



Drinking and Reproductive Health

A Fetal Alcohol
Spectrum Disorders
Prevention Tool Kit



Continuing Medical Education Information

Drinking and Reproductive Health: A Fetal Alcohol Spectrum Disorders Prevention Tool Kit has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the American College of Obstetricians and Gynecologists (ACOG). ACOG is accredited by the ACCME to provide continuing medical education (CME) for physicians. ACOG designates this educational activity for a maximum of 3 *AMA PRA Category 1 Credits™* or up to a maximum of 3 Category 1 ACOG Cognate Credits. Physicians should only claim credit commensurate with the extent of their participation in the activity.

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As of January 2009, the faculty for this program reports the following: Joseph F. Borzelleca, Jr., MD is an Implanon trainer for Organon.

Instructions for CME Credit

To earn CME credit, participants in this activity must read the publication and complete and return the answer sheet and evaluation form available at www.acog.org/ and on the FASD Prevention Tool Kit CD.

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Target Audience

This CME activity is intended for all health care providers who care for reproductive-age women.

Learning Objectives

Upon completion of this CME activity, participants will be able to:

- Define, quantify, and recognize the significance of risky drinking and the use of effective contraception for women of reproductive age.
- Identify a method (or methods) to effectively screen for risky drinking in women of reproductive age.
- Understand the use and content of brief intervention to educate and counsel women about risky drinking and fetal alcohol spectrum disorders (FASD) prevention.
- Identify methods to address patient concerns about drinking and reproductive health.
- Identify patient and family-oriented information resources on FASD prevention.

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A Fetal Alcohol Spectrum Disorders Prevention Tool Kit

Prevention of fetal alcohol spectrum disorders (FASD) begins during routine gynecologic care prior to conception and continues through the postpartum period. With information on screening, education, and counseling, this publication will help women's health care clinicians prevent FASD when they encounter risky drinking, regardless of pregnancy status.

In addition to this guide, the *Tool Kit* includes the following:

Tools for Patients--information about drinking and reproductive health

Tools for Clinicians--additional screening tools and counseling tips

A pocket card illustrating standard-sized drinks

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Fetal Alcohol Spectrum Disorders

Fetal alcohol spectrum disorders (FASD) is an umbrella term that describes the range of effects that can occur to an individual whose mother drank during pregnancy.¹ These effects may include physical, mental, behavioral, and learning disabilities with lifelong implications. The term FASD is not intended for use as a clinical diagnosis but encompasses a spectrum of conditions that may occur as a result of prenatal alcohol exposure. Other terms that describe effects of prenatal alcohol exposure include alcohol-related birth defects and alcohol-related neurodevelopmental disorders.

Prevention of FASD begins during routine gynecologic care prior to conception and continues through the postpartum period. Intervention includes screening for alcohol consumption among all women of childbearing age and providing education and counseling when risky drinking is encountered, regardless of pregnancy status. Intervention may also include assessing effective contraception practices in women not trying to become pregnant who are drinking at risky levels.

Risk Factors, Prevalence

Maternal risk factors for an alcohol-exposed pregnancy include

- smoking
- a history of inpatient treatment for drugs or alcohol
- a history of inpatient mental health treatment
- having multiple sex partners
- recent physical abuse²

FASD may be found in all ethnic and social groups.

When to Use This *Tool Kit*

This publication presents an intervention kit developed to help women's health care clinicians prevent FASD.

Interventions are designed to:

- identify risky alcohol use before and during pregnancy and
- promote the use of effective contraception among women who engage in risky drinking while working toward alcohol reduction goals

This *Tool Kit* provides the clinician with strategies to reduce alcohol exposure to the developing fetus. It consists of a simple screening tool and intervention for pregnant women that can be incorporated into routine care. The method is based on proven, effective techniques and can be used by many levels of providers in office, clinic, or community settings.

