Tamoxifen citrate tablets, USP
10 mg and 20 mg

**Only**

**WARNING:** For Women with Ductal Carcinoma in Situ (DCIS) and Women at High Risk for Breast Cancer: Serious and life-threatening events associated with tamoxifen and raloxifene reduction set (women at high risk for cancer and women with DCIS) include uterine malignancies, stroke, and pulmonary embolism. Incidence rates for these events were estimated from clinical trials and are based on data from published randomized clinical studies and meta-analyses (see CLINICAL PHARMACOLOGY: Clinical Studies). Reduction in Breast Cancer Incidence In High Risk Women). Uterine malignancies consist of both endometrial adenocarcinoma (incidence rate per 1,000 women-years of 0.71 for placebo) and uterine sarcoma (incidence rate per 1,000 women-years of 0.17 for tamoxifen vs 0.04 for placebo). For stroke, the incidence rate per 1,000 women-years was 1.43 tamoxifen vs 1.09 for placebo**. For pulmonary embolism, the incidence rate per 1,000 women-years was 0.75 for tamoxifen versus 0.25 for placebo**. Some of the strokes, pulmonary emboli, and uterine malignancies were fatal.

Health care providers should discuss the potential benefits versus the potential risks for estrogen receptor positive women at high risk of breast cancer and women with DCIS considering tamoxifen to reduce their risk of developing breast cancer.

The benefits of tamoxifen outweigh its risks in women already diagnosed with breast cancer.

*Updated long-term follow-up data (median length of follow-up is 6.9 years) from NSABP P-1 study. See WARNINGS. Effects on the Endometrial Cancer and Uterine Sarcoma.** See Table 3 under CLINICAL PHARMACOLOGY: Clinical Studies.

**DESCRIPTION:** Tamoxifen citrate tablets USP, a nonsteroidal antioestrogen, are for oral administration. Tamoxifen tablets are available as:

- **10 mg Tablets.** Each tablet contains 15.2 mg of tamoxifen citrate which is equivalent to 20 mg of tamoxifen.
- **20 mg Tablets.** Each tablet contains 30.4 mg of tamoxifen citrate which is equivalent to 20 mg of tamoxifen. Each tablet contains the following inactive ingredients: anhydrous lactose, croscarmellose sodium, magnesium stearate, microcrystalline cellulose and sodium lauryl sulfate.

Chemically, tamoxifen is the trans-isomer of a triphenylethylenamine derivative. The structure of tamoxifen is shown below. Tamoxifen is freely soluble in water at 37°C (0.5 mg/mL) and in 0.02 N HCl at 37°C (2.0 mg/mL).

**CLINICAL PHARMACOLOGY:** Tamoxifen is a nonsteroidal agent that has demonstrated potent antioestrogenic properties in animal test systems. The antioestrogenic effects of tamoxifen are competitive with estrogen binding for sites in target tissues such as breast. Tamoxifen inhibits the binding of 17beta-estradiol to estrogen receptors in the breast and other tissues. Tamoxifen does not exhibit agonist activity, but preferentially acts as an estrogen antagonist at target tissues such as breast. Tamoxifen inhibits the binding of estradiol to estrogen receptors in breast cancer tissue and inhibits the induction of estrogen dependent proliferative events, including DNA synthesis, cell growth, and expression of many estrogen regulated genes.

**Absorption and Distribution:** Following a single oral dose of 20 mg of tamoxifen, an average peak plasma concentration of 40 ng/mL (range 35 to 45 ng/mL) occurred approximately 4 hours after dosing. The average plasma concentration of tamoxifen is biphasic with a terminal elimination half-life of about 5 hours. The average plasma half-life following a single oral dose of 20 mg was 9.8 hours (range 6.9 to 12.5 hours). The decline in plasma concentration occurred approximately 5 hours after dosing. The decline in plasma concentration was 70% of the initial concentration at about 8 hours. The average peak plasma concentration of tamoxifen is 15 ng/mL (range 10 to 20 ng/mL). Chronic administration of 10 mg tamoxifen given twice a day resulted in an average steady-state plasma concentration of 0.53 ng/mL (range 0.40 to 0.65 ng/mL). The average steady-state plasma concentrations of tamoxifen and N-desmethyl tamoxifen after administration of 20 mg tamoxifen once daily for 3 months are 152 ng/mL (range 71 to 153 ng/mL) and 353 ng/mL (range 152 to 756 ng/mL), respectively. After initiation of therapy, steady-state concentrations for tamoxifen are achieved in about 4 weeks and steady-state concentrations for N-desmethyl tamoxifen are achieved in about 8 weeks, suggesting a half-life of approximately 14 days for this metabolite. In a steady-state, crossover study of 10 mg tamoxifen citrate tablets given twice a day vs. a 20 mg tablet given once a day, the plasma levels of tamoxifen citrate tablet were bioequivalent to the 10 mg tamoxifen citrate tablet.

