

**Supporting Change: Preventing and Addressing Alcohol
Use in Pregnancy
is a collaborative project of:**

Best Start: Ontario's Maternal,
Newborn and Early Child Development Resource Centre

Motherisk

Centre for Addiction and Mental Health

City of Hamilton Social & Public Health Services

Health Canada, Population and Public Health Branch, Ontario Region

Breaking the Cycle

FASworld Canada

AWARE

FOCUS Resource Centre

Equay wuk

and concerned physicians

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Participant Handbook: Supporting Change

Preventing and Addressing Alcohol Use in Pregnancy

ASK • ADVISE • ASSIST

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- Health Canada, Population and Public Health Branch, Ontario Region • Breaking the Cycle • FASworld Canada
- AWARE • FOCUS Resource Centre • Equay wuk
- and concerned physicians

Best Start: Ontario's
Maternal, Newborn and
Early Child Development
Resource Centre
c/o OPC

180 Dundas Street West, Suite 1900
Toronto, ON, M5G 1Z8
Phone: 1-416-408-2249
or 1-800-397-9567
Fax: 1-416-408-2122
Email: beststart@beststart.org
www.beststart.org

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1. Introduction

Context of the problem

Prenatal exposure to alcohol is a leading cause of preventable birth defects and developmental delays in Canadian children (Health Canada, 1996). Prevention of prenatal exposure to alcohol is a pressing concern. Physicians who work with women prior to and during pregnancy have an important role in asking about alcohol use, providing appropriate advice and in helping women change their drinking behaviour. The training program “Supporting Change: Preventing and Addressing Alcohol Use in Pregnancy” provides important information on clinical practices related to assessing and influencing alcohol use in pregnancy. The objectives and outcomes of the training are:

Objectives

- To understand the range of consequences related to prenatal exposure to alcohol
- To explore the role of alcohol use prior to and during pregnancy
- To understand the demographics of alcohol use in pregnancy
- To identify higher risk groups for alcohol use in pregnancy
- To develop skills in screening women for alcohol use, prior to and during pregnancy
- To discuss how to advise women about alcohol use and pregnancy
- To explore how to assist women who require specialized approaches due to socio-economic status, culture, age or higher drinking levels
- To identify local, provincial and federal resources and services related to alcohol use and pregnancy



Expected Outcomes

Physicians will:

- Know the effects of alcohol use during pregnancy
- Understand why women drink prior to and during pregnancy
- Recognize the profiles of women who are more likely to drink during pregnancy
- Use an effective screening tool to ask women about alcohol use
- Advise women about alcohol use and pregnancy
- Counsel and refer women who need treatment and on-going support
- Know the resources and services related to alcohol use and pregnancy

2. Role of the physician

How physicians can make a difference

Several studies have shown that physicians do not routinely ask pregnant women about alcohol use. Many physicians do not feel prepared to deal with patients on the subject of alcohol use (Nanson et al., 1995; Nevin et al., 2002). Physicians state that in order to improve alcohol assessment and care in pregnancy, they need training and referral resources (Diekman et al., 2000).

The emotional and financial costs of raising a child with Fetal Alcohol Syndrome (FAS) are high. Addressing prenatal exposure to alcohol has been shown to be cost effective. The costs of raising a child with FAS are roughly 30 times higher than the cost of primary prevention programs targeted at high risk populations (Astley et al., 2000). The benefits of prevention to children, parents and to society are immeasurable.

There are brief, effective approaches that physicians can use to provide information about alcohol use in pregnancy, to identify women who require special care, and to help women address alcohol use:

Before Pregnancy: Physicians can educate patients about alcohol prior to pregnancy. Physicians can ask women of childbearing age about alcohol use, and discuss the benefits of stopping drinking prior to pregnancy. Posters and patient handouts can be used to support clinical practices.

During Pregnancy: Physicians can identify pregnant women who are at risk in order to reduce the duration and severity of maternal drinking. Strategies include screening for alcohol use in pregnancy and assisting women to change drinking behaviour through counselling and referrals.

After delivery: The physician also has the responsibility to watch for signs of prenatal exposure to alcohol in children and to make referrals for diagnosis. Early diagnosis and appropriate services can improve the long-term outcomes of children with Fetal Alcohol Syndrome or a related diagnosis.

Women have different needs depending on their drinking levels and whether they:

- Are not planning a pregnancy
- Are planning a pregnancy
- Are pregnant

Here are some of the key clinical practices that physicians can apply:

ASK

- ask all women of childbearing age about alcohol use
- ask all pregnant women about alcohol use

ADVISE

- advise all women planning a pregnancy that no alcohol is the safest choice
- advise all pregnant women that no alcohol is the safest choice
- advise women who consumed alcohol during their pregnancy to contact Motherisk

ASSIST

- assist women to stop drinking through information, counselling, care and referral to appropriate programs and services



Physician concerns about alcohol use in pregnancy

Physicians may not ask about alcohol use in pregnancy because they:

- Lack knowledge about alcohol use in pregnancy
- Are uncomfortable asking about alcohol use
- Have concerns about patient response when asked about alcohol use
- Have personal issues about alcohol use
- Lack time
- Are unsure how to ask women about alcohol use in pregnancy
- Are unaware of effective screening tools
- Are unsure how to advise women
- Are unaware of services for women who are having difficulty changing drinking behaviour

(Miner et al., 1996; Donovan, 1991)



This resource will help you address many of these barriers and to implement effective clinical practices related to alcohol use in pregnancy. Studies show that supportive counselling and appropriate referrals by a physician can result in significant changes in drinking behaviour during pregnancy (Smith et al., 1987).

3. Women and alcohol use

Brief review of harm caused by alcohol use in pregnancy

While the majority of this handbook focuses on strategies to prevent or reduce alcohol use in pregnancy, this section provides brief background information on how alcohol harms the developing fetus.

The association between alcohol use in pregnancy and the constellation of physical abnormalities was first published in the medical literature in 1968 (Lemoine et al., 1968). In 1973 the term Fetal Alcohol Syndrome (FAS) was coined to describe the discrepancies in facial characteristics, growth and neurobehavioural function in children exposed prenatally to alcohol (Jones and Smith, 1973).

How alcohol impacts the fetus

Alcohol passes freely through the placenta and reaches concentrations in the fetus that are as high as those in the mother. The fetus has limited ability to metabolize alcohol. Alcohol and acetaldehyde can damage developing fetal cells (Hard et al., 2001). Alcohol can also affect the umbilical cord (Denkins et al., 2000) and placenta (Siler-Khodr, 2000). Hypoxia can result from impaired placental/fetal blood flow. Alcohol is the most widely used teratogen among women of childbearing age and can have tragic consequences during pregnancy. The effects of alcohol in pregnancy vary with:

- Timing of exposure
- Duration of alcohol consumption
- Dose of alcohol
- General health of the mother
- Services available to the mother
- Other drug use
- Combinations of these factors

(Health Canada, 2000b)

Levels of alcohol use

Fetal Alcohol Syndrome (FAS) appears to result from heavy maternal alcohol use; however safe limits have not been determined. There is controversy about the consequences of mild to moderate alcohol use in pregnancy. Some studies show links between lower levels of alcohol use and low birth weight, IUGR, miscarriage, stillbirth, congenital anomalies, developmental and neuro-behavioral problems; however, more research is needed (Passaro and Little, 1997). The safest choice is to advise patients not to drink at all in pregnancy.

Consequences of alcohol use

Prenatal exposure to alcohol results in a continuum of harm. Miscarriage and still birth are among the most severe consequences. Sometimes the consequences are so mild that it is difficult to diagnose, as in the case of a single birth defect or an isolated learning or behaviour problem. The severity of Fetal Alcohol Syndrome (FAS) varies greatly from an individual who may not learn to speak or walk, to an individual who can, with some support, manage daily living skills.

Maternal use of alcohol can result in growth retardation, distinct facial characteristics and birth defects. The most significant effect of alcohol use in pregnancy is damage to the central nervous system or brain function.

