different/odd to you
- Who often repeats sounds and/or words (stuttering)
- If you are concerned about his/her speech/language/hearing development

Refer any child:

- If you are concerned about his/her speech/language/hearing development
- If language skills have not improved over the last 6 months
- Who often repeats sounds and/or words (stuttering)
- Whose voice sounds different/odd to you
- Whose play or social interactions seems inappropriate
- With a diagnosis of cleft lip/palate, hearing loss, PDD/Autism, developmental delay (who is not receiving services)

Source: Toronto Preschool Speech and Language Services
Appendix K: Autism Spectrum Disorder

Developmental Surveillance: Focus on 18–36 Months: Approach to Children with Identified Developmental Difficulty
By Wendy Roberts

When a child has specific delays in communication and is not using verbal or nonverbal means to share interest with other people by 16 months of age there is cause for concern, and a careful diagnostic appraisal needs to be done from a developmental point of view. Similarly, any child who loses the use of language or social skills, particularly between the age of 15 and 24 months, needs to be looked at very carefully. When the absolute indicators for immediate evaluation are met, consideration must be given to whether the child could have an Autism Spectrum Disorder (ASD).

The term Autism Spectrum Disorder is now replacing the term Pervasive Developmental Disorder (PDD) since Pervasive Developmental Disorder has become a confusing term for parents. Some parents have been given the diagnosis of PDD, and are then shocked a couple of years later to find out that, in fact, their child has Autism. The use of the term Autism Spectrum Disorder allows the idea of progress and skill development during the initial labeling process, shifting the child in a positive direction along the spectrum. It may be less likely to have parents feel that the autistic label is a permanent life sentence. Research has shown that even experienced professionals are not reliably able to differentiate between Pervasive Developmental Disorder and Autism, particularly in the preschool years. The term "high functioning" has been confusing because it may be used to describe a child who is either intellectually high functioning or who has less autistic symptoms.

Early identification of an Autism Spectrum Disorder is critical since outcome has been shown to be quite different if children have intensive input in the preschool years. Many high functioning children have been missed in the past because, particularly with parent’s scaffolding and support, observed interactions between the child and parent during a short visit to the clinic have failed to show any outstanding abnormality. A prolonged period of observation (e.g., 5–10 minutes) of the child in a play situation is needed.

Glascoe has shown that parent’s concerns are in fact very accurate and need to be paid attention to. The current 1 to 3-year lag, documented between the time when parents are first worried and when a physician first gives a diagnosis, must be reduced.

The early signs of Autism that parents notice are:

- Lack of response to name
- Lack of response to social overtures
- No seeking to get the attention from another person
- Behavioural irritability
- Lack of interest in toys
- Sensory fascination or hypersensitivity

Some of the more classical features of Autism and those seen in older children may be missing in the early years. There is not the same degree of stereotypic and compulsive behaviours. There is not the same insistence on routines and rituals. Many children are quite affectionate both in accepting and in looking for affection, and many will have eye contact particularly to get their needs met, although not sustaining eye contact for social interaction. The absence of the more typical signs has led in many cases to people making incorrect definitive statements such as, “this is definitely not Autism.”
When Autism is suspected, the best current measure is still the Checklist for Autism in Toddlers (CHAT) developed by Simon Baron-Cohen. This checklist documents parent reports of social interest, social play, pretend play, pointing to show, and bringing an object to share interest. The CHAT is the best tool that we have for specifically looking at Autism at a screening level so far, although there are some limitations in its use. The CHAT has been shown to have high specificity, in that children who failed three key items on the CHAT at 18 months were shown to maintain their diagnosis of Autism after 3 years. However, 50 percent of children diagnosed with Autism at 3 years were not detected by the CHAT at 18 months when it was carried out in a larger population study. So the sensitivity is not nearly as good as the specificity. As a result, if Autism is suspected, further diagnosis and repetition of the CHAT must be done on a regular basis during subsequent visits.

When a child is referred on for a diagnostic assessment usually by a Developmental Paediatrician or a Psychiatrist, the clinician must be experienced and up-to-date in the assessment of Autism. A Diagnostic Interview and Observation Scale must be used, in addition to either questionnaires or observing videotapes from home and a community setting. The specific use of DSM-IV criteria in children under 3 is not a reliable way to make a diagnosis. Using the DSM-IV criteria as a checklist is particularly unreliable; clinicians need to be able to interpret DSM-IV criteria and apply them specifically to younger children during the history-taking process.

A unique difference in younger children with ASD is unusual sensory interests. This can include seeking of tactile input such as rubbing surfaces, squeezing balls that have different textures; dropping objects and watching them fall, or listening to them fall; watching unusual light patterns; flicking light switches on and off; and looking through their fingers at a light in the background. Sensory peculiarity may greatly limit food intake and some children will only eat very crisp food or very cold food. Many will not accept any mixtures at all. Sensory limitations from diet can lead to quite significant iron deficiency, particularly after the 18-month period.

Younger children have less of the typical autistic repetitive behaviours such as jumping, spinning, or running around in circles. Many will have subtle hand flapping or flicking and hyperextension of fingers.

