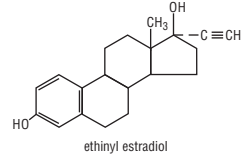
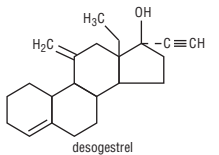


**EMOQUETTE™ (DESOGESTREL AND ETHINYL ESTRADIOL TABLETS USP) 0.15 mg and 0.03 mg**

**Only** Patients should be counseled that this product does not protect against HIV infection (AIDS) and other sexually transmitted diseases.

**Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is more marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.**

**DESCRIPTION**  
EMOQUETTE tablets provide an oral contraceptive regimen of 21 white round tablets each containing 0.15 mg desogestrel (13-ethyl-11-methylene-18, 19-dinor-17 alpha-pregn-4-en-20-yne-17, 17, diol), inactive ingredients include colloidal silicon dioxide, hypromellose, lactose monohydrate, povidone, polyethylene glycol, pregelatinized starch, stearic acid and vitamin E. Each light-green tablet contains the following inactive ingredients: FD&C Blue No. 2 aluminum lake, hypromellose, iron oxide yellow, lactose monohydrate, magnesium stearate, polyethylene glycol, and pregelatinized starch.



EMOQUETTE has not been studied for and is not indicated for use in emergency contraception.

**CLINICAL PHARMACOLOGY**  
**Pharmacodynamics**  
Combination oral contraceptives act by suppression of gonadotropins. Although the primary mechanism of this action is inhibition of ovulation, other alterations include changes in the cervical mucus, which increase the difficulty of sperm entry into the uterus, and changes in the endometrium which reduce the likelihood of implantation. Receptor binding studies, as well as studies in animals, have shown that 3-keto-desogestrel, the biologically active metabolite of desogestrel, combines high progestational activity with minimal intrinsic androgenicity.<sup>31,32</sup> The relevance of this latter finding in humans is unknown.

**Pharmacokinetics**  
Desogestrel is rapidly and almost completely absorbed and converted into 3-keto-desogestrel, its biologically active metabolite. Following oral administration, the relative bioavailability of desogestrel, as measured by serum levels of 3-keto-desogestrel, is approximately 84%.  
In the third cycle of use after a single dose of EMOQUETTE, maximum concentrations of 3-keto-desogestrel of 2,805 ± 1,203 pg/mL (mean ± SD) are reached at 1.4 ± 0.8 hours. The area under the curve (AUC<sub>0-24</sub>) is 33,858 ± 11,043 pg/mL-hr after a single dose. At steady state, attained from at least day 19 onwards, maximum concentrations of 3-keto-desogestrel at steady state are 1,400 ± 560 pg/mL. The AUC<sub>0-24</sub> at steady state is 52,299 ± 17,878 pg/mL-hr. The mean AUC<sub>0-24</sub> for 3-keto-desogestrel at single dose is significantly lower than the mean AUC<sub>0-24</sub> at steady state.

This indicates that the kinetics of 3-keto-desogestrel are non-linear due to an increase in binding of 3-keto-desogestrel to sex hormone-binding globulin in the cycle, attributed to increased sex hormone-binding globulin levels which are induced by the daily administration of ethinyl estradiol. Sex hormone-binding globulin levels increased significantly in the third treatment cycle from day 1 (150 ± 64 nmol/L) to day 21 (230 ± 59 nmol/L).  
The elimination half-life for 3-keto-desogestrel is approximately 38 ± 20 hours at steady state. In addition to 3-keto-desogestrel, other phase I metabolites are 3α-OH-desogestrel, 3β-OH-desogestrel, and 3α-OH-5α-H-desogestrel. These other metabolites are not known to have any pharmacologic effects, and are further converted in part by conjugation (phase II metabolism) into polar metabolites, mainly sulfates and glucuronides.

Ethinyl estradiol is rapidly and almost completely absorbed. In the third cycle of use after a single dose of EMOQUETTE, the relative bioavailability is approximately 65%.  
In the third cycle of use after a single dose of EMOQUETTE, maximum concentrations of ethinyl estradiol are 95 ± 34 pg/mL are reached at 1.5 ± 0.8 hours. The AUC<sub>0-24</sub> is 1,471 ± 268 pg/mL-hr after a single dose. At steady state, attained from at least day 19 onwards, maximum ethinyl estradiol concentrations of 141 ± 48 pg/mL are reached at about 1.4 ± 0.7 hours. The minimum serum levels of ethinyl estradiol at steady state are 24 ± 8.3 pg/mL. The AUC<sub>0-24</sub> at steady state is 1,117 ± 302 pg/mL-hr. The mean AUC<sub>0-24</sub> for ethinyl estradiol following a single dose during treatment cycle 3 does not significantly differ from the mean AUC<sub>0-24</sub> at steady state. This finding indicates linear kinetics for ethinyl estradiol.  
The elimination half-life is 26 ± 6.8 hours at steady state. Ethinyl estradiol is subject to a significant degree of presystemic conjugation (phase II metabolism). Ethinyl estradiol escaping gut wall conjugation undergoes phase I metabolism and hepatic conjugation (phase I metabolism). Major phase I metabolites are 2-OH-ethinyl estradiol and 2-methoxy-ethinyl estradiol. Sulfate and glucuronide conjugates of both ethinyl estradiol and phase I metabolites, which are excreted in bile, can undergo enterohepatic circulation.

**INDICATIONS AND USAGE**  
EMOQUETTE tablets are indicated for the prevention of pregnancy in women who elect to use oral contraceptives as a method of contraception.  
Oral contraceptives are highly effective. Table 1 lists the typical accidental pregnancy rates for users of combination oral contraceptives and other methods of contraception. The efficacy of these contraceptive methods, except sterilization, the IUD, and the Norplant System depends upon the reliability with which they are used. Correct and consistent use of these methods can result in lower failure rates. In a clinical trial with EMOQUETTE, 1,195 subjects completed 11,566 cycles and a total of 10 pregnancies were reported. This represents an overall user-efficacy (typical user-efficacy) pregnancy rate of 1.12 per 100 women-years. This rate includes patients who did not take the drug correctly.

**TABLE 1. PERCENTAGE OF WOMEN EXPERIENCING AN UNINTENDED PREGNANCY DISCONTINUING USE AND THE FIRST YEAR OF PERFECT USE OF CONTRACEPTION AND THE PERCENTAGE CONTINUING USE AT THE END OF THE FIRST YEAR, UNITED STATES.**

Method (1)	% of Women Experiencing an Unintended Pregnancy Within the First Year of Use <sup>2</sup>	Perfect Use <sup>3</sup>	% of Women Continuing Use at One Year <sup>4</sup>
Chance <sup>6</sup>	85	85	
Spermicides <sup>7</sup>	26	6	40
Periodic abstinence	25		63
Calendar		9	
Ovulation Method		2	
Sympto-Thermal <sup>8</sup>		2	
Post-V Ovulation		1	
Withdrawal	19	4	
Cap <sup>9</sup>			
Parous Women	40	26	42
Nulliparous Women	20	9	56
Sponge			
Parous Women	40	20	42
Nulliparous Women	20	9	56
Diaphragm <sup>9</sup>	20	6	56
Condom <sup>10</sup>			
Female (Reality)	21	5	56
Male	14	3	61
Pill	5		71
Progestin Only		0.5	
Combined		1.5	
IUD			
Progestone T	2.0	0.5	81
Copper T380A	0.8	0.6	78
LNg20	0.1	0.1	81
Depo-Provera	0.3	0.3	70
Norplant and Norplant-2	0.05	0.05	88
Female Sterilization	0.5	0.5	100
Male Sterilization	0.15	0.10	100

**Emergency Contraceptive Pills:** Treatment initiated within 72 hours after unprotected intercourse reduces the risk of pregnancy by at least 75%.<sup>4</sup>

**Lactation Amenorrhea Method: LAM** is a highly effective, temporary method of contraception.  
Source: Trussel J. Contraceptive efficacy. In Hatcher RA, Trussel J, Stewart F, Cates W, Stewart GK, Kowal D, Guest F, Contraceptive Technology: Seventeenth Revised Edition. New York, NY: Irvington Publishers, 1998.