FETAL ALCOHOL SYNDROME (FAS)

Fetal alcohol syndrome (FAS) is the most severe disorder resulting from prenatal alcohol use.^{1,3} In its 1996 report on FAS, the Institute of Medicine concluded that FAS and other conditions associated with prenatal alcohol exposures are "completely preventable birth defects and neurodevelopmental abnormalities."⁴ The report stated that FAS is arguably the most common nongenetic cause of mental retardation. Alcohol affects the development of skeletal structures, organs, the central nervous system, and overall growth.¹ Specific characteristics associated with FAS include:

- central nervous system abnormalities, including at least one structural, neurologic, or functional abnormality
- growth deficits
- facial dysmorphism, including a smooth philtrum, thin vermilion border, and short palpebral fissures

Women at high risk for giving birth to a child with FAS include those who drink heavily and are either pregnant or at risk of becoming pregnant, and particularly those who have already had a child with FAS.^{1,4,5}

The reported incidence of FAS varies depending on the population being studied and the ability and willingness of providers to recognize and report it. In the United States, the prevalence of FAS ranges from 0.5 to 2 cases per 1,000 births; rates are higher among subpopulations, such as some Native Americans, African Americans, and selected minority groups.^{1,2,6}

Fetal Alcohol Syndrome: The Tip of the Iceberg

Considering the effects of alcohol use in pregnancy, FAS is the tip of the iceberg. For every child born with FAS, many more children are born with neurobehavioral deficits caused by alcohol exposure but without the physical characteristics of FAS.²



How much is too much?

Women may be at risk for alcohol-related problems if their consumption exceeds 3 drinks per occasion or more than 7 drinks per week.⁷ Any amount of drinking is risky for women who are pregnant or trying to become pregnant.²

Drinking Prevalence and Patterns

Government survey data of substance abuse from 2002 and 2003 indicate that 9.8% of pregnant women aged 15 to 44 reported drinking alcohol, and 4.1% reported binge drinking, defined as 5 or more drinks consumed on one occasion (Figure).⁸ The definition of binge drinking as 5 or more drinks was developed for the general population and not specifically for women. In 2005, the NIAAA defined binge drinking for women as more than 3 drinks per occasion.⁷

A Centers for Disease Control and Prevention (CDC) study found that binge drinking episodes per person per year increased between 1995 and 2001 by 35% and that 47% of binge drinking episodes occurred among otherwise moderate drinkers.⁹ Binge drinking in pregnant women is of particular concern because spikes in blood alcohol levels may result in more severe teratogenic effects overall than those associated with daily drinking at lower levels of consumption.¹

Rationale for Intervention

The impact of alcohol begins during early organogenesis, after implantation but before many women know they are pregnant. Alcohol readily crosses the placenta and may cause neurobehavioral effects early during pregnancy.¹⁰ It is therefore classified as a neurobehavioral teratogen.

It appears that even moderate alcohol consumption during pregnancy may alter psychomotor development, contribute to cognitive deficits, and produce emotional and behavioral problems in children, although patient denial and underreporting make it difficult to quantify these effects.¹¹⁻¹³ There is evidence of varying susceptibility to alcohol's effect on the developing baby. While alcohol consumption may have negative consequences for any pregnant woman, the effects of alcohol may be more potent in mothers who are older, in poor health, or who also smoke or use drugs.¹⁰

Because many women have unintended pregnancies and may not be aware they are pregnant for several weeks, it is important to intervene with all women of childbearing age to prevent a potential alcohol-exposed pregnancy.

No safe level of alcohol consumption during pregnancy has been identified, and no period during pregnancy appears to be safe for alcohol consumption.²

Screening and Intervention

At minimum, periodic screening for risky alcohol use should take place on admission to care, during periodic or annual gynecologic visits, and at the first prenatal visit. Several screening instruments are available to identify alcohol use in patients.^{14,15} All pregnant women and those trying to become pregnant should be counseled to avoid alcohol consumption.^{4,6,10} In addition, any woman of childbearing age who drinks at levels that put her at risk should be counseled to use effective contraception and be provided with specific strategies to reduce her alcohol consumption. Intervention should be directed toward women who are at risk as well as toward their partners, family members, and close friends.⁴ As of January 2007, new coding is available through Medicaid for physician reimbursement for alcohol screening and brief intervention.

