

# Methods of Sedation for LASIK

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*How do you sedate patients for LASIK? Which medications and specific dosages do you use? How long do you wait after administering a medication to perform the procedure? Please provide the guidelines that you use if you vary the dosage based on the patient's age and body mass.*

## DAVID R. HARDTEN, MD

I ask my patients to take 1,000 mg acetaminophen, 400 mg ibuprofen, or 200 mg naproxen 1 hour before the surgery. Additionally, I prescribe 75 mg pregabalin (Lyrica; Pfizer, Inc.) the night before surgery and then b.i.d. for 2 to 3 days after LASIK and 4 to 5 days after PRK. After counseling and about 15 minutes before surgery, I give 5 mg oral diazepam (Valium; Roche Pharmaceuticals) to my patients. Even though it is difficult to time exactly when the diazepam is given, my goal is to have the patients relatively alert during the surgery but to afford them a little more relaxation and some mild sedation to enable a short (no more than 1 hour) nap postoperatively. I will sometimes vary the dosage if the patient is very small or large or if the patient knows that he or she needs more or less based on past usage history.

## PARAG A. MAJMUDAR, MD

My standard sedation regimen is 10 mg diazepam administered orally if there are no contraindications. I adjust the dosage to 5 mg for people with a very slight build. A member of my staff administers the drug approximately 20 to 30 minutes before the procedure after he or she checks the patient's blood pressure. I strongly recommend oral sedation, but I do not mandate it. In the past, when my practice used mechanical microkeratomers, I insisted on providing oral sedation,

"I adjust the dosage to 5 mg [diazepam] if the patient is small or if he or she claims that sedatives dramatically affect him or her."

—J. E. "Jay" McDonald II, MD

because the patient's inadvertently squeezing his or her eyelids could have disastrous consequences. With femtosecond laser technology, this risk is minimized. In the event of inadvertent squeezing and a possible loss of suction during a microkeratome cut, the blade has already passed through the cornea, irreversibly cutting tissue in an irregular path. This can result in a buttonhole flap, which can lead to scarring, irregular astigmatism, and a loss of BCVA. During a femtosecond laser treatment, however, the closely placed cavitation bubbles create a cleavage plane within the corneal lamellae, and unless the layers of the cornea are physically and permanently separated (as in flap lifting), the bubbles will dissipate over time, leaving no trace of a "cut" in the cornea. Therefore, if a patient inadvertently squeezes during a femtosecond laser treatment, and the bubbles are not creating the cleavage plane desired, simply aborting the procedure and reattempting it at a later time will likely result in no loss of BCVA. That being said, I still do prefer oral sedation for all LASIK cases; I am just not as dogmatic as I used to be when I was primarily using a microkeratome to create the flap. A second reason that I recommend oral sedation is that it helps patients rest for several hours after the procedure, which may decrease desiccation and speed epithelial recovery at the flap's edge (personal observation).

## J. E. "JAY" McDONALD II, MD

I prescribe 100 mg gabapentin (Neurontin; Pfizer, Inc.) t.i.d. for 1 day before surgery and 2 days after surgery. Thirty minutes before surgery, I administer oral 10 mg

diazepam to my patients. I adjust the dosage to 5 mg if the patient is small or if he or she claims that sedatives dramatically affect him or her. If the patient does not respond to the diazepam within 30 minutes, I administer another 5 mg and wait an additional 30 minutes before beginning the procedure. I have found that gabapentin dramatically decreases patients' pain after surface ablation.

**JEFFREY WHITMAN, MD**

Approximately 5 to 10 minutes before surgery, I administer 10 mg diazepam orally to my patients. I do not vary the dosage according to the patient's weight. I have never had to carry a patient out of the treatment room. Many years ago, my patients took diazepam before coming to the office for surgery, but I found that many of them were so relaxed that they could not focus on the fixation light. As a result, I had to delay a number of cases. I find that 10 mg of the drug is enough to take the edge off, and better yet, it helps patients nap when they get home. ■

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