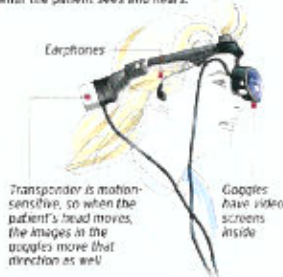


Facing their fears

The Virtual Reality Medical Center in Sorrento Mesa is one of six research centers in the United States to use virtual reality (VR) to treat many common phobias. Psychological problems such as anorexia, bulimia, obesity and drug dependency also may soon be treated with VR. Most patients need about eight visits to conquer their fears, and the success rate is about 90 percent.

The headset

The VR headset is used to immerse the patient in a computer-generated environment, much like a video game. The therapist uses a computer to control what the patient sees and hears.



The VR environment

In this illustration of a composite lab, the therapist can treat many different phobias with a variety of virtual-reality settings and techniques.

1 Agoraphobia

Patients with the fear of wide, open spaces can use a VR driving simulator to ease into getting outdoors again. Other programs include a VR walk in an open plaza.

2 Glossophobia

More people are afraid of speaking in public than they are of death. This program puts the patient in front of an audience so he or she can experience different reactions from the crowd.



3 Acrophobia

Patients with the fear of heights can use this VR simulator. The patient can hold the railings for balance as the virtual freight elevator climbs 50 stories outside a skyscraper.



These images depict flight simulations from two VR programs.

Aviophobia

One of the most successful treatments is for the fear of flying. In this particular session, the patient sits in an actual airplane seat and experiences many of the sensations of a takeoff and landing.



Surround-sound speakers

Subwoofer simulates plane vibrations during taxi and flight

PAUL HORN / Union-Tribune

Digital technology is helping overcome fear of flying, and a whole lot of other phobias

Virtually CURED

By Kathryn Ballint, STAFF WRITER

Linda Manassee Buell was a prisoner of Pomerado Road.

Panic attacks, fear of open spaces and fear of driving kept her captive, at least in her mind. The thought of venturing beyond an eight-mile stretch of Pomerado Road in Poway terrified her.

When her family jetted off to Las Vegas for her stepson's wedding, Buell stayed home. And when they went to Catalina Island for a weekend, she stayed home again.

But Buell, 46, managed to overcome her fears — with help from a tech-savvy psychologist and an innovative treatment that uses the same kind of virtual reality technology found in video arcades.

To help Buell conquer her phobias, San Diego psychologist Brenda Wiederhold strapped goggles on her patient

SEE CURED, E3



At the Center for Advanced Multimedia Psychotherapy in Sorrento Valley, psychologist Brenda Wiederhold helps patient Linda Manassee Buell adjust virtual reality goggles used to simulate driving. Wiederhold's therapy using virtual reality helped Buell overcome her fear of driving and fear of open spaces. *John Cardillo / Union-Tribune*