

# A Bur for Every Need

*With single-use diamond and carbide burs in a wide array of shapes and grits, Microcopy provides a reliable option for every procedure. But how do you choose what to use? In this ebook, clinicians discuss the benefits of the various burs and their choices for different procedures in their practices.*



# The Single-Use Advantage

From better cutting efficiency to enhanced infection control, the affordable, single-use burs from Microcopy have become staples in many operatories.

When Dr. Walter Davies III first began using Microcopy NeoDiamonds more than 10 years ago, he was looking for cost-effective diamond burs that were also high quality. The single-use burs not only met his requirements, but they have been staples in his Tulsa, OK, practice ever since.

Microcopy burs, he found, make procedures easier, and because they're single use, he knows he will always have a clean, sharp bur at the ready, improving his efficiency.

"NeoDiamond burs cut fast and efficiently every time," said Dr. Davies, who favors the taper and cylinder burs for his crown preps. "And because they're single use, I do not have to worry about using a dull, over-sterilized bur that has the potential to create too much heat during use."

## Durable and Reliable

Dr. Kent Caserta, who practices in Willoughby, OH, has used NeoDiamonds as well as NeoBurr carbides for about five years and is also impressed with the burs' durability.

"You can pretty much complete the entire preparation with one bur," he said. "You never have to say, 'Oh, this is getting dull, I need to get another bur.' The diamond particles seem to adhere better and don't wear as much, making them more durable than other options."

Dr. Dory Stutman often finds he can use the burs on more than one tooth. If he's prepping a full arch for a

patient in his practice, located in Massapequa Park, NY, he can usually finish at least five crown preps before he needs to switch to a new diamond.

## Enhanced Infection Control

Whether using diamond burs or other favorites such as NeoMax carbide crown cutters, Dr. Stutman always knows the Microcopy burs are fresh and sterile, and that's something patients appreciate. The burs are gamma-sterilized and individually packaged in a clear poly packet for effective infection control. This system also helps with identification and storage.

Dr. John Horn, who uses various Microcopy burs at his practice in Hegins, PA, opens the burs on the tray in front of patients so they see they're getting a sterile product.

"Diamonds are hard to sterilize, so it's a big advantage for the patient and everybody in the office that you use the bur once and that's the last time you use it," Dr. Caserta said. "It enhances safety for patients and your office personnel. The bur can go into the sharps bucket when you're done, rather than somebody having to sterilize it."

The burs, he said, are consistently reliable.

"They always have the same quality," Dr. Caserta said. "With a single-use bur, you know it's fresh every time and that increases your efficiency. There's less time involved in prepping the tooth and less trauma."

## SINGLE-PATIENT-USE (SPU) VS MULTI-USE (MU)

### Reduce Overhead Cost

**SPU: Inexpensive**    **MU: Expensive**

SPU requires no cleaning, sterilizing, or sorting, which costs time and money.

### Infection Control

**SPU: Safe**    **MU: Risky**

SPU eliminates the risk of cross-contamination.

### Fast Cut

**SPU: Clean Cut**    **MU: Clogged Cut**

A fresh bur is always faster than a dull bur.

### Trauma Free

**SPU: Less Heat**    **MU: More Heat**

Using a fresh, sharp bur each time helps prevent overheating the tooth.

### Less Handpiece Wear

**SPU: Less Time, Less Pressure**

**MU: More Time, More Pressure**

Clogged diamonds require more pressure and time to cut. Fresh diamonds avoid this and prolong the life of handpieces.



# How Do You Use Your Burs?

Four dentists share their Microcopy burs of choice and how they use them in their practices.

Burs are an integral part of every dental practice, with both diamonds and carbides necessary tools for various procedures. But when it comes to which burs to use for which cases, dentists have their own preferences and go-to instruments.

There are hundreds of options, but it's easiest when you can buy all the burs you need from one place and know they're of the highest quality. Microcopy offers single-use diamond and carbide burs in various grits and shapes, all designed to make procedures more efficient. They offer Z-Class NeoDiamonds specifically for zirconia and NeoMax carbides for metal crown removal—both designed to make challenging procedures easier. The NeoDiamond family includes single-use diamond burs for crown and bridge, trimming and finishing, pediatrics, and cutting and adjusting zirconia.