- Among couples attempting to avoid pregnancy, the percentage who continue to use the method for 1 year is 82%.
- Among typical couples who initiate use of a method (not necessarily for the first time), the percentage who experience an accidental pregnancy during the first year if they do not stop use for any reason.
- Among couples who initiate use of a method (not necessarily for the first time) and who use it *perfectly* (both consistently and correctly), the percentage who experience an accidental pregnancy during the first year if they do not stop use for any other reason.
- The treatment schedule is one dose within 72 hours after unprotected intercourse, and a second dose 12 hours after the first dose. The FDA has placed the following brands of oral contraceptives to be safe and effective for emergency contraception: *Oralva*® (1 dose is 2 white pills), *Alessé*® (1 dose is 2 pink pills), *Nordette*® or *Leven®* (1 dose is 4 yellow pills).
- However, to maintain effective protection against pregnancy, another method of contraception must be used as soon as menstruation resumes, the frequency of duration of breastfeeds is reduced, bottle feeds are introduced, or the baby reaches 6 months of age.
- The percent becoming pregnant in columns (2) and (3) are based on data from populations where contraception is not used and from women who cease using contraception in order to become pregnant. American data populations about 89% become pregnant within one year. This estimate was lowered slightly (to 85%) to represent the percent who would become pregnant within one year among women only relying on reversible methods of contraception if they abandoned contraception altogether.
- Foams, creams, gels, vaginal suppositories, and vaginal film.
- Cervical mucus (ovulation) method supplemented by calendar in the pre-ovulatory and basal body temperature in the post-ovulatory phases.
- Acceptors of oral contraceptive agents should be started on preparations containing the lowest estrogen content which is judged appropriate for the individual patient.
- Without spermicides.

EMOQUETTE has not been studied for and is not indicated for use in emergency contraception.

**CONTRAINDICATIONS**  
Oral contraceptives should not be used in women who currently have the following conditions:

- Thrombophlebitis or thromboembolic disorders
- A past history of deep vein thrombophlebitis or thromboembolic disorders
- A cerebral vascular or coronary artery disease (current or history)
- Valvular heart disease with complications
- Severe hypertension
- Diabetes with vascular involvement
- Headaches with focal neurological symptoms
- Major surgery with prolonged immobilization
- Known or suspected carcinoma of the breast or personal history of breast cancer
- Carcinoma of the endometrium or other known or suspected estrogen-dependent neoplasia
- Undiagnosed abnormal genital bleeding
- Cholestatic jaundice of pregnancy or jaundice with prior pill use
- Acute or chronic hepatocellular disease with abnormal liver function
- Hypertrophic subostosis
- Known or suspected pregnancy
- Hypersensitivity to any component of this product

**WARNINGS**  
**Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.**

The use of oral contraceptives is associated with increased risks of several serious conditions including myocardial infarction, thromboembolism, stroke, hepatic neoplasia, and gallbladder disease, although the risk of serious morbidity or mortality is very small in healthy women without underlying risk factors. The risk of morbidity and mortality increases significantly in the presence of other underlying risk factors such as hypertension, hyperlipidemias, obesity and diabetes.

Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

The information contained in this package insert is primarily based on studies carried out in patients who used oral contraceptives with formulations that contained 50 micrograms of progestagens than those in common use today. The effect of long term use of the oral contraceptives with formulations of lower doses of both estrogens and progestagens remains to be determined.

Throughout this labeling, epidemiological studies reported are of two types: retrospective or case-control studies. Case control studies provide the relative risk of a disease among users compared to non-users or to users compared to users compared to be 3 for the first episode of superficial venous thrombosis, 4 to 11 for deep vein thrombosis or pulmonary embolism, and 1.5 to 6 for women with predisposing conditions for venous thromboembolic disease.<sup>2, 3, 19-24</sup> Cohort studies have shown relative risks of 1.3 for myocardial infarction and 1.2 for stroke in women who use oral contraceptive users and nonusers. The attributable risk does provide information about the actual occurrence of a disease. Cohort studies provide information about relative risks in the difference in the incidence of disease between oral contraceptive users and nonusers. The attributable risk does provide information about the actual occurrence of a disease in the population (Adapted from refs. 2 and 3 with the author's permission). For further information, the reader is referred to a text on epidemiological methods.

**1. Thromboembolic Disorders and Other Vascular Problems**  
**a. Thromboembolism**  
An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established. Case control studies have found the relative risk of users compared to non-users to be 3 for the first episode of superficial venous thrombosis, 4 to 11 for deep vein thrombosis or pulmonary embolism, and 1.5 to 6 for women with predisposing conditions for venous thromboembolic disease.<sup>2, 3, 19-24</sup> Cohort studies have shown relative risks of 1.3 for myocardial infarction and 1.2 for stroke in women who use oral contraceptive users and nonusers. The attributable risk does provide information about the actual occurrence of a disease in the population (Adapted from refs. 2 and 3 with the author's permission). For further information, the reader is referred to a text on epidemiological methods.

**b. Myocardial Infarction**  
An increased risk of myocardial infarction has been attributed to oral contraceptive use. This risk is primarily in smokers or women with other underlying risk factors for coronary artery disease such as hypertension, hypercholesterolemia, morbid obesity, and diabetes. The relative risk of heart disease for nonusers is about 1.0. The risk has been estimated to be two to six-<sup>10</sup> The risk is very low in women under the age of 30.  
Smoking in combination with oral contraceptive use has been shown to contribute substantially to the incidence of myocardial infarctions in women in their mid-thirties or older with smoking accounting for the majority of excess cases.<sup>11</sup> Mortality rates associated with circulatory disease have been shown to increase substantially in smokers, especially in those 35 years of age and older and in nonsmokers over the age of 40 among women who use oral contraceptives (See Table II).

**2. Cardiovascular Disease Mortality Rates**  
Mortality rates for circulatory disease mortality rates per 100,000 woman-years for never-users (non-smokers) and controls (non-smokers) are shown in Table II. The risk is very low in women under the age of 30.

**3. Cancer**  
Breast cancers diagnosed in current or previous oral contraceptive users tend to be less clinically advanced than in nonusers.  
Women who currently have or have had breast cancer should not use oral contraceptives because breast cancer is usually a hormonally-sensitive tumor.  
Some studies suggest that oral contraceptive use has been associated with an increase in the risk of cervical intraepithelial neoplasia in some populations of women.<sup>45-49</sup> However, there continues to be controversy about the extent to which such findings may be due to differences in sexual behavior and other factors.  
In spite of many studies of the relationship between oral contraceptive use and breast and cervical cancers, a cause-and-effect relationship has not been established.

