

### The Smile of Freedom

# STATE-OF-THE-ART FACILITY OPENS FOR DENTAL IMPLANTS

Story & photos by Trina Kleist

To eat out, to lift a glass with friends, to laugh and joke – without fear that your dentures are going to fall out – that's a kind of freedom few people would think about.

Dentist Joseph Miller thought about freedom a lot as he planned and built a state-of-the art dental implant center in Grass Valley's Whispering Pines industrial area. It opened in late 2021 and is already a hub for advanced, on-site implant services for patients. Looking to the future, Miller also envisions it becoming a learning center for other dental professionals honing their skills in this new specialty.

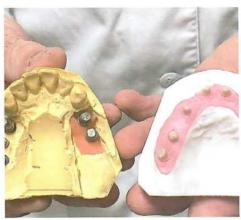
A dental implant consists of a metal post set into the jawbone, topped with a custom-crafted tooth replacement. Implants can replace dentures and bridges with a permanent structure that fits better and is more comfortable. Typically, implant procedures are performed by dentists or oral surgeons.

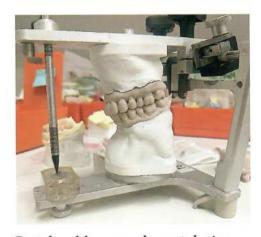
But Miller is part of a growing movement of impassioned professionals

"People who have bad teeth or dentures, it's like a handicap. They think about it every day. We're giving them their freedom back. That's my goal, to give people in this community their lives back."

- Dr. Joseph Miller







Dental models can now be created using digital camera and 3-D printing, as in the top the bottom photos. Conventional plaster forms, like the one in the middle photo, left, leave debris in the patient's mouth.

who have developed a specialty with its own certifying bodies, and Miller belongs to both.

Miller's new facility for Pine Hills Dentistry is set to become one of two in California and 18 across the nation that trains interns in the fledgling specialty, with two hospital-grade surgical suites.

In addition, Miller's office provides standard dental care supported by hospital-grade sanitation for instruments and hygiene for staff. Views of oak and pine woods, local deer, bear and the occasional mountain lion come with the package, through floor-to-ceiling windows in each of 10 private treatment rooms.

### IN-HOUSE LAB: CUSTOM FITS, SHORT TURN-AROUND

In his in-house dental lab, Miller holds a model of a patient's upper and lower teeth. Their image was taken by low-radiation digital cameras. "I'm looking for pathology, bone density and thickness," Miller explains. The forms are fabricated using 3-D printing and computer-aided design and milling, meaning less gunk in the patient's mouth. "We use it for planning a surgery before we ever start working with the patient," Miller adds. "We need to know in 3-D space how much room we have to work with."

Another machine helps him mill a jig he will use to guide the drill precisely into the patient's jaw. More equipment helps him create the replacement teeth, and a set of

Nevada County Business Focus 13



Left: Computer modeling of a patient's bones and teeth allows Miller to precisely measure the placement of dental implants.

Dental assistant Sheri Roberts is among the Pine Hills
Dentistry staff working with hospital-grade sanitation procedures, including an instrument sterilization bin operated by foot pedal and color-coded packaging for the cleaned instruments.



Above: By having all his lab equipment in-house, MIller can make refinements to implants while the patient waits in the dental chair, instead of sending the work out.









14 Nevada County Business Focus

brushes, paints and glazes allows them to exactly match the patient's gums and remaining teeth. Miller can show all of it to his patients ahead of the surgery. "It takes a lot of anxiety out of the process," he says.

And because it's all done in-house, from a single crown to a full-mouth reconstruction, Miller's process shaves weeks off the usual calendar.

### **EXPANDING VISION**

"People who have bad teeth or dentures, it's like a handicap. They think about it every day," Miller says. "We're giving them their freedom back. That's my goal, to give people in this community their lives back."

The Idaho native spent his teen-age years in Sacramento and started his dental career in the U.S. Navy. His experiences tending the teeth of many different kinds of people now fuel a bigger vision: Become a partner in dental education, and fill those 10 new treatment rooms with like-minded professionals.

"I built this from the ground up with all that in mind: bringing it up to hospital grade, bringing state-of-the-art treatment to the community and teaching state-of-the-art treatment to other providers," Miller says. "The sky's the limit... It's becoming a reality."

## Professional bodies guide dental implantology

FIND DENTISTS WITH CREDENTIALS IN THE EMERGING SPECIALTY OF DENTAL IMPLANTOLOGY:

- American Academy of Implant Dentistry www.AAID.com
- American Board of Oral Implantology\* www.ABOI.org

\*This body offers a higher-level of credentialing, according to Grass Valley dental implantologist Joseph Miller.







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