

## CYCLIC HEADACHES: A HORMONAL SOLUTION

### What are cyclic headaches?

Sometimes called hormonal headaches, these headaches occur only during or around the time of the menstrual period, frequently starting the day or two before the menstrual period. These may be mild headaches, limited to a day or so, and easily treated with over-the-counter pain relievers; or they may be severe migraines that last up to a week in duration, and are difficult to treat with typical migraine medications.

### What causes them?

The menstrual cycle is characterized by fluctuating hormone levels throughout the cycle. Just before the menstrual period, hormone levels decline, triggering changes in the uterine lining that result in menstrual bleeding. These same hormonal changes affect other organs of the body as well, such as the brain, which for some women can be sensitive to the drop in estrogen that occurs just before the menses. There is a very brief and less dramatic drop in estrogen at mid-cycle, just at ovulation. Some cyclic headache sufferers will experience a headache at that time also. Most cyclic headache sufferers will find that using oral contraceptives (OCs) exacerbates cyclic headaches at the menses, because the cyclic premenstrual drop in estrogen is more sudden than with natural spontaneous cycling.

### Is there an effective treatment?

YES! Cyclic headaches can be completely eliminated with the use of estrogen supplementation during the menstrual period. The goal is to add just a little estrogen so that there is always a baseline level to prevent the headache. Low dose supplements can accomplish this safely and effectively.

If a woman has regular menses, it is easy to predict when the headache will start. Tracking menses on a calendar will ensure that the headache will be anticipated. Estrogen supplementation should begin the day before the anticipated headache – then the headache will not develop!

If a woman has irregular menses, it's a little trickier to treat, because she won't know when a headache is going to happen until it actually begins. In this case, we must use a form of estrogen that is very rapidly absorbed in order to abate the headache just at the onset. If the headache is allowed to fully develop, it is less likely to be eliminated with estrogen treatment.

### Treatment Options:

**1. Cyclic Use of Estrogen Patch.** If a woman has predictable regular menses (whether taking OCs or not), using an estrogen patch is a very easy way to prevent cyclic headaches. The brand name of the patch is Vivelle. It is the same estrogen used by some women for postmenopausal hormone therapy, but for headache control is only used once a month instead of continuously throughout the month. Instructions for use:

- Simply place a patch onto the lower abdomen *the day before the expected headache*.
- Leave the patch on for 3-7 days, depending on the usual duration of the menstrual period or headache. Some women only need one patch for an entire week, while others will need to change it after 3 days to refresh the estrogen. Estrogen delivery will gradually decrease after 3 days, but many will be fine with that, as their bodies will begin to naturally produce some estrogen as a new cycle begins.
- The patch will stick to the skin even with showering or perspiration. Most do not find it irritating to the skin, but if you do, estrogen can be delivered in other ways, such as pills or topical creams.

**2. Cyclic Use of Estrogen Drops.** Those with irregular menses (and pre-menstrual headaches) will likely have to wait until the headache begins to initiate treatment. This will require a formulation that is rapidly absorbed. An excellent option is sublingual estrogen drops – to be placed underneath the tongue just as the headache begins. Estrogen is suspended in flavored oil (peppermint or orange), supplied in a small squeeze dropper bottle that may be carried with you always. Instructions for use:

- Just place a drop under the tongue – the idea is to let it absorb into the bloodstream directly through capillaries of the tissue under the tongue – not to swallow the drops. Use a mirror to see that you are delivering the correct dose, one or two drops.
- It may take 1 or 2 drops to treat a headache – you can experiment to see what is required. Some women find using a drop or two per month is all it takes to be rid of all headaches. Others need several drops and/or 1-2 patches per month to keep headaches away. If you find you are requiring more than 4 drops per 24 hours, there may be a better option for you, such as adding an estrogen patch after initiating the drops.
- One or two drops of estrogen will increase blood levels quickly, but levels will begin to fall after a few hours. Usually this is not long enough to keep the headache at bay, so after you initiate a monthly treatment with the drops at headache onset, you may at the same time place an estrogen patch on your lower abdomen. The drops will absorb and start to work within minutes, while the patch will kick in after a few hours. This will keep estrogen levels steady throughout the week (or 2-5 days – whatever your usual period or headache duration), so repeated doses of estrogen drops may not be necessary. However, sublingual drops may still be used if a headache breaks through while the patch is in place.
- Estrogen drops are available only by prescription and made to order, as they are not commercially available. I use Kilgore's Medical Pharmacy in Columbia for compounded prescriptions. You will need to call the pharmacy in advance to set up an account, then they will make the prescription to my specifications for you to pick up – or it can be mailed to you.

**3. Using OCs to Your Advantage in Treating Cyclic Headaches.** While using OCs in the traditional way (21 days of active pills and 4-7 days hormone-free) may exacerbate cyclic headaches, there are several ways OCs can be used to prevent or improve cyclic headaches. Some women have side effects on OCs, such as weight gain or mood changes. If OC side effects are a problem, this is obviously not a good solution. Here are some options for improving cyclic headaches with OCs:

- Use of extended cycle OCs results in fewer periods (usually 4 per year), thus fewer headaches. Even with this method, the estrogen supplementation regimens described above can be useful, albeit not required as frequently. Examples: Seasonique and Seasonale.
- There is also the possibility of using continuous OCs, never allowing a period. Some will have nuisance breakthrough bleeding with this approach. One can use any brand OC continuously by skipping the placebo pills, and immediately starting a new pack of active pills instead of allowing a hormone-free interval. Lybrel is a brand that is designed and packaged for continuous use with no periods.
- Finally, some OC formulations may be more favorable for preventing cyclic headaches because they include estrogen in all but 2 pills during the cycle, so you only have 2 hormone-free days rather than the 4-7 days of most OC brands. For some patients, this 2-day interval is short enough that an estrogen withdrawal headache will not develop. Most women have a monthly bleed with these OCs. Examples: Natazia, Mircette, Kariva.

#### **Side effects of using cyclic estrogen supplement?**

Using estrogen for a short interval each month usually does not cause any side effects at all. If it is needed for several days (for the unusual case of week-long headache control, for example) then one may experience breast tenderness, which should resolve upon cessation of treatment.

#### **Is cyclic estrogen treatment safe?**

Yes. The dose for headache control is low, and treatment duration is brief. There is no data to suggest harm from adding this amount of estrogen to your body on a monthly basis. The patch and the estrogen drops described above are bio-identical estradiol, the same estrogen your body produces naturally.