

# Case Report

## A New Threat to Adolescent Oral Health: The Grill

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**Abstract:** The wearing of dental "grills" in the mouths of children, adolescents, and adults is a problematic fad currently facing the dental community. A grill is a gold, platinum, or other metal and often jewel-encrusted encasement for the dentition. The grill can be easily placed over the existing teeth and is fabricated by simply obtaining an impression of an area of a person's mouth over which a grill is desired. The purpose of this case study was to report the oral and dental manifestations of a case in which a grill was worn by an uninformed adolescent consumer. A 16-year-old African American male was clinically evaluated on a routine recall appointment in this case. He had evidence of new rampant anterior decay in an oral cavity that had previously been caries-free on all earlier regular hygiene visits. A strong factor contributing to decay was the purchase and regular wear of a grill from a neighborhood jewelry store. This case report was conducted to alert dental professionals, more specifically pediatric dentists, about the increased popularity of the grill and to the detrimental affects that it can have upon the unhygienic dentition. (*Pediatr Dent* 2007;29:320-2)

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From television shows such as VH1's *Flavor of Love* to music videos like *Grillz* by hip-hop star Nelly, the minds and eyes of America's youth are flooded by images of gold, platinum, and often jewel-encrusted dental work, better known as "grills." At first glance, what would seem to many people as a defamation of perfectly healthy teeth has become an almost distinct predictor of status in many social circles. Much like many other trends of the past—such as tattoos, an assortment of various piercings, and even mainstream tobacco use—this current movement brings with it some deleterious side effects to often unsuspecting consumers.

According to the online *Urban Dictionary*, the word "grill" has several meanings. In general, the definition of a grill denotes one's teeth, smile, or business. This case study will focus on the more specific definition for the word "grill," as presented by the *Urban Dictionary*, which is a "gold/diamond plate that is molded for your teeth. It is decorated with diamonds and/or gold."<sup>1</sup> They can also be referred to as fronts, plates, golds, Grillz, shines, and caps, among many other slang names for these tooth encasements. Grills came into prominence in the early 1990s by way of a rap group known

as the Dirty South Rappers. This group was based in Atlanta, but the concept of a platinum or gold tooth "plate" is no longer native only to southern hip-hop.

Hip-hop has had a well-chronicled love affair with conspicuous consumption. Gold "rope" necklaces and "iced out" wristwatches covered in precious stones have become standard issue within the field. And over the years, rap paeans similar to Nelly's *Grillz* have been devoted to sky pagers, Adidas sneakers, chrome hubcaps, and the diamond affluence of "bling-bling." This growing fad known as a grill can now be seen nationwide in the mouths of people of all sexes and races.

Rapper Paul Wall, one of the most famous names in hip-hop music associated with the swelling popularity of these grills, was quoted as saying that "Down South, gold teeth were always a symbol of poverty. But the hustlers—gangsters or drug dealers—made then a symbol of respect on an extreme level."<sup>2</sup> Whether one agrees with his rationale or not, there's no denying that this movement is taking the jewelry market by storm. "Gold teeth have evolved from being just pieces of metal on your tooth," said the hard-core rapper, Bun B. "For some people, it's an expression of who they are: their 'hood, what they represent.... It's marketing, a promotion."<sup>2</sup>

Grills have become so commonplace that one can buy a grill anywhere, from the local mall to the Internet. Some Internet-based companies even go so far as to send a purchaser a home kit that consists of a 2-part putty and impression trays.<sup>3</sup> Once the consumer-produced impressions

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are completed, they are returned to the company, which is based in Las Vegas, and a custom-made grill is then returned via mail. "People originally thought it was a ghetto kind of style," said John Hallett, office manager of Mr. Bling, a jewelry store in Las Vegas, Nev, that sells an average of 5 to 10 grills a day. "But now a lot of white people from L.A. come down to buy them. Punk rockers and alternative people with tattoos and piercings."<sup>2</sup> Another Web site, belonging to Bridgeport International, a Georgia-based jewelry company, offers a 3-day instructional course on making grills.<sup>4</sup> For \$4,800, a jeweler can enroll in this course, under the tutelage of nationally renowned grill maker David Baldwin, and learn to make grills in their own jewelry stores. The course, which is limited each time to 5 students, is consistently full for every offering, which is usually at least 3 times a month.

