

Micro Dentistry

From the beginning of dental school, dentists are trained to focus on very small details. It was sometimes good for a laugh when instructors criticized our work for something that was not even visible with the naked eye. The ones who were very serious wore magnifiers on their heads to give more credibility.

Microdentistry has become a buzzword in dentistry. It encompasses many techniques and several different pieces of equipment and materials. One of the important pieces is a lighted binocular microscope that can magnify teeth and gums over 20x. I resisted the purchase of a microscope for several years. Then about 15 years ago it became apparent that a dentist should probably not be doing root canals without a microscope. It was one of the best pieces of equipment I ever purchased. I came to appreciate the detail that I could not see previously, even with magnifiers. Viewing your work through a microscope becomes addictive (probably because of dental school training) and now I look at almost everything I am diagnosing or restoring with the microscope.

Another part of microdentistry is laser or air abrasion. Both of these tools remove very small amounts of tooth more gently than the high speed handpiece. This allows us to remove only the diseased parts of the tooth or gums and leave more of the sound tooth than we could with only a high speed handpiece.

Sometimes decay is invisible, even under a microscope, so it is necessary to use special indicator dyes that identify decalcified dentin (decay). Because we are removing less tooth, we also need a restorative material with strength and retention in thin layers. This is where bonding (tooth-colored filling) is important. Today we have many choices for bonding materials, all essentially invisible when placed properly.