

The Chairside “Night ‘n Day Guard”

Howard S. Glazer, DDS, FAGD and Kate Liddle

Bruxism. It is no laughing matter to about 45 million Americans who suffer from bruxism and related dental concerns. One factor may be the economy. The other may be just be general stress. Recently, there has been an increase in the demand for occlusal appliances, usually preceded by patients who are complaining of chipped teeth. The stress induced by today’s economy and job market has to be major factor. Despite the demand, dental laboratories report that they are fabricating fewer than 4 million night guards each year. This means that 90% of the potential market is not addressed in a given year. Lab fabricated night guards take a week or longer to manufacture and can be rather expensive.

Stressful times have followed us into 2011 and there are no signs of clear sailing on the horizon. It is reasonable to believe that doctors and their patients will continue to struggle with choices related to treating bruxism as an increasing concern, and

to balance the cost of these treatments with the need to protect their dentition.

Since it is obvious patients are not “lining up” to get laboratory fabricated night guards, what are they doing now to relieve discomforts caused by bruxism? For starters, pain relief medications for headaches and/or jaw pain related to bruxism are currently a multi-billion dollar business. Additionally, there are any number of over-the-counter (OTC) devices that claim to solve bruxism and its related complaints. The prices maybe low cost but the problems with these devices are easy to recognize. “Boil and bite” type soft or “chewy” night guards only stimulate the patient to grind even more. The gagging that ill fitting self fabricated devices elicit is not the concern of the OTC device maker. The major drawback with OTC night guards is that they are not fabricated by the lab technician, or dental practitioner who understands the fundamental problems and limitations of the appliance.

These professionals are also best equipped to determine the individual needs as related to the patient’s dental and oral anatomy.

In-office solutions are available, but they require considerable expensive chair time, a costly tray-forming machine, and extensive time spent trimming, fitting and polishing the appliance. Even for patients who actively use the appliances it is difficult to implement a standardized night guard design as individual dental anatomies differ. In-office fabrication also requires the practitioner to address the issue of undercuts, necessity a surveyor and blackouts.

Lab-prepared guards, easily the best solution, are costly for both the practitioner and for the patient. For patients who do not make a habit of wearing the device, there is little benefit and the bruxism problem and its effects are unresolved. Night guards are easy to lose. In fact, there are small businesses selling special containers to prevent the inadvertent loss of the appliance.

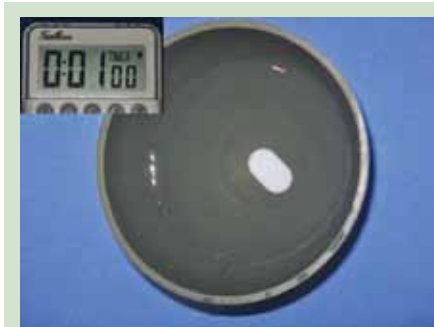


Figure A

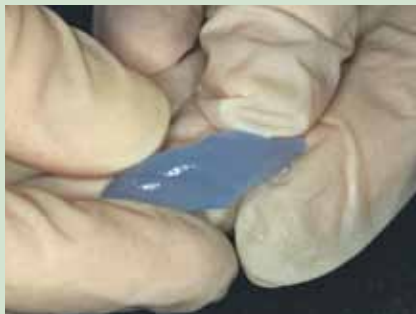


Figure B



Figure C



Figure D



Figure E



Figure F

There is another option for doctors that has the objective of encouraging more patients to address the daily damage from grinding and clenching their teeth. In order to have patients work with practitioners towards a solution, two basic assumptions must be made:

- The patient requires a greater understanding of bruxism, both its immediate and its longer-term consequences. Once these problems are understood, a simple, immediate solution must be available.
- The shortest distance between the patient's need and immediate relief is not a lab-prepared night guard.

Assuming that patients visit the practice at least once a year for a cleaning, exam or with a dental problem, this presents an ideal opportunity to assess enamel wear and other indications of bruxism. At the early stages, it is much easier to discuss a protective device as compared to

a much more comprehensive and expensive cosmetic rehabilitation.