The company's newest diamonds, NeoDiamond X-Class, add extra coarse grit options to the coarse, medium, fine, and very fine lineup, and are optimal for crown and bridge removal and gross tooth material removal.

All NeoDiamonds are manufactured from a single piece of stainless steel. They're Triton plated using natural diamond grit that exposes 20% more cutting surface, adding longevity and allowing for precise margins. A protective coating makes the burs more durable, while the Swiss-made XactFit shank keeps them in the handpiece.

"Dentists should consider their preferred personal crown preparation techniques and preferred crown types, such as zirconia, all porcelain, PFM, and full cast metal when choosing a bur," Dr. Davies said. "There is literally a NeoDiamond shape, size, and grit for all preparation types—for all preferred crown types—to ensure the best retention and fit."



Walter M.  
Davies III,  
DDS

"I have used other brands over the years that are much more expensive but did not cut as fast and efficiently as the NeoDiamonds."



NeoBurr carbide burs feature a unique blended neck technology for optimal strength and durability. These burs don't separate. They're made from a single piece of material, so there's no need to weld—the usual culprit when burs do separate. These carbides, known for their smooth, quiet operation, also feature increased blade contact with the tooth for better cutting and they don't clog. The NeoBurr product line includes the NeoMax Metal Crown Cutters, Max 1 and 2, which are designed to cut through amalgam and metal.

We talked with four dentists, Drs. Davies, Caserta, Stutman, and Horn, about how they're using the Microcopy burs that have become staples in their practice.

## Dr. Walter Davies III

The go-to burs for Dr. Davies are the NeoDiamond round tapered and cylinder burs of various diameters in coarse or extra coarse grit. He mainly uses the burs for crown and bridge preparations. He relies on long tapered and football burs for occlusal reduction, round burs for buccal/lingual reduction at or near gingival margins, narrow-diameter tapered and cylinder burs for initial interproximal reduction, and cylinder and tapered burs for final prep stages.

The burs are cost effective, high quality, and help make his procedures more efficient, he said.

"I have used other brands of diamond burs over the years that are much more expensive but did not cut as fast and efficiently as the NeoDiamonds," he said.

#### Dr. Kent Caserta

For NeoDiamonds, Dr. Caserta tends to go with the round-end taper burs, typically in a coarse or medium grit, as well as the football-shaped burs. The rounded-edge burs are his go-to for crown and bridge preps, as they make a nice margin, he said. He'll switch to a smaller flat-end bur for the lower anterior because they don't take as much tooth structure.

He turns to the round-diamond burs for endo access and a round diamond in a coarse grit to cut off old crowns. He follows up with a medium coarse grit to smooth the prep. Thinner options are his tools of choice for polishing and removing overhangs.

Typically, he picks up a football bur with a medium grit to adjust occlusion, as coarse grits can cause chipping. He also uses a medium grit to adjust zirconia crowns and to prep upper anterior teeth on the linguals. These diamonds also work well for adjusting composites and keeping them smooth.



"You need a bur that will stay sharp and pretty much be alive during the whole procedure so you don't have to keep switching."

—Kent Caserta, DDS



"If I have to take away more tooth structure in a preparation, I'll use a coarse grit, so basically any full-coverage crown," he said. "If I'm placing a veneer where I don't need to remove as much tooth structure, I'll go with the medium grit."

He's used NeoBurr carbides to replace composite resin, appreciating that he doesn't have to worry about them fracturing.

"You need a bur that will stay sharp and pretty much be alive during the whole procedure so you don't have to keep switching," he said. "You know when you pick up a Microcopy

bur, it will do what it's supposed to do. The quality is consistent and it boils down to an easier prep."

#### Dr. John Horn

Dr. Horn places a lot of zirconia and lithium disilicate crowns, and prefers to use a coarse cut chamfer bur for the preps. Once he's satisfied with the prep, he uses the same tool but in a fine grit for smoothing to get a better impression.

He finishes his anterior composites with a fine chamfer bur and then switches to a very fine flame-shaped bur for work that's interproximal and at the tissue level, he said. He follows that with a disc and then polishes. For posterior composites, he'll use either a very fine or fine flame-shaped bur for the anatomy, finish with an egg-shaped bur and then polish.

