

A Dentures Case with a Personal Touch



Dr. Ryan McCall, right, with his mother, Debbie, and his grandfather patient.

You know how they say, “Treat every patient like family”? Here’s a case when that really was the situation

With five kids there are usually many grandchildren, and then years later, a plethora of great-grandchildren—so many, in fact, that remembering their names can become difficult and frustrating. In a genius move, my patient began referring to some of his grandchildren and great-grandchildren as simply “dude”—as in, “Oh, hey, dude, how are you?” Over time, he gained (and embraced) the nickname “Grandpa Dude.”

Unfortunately, a few years ago Grandpa Dude suffered a stroke, and his oral health began to decline. This happens a lot; I see it every day, and treating it is all that we do at my practice. There are many “Grandpa Dudes” out there, but this particular one, my patient, is my own grandfather.

Overcoming the stigma of full dentures

My grandfather got partial dentures when he was in his 60s; these cast-metal partials lasted a very long time, but because of neglect and the longevity of chromium cobalt, he held on to them for a bit too long and they ended up causing periodontal involvement of his remaining teeth. The partials would have been made in the 1990s, and definitely outlasted their life span. Often, I see patients

Several months ago, I had a unique patient in the chair. He was a typical patient for our practice—an older man who had his remaining teeth removed during this appointment and replaced with immediate dentures. After a few months of healing, we’ll place mandibular implants and deliver his permanent dentures.

My patient was born and raised four hours away, in southern Illinois—where, according to him, they have better soil quality than my hometown of Indianapolis. His soil-rich hometown, Newton, has a population of 3,000 (if you include the cattle) and is a place where people grow corn and soybeans, and on Friday night they play basketball. He spent many long, arduous hours farming to raise four daughters and a son.



The patient sees his temporary dentures.

who will wear a partial denture even after a supporting tooth has been removed—for years! It's quite remarkable.

With patients who have suffered a stroke, like my grandfather, one of the results is often a decrease in mobility, which can lead to neglecting oral hygiene (and usually family members are not around to help brush and floss existing teeth). Elderly patients are often stubborn about the decline of their oral health, and are ashamed by many of the stigmas that are associated with dentures. We make it a point to treat these patients with the respect they deserve and spend a great deal of time listening to their primary concerns. Once that's established, we begin formulating a reasonable treatment plan that works within their budget.

However, if a patient is 85 or older and suffers from advanced dementia, we typically do not recommend a full set of dentures unless the family absolutely demands it. I have done full dentures on patients with severe dementia and it has never gone well; I learned the hard way that sometimes nothing is better than something in that type of situation.

My practice, which specializes in dentures, sees patients from ages 19 to 98.

Our typical patient comes to us for a full-mouth extraction, full dentures and dental implants. Younger patients we see for full denture cases are usually the result of heroin or methamphetamine abuse, or daily mass consumption of sugary drinks such as Mountain Dew. Cigarettes are still prevalent in the Midwest. I recently pulled 28 teeth on a 19-year-old and it really broke my heart, even though it was the best thing for his overall health.

Creating a new smile from scratch—and old photos

My grandfather presented a tough case because he was missing so many teeth, and most of the remaining ones were mobile. When designing the smile for a patient who hasn't had teeth for many years, we typically base the tooth selection off model analysis per Gerber, and old pictures if our patients have them; another good guide is to look at the inverse shape of the patient's head. Many of the new CAD/CAM-driven systems like Exocad have tooth libraries that help dentists select "ideal" teeth, as well.