**Metabolism:** Tamoxifen is extensively metabolized after oral administration. N-desmethyl tamoxifen has served as a surrogate for tamoxifen for many years. The biological activity of N-desmethyl tamoxifen appears to be similar to that of tamoxifen. 4-Hydroxytamoxifen and a side chain primary alcohol derivative of tamoxifen are minor metabolites. N-desmethyl tamoxifen is a substrate of cytochrome P-450 3A, 2C9, and 2D6, and an inhibitor of P-glycoprotein.

**Excretion:** Studies in patients receiving 20 mg of 14C-tamoxifen have shown that approximately 65% of the administered dose was excreted from the body over a period of 2 weeks with fecal excretion as the primary route of elimination. The drug is excreted mainly as polar conjugates, with unchanged drug and unconjugated metabolites accounting for less than 30% of the total fecal radioactivity.

**Special Populations:** The effects of age, gender and the race on the pharmacokinetics of tamoxifen have not been determined. The effects of reduced liver function on the metabolism and pharmacokinetics of tamoxifen have not been determined.

**Pediatric Patients:** Approved labeling describing pediatric pharmacokinetic information obtained from patients with McCune-Albright syndrome is available on a Pediatric Patient Medication Guide at www.fda.gov/Drugs.
The Breast Cancer Prevention Trial (BCPT, NSABP P-1) was a double-blind, randomized, placebo-controlled trial with a primary objective to determine whether 5 years of tamoxifen citrate therapy (20 mg/day) would reduce the incidence of breast cancer in women at high risk for the disease (see INDICATIONS AND USAGE). Secondary objectives included an evaluation of the incidence of ischemic heart disease; the effects on the incidence of bone fractures; and other events that might be associated with the use of tamoxifen, including: endometrial cancer, pulmonary embolus, deep vein thrombosis, stroke, and cataract formation and surgery (see WARNINGS).

The Gail Model was used to calculate predicted breast cancer risk for women taking tamoxifen vs. 483 women receiving placebo (RR = 1.13, 95% CI: 1.00 to 1.28). There were 34 strokes on the tamoxifen arm compared to 6 in the placebo group (RR = 3.01, 95% CI: 1.15 to 9.27). There were 212 recorded cases of deep vein thrombosis were observed in the tamoxifen group vs. 6 in the placebo group (RR = 3.51, 95% CI: 1.15 to 1.10). A total of 56 cases of pulmonary emboli were observed in 50 women taking tamoxifen receiving placebo (RR = 1.13, 95% CI: 0.70 to 1.28). Cataract surgery (with or without cataracts at baseline) was performed in 201 women taking tamoxifen vs. 129 women receiving placebo (RR = 1.51, 95% CI: 1.21 to 1.89) (see WARNINGS).

Table 3 summarizes the major outcomes of the NSABP P-1 trial. For each endpoint, the following results are presented: the number of events and ratio per 1000 women per year for the placebo and tamoxifen arms; and the relative risk (RR) and its associated 95% confidence interval (CI) between tamoxifen and placebo arms. Relative risks less than 1.0 indicate a benefit of tamoxifen therapy. The limits of the confidence intervals can be used to assess the statistical significance of the benefits or risks of tamoxifen therapy. If the upper limit of the CI is less than 1.0, then a statistically significant benefit exists.

