

OSTEOPENIA... *continued from 3*

OSTEOPENIA: WHAT NEXT?

Once you've been diagnosed with osteopenia, your next course of action depends on your fracture risk. If your risk based on a FRAX assessment is low, make healthful lifestyle choices (see What You Can Do, Page 3) and undergo a repeat bone-density test in 2–3 years, Dr. Mazanec says.

"In men with osteopenia and a lower fracture risk, those who achieve and maintain a healthy vitamin D level and calcium intake and do weight-bearing exercise can maintain their bone density," he adds.

But if your 10-year risk of hip fracture is 3 percent or greater and your 10-year risk of any major fracture is at least 20 percent, undergo medical treatment, Dr. Mazanec advises.

BISPHOSPHONATES

Oral

Alendronate
(Fosamax)

Risedronate
(Actonel)

Injections
Ibandronate
(Boniva)

Zoledronic acid
(Reclast)

Bisphosphonates are the drugs of choice; denosumab (Prolia) and teriparatide (Forteo) injections are alternatives. Follow up with your doctor, and undergo a repeat DXA scan about two years after starting therapy. "The test should be done on the same machine

as the original measurement, if possible, to ensure comparability of results," Dr. Mazanec says.

AFTER A FRACTURE

If you've suffered a fracture, especially one resulting from a minor trauma that normally wouldn't occur in a healthy person, have your bone health assessed.

"Very few men who have a hip fracture where osteopenia might be a contributing factor are really evaluated for osteopenia after the fracture," Dr. Mazanec says. "In men, it's just not followed up on. If a man, almost regardless of age, has a hip fracture, after the fracture is treated, his next question should be, 'What about my bone health?'" ■

Why Prostate Biopsies Aren't Completely Benign

Even the procedure used to diagnose prostate cancer can cause complications, so understand your risks beforehand.

A Texas man, infected by a resistant bacterial strain, requires eight months of intravenous antibiotics to finally shake the infection. Another man spends three nights in intensive care for a similar infection.

Both men became ill after having transrectal ultrasound-guided biopsies of the prostate. They're part of what research suggests is a growing trend of infection among men undergoing this common procedure, the only method to diagnose prostate cancer.

A Canadian study published last year in the *Journal of Urology* found that the rate of hospital admissions for biopsy-related complications arising within 30 days of the procedure increased fourfold (from 1 percent to 4 percent) from 1996 to 2005. Seventy-two percent of those admissions were due to infections.

The overall risks from prostate biopsy are still relatively low, but the upswing in infections means that patients and physicians should take all necessary precautions to minimize those risks. And, according to one expert, it should prompt doctors to consider more carefully who needs a biopsy.

"The data from Canada are real, and they're being mimicked in the United States, as well," says Eric A. Klein, MD, chairman of Cleveland Clinic's Glickman Urological &

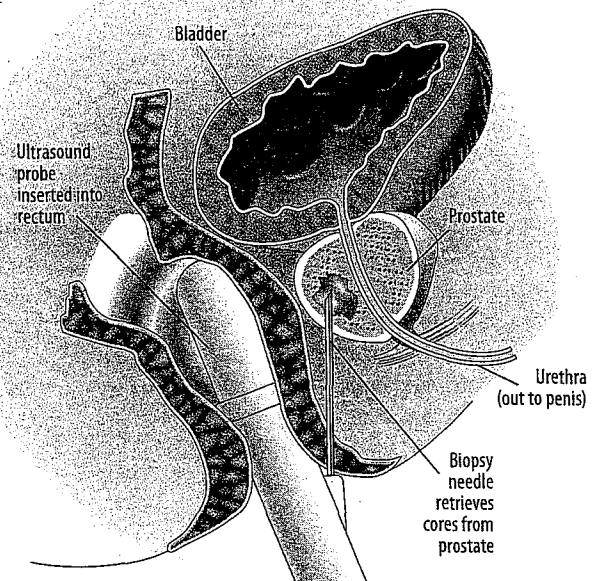


Illustration: Marty Bee

In a prostate biopsy, a thin needle is fired from an ultrasound probe through the wall of the rectum to retrieve samples of prostate tissue. In obtaining those samples, the needle may carry bacteria from the rectum into the bloodstream, leading to infection.

Kidney Institute. "The percentage of patients who have resistant bacteria is going up, and patients need to be advised about this risk."

INFECTION CONCERNS

Ironically, your body relies on certain bacteria to fight disease. Billions of bacteria in your colon and the rest of your digestive tract comprise a key component of your immune system. But while some of these bacteria fight disease, others cause it.

During a biopsy, an ultrasound probe is inserted into the rectum to visualize the prostate. The probe contains a biopsy "gun" that fires a very fine needle in split seconds through the wall of the rectum to retrieve inch-long tissue samples, or cores, from several areas of the prostate. A pathologist then examines the cores for malignant cells.