Medical investigations should always include an audiological assessment with ABR’s if there is any doubt about hearing. Most chromosome assessments will not reveal particular abnormalities unless there are significant dysmorphic features. The research is focusing particularly on chromosome 7 and 15, but there is no diagnostic test yet. Children will usually be screened through DNA analysis for Fragile X syndrome. If there is a history of pica, a lead level is suggested; if there is dietary restriction, look for decreased ferritin. If there is any history suggestive of a metabolic disorder then a metabolic screen should be done. Many children, especially those with disturbed sleep and those with significant regression, will have abnormalities on an overnight EEG. An awake EEG is not helpful, and most sleep deprived EEG’s are difficult to interpret.

When Autism is suspected, intervention must be urgent and intrusive. It involves the working together of a team that must include parents. If a child is under 2 years, a referral to the Infant Development Program so that work can start in home in terms of teaching skills to parents and working with the child to develop social reciprocity and communication. The Preschool Speech and Language Initiative needs to be involved with the speech pathologist being a key member of the team. The Hanen Parent Program “More Than Words” has been very helpful to give parents intensive education and modeling of intrusive interaction leading to the understanding of communication starting in the child. The new Autism Behavior Initiative and the Preschool Behavioural Autism Program should be contacted so that the child can be assessed for eligibility. Parent support and education programs run through the Geneva Centre, which is a Children’s Mental Health Centre for children with Autism, can be helpful.

During the last few years as we have learned more about Autism and have seen the results of early intervention. It is clear that children can do better when they are detected at an earlier age, when families are able to access more support and more financial aid for both their child’s education and respite care when it is needed. In the long term, society will pay less as children do better and families cope better.
Appendix L: Checklist for Autism in Toddlers (CHAT)

The Checklist for Autism in Toddlers (CHAT)

How to Use the CHAT

1) Ask parents the 9 questions in Section A (Box 1). 
2) Complete the 5 questions in Section B by direct observation (Box 1).
3) The 5 key items in Sections A and B (Box 2) are concerned with joint attention and pretend play. The key items in Section B validate (by cross-checking) the parent’s answers to the key items in Section A. The remaining non-key items (Box 2) assist in distinguishing autism from other global developmental delays, and provide an opportunity for all parents to answer “yes” to some questions. The degree of risk for autism depends on which items a child fails. See Box 3 for risk assessment.

Box 1: The CHAT – Section A: Ask Parent

1. Does your child enjoy being swung, bounced on your knee, etc.? Yes No
2. Does your child take an interest in other children? Yes No
3. Does your child like climbing on things, such as up stairs? Yes No
4. Does your child enjoy playing peek-a-boo/hide-and-seek? Yes No
5. Does your child ever PRETEND, for example, to make a cup of tea using a toy cup and teapot, or pretend other things? Yes No
6. Does your child ever use his/her index finger to point, to ASK for something? Yes No
7. Does your child ever use his/her index finger to point, to indicate INTEREST in something? Yes No
8. Can your child play properly with small toys (e.g. cars or bricks) without just mouthing fiddling or dropping them? Yes No
9. Does your child ever bring objects over to you (parent) to SHOW you something? Yes No

Section B: General Practitioner or health visitor observation

I. During the appointment, has the child made eye contact with you? Yes No

II. Get child’s attention, then point across the room at an interesting object and say ‘Oh look! There’s a (name of toy)!’ Watch child’s face. Does the child look across to see what you are pointing at?* Yes No*

III. Get the child’s attention, then give child a miniature toy cup and teapot and say ‘Can you make a cup of tea?’ Does the child pretend to pour out tea, drink it, etc.?** Yes No**

IV. Say to the child ‘Where’s the light?’, or ‘Show me the light’. Does the child POINT with his/her index finger at the light?*** Yes No***

V. Can the child build a tower of bricks? (If so how many?) (Number of bricks:.........) Yes No

* To record YES on this item, ensure the child has not simply looked at your hand, but has actually looked at the object you are pointing at. ** If you can elicit an example of pretending in some other game, score a YES on this item. *** Repeat this with ‘Where’s the teddy?’ or some other unreachable object, if child does not understand the word ‘light.’ To record YES on this item, the child must have looked up at your face around the time of pointing.

Box 2: Key and non-key items

CHAT key items

Section A
A5: Pretend Play
A7: Protodeclarative pointing

CHAT non-key items

Section A
A1: Rough and tumble play
A2: Social interest
A3: Motor development
A4: Social play
A6: Protoimperative pointing
A8: Functional play
A9: Showing

CHAT key items

Section B
BII: Follow a point
BII: Pretending
BIV: Producing a point

CHAT non-key items

BI: Eye Contact
B: Tower of bricks

Box 3: Risk Assessment

High risk for autism group
Fail A5, A7, BII, BIII, BIV

Medium risk for autism group
Fail A7, BIV (but not in maximum risk group)

Low risk for autism group
Not in other 2 risk groups


Improving the Odds: Healthy Child Development 99
Appendix M: 18 Month Visit Flowchart

Screening and Intervention: 18-24 Month

Office Visit – Nipissing Screen: Parent

Normal – All "yes" checks on the age appropriate screening sheet

Parenting – Community Program

24 months – Repeat surveillance

Normal Development early in life but now regression – 1 or more "no" checks on

Use the Rourke Record to determine areas of difficulty

with hearing check

Slow development from early in life – 2 or more "no" checks on Nipissing

Speech and language delay / difficulty only

- Speech and Language
- Early intervention (Infant Development Program)
- Continue to monitor closely

Symptoms of social difficulty / autism

- CHAT
- Refer for Pediatric assessment
- Early intervention (Infant Development Program)
- Speech and Language
- Continue to monitor closely
- Preschool Autism Services