Brief Interventions Are Effective

There is strong evidence that brief behavioral counseling interventions for risky drinking by both pregnant and nonpregnant reproductive-age women reduce the risk of alcohol-exposed pregnancy. In one multicenter project, nearly 70% of women who were drinking at risky levels and not using effective contraception reduced their risk of an alcohol-exposed pregnancy 6 months after a brief intervention because they stopped or reduced their drinking below risky levels, or they started using effective contraception.¹⁵ For women who are already pregnant, randomized studies reported significant reductions in alcohol use and improved newborn outcomes after intervention.^{14,16}

Figure. Past month alcohol use in pregnant women by age, 2002 and 2003.⁸ Pregnant women ages 15 to 25 years old reported slightly higher rates of all alcohol consumption than women older than 25 years.



*Heavy alcohol use was defined as 5 or more drinks on the same occasion on each of 5 or more days in the past 30 days; heavy alcohol users were also binge drinkers.

Screening and Intervention Guidelines

These three simple steps have been proven effective in identifying women who drink at risky levels and engage them in changing behavior to reduce their risk for an alcohol-exposed pregnancy.

Step 1:

Ask About Alcohol Use

Ask:

"I have a few routine questions for you about when you use alcohol. Have you ever had a drink containing alcohol?"

If the patient answers yes, continue using a validated screening tool such as the T-ACE.¹⁹ The most valid disclosure may result if the screening questions are incorporated into a form completed by the patient.

T Tolerance:

How many drinks does it take to make you feel high?
(>2 drinks = 2 points)

A Annoyed:

Have people annoyed you by criticizing your drinking?
(yes = 1 point)

C Cut down:

Have you ever felt you ought to cut down on your drinking?
(yes = 1 point)

E Eye-opener:

Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?
(yes = 1 point)

It takes about 1 minute to ask the T-ACE questions.

Determine the quantity and frequency of drinking.

Educate the patient about what constitutes a standard-sized drink by showing her the "Standard Drink Equivalents" card in the *Tool Kit*.

Ask:

"On average, how many standard-sized drinks containing alcohol do you have in a week?"

"When you drink, what is the maximum number of standard-sized drinks you have at one time?"

Proceed to Step 2 (Brief Intervention) when:

- Her T-ACE score is 2 or more points
- The patient *is not* pregnant or not trying to become pregnant and she is having an average of more than 7 standard-sized drinks per week or more than 3 standard-sized drinks on any one occasion
- The patient is pregnant or trying to become pregnant and drinking

Step 2:

Brief Intervention

Brief, motivation-enhancing interventions are associated with sustained reduction in alcohol consumption by women of child-bearing age.^{17,18} The FRAMES model has successfully helped clinicians deliver brief interventions.^{20,21}

F Feedback

Compare the patient's level of drinking with drinking patterns that are not risky. She may not be aware that what she considers normal is actually risky.

R Responsibility

Stress that it is her responsibility to make a change.

A Advice

Give direct advice (not insistence) to change her drinking behavior.

M Menu

Identify risky drinking situations and offer options for coping.

E Empathy

Use a style of interaction that is understanding and involved.

S Self-efficacy

Elicit and reinforce self-motivating statements such as, "I am confident that I can stop drinking." Encourage the patient to develop strategies, implement them, and commit to change.



Ensuring Effective Contraception

A woman who drinks alcohol at risky levels may not always follow prescribed procedures for effective contraception. Review contraception use with her to ensure that she has *full* contraceptive coverage *every time* she has sexual intercourse. This might include providing secondary, back-up, or emergency contraceptive methods. For example, along with oral contraceptives, advise her to use condoms, which have the added benefit of reducing sexually transmitted diseases.

Examples of interventions using the FRAMES model:

For patients who are pregnant:

"You've already done many good things to help your baby be healthy. You mentioned that you're having _____ drinks. There is no known safe amount of drinking when you're pregnant. Drinking during pregnancy could cause complications for you and your baby. I'd certainly suggest that you stop drinking now."

Be prepared to respond to a patient who is concerned that she has already hurt her baby with cautious reassurance. If her drinking appears to have been very heavy, options counseling may be advised.

After giving your advice, ask for a response to make sure the patient understands the need to take action:

"What do you think about what I've just said? How do you feel about working with me to quit drinking?"

Establish a contract to quit drinking.

For patients who are *not* pregnant and are not trying to become pregnant:

"Your drinking is in the range that we call 'risky drinking' because it can cause health risks for you. These risks include injury, sexually transmitted diseases, unplanned pregnancy, and potentially an alcohol-exposed pregnancy. If you become pregnant, your baby could be seriously affected. It is important to reduce your drinking to no more than 7 drinks per week and no more than 3 drinks on any one occasion. It is also important to use effective birth control every time you have sex."