### Case description

A 16-year-old African American male with no history of caries over a 10-year period of dental treatment (Figure 1) by the same practitioner presented for a recall appointment with rampant caries across his maxillary anterior teeth (Figure 2). The pattern of decay was intriguing in that it seemed to be localized to the incisal edges of the maxillary incisors. The only reported change that could be identified since his last recall visit was that he had visited a local jewelry store in his



Figure 4. Intraoral photograph of patient wearing a grill.

neighborhood mall and had a grill made (Figure 3), which he had begun to wear most of the day (Figure 4). Over this time, nothing about his diet or oral hygiene changed.

Thus, the aforementioned decay can most likely be attributed to the fact that various sugars and other fermentable carbohydrates that pooled in the interface between the underside of the grill and the enamel served as substrate for cariogenic bacteria to propagate. This pooling theory would explain the pattern of decay noted along the incisal edges of the involved teeth. The patient was not educated to remove the grill when eating or drinking nor on the extra hygiene that would be involved in wearing the grill.

For this patient, treatment protocol entailed encouraging him to stop wearing the appliance at least during eating and drinking. Three resin restorations were required to restore the teeth (Figure 5), while unsightly white spot lesions were treated with fluoride varnish. If not discontinued, he was instructed to never wear the appliance when eating or drinking any liquid other than water. He was also encouraged to clean the appliance when brushing daily and place a little toothpaste in the appliance before inserting in the mouth.



Figure 1. Photograph of affected teeth 6 years prior to presentation with grill.



Figure 2. Decalcified, severely stained, and carious incisors seen at 6-month recall visit. When asked what had changed in his diet or oral practices, patient stated he had "gotten a grill" since his last visit.



Figure 3. (a) Facial view of the grill



Figure 3. (b) inside view illustrating potential cariogenic reservoir for food, plaque, and liquid accumulation.





Figure 5. (a) Intraoral photograph of patient's teeth following conservative treatment of carious teeth



Figure 5. (b) with extensive facial decalcification. It was decided to monitor for ability to prevent further caries prior to proposing any esthetic alternative treatments. Grill wear was discouraged, and hygiene counseling was performed.

## Discussion

The purpose of this case report was to keep dental professionals abreast of a current issue (ie, fad) involving their patients, especially those facing the children in our communities. Much like the earlier fads of oral piercings, this more current jewelry-based trend involves some very severe consequences to the involved dentition. Several questions that can be raised from this case involve issues such as the: (1) legality of jewelry store employees fabricating these grills; (2) ethical responsibility of personal hygiene instructions that should be given to clients upon purchasing one of these items; and (3) maturity level of the children and adolescents wearing these prostheses.

The issue of metal allergy could also arise when nonprecious metals are used in the fabrication processes involving to fabricate the grills. Although wealthy musicians and some

athletes have spent thousands of dollars to decorate their teeth with grills made of gold and platinum, most teenagers and young adults who want to emulate these celebrities do so by purchasing inexpensive do-it-yourself kits online or from local jewelers. Most of these more cost-effective types of grills are fabricated using cheaper base alloys that often cause various hypersensitivity reactions.

It is our responsibility, as dental professionals, to confront these issues head-on, whether that includes: (1) establishing more strict parameters over grill manufacturers; or (2) teaching company owners and patients who wear these prostheses how to more effectively sanitize their grill.

It is the hope of those involved in this particular case to increase overall awareness of this trend now affecting public dental health and well-being. Some recommendations for dental professionals related to this subject include:

1. Discourage the wearing of a grill altogether. If this is not probable, however, at least encourage discontinued wear during any periods of food or drink consumption.
2. Review good oral hygiene practices constantly with patients, whether or not a grill is worn.
3. Consider recommending a 3-month recall and regular fluoride schedule with patients who refuse to discontinue grill wear. Emphasize the use of an over-the-counter fluoride dentifrice.
4. Discuss these recommendations with the parents of younger children so that they understand the risks of grill wear.
5. If a patient wears a grill in a high-risk location, consider adding warnings about grill wear to the dental practitioner's Web site.
6. Get more involved in your community by educating grill manufacturers about hygiene involving the prosthesis.
7. Help educate local schoolchildren about the dangers of wearing grills.

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