Table 1: Physical Characteristics of Prenatal Exposure to Alcohol

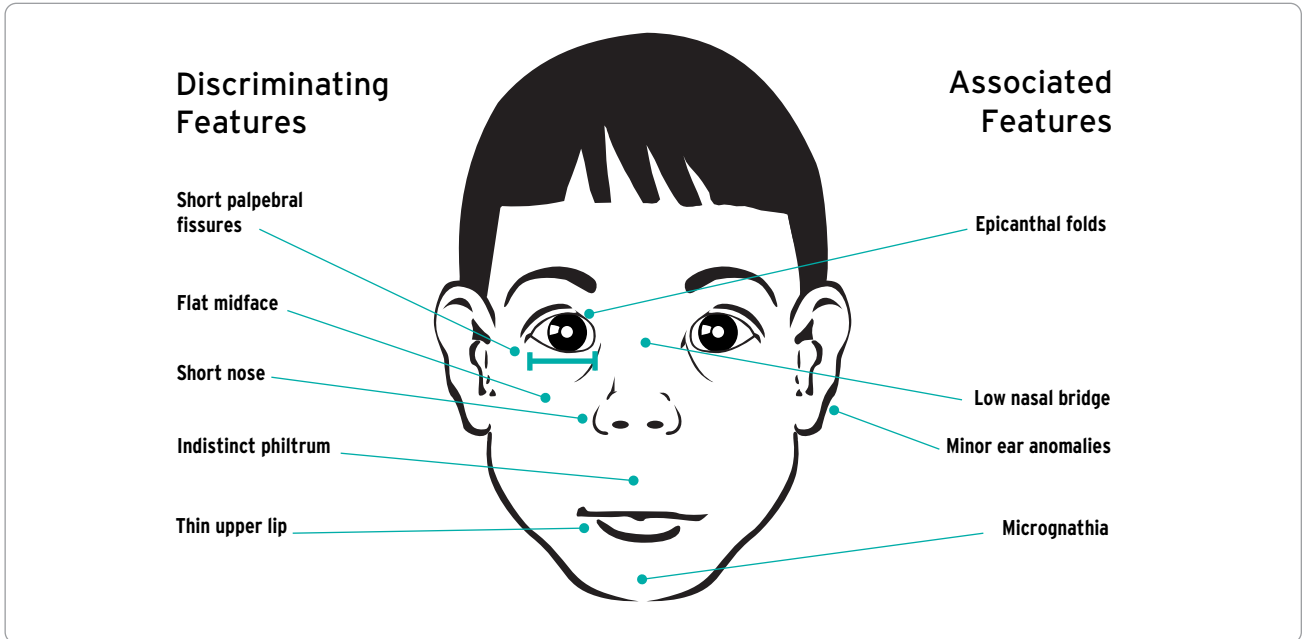
Category:	Sample Physical Characteristics
▶ Growth retardation	-prenatal, low weight or length -postnatal, low weight or length/height
▶ Facial characteristics	-thin upper lip -long flat philtrum -short palpebral fissures -flattened mid-face
▶ Central nervous system	-small head circumference -attention deficits -increased activity -delayed speech -learning deficits -severe behaviour problems
▶ Birth defects	-eye anomalies -hearing problems -dental crowding -limb anomalies -anomalies to the internal organs

Facial features related to alcohol use

First trimester exposure to alcohol is associated with malformations including facial dysmorphology (Abel, 1995). The facial characteristics associated with prenatal exposure to alcohol can be subtle and may require careful measurement. Normal facial characteristics and those associated with other syndromes overlap with typical FAS facial characteristics. Care needs to be taken not to over-diagnose. The facial characteristics associated with prenatal exposure to alcohol may not be evident at birth and tend to normalize in adolescence.



Figure 1: Characteristic Facial Features of Fetal Alcohol Syndrome (FAS)



Diagnostic terms

Prenatal exposure to alcohol can result in a spectrum of harm and there are many accepted diagnostic terms, each with its own diagnostic criteria. Children who were prenatally exposed to alcohol may manifest all of the signs of Fetal Alcohol Syndrome (FAS), some of the characteristics of FAS, or may appear unaffected. Diagnosis may hinge on confirmation of maternal alcohol use, unless there are sufficient characteristics.

Table 2: Common Diagnostic Terms and Criteria for Diagnosis

Diagnostic Term:	Criteria for Diagnosis:
Fetal Alcohol Syndrome (FAS)	-prenatal and/or postnatal growth retardation -characteristic facial features -central nervous system problems
Fetal Alcohol Effects (FAE)	-some, but not all of the characteristics of FAS -more recently termed partial FAS (pFAS)
Alcohol Related Birth Defects (ARBD)	-congenital defects (e.g. cardiac, skeletal, renal, ocular, auditory) associated with prenatal exposure to alcohol -sometimes used to describe the full continuum of harm caused by prenatal exposure to alcohol
Alcohol Related Neurodevelopmental Disorder (ARND)	-central nervous system abnormalities associated with prenatal exposure to alcohol

In the past, FAE was considered to be a milder version of FAS. Recent studies have shown that the level of brain damage can be similar in both FAS and FAE (Sampson et al., 2000). Individuals with FAE may experience more difficulty adapting to adult life, due in part to delayed diagnosis and intervention (Streissguth et al., 1996).

Fetal Alcohol Spectrum Disorder is a new umbrella term that describes the entire range of problems that can be caused by prenatal exposure to alcohol.

Incidence of FAS

While the exact incidence of FAS is unknown, it is estimated that 1 to 2 babies out of every 1,000 are born with the syndrome (Abel and Hannigan, 1995). Some communities have much higher rates of FAS (Williams et al., 1999). Less is known about the rates of FAE, however, the incidence is thought to be several times higher than that of FAS. The associated human and economic consequences of prenatal exposure to alcohol are significant and lifelong.

Paternal drinking

Paternal drinking has not been shown to result in fetal development problems such as FAS or a related diagnosis. Paternal drinking can damage sperm and has strong social and psychological influences on maternal drinking (May, 1998).

Women and alcohol

Alcohol use is a wide-spread, socially acceptable behavior. In Canadian women aged 24-44:

- 50% are regular drinkers
- 12% drink 7-13 drinks per week
- 4% drink 14 or more drinks per week

(Health Canada, 2000b)

National surveys give an indication of the incidence of alcohol use in pregnancy:

- 17% to 25% reported drinking alcohol during their last pregnancy
- 7% to 9% reported drinking throughout their last pregnancy

(Health Canada, 2000b)

Of those who reported consuming alcohol in their last pregnancy:

- 94% reported consuming less than 2 drinks per occasion
- 3% reported consuming 3 to 4 drinks per occasion
- 3% reported consuming 5 or more drinks per occasion

(Health Canada, 2000b)

Higher drinking rates are seen in some populations and in some communities. High drinking rates can be a symptom of underlying community issues such as poverty, isolation and despair.

Pregnancy is an opportunity for change. With additional concerns of a developing pregnancy, many women may be more able to confront and address their alcohol use. Some populations are still relatively unaware of the risks of alcohol use in pregnancy, however, a national survey shows that:

- 62% of Canadian women say they would stop drinking if they found out they were pregnant
- 11% say they would cut back on their alcohol use if they were pregnant

