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# Cosmetic Dentistry: A Patient-driven Sub-specialty

The simplest, least invasive and least expensive form of cosmetic dentistry is tooth whitening...

Recently, the first baby boomers have reached the age of "social security," as defined by most governments, yet this most vibrant generation in the history of mankind refuses to quietly accept their fate like the generations before them. In North America, personal cosmetic enhancements are a multi-billion dollar annual industry. Every inch of our bodies is fair game when it comes to rejuvenation and reincarnation. This phenomenon is quite evident with respect to our fixation to create the perfect white smile. Moreover, studies have suggested that dental appearance is significantly related to our perception of a pleasing overall look. A study published by J. Jenny and J. Proshek in 1986 titled, "Visibility and Prestige of Occupations and the Importance of Dental Appearance," indicate that there is a significant relationship between prestige and dental appearance, as well as a strong relationship between visibility and dental appearance.

This movement, as a society, to chase the perceived ideal of a beautiful white smile is no longer empirical. Clinical studies, combined with the overwhelming economic bonanza from dentist prescribed and over the counter whitening products, conclusively indicate the desire to enhance one's appearance, specifically one's smile.

The evidence is further supported by a national study released by Crest Extra Whitening toothpaste, which noted that more than 90 percent of respondents rated photos of people with whiter teeth as healthier and more attractive than photos of the same people with duller, less white teeth. According to Gordon Christensen, "It seems that everybody in America wants whiter teeth to make them feel younger and provide beautiful smiles and accompanying increase in self-esteem."

The simplest, least invasive and least expensive form of cosmetic dentistry is *tooth whitening*; or as it is more commonly known as, *bleaching*. The primary goal of this technique is through the application of various gels, all based on the same chemistry, which remove intrinsic stains within the teeth to reveal the inherent whiteness prior to the years of ingesting heavily stained foods and smoking.

Though bleaching of teeth became popular in 1989, the dental profession has been attempting to lighten teeth since the 1800s. The earliest forms of bleaching involved the use of oxalic acid and even the application of chlorine to try and improve the appearance of the teeth. It is reported that the first use of hydrogen peroxide was in 1877, which serves as the basis of many of today's whitening products. However, contemporary whitening has evolved to the placement of a weaker bleaching agent having intimate contact with the tooth surface over a prolonged period of time. The usual ingredient, and the most stable is various strengths of carbamide peroxide, placed within a custom fabricated tray, which is often referred to as "home whitening". Additional professional whitening systems, that are employed chair side and are referred as "in-office whitening," are based on techniques that were discovered as early as 1918 whereby high intensity light is used to cause a rapid rise in temperature of hydrogen peroxide to accelerate the bleaching process. Today, the in-office technique is used primarily as a convenience for people who do not want to fuss with wearing trays at home or who want a quick solution to brightening their smile. Whether the patient chooses home or in-office whitening, the goal is the same; to rejuvenate the smile by brightening their teeth.

Consumer demand for an attractive smile is so strong that there has been an explosion in over the counter whitening products. These include tooth pastes, mouth washes and "whitening on the go" products sold from drug stores to grocery stores. These low investment products have varying degrees of success, yet their commercial viability is driven by mass marketing appeal.

The Freedonia Group, a well known research company, stated that in 2005 whitening products accounted for four percent of total consumer dental products demand. This segment encompasses those products designed to lighten tooth shade, including strips, gels and liquids. In addition, Freedonia claims that demand for consumer whitening dental products is forecast to advance 10% per year to 250 million in 2011. These gains will be partially attributed to the aging baby boomers becoming aware of these over the counter products. Aggressive marketing strategies will portray these items as low cost alternatives to professional whitening, veneers or direct dental bonding. Freedonia also noted that, though there is a lower price structure, the over the counter (OTC) whitening agents are less effective than professional whitening products. Consequently, continued product developments will improve the efficacy of the OTC whitening products, while prices will remain the same or slightly decline to the increase in the number of players in the market place.





If patients find that they are not pleased with their whitening result, regardless of their origin, they may choose to seek out more long term predictable solutions to their problem. These more predictable alternatives include freehand direct bonded or porcelain veneers. Regardless of the pathway, the motivation is the same; individuals are looking to improve the appearance of their teeth. Though the past may have focused on the rehabilitation of a deteriorated dentition, the future will focus on only techniques that rehabilitate from a cosmetic perspective. OH