Delay with motor development + Global Developmental delay

- Pediatric assessment
- Early intervention (Infant Development Program)
- Children’s Treatment Centre or Developmental Pediatrician
- Ongoing Healthy Babies, Healthy Children Programs & other family resources

Community Team works collaboratively:
Physicians, Infant Development Program, Healthy Babies, Healthy Children initiative, Speech & Language Services, Children’s Treatment Centre, Preschool Autism Services

Prepared by: Elizabeth Thompson, Tara Kennedy, Wendy Roberts, Nadia Hall, Steven Cohen and Rhonda Schwartz
Appendix N: Developmental Issues in an Older Child

Case Study: A 5 Year old with Developmental Coordination Disorder

What is Developmental Coordination Disorder (DCD)?
Developmental coordination disorder is a diagnosis that has been in the Diagnostic and Statistic Manual since 1989 (DSM-IV-TR, 2000; Category 315.4, pp. 56-57) and is recognized by the World Health Organization. It affects 5-6% of school aged children and is more common in boys.

Children with developmental coordination disorder are not just poor in athletic ability. For a diagnosis of DCD to be given, the motor coordination difficulties and motor delay must impact on the child’s ability to perform everyday tasks in self-care and/or academic areas. Although they may gradually learn some motor skills, children with DCD do not outgrow the problem. Early identification is critical because the secondary consequences of coordination difficulties include academic, behavioural, social and emotional problems.

What will you hear from parents?
Parents have told us that they nearly always expressed concern to their family physician when their child was a preschooler but the concern was often quite vague. “Something’s not right” is the strongest theme that has emerged from qualitative studies.

At a 5 year checkup, this is the type of story that a family physician might hear.
“Something isn’t right with David. He often has stomach aches and he seems to have no energy. He never wants to play outside and he lays down on the floor a lot at school.”

Many physicians tend to reassure parents that attending kindergarten full days is really tiring for children and that they shouldn’t worry. Instead, an open ended question about the school situation would elicit some additional information:

David entered kindergarten this past September. He attends on alternate days and, even after two months, seems reluctant to go to school. Some mornings he is whiney and complains that his stomach hurts. Getting dressed is always a struggle so his mother ends up helping him in order to get him to school on time. David’s mother has gone in to the school to observe and has noticed that David likes sharing stories with his teacher, playing at the sand and water centres and dramatic play. He doesn’t like craft activities, has trouble using scissors and avoids drawing or printing letters. David seems to like listening to books but often seems to have difficulty sitting quietly at circle time; he usually ends up getting in trouble as he leans on other children or lying down on the floor. In outdoor play, David is cautious and frequently spends time sitting and talking with the teachers. On days that he is at home, he is far happier, preferring to look at books, play on the computer and go on errands with his mother.

Differential Diagnosis
If the physician has not had the opportunity to do regular developmental checks, he or she will often ask about developmental motor milestones. Most children with DCD achieve all major motor milestones within normal limits. David sat at 6 months, crawled at 9 months and walked at 14 months. (Note: If motor milestones are really late, more questions should be asked about cognitive issues.) With children with DCD, the family physician should focus not on motor milestones but on motor learning.

A great question at this point is:
"When you think back, is there anything that you have tried to teach David how to do that has taken longer than you think it should have?"

This question would elicit the information that David took a long time learning to ride a tricycle, still can’t catch or throw a ball very well, and that his mother is still dressing him because he can’t seem to learn how to do up buttons or zippers or tie his shoes.
The family physician needs to rule out medical conditions such as muscular dystrophy, tumors, cerebral palsy, pervasive developmental delay, or other more rare deteriorating neuromuscular conditions. This is usually done through questions that elicit comments from the parents about the fact that the coordination difficulties have been present for awhile and that the child does not seem “worse” than previously. If the child has “lost” motor skills that he once had, other diagnoses need to be considered.

More commonly, the parent is concerned because there are now increased demands for the child to be more independent in self-care and there is avoidance of pre-academic activities (such as cutting with scissors, drawing and colouring). The “fatigue” that is often described relates to the child’s low tone and difficulty with co-contraction in order to maintain a stable position. Children with DCD sometimes look “floppy” or “squirmy” when in positions like sitting cross-legged on the floor because they can’t maintain their position for long. This squirmy behaviour may be interpreted as inattention but their cognitive attention to task is often quite good. Many children with DCD will be early readers and will have strong language skills. Others will have concomitant learning disabilities and these will need to be explored through further assessment.

So, to summarize, the family physician’s questions need to ask about:
• Motor milestones – usually achieved a bit late but within normal limits
• Motor learning – usually has trouble learning motor skills involving use of “tools” (crayons, scissors, fork, knife), eye hand coordination (printing, catching and throwing balls), gross motor coordination (tricycle riding, climbing a slide), fine motor coordination (buttons, zippers, shoelaces)
• Motor skills – delayed in acquiring skills but should not show “loss” of skills
• Impact at school and home – strong preference for sedentary activities, avoidance of physical activity and/or academic activities
• Self-efficacy issues – children with DCD typically recognize their differences and avoid or give up quickly on tasks that are difficult for them
• Co-morbidity issues – DCD is often associated with Attention Deficit Disorder, Learning Disabilities, Nonverbal Learning Disabilities and Specific Language Impairments. If one of these other diagnoses is present, BOTH diagnoses need to be given so the motor skill delays and motor learning problems are addressed.