For most participants, multiple risk factors would be required for eligibility. This table considers risk factors individually, regardless of other factors. The numbers of women who were randomized for at least 1 year in the tamoxifen arm vs. the placebo arm. The 5-year predicted absolute breast cancer risk accounts for multiple risk factors in an individual and should provide the best estimate of individual benefit (see INDICATIONS AND USAGE).
Tamoxifen citrate tablets are contraindicated in women who and who have a 1 in 1000 risk of developing breast cancer incidence should be based upon an individual assessment of the benefits and risks of tamoxifen therapy.

Current data from clinical trials support the use of tamoxifen in breast cancer patients with a high risk of breast cancer.

Examples of combinations of factors predicting a 5-year risk ≥ 1.67% are:

- Age 35 or older and any of the following combinations of factors:
  - One first degree relative with a history of breast cancer, 2 or more benign breast biopsies with a history of developing atypical hyperplasia, or
  - At least 2 first degree relatives with a history of breast cancer, and a personal history of at least one breast biopsy;
  - At least 2 first degree relatives with a history of breast cancer, and age at menarche 11 or less;

- Age 40 or older and any of the following combinations of factors:
  - One first degree relative with a history of breast cancer, 2 or more benign breast biopsies, age at first live birth 25 or older, and age at menarche 11 or less;
  - At least 2 first degree relatives with a history of breast cancer, and age at first live birth 19 or younger;
  - One first degree relative with a history of breast cancer, a personal history of a benign breast biopsy, age at menarche 11 or less and age at first live birth 20 or more.

- Age 50 or older and any of the following combinations of factors:
  - One first degree relative with a history of breast cancer, a personal history of a benign breast biopsy, age at menarche 11 or less and age at first live birth 19 or younger;
  - One first degree relative with a history of breast cancer, age at menarche 11 or less and age at first live birth 20 or more;

- Age 55 or older and any of the following combinations of factors:
  - One first degree relative with a history of breast cancer, a personal history of a benign breast biopsy, age at menarche 11 or less;
  - History of at least 2 breast biopsies with a history of atypical hyperplasia, and age at first live birth 30 or older and age at menarche 11 or less;

- Age 60 or older:
  - 5-year predicted risk of breast cancer ≥ 1.67%, as calculated by the Gail Model.

- Women whose risk factors are not described in the abovementioned examples, the Gail Model is necessary to estimate absolute breast cancer risk.

Health Care Professionals can obtain a Gail Model Risk Assessment Tool by dialing 1-888-753-8393.

Thromboembolic Effects of Tamoxifen:
- Any patient receiving or who has previously received tamoxifen who reports symptoms of deep vein thrombosis and pulmonary embolism should have appropriate measures taken and, if severe, tamoxifen should be discontinued.

Effects on the Uterus:
- Endometrial Cancer and Uterine Sarcoma:
- Tamoxifen may cause fibroids, endometrial hyperplasia, and endometrial precancerous lesions.

Thromboembolic Effects of Tamoxifen:
- Any patient receiving or who has previously received tamoxifen who reports symptoms of deep vein thrombosis and pulmonary embolism should have appropriate measures taken and, if severe, tamoxifen should be discontinued.

Effects on the Uterus:
- Endometrial Cancer and Uterine Sarcoma:
- Tamoxifen may cause fibroids, endometrial hyperplasia, and endometrial precancerous lesions.
For sexually active women of child-bearing potential, tamoxifen therapy should be initiated during menstruation. In women with menstrual irregularities, implants were inserted at the time of the next menstrual period; women taking tamoxifen should consult their health care professional for an assessment of the potential benefits and risks prior to starting tamoxifen therapy. Amenorrhea has been observed, sometimes in association with amenorrhea and/or thrombocytopoenia. There have been rare reports of neutropenia and pancytopenia in patients receiving tamoxifen; this effect is reversible.

In the NSABP P-1 trial, 6 women on tamoxifen and 2 on placebo experienced grade 3 to 4 drops in platelet counts (0.5% of patients). There has been rare reports of neutropenia and pancytopenia in patients receiving tamoxifen; this effect is reversible. No genotoxic potential was found in a conventional battery of genotoxicity assays (see CLINICAL PHARMACOLOGY: Clinical Studies: Genotoxicity).