**4. Hepatic Neoplasia**  
Benign hepatic adenomas are associated with oral contraceptive use, although the incidence of benign tumors is rare in the United States. Indirect calculations have estimated the attributable risk to be in the range of 3.3 cases/100,000 for users, a risk that increases after four or more years of use especially with oral contraceptives of higher dose.<sup>48</sup> Rupture of benign, hepatic adenomas may cause death through intra-abdominal hemorrhage.<sup>50-53</sup>

**5. Ocular Lesions**  
There have been clinical case reports of retinal thrombosis associated with the use of oral contraceptives. Oral contraceptives should be discontinued if there is unexplained partial or complete loss of vision, onset of proptosis or diplopia, papilloedema, or retinal vascular lesions. Appropriate diagnostic and therapeutic measures should be undertaken immediately.  
**6. Oral Contraceptive Use Before or During Early Pregnancy**  
Extensive epidemiological studies have revealed no increased risk of birth defects in women who have used oral contraceptives prior to pregnancy.<sup>56-57</sup> The majority of recent studies also do not indicate a teratogenic effect, particularly in so far as cardiac anomalies and limb reduction defects are concerned.<sup>58,59</sup> When oral contraceptives are taken inadvertently during early pregnancy.

The administration of oral contraceptives to induce withdrawal bleeding should not be used as a test for pregnancy. Oral contraceptives should not be used during pregnancy.  
It is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. Oral contraceptive use should be discontinued if pregnancy is confirmed.

Similar effects on risk factors have been associated with an increased risk of heart disease. Oral contraceptives must be used with caution in women with cardiovascular disease risk factors.

There is some evidence that the risk of myocardial infarction associated with oral contraceptive is lower when the progestogen has minimal androgenic activity than when the activity is greater. Receptor binding and animal studies have shown that desogestrel or its active metabolite has minimal androgenic activity (see **CLINICAL PHARMACOLOGY**).

**7. Gallbladder Disease**  
Early studies have reported an increased lifetime relative risk of gallbladder surgery in users of oral contraceptives and estrogens.<sup>60-64</sup> More recent studies, however, have shown that the relative risk of developing gallbladder disease among oral contraceptive users may be minimal.<sup>62-64</sup> The recent findings of minimal risk may be related to the use of oral contraceptive formulations containing lower hormonal doses of estrogens and progestogens.

**8. Carbohydrate and Lipid Metabolic Effects**  
Oral contraceptives have been shown to cause a decrease in glucose tolerance in a significant percentage of users.<sup>17</sup> This effect has been shown to be directly related to estrogen dose.<sup>65</sup> In general, progestogens increase insulin secretion and create insulin resistance, this effect varying with different progestational agents.<sup>17,66</sup> In the nondiabetic woman, oral contraceptives appear to have no effect on fasting blood glucose.<sup>67</sup> Because of these demonstrable effects, prediabetic and diabetic women should be carefully monitored while taking oral contraceptives.

**9. Elevated Blood Pressure**  
Women with significant hypertension should not be started on hormonal contraception.<sup>68</sup> An increase in blood pressure has been reported in women taking oral contraceptives<sup>68</sup> and this increase is more likely in older oral contraceptive users<sup>69</sup> and with extended duration of use.<sup>61</sup> Data from the Royal College of General Practitioners<sup>12</sup> and subsequent randomized trials have shown that the incidence of hypertension increases with increasing progestational activity and concentrations of progestagens.

Women with a history of hypertension or hypertension-related diseases, or renal disease<sup>70</sup> should be encouraged to use another method of contraception. If women elect to use oral contraceptives, they should be monitored closely and if a significant elevation of blood pressure occurs, oral contraceptives should be discontinued. For most women, elevated blood pressure will return to normal after stopping oral contraceptives,<sup>69</sup> and there is no difference in the occurrence of hypertension among former and never users.<sup>68,70,71</sup>

**10. Headache**  
The onset or exacerbation of migraine or development of headache with a new pattern which is recurrent, persistent or severe requires discontinuation of oral contraceptives and evaluation of the cause.

**11. Bleeding Irregularities**  
Breakthrough bleeding and spotting are sometimes encountered in patients on oral contraceptives, especially during the first three months of use. Nonhormonal causes should be considered and adequate diagnostic measures taken to rule out malignancy or pregnancy in the event of breakthrough bleeding, as in the case of any abnormal vaginal bleeding. If pathology has been excluded, time or a change to another formulation may solve the problem. In the event of amenorrhea, pregnancy should be ruled out.  
Some women may encounter post-pill amenorrhea or oligomenorrhea, especially when such a condition was preexistent.

**12. Ectopic Pregnancy**  
Ectopic as well as intrauterine pregnancy may occur in contraceptive failures.

**PRECAUTIONS**  
• Patients should be counseled that this product does not protect against HIV infection (AIDS) and other sexually transmitted diseases.

**2. Physical Examination and Sexually-Transmitted Infections**  
It is good medical practice for all women to have annual history and physical examinations, including women using oral contraceptives, and if significant changes are noted, however, may be deferred until after initiation of oral contraceptives if requested by the woman and judged appropriate by the clinician. The physical examination should include special reference to blood pressure, breasts, abdomen and pelvic organs, including cervical cytology, and relevant laboratory tests. In the case of abnormal findings, recurrent abnormal vaginal bleeding, appropriate measures should be conducted to rule out malignancy. Women with a strong family history of breast cancer or who have breast nodules should be monitored with particular care.

**3. Lipid Disorders**  
Women who are being treated for hyperlipidemias should be followed closely if they elect to use oral contraceptives. Some progestagens may elevate LDL levels and may render the control of hyperlipidemias more difficult.

**4. Liver Function**  
If jaundice develops in any woman receiving oral contraceptives, the medication should be discontinued. Steroid hormones may be poorly metabolized in patients with impaired liver function.

**5. Fluid Retention**  
Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention.

**6. Emotional Disorders**  
Women with a history of depression should be carefully observed and the drug discontinued if depression recurs to a serious degree.

**7. Contact Lenses**  
Contact lens wearers who develop visual changes or changes in lens tolerance should be assessed by an ophthalmologist.

**8. Drug Interactions**  
**Changes in Contraceptive Effectiveness Associated With Coadministration of Other Products**  
Contraceptive effectiveness may be reduced when hormonal contraceptives are coadministered with antibiotics, anticonvulsants, and other drugs that increase the metabolism of contraceptive steroids. This could result in unintended pregnancy or breakthrough bleeding. Examples include rifampin, barbiturates, phenylbutazone, phenytoin, carbamazepine, felbamate, oxcarbazepine, topiramate, and griseofulvin. Several cases of contraceptive failure and breakthrough bleeding have been reported in the literature with concomitant administration of antibiotics such as ampicillin and tetracyclines. However, clinical pharmacology studies investigating drug interaction between combined oral contraceptives and these antibiotics have reported inconsistent results.  
Several of the anti-HIV protease inhibitors have been studied with coadministration of oral combination hormonal contraceptives; significant changes (increase and decrease) in the plasma levels of the estrogen and progestin have been noted in some cases. The safety and efficacy of oral contraceptive products may be affected with coadministration of anti-HIV protease inhibitors. Healthcare professionals should refer to the label of the individual anti-HIV protease inhibitors for further drug interaction information.

Herbal products containing St. John's Wort (hypericum perforatum) may induce hepatic enzymes (cytochrome P450) and p-glycoprotein transporter and may reduce the effectiveness of contraceptive steroids. This may also result in breakthrough bleeding.

**Increase in Plasma Levels Associated With Coadministered Drugs**  
Coadministration of atorvastatin and oral contraceptive drugs (estrogen/ ethinyl estradiol) increase AUC values for ethinyl estradiol by approximately 20%. Ascorbic acid and acetaminophen may increase plasma ethinyl estradiol levels, possibly by inhibition of conjugation. CYP 3A4 inhibitors such as itraconazole or ketoconazole may increase plasma hormone levels.