In retrieving the tissue samples, the needle may carry *E. coli* and other deleterious bacteria from the rectum into the bloodstream, leading to infection. The risk doesn't appear to rise with the number of cores taken, Dr. Klein says.

Widespread use of antibiotics has resulted in an increase of bacterial strains resistant to these drugs. The infections these bacteria cause can be severe. In fact, the Canadian study reported a nearly 0.1 percent risk of death from biopsy-related complications within 30 days of the procedure.

TAKING PRECAUTIONS

Overall, only about 2–3 percent of prostate biopsy patients in the United States develop an infection from a resistant strain. But given that nearly 800,000 biopsies are performed in the U.S. annually, urologists are exploring ways to reduce the risk.

Some require men to have an enema on the day of the biopsy to clean out the intestines and lower the risk of fecal contamination. However, evidence suggests that enemas “really don't reduce the bacterial count significantly enough to make a difference,” Dr. Klein notes.

So, antibiotics—one course taken within 24 hours of the biopsy—remain the chief defense against infection. The drugs of choice have been fluoroquinolones, usually ciprofloxacin (Cipro), but some bacteria are developing resistance to this antibiotic, prompting doctors to consider other options. The American Urological Association also recommends second- and third-generation cephalosporins—cefoxitin (Mefoxin) and ceftriaxone (Rocephin)—for biopsy prophylaxis. Other alternatives include aztreonam (Azactam) or aminoglycosides such as gentamicin (Garamycin) plus metronidazole (Flagyl) or clindamycin (Cleocin). Cleveland Clinic urologists recently updated their antibiotic prophylaxis policy to add injections of gentamicin to ciprofloxacin.

Infections usually manifest 36–48 hours after a biopsy. Symptoms may

WHAT YOU SHOULD ASK

Consider asking your doctor these questions before your prostate biopsy:

- Which antibiotics do you recommend I take?
- If I take blood-thinning medications, must I stop taking them? When?
- If I take any medicines—prescription or over the counter—which ones should be held, and when?
- What is the likelihood that the biopsy will reveal cancer?
- Will you use a nerve block or local anesthesia to ease my discomfort?
- Will you remove at least 12 cores (which is the standard practice)?
- What complications do you expect afterward, based on your experience?
- When will you get the biopsy report?

include increased urinary urgency or frequency, pain in the pelvis or genitals, fever, chills, nausea, vomiting, discharge from the penis, and a burning sensation while urinating. “If you feel lousy the next night or a few days after a biopsy, don't ignore it,” Dr. Klein advises. “Call your doctor.”

OTHER COMPLICATIONS

Prostate biopsy can cause discomfort, although nerve blocks and other anesthetic techniques have dramatically eased the pain and should be the standard of care, Dr. Klein says.

Nearly all men experience blood in their semen for a few months after the biopsy. (It may not occur the first few times you ejaculate, and it may be intermittent afterward.) You also might notice blood in your rectum, stool and urine for a few days.

To reduce your risk of more serious bleeding, your doctor probably will advise you to stop taking blood-thinning medications such as aspirin, warfarin (Coumadin), dabigatran (Pradaxa) or clopidogrel (Plavix), as well as over-the-counter anti-inflammatory medications such as ibuprofen (Advil, Motrin) or naproxen (Aleve), several days to a week before your biopsy. Also, tell your doctor if

you take vitamin E, fish oil, ginkgo biloba or other supplements with blood-thinning effects.

A study published in the Oct. 10, 2010, issue of the *Journal of Urology* suggests that biopsies may cause temporary erectile problems and urinary symptoms. Saturation biopsy, in which 20 or more cores are taken, seemed to have a longer-lasting effect on urinary function, the study authors noted. A 2009 study in the *Journal of Urology* suggested that undergoing three or more biopsies as part of active surveillance for prostate cancer may adversely affect erectile function, but it had no effect on urinary symptoms.

“It hasn't been my experience that patients are complaining about erectile dysfunction after biopsy,” Dr. Klein says. “But, a lot of patients complain for a few days afterward that their voiding [urination] isn't quite normal.”

Additionally, he says, men diagnosed with prostate cancer who are considering active surveillance should take into account the fact that they'll undergo repeat biopsies and the risks that accompany them.

BE SMART ABOUT BIOPSY

Given these risks and the fact that most tumors found after prostate-specific antigen (PSA) testing are not life threatening and require no treatment, Dr. Klein encourages physicians to “screen smarter” for prostate cancer. A decision to biopsy must be weighed carefully and should be based not only on your PSA level, but also on results of a digital rectal exam, age, race, and your biopsy history.

“Yes, we should screen people, but we should focus on patients at the highest risk of potentially lethal cancer,” Dr. Klein says. “If the average guy has a low-grade cancer that doesn't need to be treated and there's a 2–4 percent sepsis rate and 0.1 percent death rate, you have to wonder if you're doing the patient a favor by working hard to find a cancer that's not going to threaten his life while you're doing a procedure that might.” ■