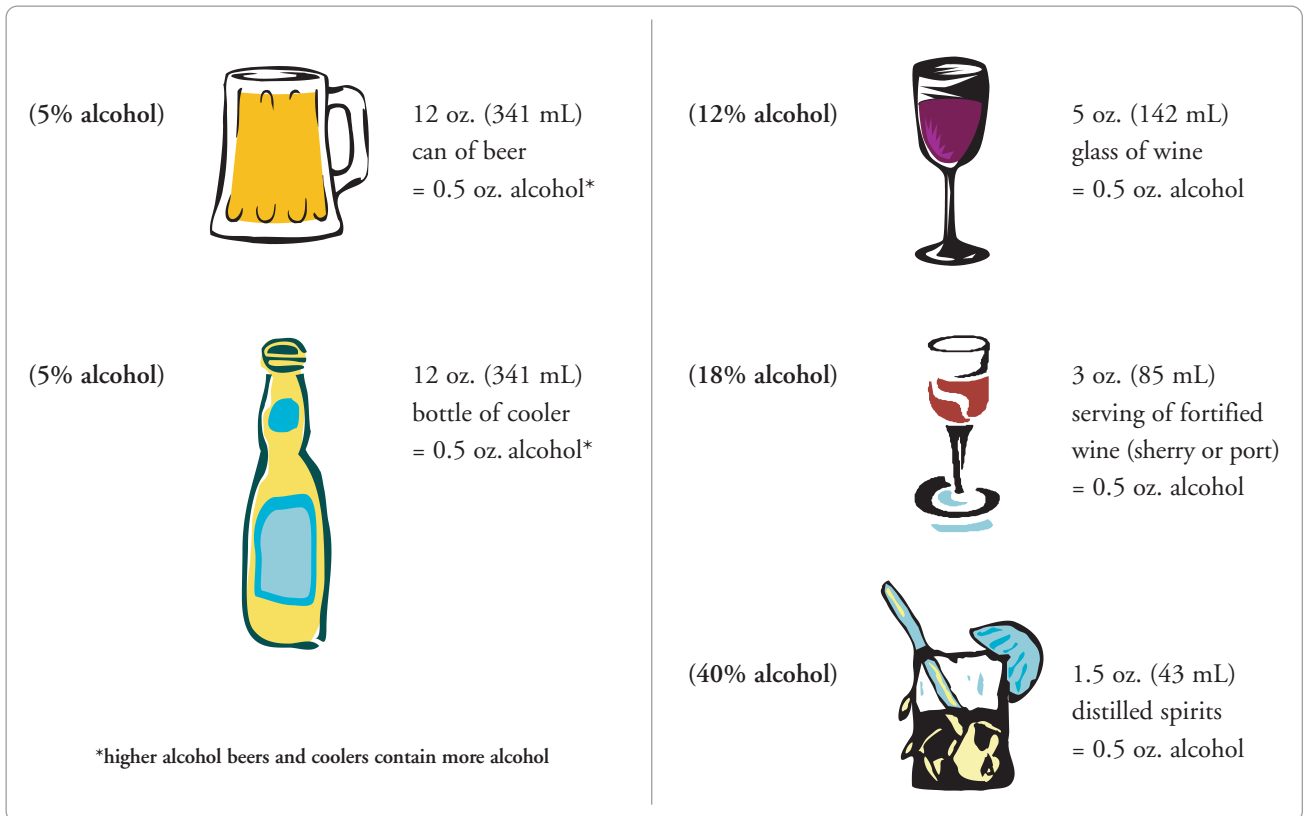
(Health Canada, 2000a)



Drinking patterns and concerns

All types of alcoholic beverages are harmful during pregnancy, and risk to the fetus is proportional to the amount of actual alcohol consumed. A standard drink contains 0.5 oz (14.2 mL) of alcohol.

Figure 2: Definitions of Standard Drinks (A Standard Drink = 0.5 oz. of alcohol)



Under-reporting

Women may choose to under-report the amount that they drink for a variety of reasons. Women may:

- Feel guilty about their alcohol use
- Fear being judged
- Fear losing their baby or other children

Women may also tend to under-report due because they lack knowledge about what constitutes a standard drink. When reporting the number of drinks consumed per day, most people tend to under-estimate their alcohol use. Women frequently drink larger than standard drink sizes, underestimating the size of their drinks by an average of 30% (Kaskutas and Graves, 2000). Participants in one study identified drink sizes that were 49% above the standard drink size for beer and 307% above the standard drink size for spirits (Kaskutas and Graves, 2001). The lack of awareness of standard drink sizes can result in an underestimation of alcohol use.

At risk drinking

There are no known benefits to alcohol use during pregnancy, however there are many associated concerns. The level of harm is dose related and is proportional to alcohol exposure. Adverse effects to the fetus are related to the peak blood alcohol levels.

Some common terms related to different patterns of alcohol consumption for women are:

Abstainers: do not consume alcohol

Low-risk drinkers: consume 1-2 standard drinks per day, no more than 9 per week

Problem drinkers: consume more than 21 standard drinks per week

Alcohol-dependant drinkers: cannot stop drinking once they start

Binge drinkers: consume 5 or more standard drinks per occasion



Damage to the fetus is most likely to occur with higher levels of alcohol use including:

- Consuming an average of 2 or more drinks a day (heavy drinking)
- Consuming 5-6 drinks on some occasions (binge drinking)

(Abel and Hannigan, 1995; Ebrahim et al., 1999)

Safe limits

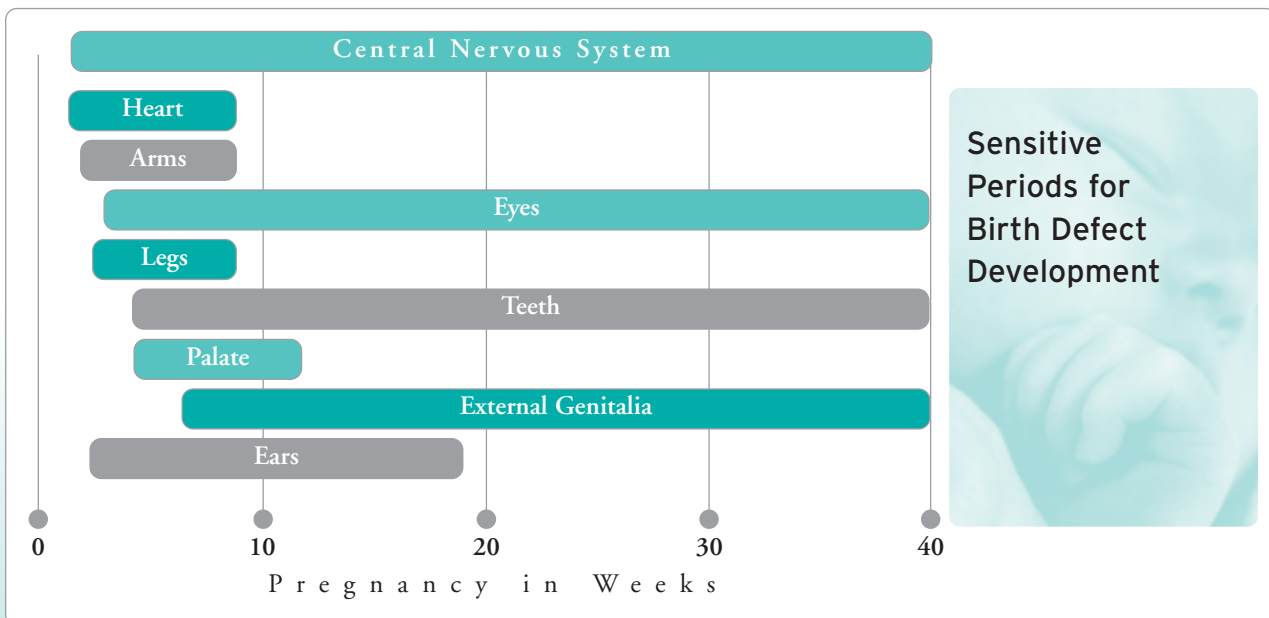
Research to date has not been able to establish a safe limit for alcohol use in pregnancy. There has been much debate over the risks of mild to moderate levels of alcohol use in pregnancy (Polygenis et al., 1998). The evidence demonstrates that FAS is most strongly associated with heavy or binge drinking. Moderate levels of drinking may be associated with low birth weight, IUGR, miscarriage, stillbirth, developmental and neuro-behavioral problems, however, more research is needed in this area (Passaro and Little, 1997; Sood et al., 2001). Physicians should advise patients that the safest choice is not to consume alcohol during pregnancy (Abel and Kruger, 1999).

Timing of alcohol use

Prenatal exposure to alcohol results in a wide range of types and levels of harm to the fetus, linked to the timing and extent of alcohol use. There is no safe time to drink during pregnancy. Sensitive periods are as follows:

- Birth defects – first trimester of pregnancy
- Growth retardation – third trimester of pregnancy
- Central nervous system – throughout pregnancy

Figure 3: Sensitive Periods for Birth Defect Development



First trimester

In order to avoid alcohol exposure in the first sensitive weeks of pregnancy, women need to stop drinking prior to pregnancy. However, about half of all Ontario pregnancies are unplanned (Health Canada, 2000d). This presents physicians with the double challenge of trying to promote the benefits of a planned pregnancy while trying to assess and influence alcohol use prior to and during pregnancy. Physicians can reassure patients who unintentionally drank small amounts of alcohol in the first trimester, that it is unlikely to cause serious harm to the fetus (Koren et al., 1996).

Second and third trimesters

Possible structural damage from earlier alcohol consumption cannot be undone; however, infants of mothers who stopped drinking in the second trimester exhibited less growth retardation and fewer neuro-behavioural deficits than mothers who drank throughout pregnancy (Coles et al., 1985). Reducing or stopping alcohol use, even as late as the third trimester, has been shown to increase the viability of the fetus (Jones and Chambers, 1998).