Once bruxism and its associative dangers are understood by the patient, the practitioner has the opportunity to offer a clinically easy and an immediate solution.

Thermoplastic Temp Tabs (in both Blue and Natural tooth colors), as well as Bite Buddy (a large thermoplastic wafer), are ready allies in facilitating this procedure. Temp Tabs and Bite Buddy, both products of ALL DENTAL PRODX (Galloway, NJ), are trade names for a specially designed chemistry of thermoplastic material. Thermoplastic materials have been used safely and successfully as splinting materials in orthopedics and in other areas of the medical community for more than 70 years.

Thermoplastic is an ideal material in many ways. It is biocompatible, low cost, low tech and biodegradable. Unlike its cousin, "thermosetting" material, ther-

moplastic has the unique ability to retain its physical properties through repeated heating, enabling it to become moldable and re-moldable. It features a unique and very versatile blend of flexibility (the thinner it is, the more flexible the material) and rigidity. Over the years the dental uses for thermoplastics have included; quick bite registration material, matrix for provisionals, implant abutment jig, implant placement stent and repair fracture.

Thermoplastic Temp Tabs and Bite Buddy both offer quick and efficient chairside bruxism guards. These night/bruxism guards are well suited for long term restorative patients and can easily be used to 'train' patients for laboratory fabricated appliances. Thermoplastic features a predictable balance between flexibility and rigidity. It will not adhere to undercuts and can be molded or adapted to suit any anatomy, as well as adjusted to the desired level of fit so that accidental dislodging by the patient during sleep is not a concern. This



Figure G



Figure H



Figure I



Figure J



Figure K



Figure O

simple appliance is immediate and easy to make: no impressions no wait time and no additional visits for deliveries or adjustment.

THERMOPLASTIC BRUXISM/NIGHT GUARD STEP-BY-STEP TECHNIQUE:

The patient presents with bruxism and exhibits an over-closed bite (FIG O) A Temp Tab from All Dental PRODX is heated until it turns clear Fig. A (about 1 min.) The softened Temp Tab is immediately manipulated to remove stickiness FIG B (do not use vinyl gloves)

A long working time allows positioning in the mouth. Fig. C In this case, the softened Tab is placed on the lower arch. Fig. D The Tab is formed over the lower incisors. Fig E The Tab is air-cooled for 10 seconds until it returns to an opaque state. Fig. F

Remove Tab guard from the mouth (FIG G) and rinse in cool water to finish set (FIG H). Replace guard FIG I and check patient fit so that accidental dislodging with lips and tongue is

not possible. (Thermoplastic may be removed, re-heated and re-formed as necessary for a better fit without loss of stability of the material.)

Guard may be trimmed if necessary with an acrylic bur. Fig. J.

The completed Night 'n Day Guard can be worn comfortably by the patient. Fig K.

Temp Tabs and Bite Buddy are versatile and adaptable to the unique occlusal anatomy of any patient suffering from clenching, grinding and associated discomforts. At the very least this technique can be used to familiarize the patient with the concept of a lab-made bruxism devices and to assist in the longer term restorative treatment until the treatment is complete and here after.

Beyond these advantages, a quick chair-side bruxism guard can be delivered inexpensively and if necessary, replaced in the same manner. Patients find wearing the thermoplastic guard non-

invasive, safe and easy to get used to. Once patients recognize their bruxism appliance, they can make an immediate decision with the dental practitioner to immediately fabricate a Temp Tab Night 'n Day Guard. **OH**

Products and Technique by ALL DENTAL PRODX, LLC.

Dr. Glazer is an Attending Dentist at the Englewood Hospital (Englewood, NJ). Additionally, Dr. Glazer is the Deputy Chief Forensic Dental Consultant to the Office of Chief Medical Examiner, City of New York. He maintains a general practice in Fort Lee, NJ.

Oral Health welcomes this original article

**Be sure to
visit our website
www.oralhealthjournal.com**