**Changes in Plasma Levels of Coadministered Drugs**  
Combination hormonal contraceptives containing some synthetic estrogens (e.g., ethinyl estradiol) may inhibit the metabolism of other compounds. Increased plasma concentrations of cyclosporin, prednisolone, and theophylline have been reported with concomitant administration of oral contraceptives. Decreased plasma concentrations of acetaminophen and increased clearance of tenazepam, salicylic acid, morphine and clofibrate acid, due to induction of conjugation, have been noted when these drugs were administered with oral contraceptives.

**9. Interactions With Laboratory Tests**  
Certain endocrine and liver function tests and blood components may be affected by oral contraceptives:

- Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability.
- Increased thyroxine binding globulin (TBG) leading to increased circulating total thyroxine amount, as measured by protein-bound iodine (PBI), T<sub>4</sub> by column or radioimmunoassay. Free T<sub>3</sub> resin uptake is decreased, reflecting the elevated TBG; free T<sub>4</sub> concentration is unaltered.
- Other binding proteins may be elevated in serum.
- Sex hormone binding globulins are increased and result in elevated levels of total circulating sex steroids however, free or biologically active levels either decrease or remain unchanged.
- Triglycerides may be increased and levels of various other lipids and lipoproteins may be affected.
- Glucose tolerance may be decreased.
- Serum folate levels may be depressed by oral contraceptive therapy. This may be of clinical significance if a woman becomes pregnant shortly after discontinuing oral contraceptives.

**10. Contraindications**  
See **WARNINGS** section.

**11. Pregnancy**  
**Teratogenic Effects**  
**Pregnancy category X**  
See **CONTRAINDICATIONS AND WARNINGS**.

**12. Nursing Mothers**  
Small amounts of oral contraceptive steroids have been identified in the milk of nursing mothers and a few adverse effects on the child have been reported, including jaundice and breast enlargement. In addition, oral contraceptives given in the postpartum period may interfere with lactation by decreasing the quantity and quality of breast milk. If possible,

**7. Gallbladder Disease**  
Early studies have reported an increased lifetime relative risk of gallbladder surgery in users of oral contraceptives and estrogens.<sup>60-64</sup> More recent studies, however, have shown that the relative risk of developing gallbladder disease among oral contraceptive users may be minimal.<sup>62-64</sup> The recent findings of minimal risk may be related to the use of oral contraceptive formulations containing lower hormonal doses of estrogens and progestogens.

**8. Carbohydrate and Lipid Metabolic Effects**  
Oral contraceptives have been shown to cause a decrease in glucose tolerance in a significant percentage of users.<sup>17</sup> This effect has been shown to be directly related to estrogen dose.<sup>65</sup> In general, progestogens increase insulin secretion and create insulin resistance, this effect varying with different progestational agents.<sup>17,68</sup> In the nondiabetic woman, oral contraceptives appear to have no effect on fasting blood glucose.<sup>67</sup> Because of these demonstrable effects, prediabetic and diabetic women should be carefully monitored while taking oral contraceptives.

**9. Elevated Blood Pressure**  
Women with significant hypertension should not be started on hormonal contraception.<sup>68</sup> An increase in blood pressure has been reported in women taking oral contraceptives<sup>68</sup> and this increase is more likely in older oral contraceptive users<sup>69</sup> and with extended duration of use.<sup>61</sup> Data from the Royal College of General Practitioners<sup>12</sup> and subsequent randomized trials have shown that the incidence of hypertension increases with increasing progestational activity and concentrations of progestagens.

Women with a history of hypertension or hypertension-related diseases, or renal disease<sup>70</sup> should be encouraged to use another method of contraception. If women elect to use oral contraceptives, they should be monitored closely and if a significant elevation of blood pressure occurs, oral contraceptives should be discontinued. For most women, elevated blood pressure will return to normal after stopping oral contraceptives,<sup>69</sup> and there is no difference in the occurrence of hypertension among former and never users.<sup>68,70,71</sup>

**10. Headache**  
The onset or exacerbation of migraine or development of headache with a new pattern which is recurrent, persistent or severe requires discontinuation of oral contraceptives and evaluation of the cause.

**11. Bleeding Irregularities**  
Breakthrough bleeding and spotting are sometimes encountered in patients on oral contraceptives, especially during the first three months of use. Nonhormonal causes should be considered and adequate diagnostic measures taken to rule out malignancy or pregnancy in the event of breakthrough bleeding, as in the case of any abnormal vaginal bleeding. If pathology has been excluded, time or a change to another formulation may solve the problem. In the event of amenorrhea, pregnancy should be ruled out.

Some women may encounter post-pill amenorrhea or oligomenorrhea, especially when such a condition was preexistent.

**12. Ectopic Pregnancy**  
Ectopic as well as intrauterine pregnancy may occur in contraceptive failures.

**PRECAUTIONS**  
• Patients should be counseled that this product does not protect against HIV infection (AIDS) and other sexually transmitted diseases.

**2. Physical Examination and Sexually-Transmitted Infections**  
It is good medical practice for all women to have annual history and physical examinations, including women using oral contraceptives, and if significant changes are noted, however, may be deferred until after initiation of oral contraceptives if requested by the woman and judged appropriate by the clinician. The physical examination should include special reference to blood pressure, breasts, abdomen and pelvic organs, including cervical cytology, and relevant laboratory tests. In the case of abnormal findings, recurrent abnormal vaginal bleeding, appropriate measures should be conducted to rule out malignancy. Women with a strong family history of breast cancer or who have breast nodules should be monitored with particular care.

**3. Lipid Disorders**  
Women who are being treated for hyperlipidemias should be followed closely if they elect to use oral contraceptives. Some progestagens may elevate LDL levels and may render the control of hyperlipidemias more difficult.

**4. Liver Function**  
If jaundice develops in any woman receiving oral contraceptives, the medication should be discontinued. Steroid hormones may be poorly metabolized in patients with impaired liver function.

**5. Fluid Retention**  
Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention.

**6. Emotional Disorders**  
Women with a history of depression should be carefully observed and the drug discontinued if depression recurs to a serious degree.

**7. Contact Lenses**  
Contact lens wearers who develop visual changes or changes in lens tolerance should be assessed by an ophthalmologist.

**8. Drug Interactions**  
**Changes in Contraceptive Effectiveness Associated With Coadministration of Other Products**  
Contraceptive effectiveness may be reduced when hormonal contraceptives are coadministered with antibiotics, anticonvulsants, and other drugs that increase the metabolism of contraceptive steroids. This could result in unintended pregnancy or breakthrough bleeding. Examples include rifampin, barbiturates, phenylbutazone, phenytoin, carbamazepine, felbamate, oxcarbazepine, topiramate, and griseofulvin. Several cases of contraceptive failure and breakthrough bleeding have been reported in the literature with concomitant administration of antibiotics such as ampicillin and tetracyclines. However, clinical pharmacology studies investigating drug interaction between combined oral contraceptives and these antibiotics have reported inconsistent results.  
Several of the anti-HIV protease inhibitors have been studied with coadministration of oral combination hormonal contraceptives; significant changes (increase and decrease) in the plasma levels of the estrogen and progestin have been noted in some cases. The safety and efficacy of oral contraceptive products may be affected with coadministration of anti-HIV protease inhibitors. Healthcare professionals should refer to the label of the individual anti-HIV protease inhibitors for further drug interaction information.

Herbal products containing St. John's Wort (hypericum perforatum) may induce hepatic enzymes (cytochrome P450) and p-glycoprotein transporter and may reduce the effectiveness of contraceptive steroids. This may also result in breakthrough bleeding.

**Increase in Plasma Levels Associated With Coadministered Drugs**  
Coadministration of atorvastatin and oral contraceptive drugs (estrogen/ ethinyl estradiol) increase AUC values for ethinyl estradiol by approximately 20%. Ascorbic acid and acetaminophen may increase plasma ethinyl estradiol levels, possibly by inhibition of conjugation. CYP 3A4 inhibitors such as itraconazole or ketoconazole may increase plasma hormone levels.