Why women drink during pregnancy

In general, women who drink during pregnancy do not want to hurt their children. A woman may drink:

- Before she knows she is pregnant
- Because she does not know it is harmful
- To cope with life problems
- Because it is a social norm

Alcohol use may stem from or lead to a range of unfavorable social and health conditions including:

- Accidents or injuries
- Poverty
- Isolation
- Abuse
- Stress or depression
- Mental health concerns
- Addiction
- Low self esteem
- High risk sexual behavior
- Sexually transmitted disease
- Unplanned pregnancy
- Legal problems



Alcohol use may be confounded by:

- Tobaccos use
- Other drug use
- Poor nutrition
- Stress

Women who drink during pregnancy

There are several populations that appear to be at higher risk for having a child with FAS. In some studies higher rates of alcohol use during pregnancy were associated with increased age, higher income and being married (Dzakpasu et al., 1998). For example, 22.6% of women aged 35 and over reported prenatal alcohol consumption compared to 11.7% of women aged less than 25 years of age (Health Canada, 2000c). This is not the traditional “high risk” group for maternal newborn health concerns. Studies of mothers of children who have FAS show an over representation of women with:

- Low income
- Low literacy
- Minority status
- Unplanned and unwanted pregnancies
- A previous child with FAS or a related diagnosis
(Ernst et al., 1999; Nanson, 1997; Hankin and Sokol, 1995)

Other studies show that young women are at high risk of having a baby with FAS due to frequent binge drinking behavior (5 or more drinks per occasion) (Lex, 1990).

Ask all women

It is important to screen all women for alcohol use, and not to make assumptions based on income or appearance. Women of low and high socio-economic status are at risk of drinking during pregnancy.

Many women who use alcohol can change their behaviour without professional help, upon learning that they are pregnant (Kaskutas and Graves, 1994). Women who may find it more difficult to stop drinking include those who:

- Have been drinking for a long period of time
- Have a lower income
- Smoke
- Are unmarried
- Live in a context where alcohol use is a social norm
- Have developed a tolerance and dependence on alcohol
(Health Canada, 2000b)

Alcohol dependence is characterized by 3 or more of the following characteristics:

- Tolerance or reduced response to the intoxicating effects of alcohol
- Withdrawal, excessive activity of the autonomic system caused by abrupt cessation of drinking, including sweating, racing pulse, tremors, seizures, insomnia, nausea or vomiting, hallucinations, agitation and anxiety
- Drinking alcohol more often and in larger amounts than intended
- Difficulty cutting down or controlling alcohol use
- Considerable time spent drinking, recovering from drinking and planning drinking opportunities
- Negative impact on work, school, family, friends and recreation
- Continued drinking despite knowledge of its negative impact
(Brands et al., 1998)

Early identification and supportive interventions are important for women who use alcohol in pregnancy.



4. Patients requiring specialized approaches

Pregnant teens

Teens are more likely to have unplanned pregnancies and to delay initiation of prenatal care. Rates of frequent and binge drinking are high among young women (Allard-Hendren, 2000). An Ontario study of students in grades 7-13 showed that, in the last 12 months:

- 65.6% of all students reported drinking alcohol
- 65.0% of female students reported drinking alcohol
- 80% of all grade 12 students reported drinking alcohol (Adlaf et al., 2001)



Frequency of drinking and heavy drinking are also increasing among youth:

- 16.3% of drinkers drank weekly
- 39.6% of drinkers reported consumption of 5 or more drinks on a single occasion
- 6.4% of drinkers reported consuming 5 or more drinks on a single occasion, 5 or more times during the 4 weeks before the survey (Adlaf et al., 2001)

The frequency of heavy and binge drinking places young women at risk for unplanned and unprotected sexual activity. Delayed recognition of pregnancy and delayed initiation of prenatal care can increase the length of time that the fetus is inadvertently exposed to alcohol.

Aboriginal women

Alcohol use prior to and during pregnancy is higher in some Aboriginal communities and is often a symptom of deeper, underlying community concerns such as poverty, lack of hope and despair. Many Aboriginal organizations feel that effective treatment is based on holistic care reflected in the medicine wheel teachings and rediscovery of cultural and spiritual traditions (Government of Canada, 1993). Treatment often involves a community-wide rather than an individual approach to healing (Van Biber, 1997). When possible, link Aboriginal women who use alcohol to culturally appropriate services.

Diverse cultural groups

Alcohol use in pregnancy affects the fetus, regardless of ethnicity and culture. There are various cultural beliefs around the role of women, alcohol use, appropriate care during pregnancy and child rearing practices. Be sensitive to the range of cultural values and beliefs held by the women you encounter:

- Provide accurate advice
- Be non-judgmental
- Ask about cultural issues so that you have a better understanding of the patient's needs
- Avoid making assumptions about the patient's practices and beliefs

New immigrants to Canada may experience language barriers and may be unaware of needed services. Link new immigrants to culturally and linguistically appropriate services and choose easy-to-read handouts with clear diagrams.

If possible, use a non-family member as a translator to allow privacy for potential disclosure of difficult issues such as physical abuse and substance use.

Women with low socio-economic status

Women who live in poverty may use alcohol as a coping mechanism to deal with high levels of stress and despair. The situation may be complex due to inadequate housing, lack of clothing, food and childcare, low levels of support and a history of trauma and abuse. Dealing with alcohol use in isolation of these factors is not likely to be effective and may decrease use of prenatal care services.

Ask about income and ability to purchase healthy food in a sensitive way. Have information available on services that meet basic needs such as food, shelter and legal services in your community. When talking to women, be empathetic and non-judgmental. Advice on healthy choices should be linked with practical ways to put the advice into practice. For example, women may know that they should eat more fruits and vegetables, but may be unable to afford them. Referrals to prenatal nutrition programs and other community support services can help meet these needs.

Women with high socio-economic status

Physicians often do not ask well-dressed and articulate women about alcohol use. Avoid making assumptions based on income or marital status. Alcohol use crosses all socio-economic boundaries and some studies show higher rates of alcohol use in pregnancy among women of higher socio-economic status (Dzakpasu et al., 1998).

With accurate information and advice, many women of higher socio-economic status may be able to avoid alcohol use entirely during pregnancy. Many women delay child bearing in order to establish their careers, and plan ahead for their pregnancies. This provides increased opportunities to advise women before pregnancy, and increased incentives for women to make health changes prior to pregnancy. Some women, however, will need supports in order to change drinking behaviour. If a woman is not ready to disclose the fact that she is pregnant to others, offer advice on how to deal with social situations such as workplace events that involve alcohol.

Women living in violent situations

Women may be using alcohol in order to cope with abuse. Screen all women for abuse and pay particular attention to signs of abuse in women who drink frequently or heavily. Link women with suspected or confirmed abuse to needed resources and services. Ensure that the partner is not present when you ask about abuse and take care not to increase danger to the woman.