He uses fine and very fine flame-tip burs for finishing and shaping, he said. If he's finishing a Class II, he likes to prep with a pear-shaped bur and combine that with a round-end taper in coarse or extra coarse grit for cutting. He also finishes these restorations with an egg-shaped bur in a medium or fine grit.

"My choice of diamond burs might be different from another person's, but we're all going for the same result, and that's a high-quality restoration that will stand the test of time in a wet environment 24/7," he said. "That's why I really like the fine and very fine diamonds. They get you to the point where you're going to reduce leakage around your restorations."



"We're all going for the same result, and that's a high-quality restoration that will stand the test of time."

—John Horn, DMD

## ZIRCONIA ADJUSTMENT MADE EASY

Microcopy's Z-Class NeoDiamonds are designed to cut and adjust zirconia restorations, and do so with minimal fracturing at an even depth. This leads to a smooth surface and reduces the time it takes for polishing.



"You can do any procedure you want and know the burs will be consistent."

—Dory Stutman, DDS, AAACD, FICOI

#### Dr. Dory Stutman

Dr. Stutman has used NeoDiamond and NeoBurr burs for years. Which NeoDiamonds does he use most? The round-end taper in coarse and medium grits for all-ceramic crown preps. The bur gives him a very smooth, even rounded margin for the crown. The fine grit version works great for veneer preps. Fine burs and extra-fine burs can be used to prep crowns as well.

"I do the initial prep with the coarse bur and get the bulk of the reduction done," he said. "After the tooth is reduced to the size I want, I'll use the fine diamond to smooth out the margins and finish the preparation."



## NEODIAMOND X-CLASS

These new burs are the extra-coarse versions of Microcopy's most popular NeoDiamonds. The burs feature 213µ diamonds bonded to a cut-to-grit shank. They're well suited for bridge and crown removal and gross tooth material removal.

He relies on the flat-end taper burs in coarse and fine for ceramic crown preps.

The finishing burs work well for refining preps and providing a very conservative margin, he said. He uses the flame burs with porcelain or zirconia crowns and PFMs. He typically uses the fine or extra fine grit.

The coarse grit football burs are his favorite for adjusting occlusion, while the coarse wheel burs are his choice for rapid occlusal reduction as well as removing existing crown and bridge work. The wheel burs cut through metal very fast and are a huge help when he's removing multi-unit bridges.

The interproximal mosquito burs are great for interproximal reduction during crown preps, as well as provisional bridges in the anterior. The burs can create interproximal definition between the teeth to make it look like they're single teeth sitting next to each other.

He uses NeoMax Metal Crown Cutters to cut amalgam and metal. They're his first choice for safely removing routine PFMs, which can be difficult. The straight carbides have a round head and are available in two sizes, Max 1 and Max 2. Often, he'll cut through porcelain with the wheel bur and then switch to the NeoMax to remove the metal.

Regardless of your burs of choice, it's important to work with a respected company that has high-quality options.

"Microcopy has a good variety of shapes and sizes. There are a lot of choices, so you don't have to use 10 different companies to find all the burs you need," Dr. Stutman said. "You can do any procedure you want and know the burs will be consistent."

## BEYOND BURS

NeoDry's saliva absorbents are designed to absorb, protect, and reflect. They feature an inner core that quickly absorbs fluid in the oral cavity. They don't leak, protecting the procedure area from moisture for up to 15 minutes. The protective backing aids cheek retraction and visualization.

"The absorption capability is excellent. I can use one NeoDry's per side for the whole procedure. I don't need to replace it multiple times to maintain a dry field."

—Kim Williams, RDH, BS, Raymond, MS

NeoShine mini single-patient-use polishers use an ID system to organize composite and ceramic polishers by materials and steps. The sterile mini-polishers fit into pits, fissures, and tooth anatomy. Flexible discs also are available to polish composite and porcelain.



Flaps cushioned, self-sticking tabs—which can be used with x-ray film or digital sensors—are made from soft plastic foam that includes a self-adhesive side to secure the x-ray film. They come in two sizes (original and long) and fit all film and sensor sizes.

"Patients see the smaller size and comply so much more easily, which, in turn, makes radiographs go faster for children and adults."

—Michelle Wood, RDH

# ADDITIONAL RESOURCES



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