**Changes in Plasma Levels of Coadministered Drugs**  
Combination hormonal contraceptives containing some synthetic estrogens (e.g., ethinyl estradiol) may inhibit the metabolism of other compounds. Increased plasma concentrations of cyclosporin, prednisolone, and theophylline have been reported with concomitant administration of oral contraceptives. Decreased plasma concentrations of acetaminophen and increased clearance of tenazepam, salicylic acid, morphine and clofibrate acid,



Flat: 473mm x 299mm

Folded size: 53mm x 38mm

45. Fry L, Nalb Z, Conger SB, Hatcher RA, Tyler CW. Contraceptive choice and prevalence of cervical dysplasia and carcinoma in situ. Am J Obstet Gynecol 1976;124:573-577
46. Vessey MP, Lawless M, McPherson K, Yeates D. Neoplasia of the cervix uteri and contraception: a possible adverse effect of the pill. Lancet 1983; 2:930.
47. Britton LA, Higgins GR, Lehman HF, Malil K, Savitt DA, Trapido E, Rosenthal J, Hoover R. Long term use of oral contraceptives and risk of invasive cervical cancer. Int J Cancer 1986; 38:339-344
48. WHO Collaborative Study of Neoplasia and Steroid Contraceptives: Invasive cervical cancer and combined oral contraceptives. Br Med J 1985; 290:961-965
49. Rooks JB, Dry HW, Ishaq KG, Strauss LT, Greenspan JR, Hill AP, Tyler CW. Epidemiology of hepatocellular adenoma: the role of oral contraceptive use. JAMA 1979; 242:644-648.
50. Bein BN, Goldsmith HS. Recurrent massive hemorrhage from benign hepatic tumors secondary to oral contraceptives. Br J Surg 1977; 64:433-439.
51. Klatzkin G. Hepatic tumors: possible relationship to use of oral contraceptives. Gastroenterology 1977; 73:386-394.
52. Henderson BE, Preston-Martin S, Edmondson HA, Peters RL, Pike MC. Hepatocellular carcinoma and oral contraceptives. JAMA 1983; 48:437-440.
53. Neuberger J, Forman D, Doll R, Williams R. Oral contraceptives and hepatocellular carcinoma. Br Med J 1986; 292:1355-1357.
54. Forman D, Vincent T.J, Doll R. Cancer of the liver and oral contraceptives. Br Med J 1986; 292:1357-1361.
55. Harlap S, Eldor J. Births following oral contraceptive failures. Obstet Gynecol 1980; 55:447-452.
56. Savolainen E, Saksela E, Saven L. Teratogenic hazards of oral contraceptives analyzed in a national malformation register. Am J Obstet Gynecol 1981; 140:521-524.
57. Janerich DT, Piper JM, Glebatis DM. Oral contraceptives and birth defects. Am J Epidemiol 1980; 112:73-79.
58. Ferenc C, Matanovich GM, Wilson PD, Rubin JD, Neill CA, Gutberlet R. Maternal neoplasia therapy and congenital heart disease. Teratology 1980; 21:225-229.
59. Rothman KJ, Flyer DC, Goldblatt A, Kreidberg MB. Exogenous hormones and other drug exposures of children with congenital heart disease. Am J Epidemiol 1979; 109:433-439.
60. Boston Collaborative Drug Surveillance Program: Oral contraceptives and venous thromboembolic disease, surgically confirmed gall-bladder disease, and breast tumors. Lancet 1973;1:1399-1404.
61. Royal College of General Practitioners: Oral contraceptives and health. New York, Pittman, 1974.
62. Layton PM, Vessey MP, Yeates D. Risk of gall bladder disease: a cohort study of young women attending family planning clinics. J Epidemiol Community Health 1982; 36:274-278.
63. Eneide Group for the Epidemiology and Prevention of Cholelithiasis (GREPCO): Prevalence of gallstone disease in an Italian adult female population. Am J Epidemiol 1984; 119:796-805.
64. Strom BL, Tamargouri RT, Morse ML, Lazar EL, West SL, Stolley PD, Jones JK. Oral contraceptives and other risk factors for gall bladder disease. Clin Pharmacol Ther 1986; 39:335-341.
65. Wynn V, Adams PW, Godtsland IF, Melrose J, Nithithyananthan R, Oakley NW, Seedj A. Comparison of effects of different combined oral contraceptive formulations on carbohydrate and lipid metabolism. Lancet 1979; 1:1045-1049.
66. Wynn V. Effect of estrogens and progestins on carbohydrate metabolism. In: Progestosterone and Progestin. Edited by Bardin CW, Milgrom E. Mauvis Jarvis P. New York, Raven Press, 1983; pp. 395-410.
67. Periman JA, Roussel-Briefel RG, Ezzati TM, Lieberknecht G. Oral glucose tolerance and the potency of oral contraceptive progestogens. J Chrono Dis 1985; 38:857-864.
68. Royal College of General Practitioners' Oral Contraception Study: Effect on hypertension and benign breast disease of progestogen combination in combined oral contraceptives. Lancet 1977; 1:834-834.
69. Fisch IR, Frank J. Oral contraceptives and blood pressure. JAMA 1977; 237:2499-2503.
70. Laragh AJ. Oral contraceptives induced hypertension nine - years later. Am J Obstet Gynecol 1976; 126:141-147.
71. Ramcharan S, Ponz E, Palsgaard R, Williams WT. Incidence of hypertension in the Walnut Creek Contraceptive Drug Study cohort. In: Pharmacology of Steroid Contraceptives Drugs. Garattini S, Berendes HW. Eds. New York, Raven Press, 1977; p. 277-288. (Monographs of the Mario Negri Institute for Pharmacological Research, Milan)
72. Stockley I. Interactions with oral contraceptives. J Pharm 1976; 216:140-143.
73. The Cancer and Steroid Hormone Study of the Centers for Disease Control and the National Institute of Child Health and Human Development: Oral contraceptive use and the risk of ovarian cancer. JAMA 1983; 249:1596-1599.
74. The Cancer and Steroid Hormone Study of the Centers for Disease Control and the National Institute of Child Health and Human Development: Combination oral contraceptive use and the risk of endometrial cancer. JAMA 1987; 257:796-800.
75. Dry HW. Functional ovarian cysts and oral contraceptives: negative association confirmed surgically. JAMA 1974; 228: 68-69.
76. Dry HW, Cole P, Macmahon B, Hoover R. Oral contraceptives and reduced risk of benign breast disease. N Engl J Med 1976; 294:419-422.
77. Dry HW. The noncontraceptive health benefits from oral contraceptive use. Fam Plann Perspect 1982; 14:182-184.
78. Dry HW, Forrest JD, Lincoln R. Making Choices: Evaluating the health risks and benefits of birth control methods. New York, The Alan Guttmacher Institute, 1983; p. 1.
79. Schlesselman J, Stadel B, Murray J, La S. Breast Cancer in relation to early use of oral contraceptives 1988; 259:1828-1833.
80. Hennekens CH, Speizer FE, Lipnick RJ, Rosner B, Bain C, Belanger C, Stampfer MJ, Willett W, Peto R. A case-controlled study of oral contraceptive use and breast cancer. JNCI 1984;72:39-42.
81. LaVecchia C, Decarli A, Fasoli M, Franceschi S, Gentile A, Negri E, Parazzini F. Tognoni G. Oral contraceptives and cancers of the breast and of the female genital tract. Interim results from a case-control study. Br J Cancer 1986; 54:311-317.
82. Meirik O, Lund E, Adami H, Bergstrom R, Christoffersen T, Bergsjo P. Oral contraceptive use in breast cancer in young women. A Joint National Case-control study in Sweden and Norway. Lancet 1986; 11:650-654.
83. Kay CR, Hannaford PC. Breast cancer and the pill-A further report from the Royal College of General Practitioners' oral contraceptive study. Br J Cancer 1988; 58:675-680.
84. Stadel BJ, La S, Schlesselman JI, Murray P. Oral contraceptives and premenopausal breast cancer in nulliparous women. Contraception 1988; 38:287-290.
85. Miller DR, Rosenberg L, Kaufman DW, Stolley P, Warshauer ME, Shapiro S. Breast cancer before age 45 and oral contraceptive use. New Findings. Am J Epidemiol 1989; 129:269-280.
86. The UK National Case-Control Study Group. Oral contraceptive use and breast cancer risk in young women. Lancet 1989; 1:973-982.
87. Schlesselman JI. Cancer of the breast and reproductive tract in relation to use of oral contraception 1988; 40:1-38.
88. Vessey MP, McPherson K, Villard-Mackintosh L, Yeates D. Oral contraceptives and breast cancer: latest findings in a large cohort study. Br J Cancer 1989; 59:613-617.
89. Jick SS, Walker AM, Stegachis A, Jick H. Oral contraceptives and breast cancer. Br J Cancer 1989; 59:618-621.
90. Godtsland, I et al. The effects of different formulations of oral contraceptive agents on lipid and carbohydrate metabolism. N Engl J Med 1990; 323:1375-81.
91. Kloosterboer, HJ et al. Selectivity in progestosterone and androgen receptor binding of progestogens used in oral contraception. Contraception 1988; 38:325-32.
92. Van der Vies, J and de Visser, J. Endocrinological studies with desogestrel. Arzneim Forsch/Drug Res. 1983; 33(1),2:231-6.
93. Data on file, Organon Inc.
94. Fotherby, K. Oral contraceptives, lipids and cardiovascular diseases. Contraception 1985; Vol. 31; 4:367-94.
95. Lawrence, DM et al. Reduced sex hormone binding globulin and derived free testosterone levels in women with severe acne. Clinical Endocrinology 198;15:67-91.
96. Collaborative Factor in Breast Cancer. Factors in Breast Cancer: Breast cancer and hormonal contraceptives: collaborative reanalysis of individual data on 53 297 women with breast cancer and 100 239 women without breast cancer from 54 epidemiological studies. Lancet 1996; 347:1713-1727.
97. Palmer JR, Rosenberg L, Kaufman DW, Warshauer ME, Stolley P, Shapiro S. Oral Contraceptive Use and Liver Cancer. Am J Epidemiol 1989; 130:876-882.
98. Improving access to quality care in family planning: Medical eligibility criteria for contraceptive use. Geneva, WHO, Family and Reproductive Health, 1996.