Referrals

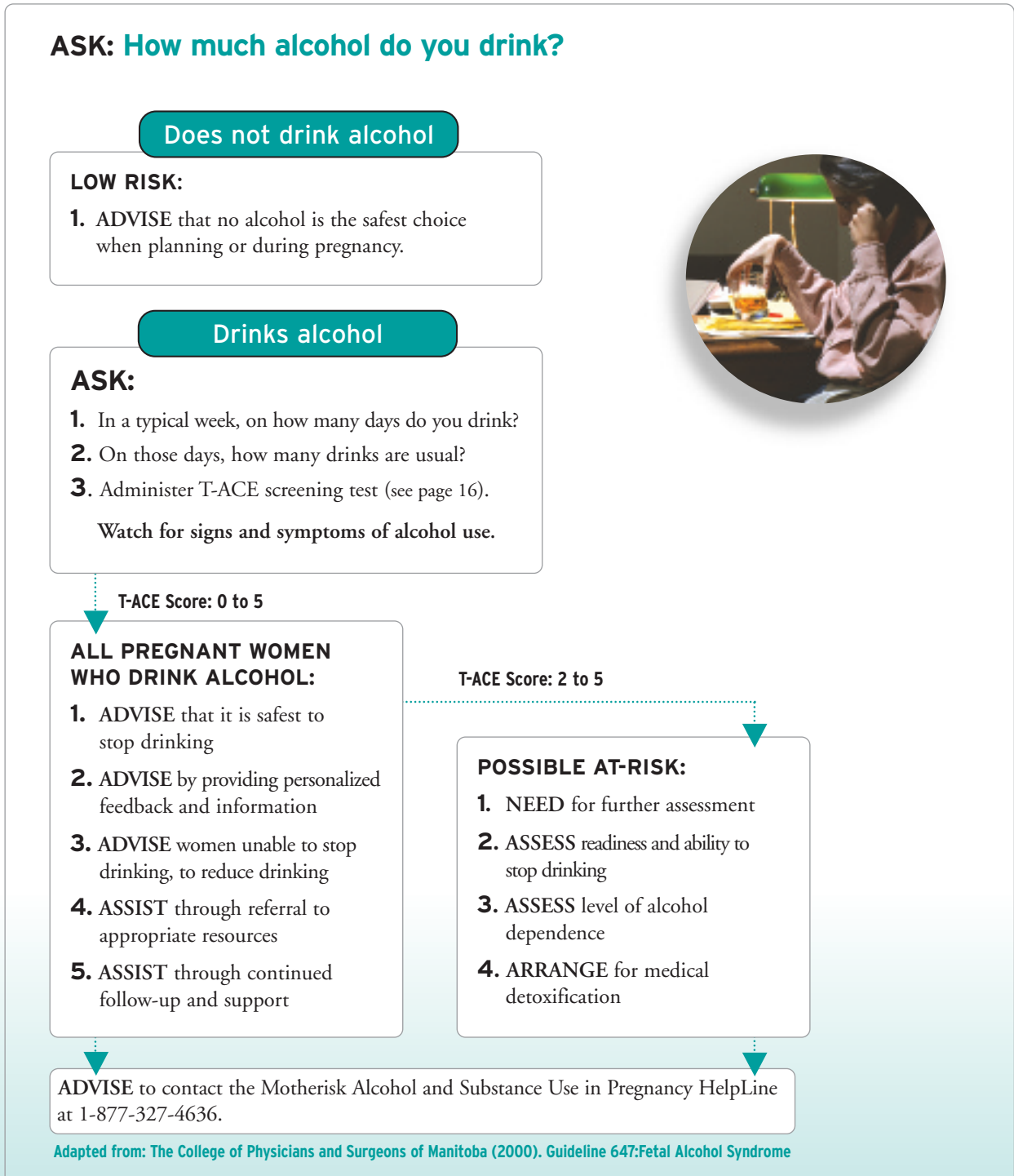
Women may benefit from referral to other programs, in addition to referrals that are directly related to alcohol use. Access to services that address serious conditions such as poverty, isolation, inadequate food, violence, etc can increase readiness and ability to cope with alcohol use. Consider referring patients to local services such as:

- Healthy Babies Healthy Children
- Aboriginal health and support services
- Friendship Centres
- Canada Prenatal Nutrition Programs
- Community Action Programs for Children
- Family Resource Centres
- Pregnancy support programs
- Food Banks
- Prenatal classes
- Women's shelters
- Early Years Centres

5. Overview of clinical practices

Carefully consider the strategy that you will use to identify and assist women around alcohol use prior to and during pregnancy. This section is an overview of strategies to ask, advise and assist patients around alcohol use and pregnancy. Other sections of this manual provide more details on each of the steps.

Figure 4: Summary of Clinical Practices for Alcohol Use and Pregnancy



Patients will need different advice and care depending on their reproductive status.

Table 3: Advice and Care Relative to Reproductive Status

	Not Planning a Pregnancy	Planning a Pregnancy	During Pregnancy	Following Pregnancy
<p>ASK</p> <ul style="list-style-type: none"> -frequency -quantity -T-ACE 	<ul style="list-style-type: none"> -determine risks to woman -determine risks of an unplanned pregnancy 	<ul style="list-style-type: none"> -determine risks to woman -determine risks to a future pregnancy 	<ul style="list-style-type: none"> -determine risks to woman -determine past and future risks to fetus 	<ul style="list-style-type: none"> -determine risks to woman -determine risks to infant if breastfeeding
<p>ADVISE</p> <ul style="list-style-type: none"> -advise on stopping drinking -advise on risks 	<p><i>“If you decide to get pregnant, it is safest to stop drinking”</i></p> <p><i>“Your level of alcohol use may put you at risk for an unplanned pregnancy”</i></p>	<p><i>“It is safest to stop drinking before you get pregnant”</i></p> <p><i>“Alcohol may harm a developing fetus”</i></p>	<p><i>“It is safest to stop drinking if you are pregnant”</i></p> <p><i>“Call Motherisk for information and advice”</i></p>	<p><i>“It is safest not to drink while breastfeeding”</i></p> <p><i>“If you drink alcohol call Motherisk to see how long you need to wait before resuming breastfeeding”</i></p>
<p>ASSIST</p> <ul style="list-style-type: none"> -brief intervention -information -referrals -follow-up 	<ul style="list-style-type: none"> -discuss reliable, long lasting birth control methods 	<ul style="list-style-type: none"> -assist in delaying pregnancy until she has stopped drinking 	<ul style="list-style-type: none"> -if patient is unable to stop drinking, assist in reducing alcohol use as much as possible 	<ul style="list-style-type: none"> -if patient drinks while breastfeeding, provide her with information on how long she should wait before resuming breastfeeding

6. How to ASK about alcohol use and pregnancy

When to ask

Ask all patients about alcohol use. Alcohol use is widespread and the majority of alcohol users show no symptoms of alcohol use. Ask the patient about alcohol use at the initial visit and during several follow-up visits. Key times to assess alcohol use are:

- Initial visit
- Annual gynecological visit
- Preconception visit
- Visits for confirmation of pregnancy
- Mid pregnancy (24-28 weeks)
- Exit visit (32-36 weeks gestation)

Your office environment can also be important. Consider the following:

- Putting up posters about alcohol and pregnancy
- Ordering patient handouts such as brochures in different languages
- Using a chart reminder system to remind you to ask about alcohol use
- Providing information about information lines



How to ask

Introduce your discussion about alcohol by explaining that you will be asking a standard series of health questions that are directed to all patients in order to improve health.

Avoid questions that suggest that you want a negative response. Once the patient responds negatively, it is difficult to explore the issue further (Weiner et al., 1985) ie:

- **Negative:** You don't drink, do you?
- **Positive:** How much alcohol do you drink?

Start by asking how much alcohol the patient drinks. If the patient denies drinking alcohol, reinforce that it is safest not to drink alcohol prior to and during pregnancy. If the patient discloses that they use alcohol, ask about frequency and quantity of use. Follow up with the 4 questions in the T-ACE screening tool. The scoring from the T-ACE questionnaire will indicate if the patient is "at-risk" or "high-risk". In addition, watch for signs and symptoms of alcohol use.

When asking about alcohol use, consider the following:

- Be non-judgmental
- Listen attentively to her concerns
- Refrain from negative comments or reactions
- Focus on the mother as well as the baby
- Be sensitive to broader issues such as poverty and abuse
- Make positive statements about the fact that the woman is seeking prenatal care

Screening tools

Health care providers are less likely to recognize alcohol-related problems in women than they are in men. One study showed that health care providers identified 67% of men with alcohol-related problems and only 24% of women (Buchsbaum et al., 1992). Women are half as likely as men to receive treatment for alcohol related problems (Weisner and Schmidt, 1992). Routine screening programs can help identify women with alcohol related problems.

Physicians should recognize that patients tend to under-report drinking levels. Screening tools that ask indirectly about alcohol use are helpful in identifying women who drink at higher risk levels. Many short screening tools ask about the consequences of drinking, avoiding direct questions about alcohol use.

Effective screening tools

There are many brief screening tools to assess for risk levels of alcohol use. Assessment tools are effective in identifying women who will need assistance to change drinking behaviour. Some are more sensitive in assessing alcohol use in pregnancy. CAGE, while widely used, has been shown to be relatively insensitive with some female populations (Cherpitel, 1997; Bradley et al., 1998). T-ACE was designed to eliminate denial and under-reporting of heavy drinking by pregnant women and has been shown to be highly sensitive for use with pregnant women (Russell et al., 1996; Russell, 1994). In one study, T-ACE accurately identified 69% of high risk drinkers in a cohort of 971 pregnant women (Sokol et al., 1989). Make positive statements about the patient's progress at each prenatal visit.

