

# ZIRCONIA

## *Tips & Tricks*

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## Preventing Zirconia Fractures

The process of removing milled zirconia units from the disc can introduce fractures in the zirconia units.



### Here are a few things to watch for:

- 1) Most technicians use high-speed air turbines to remove the zirconia units. This is an efficient process. However, it is important to remember that the carbide bur on the high-speed turbine is not as hard as the zirconia particles. Because of the difference in hardness, bur life is expected to be short. Therefore, replace burs on a regular basis.
- 2) Additionally, the bur should not be 'pushed' through the zirconia support. Forcing the bur through the support will result in zirconia cracking. It is best practice to allow the cutting tool to do the separation. Continually run the sides of the rotary tool tip as close as possible to the disc and against the side of the support. Move the tip back and forth, never forcing the tool into the support material.
- 3) For units nested part-to-part, aim the rotary tool tip at the middle portion of the support between the parts to avoid touching the surface of the unit with the carbide bur. The high frequency vibrations may cause fine fractures in the zirconia, which will not be visible until after sintering.
- 4) When cutting the last support, ensure that the zirconia unit does not fall through onto a hard surface. Damage to the margin or the walls of the units will result.