Manufactured in Canada by:

**Pathcon Inc.**  
Ontario, Canada L5N 7K9  
Manufactured For:  
**QUALITEST PHARMACEUTICALS**  
Huntsville, AL 35811

Rev. 6/2010

## BRIEF SUMMARY PATIENT PACKAGE INSERT

### EO only

**EO only EMOQUETTE** (desogestrel and ethinyl estradiol) Tablets USP  
This product (like all oral contraceptives) is intended to prevent pregnancy. It does not protect against HIV infection (AIDS) and other sexually transmitted diseases.

Oral contraceptives, also known as "birth control pills" or "the pill," are taken to prevent pregnancy, and when taken correctly without missing any pills, have a failure rate of approximately 1% per year. The typical failure rate is approximately 5% per year when women who miss pills are included. For most women, oral contraceptives are also free of serious or unpleasant side effects. However, forgetting to take pills considerably increases the chances of pregnancy.

For the majority of women, oral contraceptives can be taken safely. But there are some women who are at high risk of developing certain serious diseases that can be

life-threatening or may cause temporary or permanent disability. The risks associated with taking oral contraceptives increase significantly if you:  
• smoke  
• have high blood pressure, diabetes, high cholesterol  
• have or have had clotting disorders, heart attack, stroke, angina pectoris, cancer of the breast or sex organs, jaundice or malignant or benign liver tumors

Although cardiovascular disease risks may be increased with oral contraceptive use after age 40 in healthy, non-smoking women (even with newer low-dose formulations), there are also greater potential health risks associated with pregnancy in older women. You should not take the pill if you suspect you are pregnant or have unexplained vaginal bleeding.

**Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives are strongly advised not to smoke.**

Most side effects of the pill are not serious. The most common such effects are nausea, vomiting, bleeding between menstrual periods, weight gain, breast tenderness, headache, and difficulty wearing contact lenses. These side effects, especially nausea and vomiting, may subside within the first three months of use.

The serious side effects of the pill occur very infrequently, especially if you are in good health and are young. However, you should know that the following medical conditions have been associated with or made worse by the pill:

1. Blood clots in the legs (thrombophlebitis) or lungs (pulmonary embolism), stroke or rupture of a blood vessel in the brain (stroke), blockage or blood vessels in the heart (heart attack or angina pectoris) or other organs of the body. As mentioned above, smoking increases the risk of heart attacks and strokes, and subsequent serious medical consequences.
2. In rare cases, oral contraceptives can cause benign but dangerous liver tumors. These benign liver tumors can rupture and cause fatal internal bleeding. In addition, some studies report an increased risk of developing liver cancer. However, liver cancers are rare.
3. High blood pressure, although blood pressure usually returns to normal when the pill is stopped.

The symptoms associated with these serious side effects are discussed in the detailed patient labeling given to you with your supply of pills. Notify your healthcare professional if you notice any unusual physical disturbances while taking the pill. In addition, drugs such as rifampin, as well as some anticonvulsants and some antibiotics and herbal preparations containing St. John's Wort (hypericum perforatum) may decrease oral contraceptive effectiveness.

Various studies give conflicting reports on the relationship between breast cancer and oral contraceptive use. Oral contraceptive use may slightly increase your chance of having breast cancer diagnosed, particularly after using hormonal contraceptives at a younger age. After you stop using hormonal contraceptives, the chances of having breast cancer diagnosed begin to go back down. You should have regular breast examinations by a healthcare professional to examine your own breasts monthly. Tell your healthcare professional if you have a family history of breast cancer or if you have had breast nodules or an abnormal mammogram. Women who currently have or have had breast cancer should not use oral contraceptives because breast cancer is usually a hormone-sensitive tumor.

Some studies have found an increase in the incidence of cancer of the cervix in women who use oral contraceptives. However, this finding may be related to factors other than the use of oral contraceptives. There is insufficient evidence to rule out the possibility that the pill may cause such cancers.

Taking the pill provides some important non-contraceptive benefits. These include less painful menstruation, less menstrual blood loss and anemia, fewer pelvic infections, and fewer cancers of the ovary and the lining of the uterus. Be sure to discuss any medical condition you may have with your healthcare professional. Your healthcare professional will take a medical and family history before prescribing oral contraceptives and will examine you. The physical examination may be delayed to another time if you request it and the healthcare professional believes that it is a good medical practice to postpone it. You should be reexamined at least once a year while taking oral contraceptives. The detailed patient information labeling gives you further information which you should read and discuss with your healthcare professional.

**This product (like all oral contraceptives) is intended to prevent pregnancy. It does not protect against transmission of HIV (AIDS) and other sexually transmitted diseases such as chlamydia, genital herpes, genital warts, gonorrhea, hepatitis B, and syphilis.**

### INSTRUCTIONS TO PATIENT

**BLISTER PACK**  
The EMOQUETTE blister pack has been designed to make oral contraceptive dosing as easy and as convenient as possible. The tablets are arranged in four rows of seven tablets each, with the days of the week appearing above the first row of tablets.