Figure 5: T-ACE Screening Tool

T-ACE

- ▶ **TOLERANCE** - How many drinks does it take to make you high?
 - Score 2 for more than 2 drinks
 - Score 0 for 1 or 2 drinks
- ▶ **ANNOYANCE** - Have people Annoyed you by criticizing your drinking?
 - Score 1 for yes
- ▶ **CUT DOWN** - Have you ever felt you ought to Cut down your drinking?
 - Score 1 for yes
- ▶ **EYE OPENER** - Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hang over?
 - Score 1 for yes

Possible At-Risk Score = 2 or more points
Maximum – 5 points

(Sokol et al., 1989)

When screening patients for alcohol use, keep in mind that a positive response is likely to be accurate, however a negative response may not be accurate (Offord and Craig, 1994). Continue to ask about alcohol use on subsequent visits and watch for signs and symptoms of alcohol use. Screening will assist in identifying higher risk drinking and can help you link patients to needed resources and services. The goal, however, is to reduce all forms of maternal alcohol use. If the patient reports that she does not drink, reinforce that no alcohol is the safest choice during pregnancy. If the patient consumes alcohol, provide advice, appropriate care and referrals.

Signs and symptoms of alcohol use

The majority of women who use alcohol will have no physical signs of alcohol use. In addition to screening, watch for other evidence of alcohol use.

Table 4: Signs and Symptoms of Alcohol Use

Physical Findings:	Psychological Findings:	Red Flags:
Alcohol on breath	Memory loss	Repeat injuries
Scars, injuries	Depression	Numerous emergency room visits
Hypertension	Anxiety	Late entry to prenatal care
Symptoms of withdrawal	Panic	Missed appointments
Tachycardia	Paranoia	Patient intoxicated
Tremors	Unexplained mood swings	Previous child with FAS
Slurred speech		Extramural delivery
		History of physical or emotional abuse by partner
		STDs (including AIDS)
		Compliance problems
		Family history of substance abuse

7. How to ADVISE about alcohol use and pregnancy

Prior to and during pregnancy, patients need advice about alcohol use and its impact on reproductive health.

Advice to stop drinking:

Recommend that patients stop drinking if they are planning a pregnancy or if they are pregnant, regardless of alcohol use or socio-economic status. Use a clear straight forward statement such as:

- When planning a pregnancy, it is safest to stop drinking prior to conception **or**
- The safest choice is not to drink during pregnancy **or**
- If you are pregnant, it is safest to stop drinking

If a patient is unable to stop drinking, advise them to cut back as much as possible.

Advice about the risks:

When possible, use positive statements to provide an accurate assessment of risks (Weiner et al., 1985). Guilt and self-criticism about drinking behaviour are not productive and may lead to feelings of inadequacy and increased alcohol use. Compare the following:

- **Positive:** If you stop drinking you have a better chance of having a healthy baby.
- **Negative:** Your drinking has already damaged your baby.

- **Positive:** Your concern for your baby will help you be a good mother.
- **Negative:** If you really loved your baby, you would not drink so much.

- **Positive:** You will feel better when you are sober and so will your child.
- **Negative:** Continued drinking will prevent your child from developing normally.

Respect that decisions about whether or not to proceed with a pregnancy are personal and may be very difficult to make. A woman whose drinking presents high risks to her fetus may decide to continue her pregnancy. A woman who is at low risk may decide to discontinue her pregnancy. If the woman chooses to terminate her pregnancy, the physician should make every effort to assist her in changing her drinking behaviour (Koren et al., 1998).

Advice about drinking in pregnancy:

Patients who drank small amounts of alcohol before they knew they were pregnant can be advised that the risks are minimal. Advise patients who report alcohol use during their pregnancy to contact the toll free Alcohol and Substance Use in Pregnancy Help Line (1-877-327-4636).



8. How to ASSIST in addressing alcohol use and pregnancy

Women who drink during pregnancy will require sensitive counselling and possible referral to appropriate services. Stopping drinking at any time in the pregnancy can improve outcomes.

Extra effort, referrals and services may be needed to assist women who use alcohol and are living in difficult life circumstances.

Philosophy of care:

Physicians who discuss alcohol use in a comfortable, non-threatening manner can assist women in changing their behaviour (Morse and Hutchins, 2000). Strategies that are effective in engaging substance-using patients in care:

- Are non-judgmental
- Use motivational enhancement
- Are honest and open
- Are women-centred
- Build on strengths
- Are culturally sensitive
- Are supportive



Harm reduction

While the safest choice is not to drink any alcohol during pregnancy, many women are not ready, willing or able to consider complete abstinence. Prenatal care can improve outcomes, even if the patient continues to drink. An abstinence only approach may serve to alienate women from prenatal care. Prenatal care itself, and any reduction in alcohol use, have the potential to improve maternal and newborn outcomes. If a patient is not able to consider complete abstinence, in spite of your advice on risks, assist her in a non-judgmental fashion, to reduce her alcohol use as much as possible. Help her to improve her general health in other ways. Improving nutrition and reducing smoking can reduce the risks, even if a woman continues to drink (Hagberg and Mallard, 2000). Recognize any small steps to improving health.

Brief interventions

Pregnancy is a time when women may be more responsive to interventions related to alcohol use. Brief interventions have been shown to have an impact on alcohol use in some pregnant women (Handmaker et al., 1999; Reynolds et al., 1995; Chang et al., 2000). Larsson (1983) reported that 76% of alcohol using women decreased or eliminated alcohol use following a brief intervention. Some women will require more intensive approaches including treatment and, if necessary, detoxification.

Brief interventions should address the risk factors associated with the patient's drinking behaviour, including problem-solving and referral to services that can help the patient meet basic needs for social support, food, housing and safety. Interventions should include a review of:

- The general health of the woman
- The course of the pregnancy
- The lifestyle changes the woman has made since pregnancy
- Interest in changing drinking behaviour
- Goal setting
- Situations when the woman is most likely to drink

To assess levels of motivation to change drinking behaviour ask:

- How **important** it is to the woman
- How **confident** she is of making the change

FRAMES is an effective brief intervention strategy that includes several important elements. Screening combined with a brief intervention based on FRAMES has been shown to result in reduced drinking in heavy drinkers (Yahne and Miller, 1999).

Figure 6: FRAMES Brief Intervention Strategy

FRAMES

- ▶ **F**eedback: provide clients with personal feedback regarding their individual status
- ▶ **R**esponsibility: emphasize personal responsibility for change and the individual's freedom of choice
- ▶ **A**dvice: include a clear recommendation on the need for change, in a supportive rather than an authoritarian manner
- ▶ **M**enu: offer a menu of strategies for change, providing options from which the client may choose
- ▶ **E**mpathy: be empathetic, reflective, warm and supportive
- ▶ **S**elf-efficacy: reinforce clients expectation that she can change

Management of alcohol withdrawal

Alcohol withdrawal starts 6 to 48 hours after drinking stops and symptoms may include autonomic hyperactivity, sweating, tremors, anxiety, insomnia and seizures. Alcohol is eliminated at less than one standard drink per hour (10mg/dl/hour) and detoxification is usually complete after 72 hours. Withdrawal may cause fetal hypoxia and the risks of fetal distress and spontaneous abortion are increased. Alcohol withdrawal should be treated medically. For advice on the care of pregnant patients during withdrawal, contact Motherisk. Care should include:

- A complete history including quantity and frequency of alcohol and other drug use
- Blood alcohol including urine tox screen
- Thiamine 100mg im, folate, vitamins and iron
- TLC and a quiet room
- Diazepam loading 10-20 mg po per hour according to withdrawal severity
- Monitor vital signs, delirium, Wernicke's and fetal well-being
- If sedated, hold medications
- Once withdrawal is stabilized no tapering of Diazepam is required
- **Referral to treatment**

While many programs provide priority to pregnant women, women still experience many barriers to treatment. The following are important barriers that should be acknowledged and addressed:

- Fear that the baby may be apprehended at birth by child protection services
- Fear that other children may be apprehended by child protection services
- Lack of child care
- Lack of services for pregnant women
- Lack of linguistically and culturally appropriate services
- Depression
- Abusive relationship
- Pressure from family members
- Denial that drinking is a problem
- Low perception of risk to the fetus

Treatment following withdrawal

Following withdrawal, patients should be monitored for alcohol use on an ongoing basis. Fetal growth and well being should be assessed regularly. Ongoing care of pregnant women who use alcohol should include medical, addiction and psychosocial issues. Treatment programs specifically designed for women are preferable because of gender differences in:

- Motivation (i.e. concern for the fetus)
- Barriers (i.e. childcare)
- Issues such as past physical and sexual abuse
(Walitzer and Connors, 1997)

These are important elements of substance abuse treatment in the perinatal period:

- Respectful service philosophy
- Provision of comprehensive and practical care
- Collaboration and coordination of services
- Flexible continuum of services including:
 - Case management and flexible scheduling
 - Attention to family issues
 - Continuing care or aftercare

Care during labour and delivery

If patient is intoxicated during labour and delivery, provide supportive care and watch for withdrawal. If withdrawal occurs:

- Use short acting benzodiazepine (lorazepam) 1-2mg po/sl q1h
- Monitor the fetus
- C-section if fetal distress occurs

If patient has been in treatment, manage pain through:

- An epidural or short acting narcotics in labour and delivery
- Non-opioids in early post-partum

If opioids are necessary, do not discharge the patient home with large amounts of opioids or sedatives.