What can be done?
A referral to an occupational therapist for assessment and intervention is strongly recommended. Evidence is accumulating for the efficacy of a cognitive approach to intervention which uses a problem-solving, strategy based approach to help the child “learn how to learn” new motor skills. Even if direct intervention is not possible, education of parents and teachers is critical to prevent secondary emotional and behavioural problems. Many teachers believe that a child with DCD is lazy, unmotivated or inattentive. Education about the child’s coordination difficulties can make a huge difference, as teachers are then more willing to modify motor tasks and reduce their expectations for written output.

Occupational therapists can be found at Children’s Treatment Centres, through School Health Support Services, through outpatient departments at Children’s Hospitals and through private agencies. Waitlists are often lengthy; however, in the meantime, parents can be referred to the CanChild website (www.canchild.ca) for educational materials that contain practical suggestions (e.g., velcro shoes for children who have difficulty with laces).
The occupational therapist will:
1) Perform a thorough assessment of the child’s developmental skills.
2) Determine how different aspects of the child’s daily life are affected.
3) Teach the child new ways of thinking his/her way through learning new tasks.
4) Provide adapted equipment and materials to improve task performance.
5) Help parent and child set up appropriate expectations.
6) Modify environmental factors to maximize participation.
7) Guide parents in the selection of leisure and sports activities that are more likely to be successful for the child.
8) Help parents and child maximize strengths.

If other conditions are present, such as attention deficit /hyperactivity disorder, learning disabilities, speech language impairment or nonverbal learning disorders then referral to a developmental pediatrician, psychologist or speech-language pathologist may also be recommended. If behaviour problems such as school refusal, anxiety or depression are present, referral to a clinical psychologist or a child psychiatrist may be indicated.

Great resources:


For materials suitable for parents, teachers and other professionals, try the CanChild, Centre for Childhood Disability Research, website: www.canchild.ca

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McMaster University
missiuna@mcmaster.ca
Appendix 0: Pediatric Nutrition Guidelines

<table>
<thead>
<tr>
<th>Pediatric Nutrition Guidelines for Primary Health Care Providers</th>
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<tbody>
<tr>
<td><strong>Red Flag</strong></td>
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<tr>
<td>- Diet includes anything other than breastmilk or iron-fortified infant formula.</td>
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<tr>
<td>- Exclusively breastfed infant is not receiving a vitamin D supplement.</td>
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<tr>
<td>- Water for infant formula, for drinking or other foods are not being boiled and other foods is not recommended at this age.</td>
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<tr>
<td>- Infant formula is not being mixed correctly.</td>
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<tr>
<th><strong>Developmental Characteristics</strong></th>
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<tr>
<td><strong>Guideline</strong></td>
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<tr>
<td>- Breastfeeding is the optimal method of feeding infants.</td>
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<tr>
<td>- If an infant is not breastfed, or partially breastfed, iron-fortified commercial formula is the most acceptable alternative (1,4).</td>
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<tr>
<td>- There is no link between iron-fortified formula and constipation (1,4).</td>
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<tr>
<td>- Special dietary formulas are indicated only for specific dietary needs (1,4).</td>
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<tr>
<td>- Avoid formula for infants not required (1,4).</td>
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<tr>
<td>- Soy-based formula is not indicated for cow's milk allergy (1,4).</td>
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<tr>
<td>- Do not use honey in the feeding of infants under one year (1,4).</td>
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<tr>
<th><strong>Age</strong></th>
<th><strong>Birth to 4 months</strong></th>
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<tbody>
<tr>
<td>- Sucks well on nipple (2).</td>
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<tr>
<td>- Extubation reflex causes tongue to protrude when solid food or spoon is put in mouth (1).</td>
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<tr>
<td>- Feeds every 2 hours from birth (1).</td>
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<tr>
<td>- Finishes each feeding within 45 minutes by 4 months (2).</td>
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### Pediatric Nutrition Guidelines for Primary Health Care Providers - continued

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<tr>
<th>Age</th>
<th>Developmental Characteristics</th>
<th>Guideline</th>
<th>Red Flag</th>
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| 4-6 months | **Signs of Readiness for Solid Food**  
- Holds head steady when supported in a sitting position (1).  
- Indicates disinterest in food by leaning back, keeping mouth closed and turning head away (1).  
- Loses extrusion reflex.  
- Indicates desire for food by watching spoon, opening mouth for spoon, closing lips over spoon and swallowing (1). | **At about six months (6,7,8)*,** offer small amounts of iron-fortified cereal. Start with 1-3 teaspoons once per day and gradually increase to approximately 2-4 tablespoons twice per day.  
- Identify signs of readiness.  
- Establish healthy feeding relationship, e.g., parent recognizes hunger cues, feeding is a pleasant, interactive experience for parent and child.  
- Iron fortified formulas are recommended for formula fed infants (1,4).  
- There is no link between iron-fortified formula and constipation (1,4).  
- Do not use honey in the feeding of infants under one year (1,4). | **Infant formula is not iron fortified.**  
- Solid foods have been introduced prior to infant displaying readiness to feed (good head control, can turn away if food is not wanted, opens mouth wide when food is seen coming, keeps food in mouth instead of squeezing it out).  
- Infant is drinking fruit juice, fruit drink or soft drinks.  
- Exclusively breastfed infant is not receiving a vitamin D supplement.  
- Honey is given under one year of age. |
| 6-9 months | **Eats soft food from a spoon or adult’s fingers (2).**  
- Sits with support or alone (1).  
- Feeds at regular times (2).  
- Can hold a bottle and sippy cup (1).  
- Drinks from a cup held by adult (1).  
- Tongue has increased movement and allows for more manipulation of food (3).  
- Begins chewing with up and down movements (1).  
- Teething begins (1). | **Gradual introduction of increased thickness to puree and then to mashed by 9 months.**  
- Introduce one new food at a time. If a new food is rejected, accept the refusal calmly and offer it again in a few weeks (3).  
- Baby may join family mealtimes at the table.  
- Do not use honey in the feeding of infants under one year (1,4). | **Complementary foods have not been introduced after six months (iron fortified cereal recommended).**  
- Breastfed baby is not receiving a vitamin D supplement.  
- Has not doubled birth weight by six months.  
- Infant is drinking more than _ cup of fruit juice per day (9).  
- Infant is consuming fruit drinks or soft drinks.  
- Honey is given under one year.  
- Formula fed baby is not held during feeding.  
- Feeding baby using a propped bottle. |