Ask for a response to your advice to make sure the patient understands the need to take action:

"What do you think about what I've just said? How do you feel about reducing your drinking below risky levels? What about using effective birth control?"

If the patient agrees, consider establishing goals and a change plan with her to reinforce behavior changes. (See "MY PLAN for Alcohol" and "MY PLAN for Birth Control," *Tools for Clinicians* in the *Tool Kit*.)

Candidates for referral

Refer the following patients to behavioral health specialists for additional evaluation:

- Women who have attempted to quit drinking but have been unsuccessful
- Women who continue to drink despite negative health and social consequences
- Women whom you suspect of having alcohol abuse or dependence problems

It can be helpful to assist the patient with making an appointment with a behavioral specialist while she is in your office.

Step 3:

Follow-up for Women Who Engage In Risky Drinking

At follow-up visits, monitor progress on alcohol goals and use of effective contraception (if relevant).

- Patient meets her goals: Congratulate her and reinforce her behavior change.
- Patient doesn't meet her goals: Restate your advice to quit or cut back, review her plan, and work with her to modify, if necessary. Encourage her and offer additional support.
- Patient continues risky drinking: If she is pregnant or trying to become pregnant, encourage her to abstain, discuss treatment options, and follow-up with message reinforcement. If the patient is not pregnant or not trying to become pregnant, encourage her to cut back on drinking, especially if she is not using consistent, effective contraception. Discuss treatment options as applicable.
- Patient is referred for additional treatment: Ensure that she followed up, and ask for her treatment status.

If a patient was drinking when she became pregnant or drank during her pregnancy, reassure her that the things she is doing now to quit or cut back can increase the likelihood that her baby will be healthy.



Frequently Asked Questions

Q: What do I say to a woman who is practicing risky drinking behavior but has no intention of getting pregnant?

A: Tell her that research has established that women experience more medical consequences from alcohol over a shorter period of drinking compared with men who drink at the same level. Reinforce that having more than 7 drinks per week or more than 3 drinks on any one occasion is considered risky drinking. Reiterate the potential for injury, sexually transmitted diseases, unwanted pregnancy, and other health risks. Also reiterate that nearly half of all pregnancies in the United States are unintended; when a woman isn't trying to become pregnant, she may unknowingly damage her unborn baby by drinking even before she finds out that she is pregnant. Encourage her to use effective birth control.

Q: What do I say to my patients who drank alcohol throughout other pregnancies and had babies without symptoms of FASD?

A: Every pregnancy is different. Drinking alcohol may hurt one baby more than another. Tell her she could have one child who is born healthy and another child who is born with problems. Also tell her that as she gets older, her drinking is more likely to hurt her baby.

Q: My patient is dependent on alcohol but also has other children at home. Is there alcohol treatment available for pregnant and parenting women?

A: Most states have women-specific and pregnancy-specific treatment programs for alcohol and drug abuse. These programs may offer child care and parenting support. See *Resources* for contact information.

Q: One of my patients said that antioxidants cancel out the harmful effects of alcohol on the fetus. What does the literature say about this?

A: There is no evidence that antioxidants can mitigate the effects of alcohol on pregnancy. Alcohol has many mechanisms by which it exerts a negative effect on pregnancy.

Q: I see many women who had a few drinks in early pregnancy and are now very worried that they have seriously damaged their babies. What should I tell them?

A: Although there is no known threshold of safety for alcohol use during pregnancy, there have been no known cases of damage to the fetus from non-risky drinking in early pregnancy. Stopping drinking at any point in her pregnancy is best for her and her baby. From this point of her pregnancy on, she should abstain from drinking. Consider talking to the pediatrician about the patient's concerns after the child is born. In some instances, it may be reassuring to the patient to have her child evaluated by a developmental psychologist.

Q: Occasionally I see a patient who appears to have alcohol dependence. What should I do?

A: Acknowledge that reducing or quitting drinking is hard, and tell her that many people find the best way to quit is with help. Describe the kinds of help she can get, including care from treatment specialists, medication (eg, naltrexone for nonpregnant women), and support from mutual help groups (see *Resources*). Involve the patient in making referral decisions and, if possible, help her schedule a referral appointment while she is in the office.