9. After the delivery

Drinking Alcohol while Breastfeeding

Breastfeeding is the optimal method of infant nutrition. It is healthier than formula feeding for both infants and their mothers. This section provides important information for health care providers about reducing any possible negative effects of alcohol while continuing to support breastfeeding.

Alcohol consumed by the mother passes into her bloodstream and her breast milk. Alcohol levels in the breast milk are similar to the blood alcohol levels of the mother at the time of feeding. Alcohol leaves the body as it is metabolized. A breastfeeding infant is exposed to a very small amount of the alcohol the mother drinks, but infants detoxify alcohol in their first weeks of life at half the rate of adults. Alcohol is not stored in the breast milk and passed to the infant at a later feeding. **Having an occasional alcoholic drink has not been shown to be harmful to a breastfed infant.** A single exposure of alcohol from breast milk may have a mildly sedating effect or alter the odour or taste of the breast milk. Ideally it is best to avoid breastfeeding for about 2 hours after drinking one alcoholic beverage. Women may want to express breast milk to relieve any engorgement for their own comfort.

Excessive use of alcohol can affect milk flow in lactating mothers. Adverse effects on nursing infants can include:

- Impaired motor development
- Changes in sleep patterns
- Decrease in milk intake
- Risk of hypoglycemia

Excessive or daily intake of alcohol is not recommended for any mother due to issues of impairment of care and the risk of fetal alcohol spectrum disorder for a subsequent pregnancy.

- Women can protect their infants from the adverse effects of alcohol by scheduling their occasional alcohol consumption around breastfeeding. Mothers of infants who go several hours without breastfeeding may benefit from information you can share from the attached table.

For more information on alcohol and breastfeeding call Motherisk Helpline: 1-877-327-4636

Table 5: Breastfeeding and Alcohol Use

Time from beginning of drinking until clearance of alcohol from breast milk for women of various body weights, assuming alcohol metabolism is constant at 15 mg/dL and woman is of average height (1.62 m or 5'4").

*1 drink = 340 g (12 oz) of 5% beer, or 141.75 g (5 oz) of 11% wine, or 42.53 g (1.5 oz) of 40% liquor.

Example no. 1: For a 40.8-kg (90-lb) woman who consumed three drinks in 1 hour, it would take 8 hours, 30 minutes for there to be no alcohol in her breast milk, but for a 95.3-kg (210-lb) woman drinking the same amount, it would take 5 hours, 33 minutes.

Example no. 2: For a 63.5-kg (140-lb) woman drinking four beers starting at 8:00 pm, it would take 9 hours, 17 minutes for there to be no alcohol in her breast milk (ie, until 5:17 am).

(Ho et al., 2001)

Mother's Weight KG (lbs)	No. Of Drinks* (Hours : Minutes)												
	1	2	3	4	5	6	7	8	9	10	11	12	
40.8 (90)	2:50	5:40	8:30	11:20	14:10	17:00	19:51	22:41					
43.1 (95)	2:46	5:32	8:19	11:05	13:52	16:38	19:25	22:11					
45.4 (100)	2:42	5:25	8:08	10:51	13:34	16:17	19:00	21:43					
47.6 (105)	2:39	5:19	7:58	10:38	13:18	15:57	18:37	21:16	23:56				
49.9 (110)	2:36	5:12	7:49	10:25	13:01	15:38	18:14	20:50	23:27				
52.2 (115)	2:33	5:06	7:39	10:12	12:46	15:19	17:52	20:25	22:59				
54.4 (120)	2:30	5:00	7:30	10:00	12:31	15:01	17:31	20:01	22:32				
56.7 (125)	2:27	4:54	7:22	9:49	12:16	14:44	17:11	19:38	22:06				
59.0 (130)	2:24	4:49	7:13	9:38	12:03	14:27	16:52	19:16	21:41				
61.2 (135)	2:21	4:43	7:05	9:27	11:49	14:11	16:33	18:55	21:17	23:39			
63.5 (140)	2:19	4:38	6:58	9:17	11:37	13:56	16:15	18:35	20:54	23:14			
65.8 (145)	2:16	4:33	6:50	9:07	11:24	13:41	15:58	18:15	20:32	22:49			
68.0 (150)	2:14	4:29	6:43	8:58	11:12	13:27	15:41	17:56	20:10	22:25			
70.3 (155)	2:12	4:24	6:36	8:48	11:01	13:13	15:25	17:37	19:49	22:02			
72.6 (160)	2:10	4:20	6:30	8:40	10:50	13:00	15:10	17:20	19:30	21:40	23:50		
74.8 (165)	2:07	4:15	6:23	8:31	10:39	12:47	14:54	17:02	19:10	21:18	23:50		
77.1 (170)	2:05	4:11	6:17	8:23	10:28	12:34	14:40	16:46	18:51	20:57	23:03		
79.3 (175)	2:03	4:07	6:11	8:14	10:18	12:22	14:26	16:29	18:33	20:37	22:40		
81.6 (180)	2:01	4:03	6:05	8:07	10:08	12:10	14:12	16:14	18:15	20:17	22:19		
83.9 (185)	1:59	3:59	5:59	7:59	9:59	11:59	13:59	15:59	17:58	19:58	21:58	23:58	
86.2 (190)	1:58	3:56	5:54	7:52	9:50	11:48	13:46	15:44	17:42	19:40	21:38	23:36	
88.5 (195)	1:56	3:52	5:48	7:44	9:41	11:37	13:33	15:29	17:26	19:22	21:18	23:14	
90.7 (200)	1:54	3:49	5:43	7:38	9:32	11:27	13:21	15:16	17:10	19:05	20:59	22:54	
93.0 (205)	1:52	3:45	5:38	7:31	9:24	11:17	13:09	15:02	16:55	18:48	20:41	22:34	
95.3 (210)	1:51	3:42	5:33	7:24	9:16	11:07	12:58	14:49	16:41	18:32	20:23	22:14	

The role of birth control

An unplanned or unwanted pregnancy can be a consequence of maternal alcohol use. Barriers to family planning include:

- Maternal drug and alcohol use
- Lack of access to birth control
- Lack of support from the partner to use birth control

(Astley, 2000)

For women whose difficulties with alcohol place them at risk of an unplanned pregnancy, discuss birth control options that are long lasting and reliable, for example Depo-Provera, Norplant or an IUD (Koren et al., 1998). Advise women about condom use for protection from sexually transmitted diseases.

If you suspect FAS or a related diagnosis

A family physician may be the first to notice characteristics of prenatal exposure to alcohol in a child. Early diagnosis and appropriate interventions are associated with improved outcomes for children. Parents often find their ability to cope improves when they understand that behavior and learning problems are most likely caused by brain damage, not the child's choice to be inattentive or uncooperative. Diagnosis of FAS and related conditions requires a multidisciplinary approach and can be complex because:

- Facial characteristics may not be apparent at birth and tend to normalize in adolescence
- Learning, attention and behavioural difficulties may not become apparent until the child starts school
- The diagnostic criteria for FAS overlaps with criteria for other syndromes
- The facial characteristics of FAS overlap with normal facial characteristics
- Standard growth charts may not be representative in some communities
- Psychological test results may not be accurate for some communities
- Information on maternal alcohol use may not be available or reliable

If FASD is suspected, refer for diagnosis and link the family to information, supports and services. For information on local diagnostic services, contact the FASD Information and Consultation Services at 1-800-559-4514.



If you work with a family impacted by FAS or a related diagnosis

Raising children suffering from prenatal exposure to alcohol can be challenging. They have complex medical, psychological and social needs. Stable living environments, early diagnosis and appropriate services appear to reduce the severity of the behavioural and social problems exhibited by an affected child.