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* Guidelines for the introduction of complementary foods published in Nutrition for Healthy Terms Infants (4) are under review.
## Pediatric Nutrition Guidelines for Primary Health Care Providers - continued

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<th>Developmental Characteristics</th>
<th>Guideline</th>
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<td><strong>9-12 months</strong></td>
<td>• Tries to use a spoon (3). • Fine motor skills improve (1). Can pick up small items using thumb and first finger (2). • Rotary chewing movements develop (1). • Licks food from lower lip (1). • Can hold cup, but may spill contents (1). • Picks up foods in fingers or palms and puts in mouth (1). • Conscious of what others do and imitates (3).</td>
<td>• Whole cow’s milk may be introduced if the infant is consuming a variety of other foods.  • Soy milk not recommended under age 2 because of low fat content.  • If goat’s milk is introduced, use whole goat’s milk product fortified with vitamin D.  • Promote motor skills by offering finger foods.  • Include baby at family meal times and invite self-feeding.  • Begin self-feeding by offering soft finger foods, such as pieces of banana, dry cereal and toast (3).  • Do not use honey in the feeding of infants under one year (1.4).</td>
<td>• If receiving cow’s milk, a low fat version (skim, 1% or 2%) is provided before age 2.  • Breastfed baby not receiving a vitamin D supplement and not receiving 16 oz (2 cups) of cow’s milk or formula.  • Refuses mashed or chopped foods.  • Drinking more than 1/2 cup per day of fruit juice (9).  • Consuming fruit drinks or soft drinks.  • Parents or caregivers not allowing child to self-feed.  • Honey is given under one year of age.</td>
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<td><strong>18-24 months</strong></td>
<td>• Holds a cup to drink (by 18 months) (2). • Appetite decreases (3). • Likes eating with hands (3). • Rituals become important (3). • Distracts easily (3). • Displays food preferences (1).</td>
<td>• Parents should be reassured that they are responsible for what the child is offered to eat and where and when it is presented. The child is responsible for how much food he eats. An occasional skipped meal is not cause for concern (1).</td>
<td>• Drinking more than 6 oz (cup) per day of juice (9).  • Consuming fruit drinks or soft drinks.  • Drinking less than 16 oz (2 cups) or more than 24 oz (3 cups) of milk per day.  • Still drinking from a bottle.  • A low fat version of cow’s milk is provided before age 2.  • Food is used as a reward or punishment.  • Parents or caregivers not allowing child to self-feed.</td>
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<td><strong>2-3 years</strong></td>
<td>• Eats most foods without coughing and choking by age 2 (2), but choking remains a hazard (3). • Eats with a utensil with little spilling by age 2 (2). • Copies caregiver’s actions by age 2 (2). • Likes to do some things without</td>
<td>• Different preschoolers need different amounts of food depending on age, body size, activity, growth rate, and appetite (5).  • Preschoolers can determine how much to eat. Appetites increase during growth spurts or increased activity and fall when the preschooler is overtly tired or excited (5).  • When milk is not consumed, discuss alternate sources of calcium and vitamin D with a</td>
<td>• Drinking less than 16 oz (2 cups) or more than 24 oz (3 cups) of milk per day.  • Drinking more than 6 oz (cup) per day of juice.  • Still being spoon-fed.  • Not eating a variety of table foods from four food groups (Canada’s Food Guide to Healthy Eating).  • Does not eat at regular times throughout.</td>
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### Pediatric Nutrition Guidelines for Primary Health Care Providers - continued