Q: How do I avoid affecting my patients' insurability when we discuss alcohol use?

A: Obstetrician/gynecologists are not trained to offer a formal diagnosis of substance abuse and therefore should not code for it in communication with insurers.

Q: From a risk-management perspective, what are the strategies that decrease my risk if my patient's baby is eventually diagnosed with FASD?

A: Include documentation in the patient's chart that you have performed risk screening and, when applicable, brief intervention and follow-up.

Q: How do I respond when the patient tells me that other clinicians have not determined that her drinking is a problem?

A: Tell the patient that you specialize in caring for women and babies. Other physicians specialize in other kinds of care and might not have asked the same kinds of questions or discussed plans for pregnancy with her. Also, some physicians may not be aware of the effects of alcohol on women and their children. Tell her that you're particularly concerned because drinking that wouldn't be risky for nonpregnant women can cause complications for pregnant women and their babies. Recognition that alcohol affects men and women differently is recent; women are at risk drinking less alcohol than previously thought.

Q: How serious are the effects of drinking on a fetus?

A: Prenatal exposure to alcohol is one of the leading preventable causes of birth defects. Heavy exposure can lead to spontaneous abortion (miscarriage), stillbirth, anatomic congenital anomalies, and abnormal neurobehavioral development, including lowered IQ, mental retardation, and behavioral problems.

Q: How do I respond to questions concerning reports to authorities on alcohol use, particularly for pregnant women?

A: Seeking obstetric-gynecologic care should not expose a woman to criminal or civil penalties or the loss of her children. As with other confidential medical information, a patient's history of alcohol use should not be made available to police or government agencies unless specifically required by law.²²

A Blueprint for Putting Screening and Intervention into Practice

For most busy obstetric and gynecologic practices, time is at a premium. Finding time to use these screening and brief interventions will be challenging. Successful strategies used by busy clinicians to incorporate these steps are included here to help you identify and assist women at risk:

- Review this *Tool Kit* with other office personnel. Discuss areas of resistance. Decide who will do each step and where that will be done.
- Incorporate the screening tools on a health questionnaire completed by the patient in a private area prior to seeing the clinician. Use this questionnaire for other health questions, such as smoking, drug use, abuse, physical activity. (See the ACOG website for more information about psychosocial screening.)
- If the patient is unable to read the questionnaire, ask an office staff member to assist her.
- The brief intervention, referrals, and follow-up can be initiated by the clinician and completed by a nurse, social worker, or other professional staff.
- Identify local resources for further evaluation and treatment of patients prior to initiating screening and intervention. (See *Resources* for more information.)



Background Information for Nonpregnant Women

Tell your patient:

"Here is some information that has been learned through research; I'd like to share it with you":

- Alcohol is a drug that can have harmful effects; the more alcohol someone drinks, the stronger the effects.
- If a woman has more than 7 drinks a week or more than 3 drinks on a single day, she is engaging in risky drinking.
- Risky drinking increases a woman's chances of developing alcohol-related illnesses, suffering injuries, having an unplanned pregnancy, and contracting a sexually transmitted disease.
- There is no known safe level of drinking for pregnant women.
- When a woman engages in risky drinking, is sexually active, and doesn't use effective birth control, she is at greater risk for:
 - Becoming pregnant
 - Having a baby with birth defects or brain damage caused by heavy drinking; this includes fetal alcohol syndrome
- About half of all pregnancies occur when women are not trying to become pregnant; many do not realize they are pregnant until the second or third month.
- Many safe birth control methods are available that can keep you from getting pregnant if you use them each time you have vaginal intercourse.

Ask:

"What do you think about this?"

Develop a Change Plan

A patient who engages in risky drinking can use a change plan to help her reach her goals. See sample change plans in the handouts section of this *Tool Kit*.

