**PATIENT INSTRUCTIONS FOR CLOMIPHENE CITRATE OVULATION INDUCTION**

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**What is Clomiphene Citrate (CC)?** It’s a Selective Estrogen Receptor Modulator (SERM), a drug that binds to estrogen-receptors in the body. It helps induce ovulation by stimulating the hypothalamus and pituitary glands in the brain to make hormones (GnRH, FSH, LH) that then go stimulate the ovaries. Sometimes it helps achieve pregnancy even in women who already ovulate, by improving the quality of the corpus luteum (the area of the ovary where the egg came from at ovulation). **Conceiving on CC increases the chance of twins---5-10% of pregnancies conceived on CC are twins.**

**How to use CC effectively.** Effective use of CC requires *paying attention to the timing of your menstrual cycle, making sure you take the pills at the right time in your cycle, having plenty of sex around the time of ovulation, testing to prove that ovulation occurred, and being prepared to do home urine pregnancy testing*.

* **Pay attention to the timing of your menstrual cycle** I need you to have a period before starting CC, either naturally or induced by a week of progesterone pills. By definition, **“Cycle Day #1” is the first day of your period**. In general, sex is more fun if it’s not “scheduled.” However, if you are going to the trouble and expense of taking ovulation-inducing drugs, it’s very important to always know where you are in your cycle. You don’t want to waste cycles, time, and money by doing it wrong.
* **Make sure you take the pills at the right time in your cycle** Take one CC pill daily for 5 days, Cycle Days 3-7. The starting dose is 50 mg daily. If you don’t ovulate, we’ll increase the dose next cycle.
* **Have plenty of sex around the time of ovulation** If CC results in ovulation, it’ll probably be sometime between Cycle Days 11 and 17. Have sex daily from Cycle Days 11 to 19 (yay!) You don’t get pregnant by having sex at the moment of ovulation---sex within several days of ovulation could result in pregnancy.
* **Test to prove that ovulation occurred** To make sure the medicine worked, I need two types of tests (one you do yourself at home, the other at your lab).
  1. **Urinary LH testing once a day starting Cycle Day #10**, for up to 10 days. When your urine is positive for the LH surge, stop testing and have lots of sex in the next 2 days. You’ll probably ovulate within 14-48 hours of the positive urine test. If you don’t have an LH surge after 10 days of testing, stop testing---you’ll need a higher dose of CC next cycle. I‘d get a good-sized box of the cheapest urine LH tests you can find. I just looked in some stores and found lots of brand-names, with prices ranging from $1.00 to $2.43 per test.
  2. **Progesterone level (a blood test in your lab) 6-8 days after the positive urine LH test**, to definitively prove that ovulation occurred. If you ovulated, you should have a nice high progesterone level. We’ll call you with your results.
* **Be prepared to do home urine pregnancy testing** Get lots of these. I want you to do them every cycle before starting CC, anytime you’re suspicious of pregnancy for any reason, and any ovulatory cycle when you don’t start bleeding by Cycle Day #35. I’d get the least expensive ones you can find in a store or online---they’re all very accurate if you follow the instructions. Some of them you pee on, and some of them you pee into a cup and dip the test strip into the urine. They all use the same technology. I just checked in some stores and online, and found prices ranging from 50 cents to $4 per test.

**Once there is evidence of ovulation (LH surge followed by a high progesterone level) I’ll keep you on that same dose in subsequent cycles** (if you didn’t get pregnant), and I don’t need you to keep doing urine LH testing and progesterone levels every cycle! (If you’d like you can continue urine LH testing to help with timing of sex).

**If you don’t detect an LH surge after ten days of testing, stop testing---you probably didn’t ovulate, you probably didn’t conceive, and you will need a higher dose of CC next cycle**. Don’t get frustrated! If you’re bleeding doesn’t start spontaneously by Cycle Day 40, make sure a home urine pregnancy test is negative, and take another week of progesterone pills to initiate a period before starting the higher dose. I will **increase your CC dose to 100 mg/day the next cycle, and I’ll need you to continue urine LH testing.** I’ll prescribe up to 150 mg/day. If you don’t ovulate on 150 mg/day, I’d try something different (referral to an Infertility Specialist, or possibly trying another medicine like letrozole or metformin).

**I do not encourage Basal Body Temperature (BBT) charting, or routine ultrasounds to check ovarian follicle development**. Charting BBT is tedious, stressful, and does not help plan timing of intercourse. BBT charting also gives a high rate of confusing or misleading results. I do not routinely do ultrasounds to check for follicle development during CC treatment. Ultrasound exams are tedious, stressful, costly, and has not been shown to improve pregnancy rates.

**What are some possible side-effects, of risks of CC?**

* It can decrease cervical mucus quality and quality.
* Common side-effects: hot flushes (10-20%), abdominal distention/pain (5%), nausea/vomiting (2%), breast pain (2%).
* Rare side effects: mood swings, depression, headache.
* Visual disturbances (1-2%) such as blurry vision, double vision, or scotomata (spots in the visual fields) are usually reversible. If they develop, CC therapy must be discontinued.
* Ovarian enlargement (14%) mandates discontinuing CC therapy until the ovaries return to normal size. True Ovarian Hyperstimulation Syndrome is very rare.
* There is no proof that normal (short-term) use of clomiphene citrate increases the risk ovarian, breast, or uterine cancer. It is possible that using CC for a very long time (12 cycles or more) may increase the risk of ovarian cancer.

**SUMMARY OF DR. FARRINGER’S CLOMIPHENE INSTRUCTIONS:**

1. **Have a period, either naturally or progesterone-induced. The first day of bleeding is called “Cycle Day #1.”**
2. **Take CC daily for 5 days, Cycle Days 3-7 (starting dose 50 mg/day).**
3. **Have sex daily, Cycle Days 11-19.**
4. **Do urine LH testing daily, starting Cycle Day 10. When you have your LH surge, stop testing (and have sex a lot). If you don’t detect an LH surge after 10 days of testing, stop testing and notify us. You’ll need a higher dose next cycle.**
5. **Go to your lab 6-8 days after your urine LH surge for a blood progesterone level, to definitively prove that you ovulated. We’ll call you with the results.**
6. **One of three things will happen each cycle:**

* **YOU COULD OVULATE AND CONCEIVE: If you ovulate and don’t start bleeding by Cycle Day 35, do a urine pregnancy test. You’re probably pregnant. If your pregnancy test is positive, congratulations! Call for an ultrasound appointment.**
* **YOU COULD OVULATE, BUT NOT CONCEIVE: If you do ovulate but don’t conceive, you’ll probably start bleeding around Cycle Day 28-32. Don’t get frustrated---healthy human couples sometimes take a while. Make sure you have a negative urine pregnancy test, repeat the same CC dose Cycle Days 3-7 next cycle and have plenty of sex. Urine LH testing is now optional, but I don’t need another progesterone level since we’ve already found a dose that makes you ovulate.**
* **YOU MAY NOT OVULATE: If you don’t ovulate, don’t get frustrated! We’ll increase the CC dose to 100 mg/day, and eventually 150 mg/day if necessary. If you don’t start bleeding by Cycle Day 40, make sure your urine pregnancy test is negative then take progesterone pills to induce a period, and resume the CC at the higher dose. I do need urine LH testing again, with a blood progesterone level 6-8 days after your LH surge, since we haven’t yet found the dose that makes you ovulate.**