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<td></td>
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<td>dietitian.</td>
<td>the day (breakfast, lunch, and supper and 2-3 between meal snacks).</td>
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<td>Food is used as a reward or punishment.</td>
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<td>Still drinking from a bottle.</td>
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<td>help by age 2 (2).</td>
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<td></td>
<td>• Recognizes familiar objects (2).</td>
<td>• Fruit drinks and soft drinks are not recommended as they displace nutrient dense foods and beverages.</td>
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<td>• Lifts and drinks from a cup and replaces it on the table (2).</td>
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<td>• Definite “likes” and “dislikes” (3).</td>
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<td></td>
<td>• Insists on doing it “myself” (3).</td>
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<td></td>
<td>• Dawdles (3).</td>
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<td></td>
<td>• Food jags — refusal of all but one or two favourite foods over an extended period (3).</td>
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<td>• Demands food in certain shapes, whole foods (3).</td>
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<tr>
<td></td>
<td>• Likes to help in the kitchen (3).</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Preschoolers</td>
<td>Hold handle on cup (3).</td>
<td>Parents can involve children in meal preparation, e.g., stirring, adding pizza toppings, and setting the table.</td>
<td>Drinking more than 6 oz (- cup) of fruit juice per day.</td>
</tr>
<tr>
<td>(age 3-6 years)</td>
<td>Uses fork by age 4 (3).</td>
<td>Parents can use foods to teach children about colours, shapes, sizes, numbers, etc.</td>
<td>Drinking less than 16 oz (2 cups) or more than 24 oz. (3 cups) of milk per day (soft drinks and fruit drinks not recommended).</td>
</tr>
<tr>
<td></td>
<td>Uses fork and knife by age 5 (3).</td>
<td>Fruit drinks and soft drinks are not recommended as they displace nutrient dense foods and beverages.</td>
<td>Still drinking from a bottle.</td>
</tr>
<tr>
<td></td>
<td>Good self-feeder by age 4 to 5 (3).</td>
<td>Limit TV watching to one hour or less per day (10).</td>
<td>More than 3 hours of TV watching per day.</td>
</tr>
<tr>
<td></td>
<td>Improved appetite and interest in food (3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Favourite foods requested (3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Likes shapes and colours (3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Influenced by TV commercials (3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peer influences increase by age 4 (3).</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Less suspicious of mixtures, but still prefers plain foods by age 5 (3).</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Food is an important part of special occasions by age 5 (3).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ontario Society of Nutrition Professionals in Public Health

Pediatric Nutrition Guidelines for Primary Health Care Providers - continued

References:
3. Feeding Milestones www.caringforkids.cps.ca

General Risk Factors that indicate the intervention of a dietitian both to assist assessment and/or treatment should be considered:

- Weight growth curve is not following expected pattern. Too little gain or too much as related to height growth curve.
- If infant or toddler has medical problems that make eating or drinking a problem such as swallowing issues, gagging, choking, et
- If infant/toddler has other health problems that may related to diet such as iron deficiency anemia, constipation, etc
- The family has different beliefs related to foods — ie the use of herbal products, exclusion of food groups such as meat products, use of unsafe products such as unpasteurized milk, choking hazards
- Family is experiencing problems around feeding — mealtimes are unpleasant; infant refuses many foods or drinks during day and won’t eat at mealtimes. Possibly parents can be force feeding or offering inappropriate amounts of food
- Family has problems with adequate food storage/ cooking facilities or provision of adequate amounts of food because of lack of information or financial constraints

Important Nutrition Issues Often Overlooked:

- Spitting up in small amounts is normal for young infant and does not necessarily indicate a need for a change in formula.
- Lactose intolerance is rare in infants.
- Portion sizes for toddlers and preschoolers range from _ _ to _ _ of an adult portion e.g. 2 — 4 tablespoons of cooked vegetable.
- Eating breakfast is important for cognition/concentration.
- Establishing a healthy feeding relationship and healthy eating habits is critical to the long-term prevention of obesity.
- When making food choices, families will only consider the nutritional value of foods when they experience food security. Food security exists when people, at all times, have access to sufficient nutritious, safe, personally acceptable and culturally appropriate foods that can be obtained in a manner that maintains human dignity (OPHA).
## Appendix P: 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

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| Perinatal Bereavement Service Ontario  
Phone: 1-888-301-7276  
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: 1-800-363-7437  
Website:www.sidscanada.org | Education and support services for parents and families affected by Sudden Infant Death Syndrome (SIDS). |

### Breastfeeding

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| 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/dca-dea/prenatal/nutrition_e.html | Resources and information about breastfeeding |
| La Leche League Canada  
Phone: 1-800-665-4324  
Website:www.lalecheleaguecanada.ca | Assistance to breast feeding women through support and education. |
| Ontario Hospital Association  
Phone: 1-416-205-1300  
Website:www.oha.com | Contact information for hospital based breastfeeding clinics. |