Vaginal changes reported at a frequency of 2% or greater from clinical trials: changes in vision. Women should inform all care providers, regardless of the treatment or the care provider and select the appropriate modalities and schedule of evaluation.

Women who are at high risk for breast cancer can consider taking tamoxifen therapy to reduce the incidence of breast cancer. Whether the benefits of treatment are considered to outweigh the risks depends on a woman's personal health history and by on how she weights the benefits and risks. Tamoxifen therapy to reduce the incidence of breast cancer may therefore not be appropriate for all women. Patients with high-grade estrogen receptor positive small tumors, but did not alter the incidence of estrogen receptor negative tumors or larger tumors. In women with breast cancer who are at high risk for breast cancer, tamoxifen therapy has been shown to reduce the annual incidence rate of a second breast cancer by approximately 50%.

Women who are pregnant or who plan to become pregnant should not take tamoxifen therapy. Tamoxifen therapy during pregnancy is not recommended. Breastfeeding women who are being treated with tamoxifen should discontinue nursing. If a woman is having difficulty making this decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

The incidence of thrombotic events was also increased in the tamoxifen group compared with placebo. Additionally, 11 cases of deep vein thrombosis (3 cases in the tamoxifen group vs. 2 in the placebo group) and 3 cases of pulmonary embolism (1 case in the tamoxifen group vs. 0 in the placebo group) were observed. In the NSABP B-24 trial, the percentage of women at least 65 years of age was 23%. Women at least 70 years of age accounted for 10% of patients. A total of 13 invasive breast cancers were seen among participants 65 and older in the placebo and tamoxifen groups, respectively. For placebo, an observation of borderline statistical significance. For patients receiving tamoxifen therapy who are considering tamoxifen to reduce the incidence of a second malignancy for any reason were ineligible for participation in the trial (see CON- TINUED). In adults treated with tamoxifen, an increase in incidence of adenocarcinoma of the uterine cervix has been noted (see BOXED WARNING: Mammographic and Clinical Monitoring).

There was an increased risk of thromboembolic events occurring when cyto- toxic agents are used in combination with tamoxifen.

Tamoxifen reduced luteal phase plasma concentrations by 37%. The effect of tamoxifen on plasma coagulation factors, other antithrombotic effects of tamoxifen as cytoplasmicophyle and other drugs that require mixed function oxidases for activation, is not known. Tamoxifen and N-desmethyl tamoxifen plasma concentrations have been measured in patients receiving rifampin or aminoglutethimide. Induction of CYP3A4-mediated metabolism is considered to be the mechanism by which these reductions occur; other CYP3A4 induced drugs are unlikely to interact with tamoxifen. One patient receiving tamoxifen with concomitant phenoobarbital exhibited a steady state serum level of tamoxifen lower than that observed for other patients (i.e., 26.5 mg/L vs. 12.2 mg/L at 1 hour). The clinical significance of this finding is not known. Rifampin induced the metabolism of tamoxifen and significantly reduced the plasma concentrations of tamoxifen in 10 patients. Aminoglutethimide reduced tamoxifen and N-desmetil tamoxifen plasma concentrations. Medroxyprogesterone reduces plasma concentrations of N-desmetil, but not tamoxifen.

Concomitant bromocriptine therapy has been shown to elevate serum tamoxifen and N-desmethly tamoxifen.

Drug/Laboratory Testing Interactions: During postmarketing surveillance, patients treated with tamoxifen may have exhibited decreases in platelet counts (5% to 9% of patients). The mechanism for this effect is unknown. A decrease in platelet count was observed as cyclophosphamide and other drugs that require mixed function oxidases for activation, is not known. Tamoxifen and N-desmethyl tamoxifen plasma concentrations have been measured in patients receiving rifampin or aminoglutethimide. Induction of CYP3A4-mediated metabolism is considered to be the mechanism by which these reductions occur; other CYP3A4 induced drugs are unlikely to interact with tamoxifen. One patient receiving tamoxifen with concomitant phenoobarbital exhibited a steady state serum level of tamoxifen lower than that observed for other patients (i.e., 26.5 mg/L vs. 12.2 mg/L at 1 hour). The clinical significance of this finding is not known. Rifampin induced the metabolism of tamoxifen and significantly reduced the plasma concentrations of tamoxifen in 10 patients. Aminoglutethimide reduced tamoxifen and N-desmetil tamoxifen plasma concentrations. Medroxyprogesterone reduces plasma concentrations of N-desmetil, but not tamoxifen.
Two European trials of tamoxifen in women with a high risk of breast cancer were also conducted. They showed no difference in the number of breast cancer deaths or breast cancer deaths attributable to those who received placebo. These studies had trial designs that differed from that of NSABP P-1, were smaller than P-1, and enrolled women at a lower risk for breast cancer than those in P-1 or P-1.3.

