

# ASK AHSC

## ANSWERS TO HEALTH QUESTIONS

From The University of Arizona Health Sciences Center (AHSC) in Tucson

**Q** Is there a new treatment for depression that uses an implantable device?

**A** A promising new therapy for patients suffering from “treatment-resistant depression” is being studied at University Medical Center and a handful of other U.S. sites. Vagus nerve stimulation with the NeuroCybernetic Prosthesis (NCP®) System — already an effective epilepsy treatment — has produced encouraging preliminary results in patients who have not experienced relief through existing pharmaceutical treatments or combinations of drug, hormone and electroconvulsive treatments.

UMC, the teaching hospital for the UA College of Medicine, studied the NCP® system’s effectiveness in the treatment of epilepsy in 1994-95. The device, produced by Cyberonics Inc. of Houston, received approval for general use in epilepsy treatment by the U.S. Food and Drug Administration in 1997. During the study, many patients felt better emotionally, even those who didn’t have a reduction in the number of seizures they were experiencing.

NCP therapy as a depression treatment already has completed an initial study. The current study could be completed in the next

two years at which time the FDA could approve the treatment for general use.

UMC is in the process of selecting 10 study participants from Southern Arizona and the Phoenix area. The patients will be implanted with an NCP® System, which consists of a battery-powered generator implanted in the chest and a lead attached, at neck level, to the vagus nerve leading to the brain. The device delivers an automatic, periodic electrical stimulation to the nerve. A physician can adjust the intensity, duration and frequency of the stimulation — which may be minimally noticeable by the patient — in follow-up visits.

Potential patients still are being screened for participation in the study. Those interested may contact the UA Department of Psychiatry at (520) 626-6509.

—Francisco Moreno, M.D.,  
assistant professor, Department of Psychiatry, the University of Arizona College of Medicine, Tucson

**Q** Are flu shots necessary for people in their 30s, or are the shots mainly for older people?

**A** For certain vulnerable people, influenza vaccines can be lifesavers. The problem is not the flu itself, but complications from

the flu, such as pneumonia. According to the Centers for Disease Control and Prevention, flu complications are responsible for approximately 20,000 deaths and more than 110,000 hospitalizations each year.

The government recommends flu shots for anyone at risk for complications, including people older than 65; people with heart disease, chronic lung diseases or metabolic disorders such as diabetes; residents of nursing homes or other long-term care facilities; children taking aspirin therapy; anyone with a health problem that weakens the immune system; people receiving certain medical treatments such as chemotherapy; and women who will be in the second half of pregnancy during the flu season.

Flu shots also are recommended for those who could spread the flu to vulnerable people. Parents, teachers and other caregivers face a higher risk of exposure since influenza can spread quickly through school, so a flu shot would protect them as well as others. You may want to think about getting a shot if you can’t afford to miss work or don’t like to be sick.

Even if you do get a flu shot there isn’t a 100 percent guarantee you won’t get sick. The vaccine isn’t 100 percent effective, even in healthy people. And each year health officials determine which flu strains will be more prevalent and the vaccine only protects against those strains. You could catch a different strain. Overall, however, the flu shot is your best bet for protection.

—Jacqueline A. Chadwick,  
M.D., vice dean, Arizona Health Sciences Center  
Phoenix Campus