

SHELLEY BERSON, MD '86

# Allergies and Sleep



Approximately 40 million people in the United States suffer from chronic sleep disorders. Otolaryngologist Shelley Berson, MD '86, says many of them may suffer from allergies. In a groundbreaking study published in the *International Forum of Allergy and Rhinology* in 2018, Dr. Berson demonstrated clinical

associations between allergic rhinitis and abnormalities during rapid eye movement (REM) sleep, the dream and restorative phase of sleep.

The first-of-its-kind study was a retrospective analysis of ENT patients with primary complaints of upper airway obstruction, suspected allergic inflammation, and/or sleep-disordered breathing. Berson found that 67 percent of her patients with allergies were found to take longer to enter the dream stage of sleep, to have fewer dreams, and often experienced disrupted breathing upon entering the dream state.

In conducting the study, Berson used the REM-respiratory disturbance index (REM-RDI), which she says is a more accurate indicator of REM-specific sleep disturbances associated with allergies than other measures, such as all-night apnea-hypopnea, respiratory-disturbance indices, or REM-specific apnea hypopnea indices. Berson says data provided by the index can help patients with sleep disturbances make more informed decisions about treatment, which might be allergy treatment rather than, or in addition to, sleep apnea devices or surgery.

Berson is an ENT in solo private practice in Nyack, New York, the only female ENT in her county. She is also one of fewer than 300 physicians nationwide combining board certification in sleep medicine, otolaryngology, and allergy medicine, merging these three specialties since 1991. "It's a unique combination to be an ENT surgeon who practices allergy medicine and also understands the medical aspect of what's really going on in the body when people have problems with sleep," she says.

"When I look at my patients, I am not only thinking about their anatomy, but how that anatomy is functioning for them," says Berson. "I have the tools to offer medical

as well as surgical treatment and often it's a combination of therapies that provide the best solution."

To conduct her study, Berson sought out a clinical appointment at New York Medical College, which provided the institutional review board, as well as assistance from residents at Mount Sinai Hospital and other ENT colleagues who recognized that sleep apnea surgery was not always solving all of patients' sleep problems.

First author on the paper, Berson was also assisted by her Upstate classmate Elizabeth Prezio, MD '86, PhD, an endocrinologist now working in epidemiology in Albany, New York. "We were study buddies at Upstate and I knew she could help me with the data," says Berson.

That was just the start. In a forthcoming paper, Berson links disturbed sleep to dust mite allergies.

"Dust mites are incredibly common in bedding and if you have a sensitivity, you're exposed for eight hours at night," she says. "The second your nose gets stuffed up, your mouth opens and your sleep gets disturbed. It's incredibly exciting because we have treatments for it."

After years of private practice, Berson says her research has provided a good reminder that there is not a singular "medical" or "surgical" fix for each patient. "The reality is that what works for patients is often a blend; we need to be mindful of that and keep our minds open to a plan for each patient that may very often be more holistic than we were trained to be."

—Renée Gearhart Levy



Dr. Berson is a cellist with the North Jersey Symphony, Bergen Philharmonic, and Rockland Symphony orchestras.