Resources

Treatment and Referral Locator

Substance Abuse & Mental Health Services Administration (SAMHSA), Substance Abuse Treatment Facility Locator: Available online at: <http://dasis3.samhsa.gov>. This site lists private and public facilities that are licensed, certified, or otherwise approved for inclusion by state substance abuse agencies. Facilities for specific populations, such as Spanish-speaking pregnant women, can be located through SAMHSA. Referral help lines operated by SAMHSA's Center for Substance Abuse Treatment include the following:

- 1-800-662-HELP (4357)
- 1-800-662-9832 (Español)
- 1-800-228-0427 (TDD)

Every state has a substance abuse agency that is usually operated by the State Department of Health. Contact information for state substance abuse agencies is available online at: <http://findtreatment.samhsa.gov/ufds/abusedirectors>.

Federal Agencies

National Institute on Alcohol Abuse and Alcoholism (NIAAA): Available online at: <http://www.niaaa.nih.gov>. The NIAAA provides material for patients and providers covering a wide range of alcohol-related topics. Patient information includes pamphlets, brochures, and posters written in an easy-to-read format. Materials for patients are available in English and Spanish and are free except where otherwise noted. Provider materials are available for physicians, social workers, and other health care professionals.

Centers for Disease Control and Prevention (CDC), Fetal Alcohol Syndrome (FAS)

Available online at: <http://www.cdc.gov/ncbddd/fas>. This site includes links to the *FAS Guidelines for Referral and Diagnosis*, frequently asked questions, fact sheets, and statistics about alcohol consumption among pregnant women. Posters, patient brochures, and other materials are available free of charge. Information is provided about collaboration between the American College of Obstetricians and Gynecologists (ACOG) and the CDC's FAS Prevention Team to develop educational materials for health care providers.

SAMHSA, Fetal Alcohol Spectrum Disorders (FASD) Center for Excellence: Available at: <http://fasdcenter.samhsa.gov>. The FASD Center for Excellence provides educational materials including fact sheets, brochures, posters, and many types of publications and educational materials regarding FASD.

National Organizations

National Organization on FAS (NOFAS): Available online at <http://www.nofas.org>. This site offers summaries of FASD research and patient screening tools for health care professionals. Additional information is available for educators, expectant mothers, persons with FASD, and patient advocates. The site also has a national and state resource directory that provides the location of resources by state, including alcohol treatment facilities, FAS diagnostic specialists, support groups, and more.

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US SURGEON GENERAL'S ADVISORY ON ALCOHOL USE IN PREGNANCY

- Alcohol consumed during pregnancy increases the risk of alcohol-related birth defects, including growth deficiencies, facial abnormalities, central nervous system impairment, behavioral disorders, and impaired intellectual development.
- No amount of alcohol consumption can be considered safe during pregnancy.
- Alcohol can damage a fetus at any stage of pregnancy. Damage can occur in the earliest weeks of pregnancy, even before a woman knows that she is pregnant.
- The cognitive deficits and behavioral problems resulting from prenatal alcohol exposure are lifelong.
- Alcohol-related birth defects are completely preventable.

For these reasons:

- A pregnant woman should not drink alcohol during pregnancy.
- A pregnant woman who has already consumed alcohol during her pregnancy should stop in order to minimize further risk.
- A woman who is considering becoming pregnant should abstain from alcohol.
- Recognizing that nearly half of all births in the United States are unplanned, women of childbearing age should consult their physician and take steps to reduce the possibility of prenatal alcohol exposure.
- Health professionals should inquire routinely about alcohol consumption by women of childbearing age, inform them of the risks of alcohol consumption during pregnancy, and advise them not to drink alcoholic beverages during pregnancy.

Source: <http://www.hhs.gov/surgeongeneral/pressreleases/sg02222005.html>

Print copies and a CD version of this guide can be requested through the American College of Obstetricians and Gynecologists by FAXing request to 202-484-3917 or writing ACOG, Division of Women's Health Issues, PO Box 96920, Washington, DC

Drinking and Reproductive Health: A Fetal Alcohol Spectrum Disorders Prevention Tool Kit is available both in print and as a PDF. Print copies and a CD version of the PDF can be requested through the American College of Obstetricians and Gynecologists (ACOG). The PDF is also available on the ACOG website at: <http://www.acog.org/>. Other resource materials mentioned in the *Tool Kit* are available on the CD and on the ACOG website.

Clinicians who wish to obtain CME credit must print the evaluation form from the CD or download it from the ACOG website (www.acog.org/). Completed evaluation forms must be returned to ACOG to obtain credit. Instructions are included on the CME evaluation form.