- In women with DCIS, following breast surgery and radiation, tamoxifen is indicated to reduce the risk of invasive breast cancer. The decision regarding therapy with tamoxifen for the reduction in breast cancer incidence should be based on an individual assessment of the benefits and risks of tamoxifen therapy.

A trial evaluated the addition of tamoxifen to lumpectomy and radiation therapy in women with DCIS in the NSABP B-24 study. In this study, women with DCIS who were at the highest risk of developing invasive breast cancer in the ipsilateral (the same) or contralateral (the opposite) breast were randomized to receive tamoxifen therapy for 5 years or to placebo. Women in the tamoxifen arm had a 15% greater risk of developing invasive breast cancer compared to the placebo arm. The results of this study suggested that whether 5 years of tamoxifen therapy would reduce the incidence of invasive breast cancer in the ipsilateral (the same) or contralateral (the opposite) breast. Treatment with tamoxifen for about 5 years also reduced the chance of developing a second breast cancer in the opposite breast by approximately 50%, a result similar to that seen in the NSABP P-1 study.

- Tamoxifen is used to treat advanced breast cancer in women and men. Three studies compared tamoxifen to surgery or radiation in the treatment of premenopausal women with advanced breast cancer and found that tamoxifen was similar to surgery or radiation in causing tumor shrinkage. Published studies have demonstrated that tamoxifen is effective for the treatment of early breast cancer in women.

- Tamoxifen is a prescription tablet available in two dosage strengths: 10 mg tablets and 20 mg tablets. The active ingredient in each tablet is tamoxifen citrate.

How does tamoxifen work?

Tamoxifen belongs to a group of medicines called antiestrogens. Antiestrogens block the effects of estrogen in the body. Estrogen may cause the growth of some types of breast tumors. Tamoxifen may block the growth of tumors that respond to estrogen.

Who should not take tamoxifen citrate tablets?

- You should not take tamoxifen if you have ever had an allergic reaction to tamoxifen or any of its ingredients.
- You should not take tamoxifen if you have ever had blood clots or if you develop blood clots after taking medical treatment. However, if you are taking tamoxifen for treatment of early breast cancer, you may have a higher chance of blood clots associated with developing new blood clots. Your health care professional can assist you in deciding whether tamoxifen is right for you.
- You should not take tamoxifen to reduce your risk of getting breast cancer if you are taking medicines to thin your blood (anticoagulants) like warfarin (Coumadin™).

- You should not take tamoxifen if you plan to become pregnant while taking tamoxifen for about 2 years after you stop taking tamoxifen because it may harm your unborn child. You should avoid breast milk while taking tamoxifen. You should not take tamoxifen if you are pregnant or breast feeding.

- You should not take tamoxifen if you have ever had an allergic reaction to tamoxifen or tamoxifen citrate (the chemical name) or any of its ingredients.
- Tamoxifen is not known to reduce the risk of breast cancer in women with changes in breast cancer genes (BRCA1 or BRCA2).
- You should not take tamoxifen to decrease the chance of getting breast cancer if you are less than age 35 because tamoxifen has not been tested in younger women.
- You should not take tamoxifen to reduce the risk of breast cancer unless you are at high risk of getting breast cancer. Certain conditions put women at high risk and makes tamoxifen possible for a woman. Breast cancer risk assessment tools help to calculate your risk of breast cancer have been developed and are available to your health care professional. You should discuss your risks with your health care professional. Girls with McCune-Albright Syndrome (a genetic condition associated with premature puberty) under the age of two and older than 10 years of age should not take tamoxifen because this age group has not been studied. Tamoxifen has not been studied in boys.