### Child Health & Development - General

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| 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: 1-613-230-8838  
Website:www.cich.ca | Publications and resources for parents. |
| Healthy Babies, Healthy Children  
Info line: 1-800-268-1154, TTY 1-800-387-5559  
Website:www.health.gov.on.ca/english/public/pub/child/hbabies/hbabies.html | 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: 1-416-813-6062  
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: 1-705-752-5081 or 1-888-582-0944  
Website:www.ndds.ca | Screening method for identifying problem areas in child development. |
<table>
<thead>
<tr>
<th>Public Health Units</th>
<th>Range of preconception, prenatal and child health services.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Info line: 1-800-268-1154, TTY 1-800-387-5559</td>
<td></td>
</tr>
<tr>
<td>Website:www.health.gov.on.ca/english/public/contact/phu/phu_mn.html</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rourke Baby Record</th>
<th>System of care for well baby and child from birth to 5 years of age.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:www.cfpc.ca/English/cfpc/programs/patient%20care/rourke%20baby/default.asp?s=1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dental Health</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario Government Website on Dental Health:</td>
<td>Publications on oral health for pregnant women and children.</td>
</tr>
<tr>
<td>Website:www.health.gov.on.ca/english/public/pub/pub_menus/pub_early.html</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fetal Alcohol Spectrum Disorder</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASD Information and Consultation Service</td>
<td>Information and resources about Fetal Alcohol Spectrum Disorder (FASD).</td>
</tr>
<tr>
<td>Phone: 1-800-559-4514</td>
<td></td>
</tr>
<tr>
<td>Website: <a href="http://www.ccsa.ca/index.asp?ID=17">http://www.ccsa.ca/index.asp?ID=17</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Canada</th>
<th>Resources and information about Fetal Alcohol Spectrum Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:www.healthcanada.ca/fas</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Motherisk</th>
<th>Information and guidance to pregnant or lactating patients and health care providers regarding the fetal risks associated with alcohol and drug use during pregnancy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and Substance Use in Pregnancy Helpline: 1-877-327-4636</td>
<td></td>
</tr>
<tr>
<td>Website:www.motherisk.org</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Immunization</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Coalition for Immunization Awareness and Promotion</td>
<td>Information and resources for parents and health care providers about immunization.</td>
</tr>
<tr>
<td>Website:www.immunize.cpha.ca</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Canada, Immunization Division</th>
<th>Immunization schedules and answers to questions about immunization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:www.hc-sc.gc.ca/pphb-dgpsp/dird-dimr/index.html</td>
<td></td>
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<table>
<thead>
<tr>
<th>Ontario Government</th>
<th>Information on immunization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:www.health.gov.on.ca/english/public/pub/pub_menus/pub_immun.html</td>
<td></td>
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<table>
<thead>
<tr>
<th>Multiple Births</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Births Canada</td>
<td>Health information and support networks for multiple birth individuals and their families.</td>
</tr>
<tr>
<td>Phone: 1-905-888-0725, 1-866-228-8824</td>
<td></td>
</tr>
<tr>
<td>Website:www.multiplebirthscanada.org</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Society of Obstetricians and Gynaecologists of Canada’s Multiple Births</th>
<th>Information and links related to multiple births.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:<a href="http://sogc.medical.org/multiple/links_e.shtml">http://sogc.medical.org/multiple/links_e.shtml</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nutrition Resources</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada Prenatal Nutrition Program</td>
<td>Information and nutrition supplements during pregnancy and breast feeding.</td>
</tr>
<tr>
<td>Website:www.hc-sc.gc.ca/cpnp/ontario.htm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Canada Infant Nutrition Information</th>
<th>Information and links related to infant nutrition.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:www.hc-sc.gc.ca/dca-dea/prenatal/nutrition_e.html</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>How to Feed your Growing Child</th>
<th>Resource on nutrition for 1-5 year old children.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:www.beststart.org/resources/nutrition/index.html</td>
<td></td>
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</tbody>
</table>
### Parenting

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
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</table>
| **Canadian Child Care Federation**  
Website: [http://www.cccf-fcsge.ca/](http://www.cccf-fcsge.ca/) | Information and resources related to child care. |
| **Caring for Kids, Canadian Paediatric Society**  
Website: [www.caringforkids.cps.ca](http://www.caringforkids.cps.ca) | Information on caring for newborns, immunization, healthy eating, common childhood illnesses, behaviour and development, etc. |
| **Child and Family Canada**  
Website: [www.cfc-efc.ca](http://www.cfc-efc.ca) | Information and resources about children and families. |
| **Community Action Programs for Children**  
Website: [www.he-sc.gc.ca/dca-dea/prenatal/nutrition_e.html](http://www.he-sc.gc.ca/dca-dea/prenatal/nutrition_e.html) | Community based programs for families with young children. |
| **Family Resource Programs**  
Phone: 1-888-235-8381 or 1-416-410-8204  
Website: [www.frp.ca](http://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: 1-800-668-7808  
Website: [www.familyservicecanada.org](http://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](http://www.growinghealthykids.com) | Information on healthy child development |
| **Invest in Kids**  
Phone: 1-877-583-5437  
Website: [www.investinkids.ca](http://www.investinkids.ca) | Resources and information for parents about healthy child development and parenting. |
| **Nobody’s Perfect**  
Phone: 1-416-977-1222 | Parenting program developed by Health Canada and offered in Ontario through public health and community-based organizations. This program supports parents of young children who are dealing with the additional challenges of being young, single, isolated or having limited financial resources. |
| **One Parent Families Association of Canada**  
Phone: 1-877-773-7714 or 905-831-7098  
Website: [http://hometown.aol.com/opfa222/index.html](http://hometown.aol.com/opfa222/index.html) | 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  
Website: [www.ontarioearlyyears.ca](http://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: 1-416-956-7575  
Website: [www.ofific.org](http://www.ofific.org) | Support and programs for Aboriginal people on health, justice, family, and employment and training. |
| **Parent Help Line**  
Phone: 1-888-603-9100  
Website: [www.parentsinfo.sympatico.ca](http://www.parentsinfo.sympatico.ca) | Support, information and referral services by phone or internet. **24 hour service.** |
| **Vanier Institute of the Family**  
Website: [www.vifamily.ca](http://www.vifamily.ca) | Information and commentary about families. |
### Physical Activity

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| **Canadian Society for Exercise Physiology**  
Website:www.csep.ca/guidelines.asp | Guidelines on physical activity in pregnancy |
| **Canada's Physical Activity Guide**  
Phone: 1-888-334-9769  
Website:www.hc-sc.gc.ca/hppb/paguide/download.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/e/index.htm | 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**  

### Postpartum Depression and Mood Disorder Services

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
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</thead>
</table>
| **Canadian Mental Health Association**  
Website:www.cmha.ca/english/info_centre/mh_pamphlets/mh_pamphlet_pp.htm | Postpartum depression resource. |
| **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