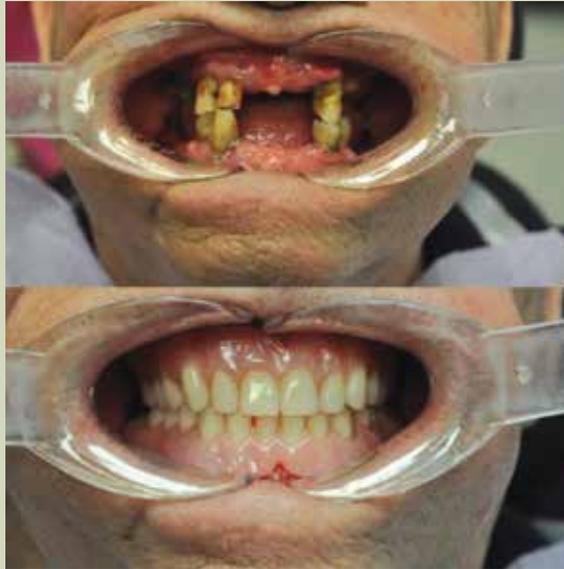
My undergrad college roommate, Dr. Will Schaefer, is also a dentist and operates a private practice in Robinson,

by Dr. Ryan McCall



Ryan McCall, DDS, earned his undergraduate degrees from Indiana University and attended dental school at the University of Illinois at Chicago. He and his wife, Meredith, have four children and live in Boone County, Indiana, where they have a hobby farm with fainting pygmy goats. McCall is an active cyclist and runner,

and enjoys speaking to other dentists about the positive impact dentures have had on his practice.



Before treatment began, top, and with temporary dentures.

Illinois, which is only a few minutes away from my grandfather's house. He helped me by performing many of the early steps at his practice and did a wonderful job.

He took initial impressions with alginate and fabricated custom trays using light-cured Triad material from Dentsply-Sirona; we mailed those trays to Schaefer, who took impressions for the temporary denture using material from Kettenbach and sent them to our lab for wax rims. Traditional wax rims were used and the vertical dimension was obtained using a Fox occlusal plane and a rigid bite registration material from Parkell.

We then made my grandfather's immediate, temporary dentures using cold-cure acrylic and denture teeth from Heraeus Kulzer. We typically use a healing denture for 8–12 months after surgery, followed by a stronger more permanent set of dentures. It is difficult to use injection molded acrylic for immediate denture cases, especially when patients have undercuts and super erupted teeth.

Build an amazing team

On a Saturday morning, I was able to give Grandpa Dude his smile back. Surgically speaking, it was a very easy case

and only five minutes of chair time—but with great dentures, I was able to change his life in a positive and meaningful way. Much credit goes to our technicians, Ellen and Teresa, who did an amazing job, and my office manager and “right hand,” Kelli, who was there at 7 a.m. on a Saturday. Their help made it possible for us to make a huge impact on my grandfather's appearance and, at the same time, improve his ability to eat, speak and take an occasional sip of whiskey again.

After he had completely healed and was ready for his permanent dentures in the fall, we had planned on placing two mandibular implants from OCO Biomedical. My grandfather would have required a complex sinus lift and substantial bone grafting to place maxillary implants, so instead we were going to use two lower implants with Zest locators to secure his lower tissue-supported denture. With his permanent upper denture, he should have had great suction and probably wouldn't have required any implants at that time.

Before writing this article, we had planned to use our new Carbon 3D printer and the Dentca trays and resins from Mitsui Chemicals to make my grandfather another

permanent set of dentures. This amazing removable technology gives our practices the ability to fabricate dentures in just two appointments and, with a fully digital workflow, we can easily accommodate patients who visit us from other areas of the country.

Unfortunately, over the past few months my grandfather's dementia has progressed rather quickly, and I did not believe that making him another set of dentures or placing dental implants would increase his quality of life a great deal going forward. I was very disappointed, because I had hoped to use his case as the central narrative for my removable lectures, but found solace in the fact that there are many Grandpa Dudes all over the world and many of them are typically ignored by dentists who lack the proper clinical skills and dexterity needed to service them. I saw his current

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situation as yet another reminder that every denture patient truly is unique, and every removable patient needs to be analyzed on a case-by-case basis.

For patients who can't provide informed consent, I believe that it is our duty as dentists to treat them in the best way possible regardless of the financial benefit. We are the ombudsmen for incapacitated patients' health and Grandpa Dude's story is something I see every day. I plan to tell his story over the course of what I hope will be a long and wonderful teaching career—one that is just getting started. ■

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