How should I take tamoxifen?

- Follow your doctor’s instructions about when and how to take tamoxifen. Read the “What you should know about taking tamoxifen” package insert. If you are unsure or have questions, ask your doctor or pharmacist.
- You will take tamoxifen differently, depending on your diagnosis. For women at risk of the breast cancer, the usual dose is 20 mg a day, for five years.
- For treatment of breast cancer in adult women and men, the usual dose is 20 mg a day, for five years. Depending on the tamoxifen tablet strength prescribed. If your doctor has prescribed a different dose, do not change it unless he or she tells you to do so. For women with early breast cancer, the oral tablet strength should be taken for 5 years. For women with advanced cancer, tamoxifen should be taken until your doctor feels it is no longer indicated.
- Take your dose each day. You may find it easier to remember to take your medicine if you take it at the same time each day. If you forget to take a dose, take it as soon as you remember and then take the next dose as usual.
- Swallow the tablets whole with a drink of water.
- You can take tamoxifen with or without food.
- Do not stop taking your tablets unless your doctor tells you to do so.
Are there other important factors to consider before taking tamoxifen?

- Tell your doctor if you have ever had blood clots that required medical treatment.
- Because tamoxifen may affect how other medicines work, always tell your doctor if you are taking any other prescription or non-prescription (over-the-counter) medications, particularly if you are taking warfarin to thin your blood.
- You should not become pregnant when taking tamoxifen or during the two months after you stop taking it as tamoxifen may harm your unborn child. Please contact your doctor for birth control recommendations. Tamoxifen does not prevent pregnancy, even in the presence of menstrual irregularity. You should see your doctor immediately if you think you may have become pregnant after starting to take tamoxifen.
- You should contact your doctor immediately if you notice any of the following symptoms. Some of these symptoms may suggest that you are experiencing a rare but serious side effect associated with tamoxifen (see “What are the possible side effects of tamoxifen?”).
  - new breast lumps
  - vaginal bleeding
  - changes in your menstrual cycle
  - changes in vaginal discharge
  - pelvic pain or pressure
  - swelling or tenderness in your call
  - unexplained breathlessness (shortness of breath)
  - sudden chest pain
  - coughing up blood
  - changes in your vision

If you see a health care professional who is new to you (an emergency room doctor, another doctor in the practice), tell him or her that you take tamoxifen or have previously taken tamoxifen.

- Because tamoxifen may affect how other medicines work, always tell your doctor if you are taking any other prescription or non-prescription (over-the-counter) medicines. Be sure to tell your doctor if you are taking warfarin (Coumadin) to thin your blood.
- You should not become pregnant when taking tamoxifen or during the two months after you stop taking it as tamoxifen may harm your unborn child. You should see your doctor immediately if you think you may have become pregnant after starting to take tamoxifen. Please talk with your doctor about birth control recommendations. If you are taking tamoxifen to reduce your risk of getting breast cancer, and you are sexually active, tamoxifen should be started during your menstrual period. If you have irregular periods, you should have a negative pregnancy test before you start tamoxifen. Tamoxifen does not prevent pregnancy, even in the presence of menstrual irregularity.

- If you are taking tamoxifen to reduce your risk of getting breast cancer, you should know that tamoxifen does not prevent all breast cancers. While you are taking tamoxifen and after you stop taking tamoxifen and in keeping with your doctor’s recommendation, you should have annual gynecological check-ups which should include breast exams and mammograms. If breast cancer occurs, there is no guarantee that it will be detected at an early stage. This is why it is important to continue with regular check-ups.

What are the possible side effects of tamoxifen?

Like many medicines, tamoxifen causes side effects in most patients. The majority of the side effects seen with tamoxifen have been mild and do not usually cause breast cancer patients to stop taking the medication. In women with breast cancer, withdrawal from tamoxifen therapy is about 5%. Approximately 15% of women who took tamoxifen to reduce the chance of getting breast cancer stopped treatment because of side effects.