Children with FAS or a related diagnosis often have:

- Difficulty eating
- Difficulty sleeping
- High levels of activity
- Difficulty remembering
- A short attention span
- Language and speech deficits
- Problems with abstract thinking
- Poor judgement
- Social problems
- Difficulty forming and maintaining relationships
- Problems with vision and hearing



It is not possible to change the birth defects and brain damage of children prenatally exposed to alcohol; however, specialized parenting and education strategies can improve outcomes for these children. While we have much to learn about working with infants, children, adolescents and adults with FAS or a related diagnosis, some generalizations can be made:

Infancy: Strategies in infancy focus on efforts to calm the baby and to address failure to thrive. Special methods can be used to swaddle, hold, soothe, feed and stimulate the infant.

Childhood: Children with prenatal exposure to alcohol may have vision, hearing and speech problems that should be assessed as early as possible. Crowding of the teeth may necessitate orthodontic attention. Recommendations for a positive learning environment include: calm and quiet, structure and routine, reducing distractions and repetition.

Adolescence and Adulthood: When a child reaches adolescence, behaviour may become challenging at school and home. Difficulties may include mental health problems, substance abuse and trouble with the law. In some cases problems progress to include incarceration, early parenthood, difficulties with employment and independent living. Failure to consider the consequences of actions can lead to many adverse situations. Adaptive function and cognitive ability widens as the child gets older, contributing to social problems. Adolescents continue to need secure and structured environments. Advocacy and case management are important services at this stage.

Contact local groups and organizations to find out about services in your community. The following national programs can also help families find the information they need:

FAS/FAE Information Service

Canadian Centre on Substance Abuse (CCSA)
300 - 75 Albert Street
Ottawa, ON K1P 5E7
Tel: 1-800-559-4514
Fax: (613) 235-8101
Email: fas@ccsa.ca
URL: www.ccsa.ca/fasgen.htm

FASworld Canada

1509 Danforth Avenue
Toronto, ON M4J 5C3
Tel: (416) 465-7766
Fax: (416) 465-8890
Email: fasworldcanada@rogers.com
URL: www.fasworld.com



10. Conclusions

Pregnancy is a time when women may be more ready to think about and improve their health. Pregnant women, thinking about their babies and their new role as a mother, may be more able to initiate the difficult process of changing drinking behaviour.

Studies have shown that alcohol use in pregnancy can affect fetal development at all stages of pregnancy. Stopping or reducing alcohol use has benefits for the mother and the child. While not drinking at all, starting before conception, is the safest approach, stopping drinking at any time in the pregnancy will help the baby.

Physicians have an important role in addressing alcohol use prior to and during pregnancy. There are brief, low cost approaches that are effective in changing alcohol use in pregnancy. Asking about alcohol use through sensitive screening tools, advising women on the risks, and assisting women in changing drinking behaviour are important clinical approaches to alcohol use in pregnancy.

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Appendix A - Sample Reproducible Screening Tool Form

Name: Date:

Frequency/Quantity

How much alcohol do you drink?

Drinks Alcohol.....

Does not drink alcohol.....

In a typical week, on how many days do you drink?.....

On those days, how many drinks are usual?

T-ACE

How many drinks does it take to make you high?
(score 0 for 1 or 2 drinks, score 2 for more than 2 drinks)

Have people annoyed you by criticizing your drinking?
(Score 1 for yes)

Have you ever felt you ought to cut down your drinking?
(Score 1 for yes)

Have you ever had a drink first thing in the morning to steady your nerves or get rid
of a hang over? *(Score 1 for yes)*

Total Score:

(High risk score=2 or more points)

Readiness to Stop Drinking

How important is it for you to quit drinking?

How confident do you feel in your ability to stop drinking?.....

Notes:

.....

.....

.....

.....

Appendix B - Patient Handout

Alcohol and Pregnancy

Is it OK to drink alcohol when I am pregnant?

Drinking alcohol during pregnancy can harm your baby. Your baby may not grow as well, may have birth defects or brain damage. Stopping drinking will help your baby.

What if I had a few drinks before I knew I was pregnant?

Many pregnancies are not planned. Having a few drinks before you knew you were pregnant is not likely to harm your baby. You can help your baby by stopping drinking.

Can I have a few drinks during pregnancy?

We are not sure how much alcohol it takes to harm a baby. It is safest not to drink at all during pregnancy. There is no safe time to drink in pregnancy.

Are some types of alcohol less harmful?

Alcohol, whether it is beer, wine, or liquor, can harm your baby.

What is FAS?

FAS or Fetal Alcohol Syndrome is one of the terms used to describe children whose mothers drank during pregnancy. These children have faces that look a bit different, are small in size, and many have difficulty learning because they have brain damage.

Do people with FAS grow out of their problems?

FAS is a life-long problem.

Can the father's drinking cause FAS?

If the father drinks it will not cause FAS.

Father's drinking can affect the mother's drinking.

If you drank alcohol during pregnancy you can get advice and information from:

**Motherisk Alcohol and Substance Use in Pregnancy Help Line
1-877-327-4636**



Help is available if you want to stop drinking.

Talk to your family doctor or contact Motherisk.

Appendix C – Resources and Services

Organization

Alberta Clinical Practice Guidelines Program

12230-106 Avenue NW
Edmonton, AB, T5N 3Z1
Phone: 1-780-482-2626
Fax: 1-780-482-5445
Email: ama_cpg@amda.ab.ca

Best Start: Ontario's Maternal, Newborn and Early Child Development Resource Centre

c/o OPC
180 Dundas Street West, Suite 1900
Toronto, ON, M5G 1Z8
Phone: 1-416-408-2249 or 1-800-397-9567
Fax: 1-416-408-2122
Email: beststart@beststart.org
www.beststart.org

Centre for Addiction and Mental Health

33 Russell Street
Toronto, ON, M5S 2S1
Phone: 1-416-535-8501 x6982
Fax: 1-416-595-6601
Email: library@camh.net
www.camh.net

College of Family Physicians of Canada

2630 Skymark Ave
Mississauga, ON, L4W 5A4
Tel: 1-905-629-0900
Fax: 1-905-629-0893
www.cfpc.ca

FAS/FAE Information Service

Canadian Centre on Substance Abuse
75 Albert Street, Suite 300
Ottawa, ON, K1P 5E7
Phone: 1-613-235-4048 x223 or 1-800-559-4514
Fax: 1-613-235-8101
Email: fas@ccsa.ca
www.ccsa.ca/fasgen.htm

Resources and Services

- Preface to the Prevention and Diagnosis of FAS
- Recommendations: Prevention of FAS
- Guideline for the Diagnosis of FAS

- Alcohol and Pregnancy Poster
- FAS Model
- Alcohol and Pregnancy Displays
- Supporting Change Presenter Manual
- Supporting Change Participant Handbook
- Alcohol Screening Desk Reference
- Alcohol and Breastfeeding Desk Reference
- How to Build Partnerships with Physicians

- Reference Library on Alcohol & Pregnancy
- Toll-free Info Line 1-800-463-6273

- MAINPRO Accreditation Application Forms

- Reference Library on FAS/FAE
- Directory of FAS/FAE Information and Support Services in Canada

Organization

Health Canada

Publications
Ottawa, ON, K1A 0K9
Phone: 1-613-954-5995
Fax: 1-613-941-5366
www.fas-saf.com

Manitoba Text Book Bureau

Box 910
Souris, MB, R0K 2C0
Phone: 1-204-483-4040
Fax: 1-204-483-3441
Email: mtbb@merlin.mb.ca
www.edu.gov.mb.ca

Motherisk

The Hospital for Sick Children
555 University Ave
Toronto, ON, M5G 1X8
Phone: 1-877-327-4636
Fax: 1-416-813-7562
www.motherisk.org

National Institute on Alcohol Abuse and Alcoholism

Publication Distribution Centre
Box 10686
Rockville, MD 20849-0686
www.niaaa.nih.gov

Ontario College of Family Physicians

357 Bay Street, Suite 800
Toronto, ON, M5H 2T7
Tel: 1-416-867-9646
Fax: 1-416-867-9990
www.cfpa.ca/ocfp

Resources and Services

- Pregnant? No Alcohol Poster
- Pregnant? No Alcohol Pamphlet
- Joint Statement: Prevention of FAS & FAE in Canada

- What Doctors Need to Know about FAS – CD or cassette

- Physician Training
- Alcohol and Substance Use Helpline Poster
- Alcohol and Substance Use Helpline Pamphlets
- Alcohol and Substance Use in Pregnancy Help Line (1-877-327-4636)
- Pregnancy Wallet Card
- FAS/ARND Assessment

- Identification of At-Risk Drinking and Intervention with Women of Childbearing Age
- Identification and Care of Fetal Alcohol-Exposed Children

- MAINPRO Accreditation Application Forms