If your BLISTER PACK contains:	You are taking:
21 white tablets and 7 light-green tablets	EMOQUETTE

Each white tablet contains 0.15 mg desogestrel and 0.03 mg ethinyl estradiol. Each light-green tablet contains inert ingredients and is intended to help you remember to take the tablets correctly. These light-green tablets are not intended to have any health benefit.

### DIRECTIONS

To remove a tablet, press down on it with your thumb or finger. The tablet will drop through the back of the blister pack. Do not press with your thumbnail, fingernail, or any other sharp object.

### HOW TO TAKE THE PILL

<b>IMPORTANT POINTS TO REMEMBER</b>
-------------------------------------

#### BEFORE YOU START TAKING YOUR PILLS:

1. BE SURE TO READ THESE DIRECTIONS: Before you start taking your pills. anytime you are not sure what to do.
2. THE RIGHT WAY TO TAKE THE PILL IS TO TAKE ONE PILL EVERY DAY AT THE SAME TIME. If you miss pills you could get pregnant. This includes starting the pack late.

3. MANY WOMEN HAVE SPOTTING OR LIGHT BLEEDING, OR MAY FEEL SICK TO THEIR STOMACH DURING THE FIRST 1 to 3 PACKS OF PILLS. If you feel sick to your stomach, do not stop taking the pill. The problem will usually go away. If it doesn't go away, check with your healthcare professional.
4. MISSING PILLS CAN ALSO CAUSE SPOTTING OR LIGHT BLEEDING, even when you make up these missed pills.

5. IF YOU HAVE VOMITING OR DIARRHEA, OR IF YOU TAKE SOME MEDICINES, including some antibiotics, your pills may not work as well.

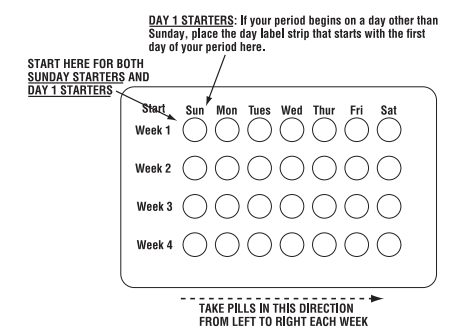
6. IF YOU HAVE TROUBLE REMEMBERING TO TAKE THE PILL, talk to your healthcare professional about how to make pill-taking easier or about using another method of birth control.
7. IF YOU HAVE ANY QUESTIONS OR ARE UNSURE ABOUT THE INFORMATION IN THIS LEAFLET, call your healthcare professional.

#### BEFORE YOU START TAKING YOUR PILLS

1. DECIDE WHAT TIME OF DAY YOU WANT TO TAKE YOUR PILL. It is important to take it at about the same time every day.
2. LOOK AT YOUR PILL PACK TO SEE IF IT HAS 28 PILLS. The 28 pill pack has 21 "active" white pills (with hormones) to take for 3 weeks, followed by 7 "inert" light-green pills (without hormones).

#### 3. ALSO FIND:

- 1.) where on the pack to start taking pills,
- 2.) in what order to take the pills,
- 3.) the week numbers as shown in the following picture:



EMOQUETTE tablets will contain: **21 WHITE PILLS** for **WEEKS 1, 2, and 3. WEEK 4** will contain **LIGHT-GREEN PILLS ONLY.**

#### 4. BE SURE YOU HAVE READY AT ALL TIMES:

- ANOTHER KIND OF BIRTH CONTROL (such as condoms or spermicide) to use as a back-up in case you miss pills.
- AN EXTRA, FULL PILL PACK.

<b>WHEN TO START THE FIRST PACK OF PILLS</b>
You have a choice of which day to start taking your first pack of pills. Decide with your healthcare professional which is the best day for you. Pick a time of day which will be easy to remember.

#### DAY 1 START:

1. Take the first white "active" pill of the first pack during the **first 24 hours of your period.**
2. You will not need to use a back-up method of birth control, since you are starting the pill at the beginning of your period.

#### SUNDAY START:

1. Take the first white "active" pill of the first pack on the **Sunday after your period starts**, even if you are still bleeding. If your period begins on Sunday, start the pack that same day.
2. Use another method of birth control such as condoms or spermicide as a back-up method if you have sex anytime from the Sunday you start your first pack until the next Sunday (7 days).

#### WHAT TO DO DURING THE MONTH

1. **ONE PILL AT THE SAME TIME EVERY DAY UNTIL THE PACK IS EMPTY**

Do not skip pills even if you are spotting or bleeding between monthly periods or feel sick to your stomach (nausea).

- Do not skip pills even if you do not have sex very often.
2. **YOU FINISH A PACK OR SWITCH YOUR BRAND OF PILLS:** Start the next pack on the day after your last light-green "reminder" pill. Do not wait any days between packs.

#### WHAT TO DO IF YOU MISS PILLS

1. If you **MISS 1** white "active" pill:  
Take it as soon as you remember. Take the next pill at your regular time. This means you may take 2 pills in 1 day.
2. You do not need to use a back-up birth control method if you have sex.
3. If you **MISS 2** white "active" pills in a row in **WEEK 1 OR WEEK 2** of your pack:  
1. Take 2 pills on the day you remember and 2 pills the next day.  
2. Then take 1 pill a day until you finish the pack.
3. You **COULD BECOME PREGNANT** if you have sex in the **7 days** after you miss pills. You **MUST** use another birth control method (such as condoms or spermicide) as a back-up method for those 7 days.

4. If you **MISS 2** white "active" pills in a row in the **3RD WEEK:**  
1. If you are a **Day 1 Starter:** THROW OUT the rest of the pill pack and start a new pack that same day.

If you are a **Sunday Starter:** Keep taking 1 pill every day until Sunday. On Sunday, THROW OUT the rest of the pack and start a new pack of pills that same day.

2. You may not have your period this month but this is expected. However, if you miss your period 2 months in a row, call your healthcare professional because you might be pregnant.
3. You **COULD BECOME PREGNANT** if you have sex in the **7 days** after you miss pills. You **MUST** use another birth control method (such as condoms or spermicide) as a back-up method for those 7 days.

If you **MISS 3 OR MORE** white "active" pills in a row (during the first 3 weeks):  
1. If you are a **Day 1 Starter:** THROW OUT the rest of the pill pack and start a new pack that same day.

If you are a **Sunday Starter:** Keep taking 1 pill every day until Sunday. On Sunday, THROW OUT the rest of the pack and start a new pack of pills that same day.

2. You may not have your period this month but this is expected. However, if you miss your period 2 months in a row, call your healthcare professional because you might be pregnant.
3. You **COULD BECOME PREGNANT** if you have sex in the **7 days** after you miss pills. You **MUST** use another birth control method (such as condoms or spermicide) as a back-up method for those 7 days.

**A REMINDER:** If you forget any of the 7 light-green "reminder" pills in Week 4: THROW AWAY the pills you missed. Keep taking 1 pill each day until the pack is empty. You do not need a back-up method.

**FINALLY, IF YOU ARE STILL NOT SURE WHAT TO DO ABOUT THE PILLS YOU HAVE MISSED:** Use a BACK-UP METHOD anytime you have sex.

KEEP TAKING ONE WHITE "ACTIVE" PILL EACH DAY until you can reach your healthcare professional.  
If you have taken all 21 white "active" pills, take one light-green "reminder" pill daily for 7 days. During this time your period should begin.

