



# Endometrial Biopsy

## When and How?

Lydia Hatcher, MD, CCFP, FCFP

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An endometrial biopsy (EB) is a way to sample the lining of the uterus. It is a very useful technique in the office assessment of abnormal uterine bleeding. EB is a quick and relatively easy procedure to perform.

Both EB and dilation and curettage (D&C) are blind procedures, but unlike a D&C, an EB requires no anesthesia or cervical dilation. It can provide the physician with almost the same information as a D&C with far less risk.<sup>1</sup> In comparative studies of D&C versus EB, it has shown up to 90% agreement with D&C.<sup>2</sup> Studies have shown the procedure to have a sensitivity of 83% to 96% for endometrial cancer.<sup>3</sup>

### When is it time for a biopsy?

It is appropriate to consider an EB if a woman has had post-menopausal bleeding occurring more than two years after her last menstrual period, or if she has bleeding more than six months after confirmatory blood work for menopause (increased follicle stimulating hormone and luteinizing hormone).

It is also advisable to consider an EB in a woman who is still bleeding after six months of continuous, combined hormone replacement therapy (HRT). By this time, the lining of the uterus should have atrophied sufficiently such that bleeding should not occur.

### Judy's spotting

Judy, 54, says her periods stopped a year ago. She has had minor menopausal symptoms, and is not taking any medications. She comes in to see you because she's had light vaginal spotting over the last two weeks. There have been no clots or pain.



The bleeding does not seem to be related to sexual activity, and she is feeling well. Her past history includes three normal pregnancies. She has had no prior surgery or identified medical problems. She has been going for routine screening mammograms since she was 50, and had a normal bone density two years ago. Her last pelvic exam and Pap smear were performed 18 months ago, and were normal.

Judy has been married for 34 years. She does not smoke, and only drinks socially.

You decide to do a Pap, order blood work, and book her to come back for an endometrial biopsy.

For post-menopausal women on cyclical HRT, consideration should be given for a biopsy if they are having bleeding that is not consistent with a progesterone withdrawal bleed.

Other indications for EB include:

- perimenopausal abnormal bleeding,
- an abnormal Pap smear showing atypical endometrial cells,
- endometrial cells showing on a Pap in the post-menopausal female,
- any vaginal bleeding while taking tamoxifen, and
- as a followup for women with endometrial hyperplasia.<sup>4</sup>

### *How do I do the biopsy?*

The decision to do an EB is usually made at a visit for evaluation of abnormal bleeding. This is a good time to explain the procedure to your patient, and to get verbal consent. Some physicians have patient handouts prior to the procedure. These handouts are often available from your local hospitals' women's health program.

I always advise my patients to take ibuprofen, 600 mg, or naproxen, 550 mg, one hour prior to the biopsy. This medication will cut down on cramping during the procedure, and on bleeding afterwards (Table 1).

A bimanual exam should be done before the EB, so you are aware of the size and position of the uterus. I will often wait for the Pap results before doing the biopsy, in case other abnormalities (which may change my approach to the patient's problem) are present.

Insert the speculum and cleanse the cervix using your sponge forceps with gauze squares soaked in antiseptic solution. Grab the superior lip of the cervix with the tenaculum. Pull gently forward. This straightens out the uterus and stabilizes it during the procedure. Insert the Pipelle® through the os. Use a pushing, twirling motion to get it past the internal os. If the speculum meets opposition and the Pipelle starts to bend, a uterine sound can be useful in opening the os. Gently push the Pipelle to

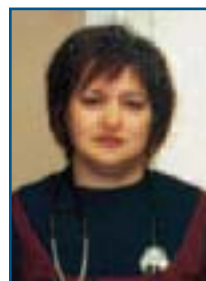
Table 1

#### What is needed for an endometrial biopsy

- Informed consent (verbal)
- Ibuprofen 600 mg or naproxen 550 mg or equivalent taken 1 hour before
- Vaginal speculum
- Antiseptic solution
- Sponge forceps
- Gauze squares
- Tenaculum
- Pipelle® endometrial suction curette
- Uterine sound (optional)
- Scissors
- Formalin solution in pathology bottle
- Sanitary pad

the top of uterus. Pull back on the piston to create suction. Gently pull back and forth three or four times, being careful not to pull the Pipelle out or you will lose the suction. Twirl the Pipelle, using your index finger and thumb at the same time. As you pull the Pipelle back and forth, try also to move it up, down, and to the sides, all the while rotating the Pipelle. You are trying to get samples of all sides of the endometrial cavity. You will see endometrial curettings moving into the Pipelle. Remove the Pipelle when it appears full, or when you feel you are not getting any more contents.

Remove the tenaculum and the speculum. Tell the patient to remain lying on the exam table for at least five minutes. Some women will have a vasovagal response if they get up too quickly. Provide



**Dr. Hatcher** is a clinical associate professor of family medicine, and director of continuing medical education, faculty of medicine, Memorial University of Newfoundland, St. John's, Newfoundland.

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\* The diagnosis of the metabolic syndrome is made when 3 or more of the following risk determinants are present: abdominal obesity, elevated triglycerides, low HDL cholesterol, raised blood pressure and elevated fasting glucose.<sup>2</sup>

† Double-blind, placebo-controlled, cross-over trial of 11 men with the metabolic syndrome. Subjects were randomized to a 5-week treatment period of either micronized fenofibrate (200 mg/day), atorvastatin (40 mg/day) or placebo. Baseline HDL levels for the fenofibrate group were 0.94 mmol/L.  $p < 0.001$  for micronized fenofibrate vs. placebo for change in HDL.

