ACOG Guidelines on Noncontraceptive Uses of Hormonal Contraceptives

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Most women in the United States will use hormonal contraception during their reproductive years. Many of these women use hormonal contraception for its noncontraceptive benefits, such as making menstruation more predictable and correcting menstrual irregularities caused by oligo-ovulation or anovulation *(Table 1).*

Most hormonal contraceptives contain a progestin for its contraceptive effects and an estrogen to stabilize the endometrium and reduce spotting. Progestin-only contraceptives do not have the adverse effects associated with combination methods, and they can be used by women in whom estrogen is contraindicated.

New progestins with less androgenicity and triphasic preparations that reduce overall progestin exposure have led to changes to the progestin constituents of combined oral contraceptives. Other pills contain drospirenone or cyproterone acetate, which has additional antiandrogenic properties. It is not known whether triphasic combined oral contraceptives differ from monophasic preparations in effectiveness, bleeding patterns, or discontinuation rates. Triphasic preparations have been shown to reduce acne, decrease the incidence of ectopic pregnancy, reduce menstrual blood loss, and lower the frequency of irregular bleeding and menorrhagia.

The contraceptive patch is similar in effectiveness to combined oral contraceptives, and therefore would be expected to reduce the risk of ectopic pregnancy, regulate and reduce bleeding, and diminish dysmenorrhea. The extended-cycle patch has been used to reduce menstrual cycle–related side effects, including menstrual migraine. The contraceptive patch also has effects on androgenic markers that compare favorably with combined oral contraceptives; as a result, positive effects on androgenic conditions such as acne should be expected. The contraceptive intravaginal ring is effective in treating dysmenorrhea and premenstrual dysphoric disorder (PMDD). The levonorgestrel intrauterine system (Mirena) has noncontraceptive benefits in women who have excessive bleeding and dysmenorrhea, and it has been proven effective in reducing menstrual blood loss in women with idiopathic menorrhagia, adenomyosis, leiomyomas, pain associated with endometriosis, and hemostatic disorders.

Dysmenorrhea and Menorrhagia

Combined oral contraceptives relieve dysmenorrhea in up to 80 percent of women. The single-rod contraceptive progestin implant also seems to reduce dysmenorrhea in most users. Data on the effects of the levonorgestrel intrauterine system on dysmenorrhea are limited, but because the device reduces or eliminates menstruation for many ▶

Table 1. Potential Noncontraceptive Benefits of Hormonal Contraceptives

Decreased risk of endometrial, ovarian, and colorectal cancers
Improved bone mineral density in older women
Induction of amenorrhea for lifestyle considerations
Menstrual cycle regularity
Prevention of menstrual migraines
Treatment of acne
Treatment of bleeding from leiomyoma
Treatment of dysmenorrhea
Treatment of hirsutism
Treatment of menorrhagia
Treatment of pelvic pain from endometriosis
Treatment of premenstrual syndrome

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women, these benefits seem consistent with the mechanism of action.

The use of combined oral contraceptives may reduce the severity of dysmenorrhea in women with endometriosis. Continuous use of combined oral contraceptives may offer additional benefits by eliminating menstruation and associated dysmenorrhea. Depot medroxyprogesterone acetate and the progestin contraceptive implant have also been shown to reduce pain associated with endometriosis, and the levonorgestrel intrauterine system is effective in treating dysmenorrhea and chronic pelvic pain that occurs with endometriosis.

Hormonal contraception should be considered for women with menorrhagia who may desire future pregnancies. Blood loss is reduced by up to 50 percent in women who use cyclic combined oral contraceptives. This effectiveness can be further enhanced by extended-cycle or continuous therapy. The levonorgestrel intrauterine system reduces blood loss by up to 86 percent after three months, and by up to 97 percent after 12 months.

Premenstrual Syndrome and PMDD

The only randomized controlled studies to show improvement in symptoms of PMDD involved a combined oral contraceptive with a 24/4 regimen containing ethinyl estradiol with drospirenone as the progestogenic component. This regimen provided relief from psychological and physiologic symptoms of PMDD, with improvements in health-related quality of life.

A direct comparison of a drospirenone-containing combined oral contraceptive with the intravaginal contraceptive ring showed equivalent improvement in symptoms of premenstrual syndrome. Combined oral contraceptives containing 30 mcg of ethinyl estradiol with 3 mg of drospirenone also decrease premenstrual mood deterioration in reproductive-aged women being treated for depression. Using extended-cycle or continuous combined oral contraceptive regimens to suppress menstruation and stabilize hormone levels also seems to be effective.

Ovarian Cysts

By preventing ovulation, hormonal contraception should reduce ultrasound findings of follicular and corpus luteal cysts. Such cysts are rarely of clinical significance, but may lead to unnecessary repeat ultrasonography when discovered incidentally. Not all follicular activity is suppressed with low-dose oral contraceptives, and small ovarian cysts are common in women who use these formulations. In women with larger functional ovarian cysts, the use of combined oral contraceptives does not hasten resolution compared with expectant management. Therefore, combined oral contraceptives should not be used to treat existing functional ovarian cysts.

Cancer

Combined oral contraceptives confer a 50 percent risk reduction for endometrial cancer. Longer duration of use is associated with greater risk reductions, and the effect lasts for up to 20 years. Combined oral contraceptives have also been shown to reduce the risk of ovarian cancer. Greater duration of use is associated with greater risk reductions, amounting to a decrease of approximately 20 percent for every five years of use. The protective effect also extends to low-dose pills. Combined oral contraceptives have been suggested as chemoprevention against ovarian cancer in women with *BRCA* mutations.

The levonorgestrel intrauterine system achieves concentrations in the endometrium several hundred-fold higher than those achieved with traditional systemic therapy. It is an effective treatment for hyperplasia without atypia, but accurate diagnosis and ongoing surveillance are essential.

A meta-analysis reported an 18 percent risk reduction for colorectal cancer among women who used oral contraceptives. This reduction was greatest in women with recent use, and no duration effect was noted.

Bone Mineral Density

There have been mixed results for the use of hormonal contraceptives in improving bone health. Oral contraceptives have been reported to have beneficial effects or no effect on bone mineral density (BMD). Combined oral contraceptive use is associated with increased BMD in women in the later reproductive years, with longer duration of use associated with greater BMD. However, younger women who use combined oral contraceptives have a lower BMD compared with nonusers.

Leiomyomas

The effects of combined oral contraceptives on the formation and growth of uterine leiomyomas are poorly understood. Case-control studies have reported no effect or reduced risk of leiomyomas in women who use combined oral contraceptives. Two large cohort studies found that neither current nor past use is associated with an increased risk of developing leiomyoma. The levonorgestrel intrauterine system has been shown to reduce overall uterine volume, with little or no effect on the size of existing leiomyomas. ■

Answers to This Issue's CME Quiz

Q1. A	**Q5.** E	**Q9.** A
Q2. C	**Q6.** A, B, C, D	**Q10.** D
Q3. A, C, D	**Q7.** C	
Q4. B	**Q8.** B	