5. After you have taken all the pills, start a new pack of pills even if your period is not yet over.

**STORAGE:** Store at 20° to 25°C (68° to 77°F) [See USP Controlled Room Temperature].

Manufactured in Canada By:

**Pathcon Inc.**

Ontario, Canada L5N 7K9

Manufactured For:

**QUALITEST PHARMACEUTICALS**

Huntsville, AL 35811

Rev. 6/2010

## SUPPLEMENTAL PATIENT MATERIAL

### DETAILED PATIENT LABELING

**This product (like all oral contraceptives) is intended to prevent pregnancy. It does not protect against HIV infection (AIDS) and other sexually transmitted diseases. PLEASE NOTE: This labeling is revised from time to time as important new medical information becomes available. Therefore, please review this labeling carefully.**

The following oral contraceptive product contains a combination of a progestogen and estrogen, the two kinds of female hormones:  
**EMOQUETTE® (desogestrel and ethinyl estradiol) Tablets USP**  
Each light-green tablet contains inert ingredients.

### INTRODUCTION

Any woman who considers using oral contraceptives (the birth control pill or the pill) should understand the benefits and risks of using this form of birth control. This patient labeling will give you much of the information you will need to make this decision and will also help you determine if you are at risk of developing any of the serious side effects of the pill. It will tell you how to use the pill properly so that it will be as effective as possible. However, this labeling is not a replacement for a careful discussion between you and your healthcare professional. You should discuss the information provided in this labeling with him or her, both when you first start taking the pill and during your visits. You should also follow your healthcare professional's advice with regard to regular check-ups while you are on the pill.

### EFFECTIVENESS OF ORAL CONTRACEPTIVES

Oral contraceptives or "birth control pills" or "the pill" are used to prevent pregnancy and are more effective than most other non-surgical methods of birth control. When they are taken correctly without missing any pills, the chance of becoming pregnant is approximately 1% (1 pregnancy per 100 women per year of use). Typical failure rates, including women who do not always take the pills exactly as directed, are approximately 5% per year. The chance of becoming pregnant increases with each missed pill during a menstrual cycle.

**In Comparison: Typical Failure Rates for Other Non-Surgical Methods of Birth Control During the First Year of Use are as Follows:**

Implant: < 1%	Male sterilization: < 1%
Injection: < 1%	Cervical Cap with spermicide: 20 to 40%
IUD: 1 to 2%	Condom alone (male): 14%
Diaphragm with spermicide: 20%	Condom alone (female): 21%
Spermicide alone: 26%	Periodic abstinence: 25%
Vaginal sponge: 20 to 40%	Withdrawal: 19%
Female sterilization: < 1%	No methods: 85%

**WHO SHOULD NOT TAKE ORAL CONTRACEPTIVES**  
Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives are strongly advised not to smoke.

Some women should not use the pill. For example, you should not take the pill if you have any of the following conditions:

- A history of heart attack or stroke
- Blood clots in the legs (thrombophlebitis), lungs (pulmonary embolism), or eyes
- A history of blood clots in the deep veins of your legs
- Chest pain (angina pectoris)
- Known or suspected breast cancer or cancer of the lining of the uterus, cervix or vagina

• Unexplained vaginal bleeding (until a diagnosis is reached by your healthcare professional)

- Yellowing of the whites of the eyes or of the skin (jaundice) during pregnancy or during previous use of the pill
- Stroke (anterior, benign or cancerous)
- Known or suspected pregnancy
- If you plan to have surgery with prolonged bedrest

Tell your healthcare professional if you have ever had any of these conditions. Your healthcare professional can recommend another method of birth control.

### OTHER CONSIDERATIONS BEFORE TAKING ORAL CONTRACEPTIVES

Tell your healthcare professional if you have or have had:

- Breast nodules, fibrocystic disease of the breast, an abnormal breast x-ray or mammogram
- Diabetes
- Elevated cholesterol or triglycerides
- High blood pressure
- Migraine or other headaches or epilepsy
- Mental depression
- Gallbladder, liver, heart or kidney disease
- History of nausea or irregular menstrual periods

Women with any of these conditions should be checked often by their healthcare professional if they choose to use oral contraceptives.

Also, be sure to inform your healthcare professional if you smoke or are on any medications.

### RISKS OF TAKING ORAL CONTRACEPTIVES

#### 1. Risk of Developing Blood Clots

Blood clots and blockage of blood vessels are one of the most serious side effects of taking oral contraceptives and can cause death or serious disability. In particular, a clot in the legs can cause thrombophlebitis and a clot that travels to the lungs can cause a sudden blockage of the vessel carrying blood to the lungs. The risks of these side effects may be greater with desogestrel-containing oral contraceptives, such as EMOQUETTE, than with certain other low-dose pills. Rarely, clots occur in the blood vessels of the eye and may cause blindness, double vision, or impaired vision.

If you take oral contraceptives and need elective surgery, need to stay in bed for a prolonged illness or injury or have recently delivered a baby, you may be at risk of developing blood clots. You should consult your healthcare professional about stopping oral contraceptives three to four weeks before surgery and not taking oral contraceptives for two weeks after surgery or during bed rest. You should also not take oral contraceptives soon after delivery of a baby. It is advisable to wait for at least four weeks after delivery if you are not breast feeding. If you are breast feeding, you should wait until you have weaned your child before using the pill (see also **GENERAL PRECAUTIONS, Breast Feeding**).

The risk of circulatory disease in oral contraceptive users may be higher in users of high dose pills. The risk of venous thromboembolic disease associated with oral contraceptives does not increase with length of use and disappears after pill use is stopped. The risk of abnormal blood clotting increases with age in both users and nonusers of oral contraceptives, but the increased risk from the oral contraceptive appears to be present at all ages. For women aged 20 to 44 it is estimated that about 1 in 2,000 using oral contraceptives will be hospitalized each year because of abnormal clotting. Among nonusers in the same age group, about 1 in 20,000 would be hospitalized each year. For oral contraceptive users in general, it has been estimated that in women between the ages of 15 and 34 the risk of death due to a circulatory disorder is about 1 in 12,000 per year, whereas for nonusers the rate is about 1 in 50,000 per year. In the age group 35 to 44, the risk is estimated to be about 1 in 2,500 per year for oral contraceptive users and about 1 in 10,000 per year for nonusers.

#### 2. Heart Attacks and Strokes

Oral contraceptives may increase the tendency to develop strokes (stoppage or rupture of blood vessels in the brain) and angina pectoris and heart attacks (blockage of blood vessels in the heart). Any of these conditions can cause death or serious disability. Smoking greatly increases the possibility of suffering heart attacks and strokes. Furthermore, smoking and the use of oral contraceptives greatly increase the chances of developing and dying of heart disease.

#### 3. Gallbladder Disease

Oral contraceptive users probably have a greater risk than nonusers of having gallbladder disease, although this risk may be related to pills containing high doses of estrogens.

#### 4. Liver Tumors

In rare cases, oral contraceptives can cause benign but dangerous liver tumors. These benign liver tumors can rupture and cause fatal internal bleeding. In addition, some studies report an increased risk of developing liver cancer. However, liver cancers are rare.

#### 5. Cancer of the Reproductive Organs and Breasts

Various studies give conflicting reports on the relationship between breast cancer and oral contraceptive use. Oral contraceptive use may slightly increase your chance of having breast cancer diagnosed, particularly after using hormonal contraceptives at a younger age. After you stop using hormonal contraceptives, the chances of having breast cancer diagnosed begin to go back down. You should have regular breast examinations by a healthcare professional and examine your own breasts monthly. Tell your healthcare professional if you have a family history of breast cancer or if you have had breast nodules or an abnormal mammogram. Women who currently have or have had breast cancer should not use oral contraceptives because breast cancer is usually a hormone-sensitive tumor.