‡ After a six-week dietary run-in phase, 37 males eligible on lipid criteria including total cholesterol  $\geq 6.5$  mmol/L, or TG  $\geq 2.0$  mmol/L, or HDL  $< 0.9$  mmol/L and at least 2 of the metabolic syndrome components entered a twelve-week treatment phase consisting of diet plus 200 mg/day of micronized fenofibrate. The study was open-label. Baseline HDL levels for the fenofibrate group were 1.15 mmol/L.  $p < 0.01$  for micronized fenofibrate vs. baseline.

Lipidil SUPRA™ is indicated as an adjunct to diet, at least equivalent to the Adults Treatment Panel (ATP III) and Therapeutic lifestyle changes (TLC) diet, and other therapeutic measures when the response to diet and other measures has been inadequate for: 1) Treatment of patients, including patients with type 2 diabetes (non-insulin dependent), with dyslipoproteinemia (hypercholesterolemia, Fredrickson classification Types IIa and IIb mixed hyperlipidemia), to regulate lipid levels by reducing serum TG and LDL cholesterol levels and increasing HDL cholesterol; 2) Treatment of adult patients with very high serum TG levels, Fredrickson classification Type IV and Type V hyperlipidemia, who are at high risk of sequelae and complications (i.e., pancreatitis) from their hyperlipidemia. Lipidil SUPRA™ alone may not be adequate therapy in some patients with familial combined hyperlipidemia with Type IIb and Type IV hyperlipoproteinemia. Lipidil SUPRA™ is not indicated for the treatment of Type I hyperlipoproteinemia. ...cont'd opposite



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the patient with a sanitary pad, as she may have some bleeding.

Cut the tip off the Pipelle with scissors, and empty the contents into a formalin-filled pathology bottle. It is easier to remove the curettings with the tip off. I place the tip in the pathology bottle, as there can be some endometrial curettings there.

### *What can complicate the procedure?*

An EB is very safe, with few major side-effects or concerns. It is common for women to have cramps, during and sometimes following the biopsy, for a short time. The cramps are usually easily managed with nonsteroidal anti-inflammatory drugs. It is also very common for a patient to have some bleeding for a short time. The bleeding should be spotting only, and the patient should be advised to return if the bleeding becomes heavier than her normal period. Some women may have cervical stenosis, and you will be unable to get the Pipelle or the sound through the internal cervical canal. Because there is a risk of uterine perforation if significant force is used, the attempt should be aborted.

If you have difficulty obtaining enough curettings, are unable to successfully do the procedure,

## Take-home message



### Quick facts about endometrial biopsy (EB):

- An EB is a quick office procedure that takes less than five minutes to do.
- An EB is very safe, with few major side-effects.
- An EB can be invaluable in speeding up a diagnosis of abnormal vaginal bleeding, and is relatively benign for the patient.

or if the patient continues to have abnormal bleeding with negative biopsy results, it is prudent to refer the patient to a gynecologist for further management. It is useful to order a transvaginal ultrasound to assess the thickness of the endometrium. If the thickness is less than 4 mm, the patient is unlikely to have serious endometrial disease. If the thickness is greater than 4 mm, a D&C is usually warranted.<sup>5</sup>

Contraindications to the procedure include pregnancy, any acute vaginal or cervical infections, or suspected pelvic inflammatory disease. **CME**

#### References

1. Chambers JT, Chambers SK: Endometrial Sampling: Who? Where? Why? With what? Clin Obstet Gynecol 1992; 35(1):28-39.
2. Goldchmit R, Katz Z, Blickstein I, et al: The accuracy of endometrial Pipelle sampling with and without sonographic measurement of endometrial thickness. Obstet Gynecol 1993; 82(5):727-30.
3. Ferry J, Farnsworth A, Webster M, et al: The efficacy of Pipelle endometrial biopsy in detecting endometrial cancer. Aust N Z J Obstet Gynaecol 1993; 33(1):76-8.
4. Sansom S, Gilmour D: Who needs an endometrial biopsy? Can Fam Phys 2001; 48:885-7.
5. Brand A, Dubuc-Lissoir J, Ehlen TG, et al: Diagnosis of endometrial cancer in women with abnormal vaginal bleeding. SOGC clinical practice guidelines. J SOGC 2000; 22(1):102-4.



### Net Readings

1. The Society of Obstetricians and Gynecologists of Canada: [www.sogc.org](http://www.sogc.org)
2. Cancer Treatment Centers of America: [www.cancercenter.com/endometrial-biopsy-term.htm](http://www.cancercenter.com/endometrial-biopsy-term.htm)

[www.stacomcommunications.com](http://www.stacomcommunications.com)



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# And here.



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**in patients with**  
**the metabolic syndrome.** †,‡,2,3

Strict birth control procedures must be exercised by women of childbearing potential; if pregnancy occurs despite these procedures, Lipidil SUPRA™ should be discontinued. Women planning pregnancy should discontinue Lipidil SUPRA™ several months prior to conception.

Abnormal liver function tests are observed occasionally during fenofibrate administration, including elevations of transaminases and decreases, or rarely, increases in alkaline phosphatase. However, these abnormalities disappear when therapy with fenofibrate is discontinued. Periodic liver function tests in addition to other baseline tests are recommended after 3 to 6 months and at least yearly thereafter.

The most commonly reported adverse events associated with fenofibrate are gastrointestinal disorders, abdominal pain and increased AST (>3 x UNL) (all at 1.1%).

In patients with renal insufficiency (creatinine clearance between 20 and 100 ml/min), Lipidil SUPRA™ treatment should be initiated at 100 mg/day and increased only after evaluation of the tolerance and effects on the lipid parameters. Lipidil SUPRA™ should not be used when the creatinine clearance is lower than 20 ml/min.

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