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| **Association of Ontario Midwives**  
Phone: 1-416-425-9974 or 1-866-418-3773  
Website:www.aom.on.ca | List of midwifery practices available in Ontario |
| **Best Start**  
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: 1-800-268-1154, TTY 1-800-387-5559  
Website:www.health.gov.on.ca/english/public/pub/child/hbabies/hbabies.html | 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: 1-416-813-6780  
Alcohol and Substance Use in Pregnancy Helpline: 1-877-327-4636  
Nausea and Vomiting in Pregnancy Helpline: 1-800-436-8477  
HIV Treatment in Pregnancy: 1-888-246-5840  
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/pub/pub_menus/pub_aids.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

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| Human Resources Development Canada  
Website:www.hrdc-drhc.gc.ca/ae-ei/menu/faq/faq3_e.shtml | Information about pregnancy and parental benefits. |
| Ontario Government Website:  
Website:www.gov.on.ca/LAB/english/es/factsheets/fs_preg.html | Fact sheet on pregnancy and parental leave. |
| Ontario Human Rights Commission  
Phone: 1-800-387-9080  
Website:www.ohrc.on.ca | Information about rights related to pregnancy and breastfeeding. |

## Safety & Protection

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
</tr>
</thead>
</table>
| Lifesaving Society  
Phone: 1-613-746-5694  
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: 1-416-366-8115  
Website:www.oacas.org | Help, support and protection for children. Information on how to report child abuse. |
| Ontario Poison Centre  
Toll-free: 1-800-268-9017 or 1-416-813-5900  
Website:www.sickkids.on.ca/Poison/default.asp | 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: 1-888-723-3847  
Website:www.safekidscanada.ca | Information about how to prevent injuries in children. |

## Smoking Cessation

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
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</thead>
</table>
| PREGNETS  
Website:http://pregnets.org | Health care provider and patient resources about the negative consequences of smoking and environmental tobacco smoke on women, fetuses, and children. |
| Health Canada Smoking Information  
Website:www.hc-sc.gc.ca/hecs-sesc/tobacco/quitting/mothers.html | Fact sheets and resources on smoking cessation and pregnancy. |
| Canadian Cancer Society Smokers’ Helpline  
Phone: 1-877-513-5333  
Website:www.smokershelpline.ca | Phone line and website with smoking cessation advice. |

## Special Needs

<table>
<thead>
<tr>
<th>Contact Information</th>
<th>Brief Description</th>
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</thead>
</table>
| Autism Society Ontario  
Website:www.autismsociety.on.ca | 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. |
| Intensive Early Intervention Program for Children with Autism  
| 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/CS/en/programs/SpecialNeeds/default.htm | Information and services for children with special needs. |
<table>
<thead>
<tr>
<th><strong>Speech, Language and Hearing</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact Information</strong></td>
<td><strong>Brief Description</strong></td>
</tr>
<tr>
<td><strong>Infant Hearing Program</strong></td>
<td>Identification and services related to infant hearing concerns.</td>
</tr>
<tr>
<td>Website:www.health.gov.on.ca/english/public/program/child/hearing/hearing_mn.html</td>
<td></td>
</tr>
<tr>
<td><strong>Ontario Association of Speech Language Pathologists and Audiologists</strong></td>
<td>Links to service providers and groups working to address issues surrounding hearing loss and speech impairments</td>
</tr>
<tr>
<td>Website:www.osla.on.ca</td>
<td></td>
</tr>
<tr>
<td><strong>Preschool Speech and Language Program</strong></td>
<td>Information and services related to preschool speech and language.</td>
</tr>
<tr>
<td>Website:www.health.gov.on.ca/english/public/program/child/speech/speech_mn.html</td>
<td></td>
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<table>
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<tr>
<th><strong>Woman Abuse</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact Information</strong></td>
<td><strong>Brief Description</strong></td>
</tr>
<tr>
<td><strong>Assaulted Women’s Helpline</strong></td>
<td>Crisis line for assaulted women across Ontario with simultaneous translation into 150 languages. <strong>24 hour service.</strong></td>
</tr>
<tr>
<td>Phone: 1-866-863-0511 or 1-416-863-0511 1-866-863-7868 (TTY)</td>
<td></td>
</tr>
<tr>
<td><strong>Education Wife Assault</strong></td>
<td>Information and education about physical, psychological, emotional and sexual violence against women.</td>
</tr>
<tr>
<td>Website:www.womanabuseprevention.com/</td>
<td></td>
</tr>
<tr>
<td><strong>National Clearinghouse on Family Violence</strong></td>
<td>Links to resources about violence within the family and how to address it.</td>
</tr>
<tr>
<td>Website:www.hc-sc.gc.ca/hppb/familyviolence/</td>
<td></td>
</tr>
<tr>
<td><strong>Shelternet</strong></td>
<td>Lists of shelters and helplines related to woman abuse.</td>
</tr>
<tr>
<td>Website:www.shelternet.ca</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Vision</strong></th>
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<tbody>
<tr>
<td><strong>Contact Information</strong></td>
<td><strong>Brief Description</strong></td>
</tr>
<tr>
<td><strong>Canadian Paediatric Society</strong></td>
<td>Vision screening information.</td>
</tr>
<tr>
<td>Website:www.cps.ca/english/statements/CP/cp98-01.htm</td>
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## Appendix Q: Resources and Referral Services Form

### Your Guide to Local Services

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