The most common side effects reported with tamoxifen are: hot flashes; vaginal discharge or bleeding; and menstrual irregularities (these side effects may be mild or may be a sign of a more serious side effect). Women may experience hair loss, skin rashes (itching or peeling skin) or headaches; or inflammation of the lungs, which may have the same symptoms as pneumonia, such as breathlessness and cough; however, hair loss is uncommon and is usually mild. A rare but serious side effect of tamoxifen is a blood clot in the veins. Blood clots stop the flow of blood and can cause serious medical problems, disability, or death. Women who take tamoxifen are at increased risk for developing blood clots in the lungs and legs. Some women may develop more than one blood clot, even if tamoxifen is stopped. Women may also have complications from treating the clot, such as bleeding from thinning the blood too much. Symptoms of a blood clot in the lungs may include sudden chest pain, shortness of breath or coughing up blood. Symptoms of a blood clot in the legs are pain or swelling in the calves. A blood clot in the legs may move to the lungs. If you experience any of these symptoms of a blood clot, contact your doctor immediately.

Tamoxifen increases the chance of having a stroke, which can cause serious medical problems, disability, or death. If you experience any symptoms of stroke, such as weakness, difficulty walking or talking, or numbness, contact your doctor immediately.

Tamoxifen increases the chance of changes occurring in the lining (endometrium) of your body of uterus which can be serious and could include cancer. If you have not had a hysterectomy (removal of the uterus), it is important for you to contact your doctor immediately if you experience any unusual vaginal discharge, vaginal bleeding, or menstrual irregularities; pain or pressure in the pelvis (lower stomach). These may be changes by the lining (endometrium) or body of your uterus. It is important to bring to your doctor’s attention without delay as they can occasion- ally indicate the start of something more serious and even life-threatening.

Tamoxifen may cause cataracts or changes to parts of the eye known as the cornea or retina. Tamoxifen can increase the chance of needing cataract surgery, and can cause blood clots in the veins of the eye. Tamoxifen can result in difficulty in distinguishing different colors. If you experience any changes in your vision, tell your doctor immediately.

Rare side effects, which may be serious, include certain liver problems such as jaundice (which may be seen as yellowing of the whites of the eyes) or hypertriglyceridemia (increased levels of fats in the blood) sometimes with pancreatitis (pain or tenderness in the upper abdomen). Stop taking tamoxifen and contact your doctor immediately if you develop angioedema (swelling of the face, lips, tongue and/or throat) even if you have been taking tamoxifen for a long time.

If you are a woman receiving tamoxifen for treatment of advanced breast cancer, and you experience excessive nausea, vomiting or thirst, tell your doctor immediately. This may mean that there are changes in the amount of calcium in your blood (hypercalcemia). Your doctor will evaluate this.

In patients with breast cancer, a temporary increase in the size of the tumor may occur and sometimes results in muscle aches/bone pain and skin redness. This condition may occur shortly after starting tamoxifen and may be associated with a good response to treatment.

Many of these side effects happen only rarely. However, you should contact your doctor if you think you have any of these or any other problems with your tamoxifen. Some side effects of tamoxifen may become apparent soon after starting the drug, but others may first appear at any time during therapy. This summary does not include all possible side effects with tamoxifen. It is important to talk to your health care professional about possible side effects. If you want to read more, ask your doctor or pharmacist to give you the professional labeling.

How should I store tamoxifen?

Tamoxifen tablets should be stored at room temperature (59° to 86°F). Keep in a well-closed, light-resistant container. Keep out of the reach of children.

Do not take your tablets after the expiration date on the container. Be sure that any discarded tablets are out of the reach of children.

This leaflet provides you with a summary of information about tamoxifen. Medicines are sometimes prescribed for uses other than those listed. Tamoxifen has been prescribed specifically for you by your doctor. Do not give your medicine to anyone else, even if they have a similar condition, because it may harm them.

If you have questions or concerns, contact your doctor or pharmacist. Your pharmacist also has a longer leaflet about tamoxifen written for health care professionals that you can ask to read. For more information about tamoxifen or breast cancer, call 1-877-446-3679 (1-877-4-INFO-RX).

*Coumadin® is a registered trademark of Bristol-Myers Squibb Pharmaceuticals.

Mylan Pharmaceuticals Inc.
Morgantown, WV 26505

REVISED JANUARY 2003
PLTAMOXR12