

HEALTH

## DENTISTRY ADVANCES YOU CAN SMILE ABOUT

by Cynthia Bollinger and Kathelene Williams-Turk, DDS

ALL PARENTS WANT their children to have beautiful, healthy smiles, not only for their overall health, but also for their emotional wellbeing. Advances in dentistry have provided several new options for creating stunning smiles. But with all of the advertising and information on the Internet, it's easy to become overwhelmed. In addition, many dentists advertise procedures that traditionally have been provided by specialists, so it's difficult to determine whether to consult with a general dentist or a specialist for certain types of services.

Some of the most widely advertised types of services include clear aligners for orthodontics, such as Clear Correct and Invisalign, dental implants for replacing lost or missing teeth, and numerous methods of tooth whitening for stained or discolored teeth. Manufacturers have created demand for these services by advertising directly to consumers. But it's important to keep in mind that advertising is intended to sell products or services and rarely provides complete information, including potential drawbacks.

Let's take orthodontics. Most parents consider it essential for their children to have straight teeth. Advertising in recent years has created an expectation that teeth now can be straightened

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utilizing clear aligners which are much more esthetic than metal braces. If you're considering braces versus clear aligners to straighten your child's teeth, you want the most effective treatment possible. But how do you know which is best? The best advice is to consult with an orthodontist for an evaluation of your individual situation; however, a comparison of the advantages and disadvantages

of braces and clear aligners can be beneficial in preparation for your initial consultation.

Both braces and aligners are designed to straighten teeth. Braces are either metal or clear brackets, tied together with wires and tiny rubber bands. Clear brackets have the advantage of being less visible, but metal brackets are more durable. Children in contact sports are usually better off with metal brackets which are less likely to break upon impact. Braces are considered the gold standard for complex orthodontic cases, correcting rotated teeth, or making tooth roots parallel when extractions are involved. Also, if your child does not have the discipline to wear removable appliances, braces are a more effective option.

Clear aligners are ideal for mild to moderate crowding of the teeth, and they are more esthetic than braces. They're removed for eating and brushing, which can be an advantage in terms of hygiene. Therapy with aligners consists of a series of computer generated plastic trays designed to move the teeth. Each aligner is

slightly different than the preceding one, moving the teeth progressively into better alignment. However, they do not provide the force necessary for severe crowding, realignment of the jaws or changing some bite relationships, so patients with these issues need traditional treatment with braces.

Diagnosis of the problems with the position of the teeth and jaws is the most important fact in selecting the ideal treatment. Although many general dentists provide aligners, orthodontists are the most qualified to properly diagnose your child's situation and determine whether aligners or braces would be more effective. As the specialists in straightening teeth and aligning the jaws, orthodontists have an additional two to three years of education beyond dental school. They also have extensive experience providing orthodontic treatment on a daily basis, as opposed to treating these problems on an occasional basis.

Another widely advertised procedure is dental



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implant treatment for replacing lost or missing teeth. If your child has congenitally missing teeth or loses a tooth due to an injury, this is the best long-term solution to replace these teeth; however, several factors must be considered when treating children who are still growing.

To appreciate the benefits of dental implant treatment, it's important to understand that dental implants are substitute tooth roots that

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32 NWMOMMagazine.com Summer 2015 NWMOMMagazine.com 33

serve virtually the same function as natural tooth roots. Dental implants prevent the deterioration of bone that occurs naturally when teeth are lost or removed and provide a strong foundation for replacement teeth that look, feel, and function like natural teeth. No other treatment option preserves bone. Additionally, there is no compromise to the health of the adjacent teeth as with other methods of tooth replacement, and dental implant treatment has superior long-term results compared to other treatment options.

Since dental implants are designed to last a lifetime, with a documented success rate of over 95% for 40+ years, they offer the best long-term solution for tooth replacement. This is also the most cost effective treatment option long term, as there is usually no additional treatment necessary. In contrast, tooth-supported bridges typically require revisions or complete replacement every 10 years, according to the American Dental Association. Therefore, most parents would prefer dental implant treatment for their children rather than having healthy teeth cut down for a bridge and facing periodic revisions and replacement over time.

The challenge with dental implants for children and teens is that dental implants fuse to the bone and do not accommodate and move with jaw growth the way natural teeth do. As the upper jaw grows, it tends to move forward and downward. Natural teeth will adjust to

this movement accordingly, but dental implants remain stationary. Therefore,

the implant and crown attached to it will not remain in the same position relative to the natural teeth, and the gum tissue around the implant will not follow the growth of the bone. The result is a less than ideal esthetic outcome. For this reason, most specialists recommend waiting to place dental implants until the growth of the jaws and face is complete. There are options for replacing the missing teeth temporarily until dental implants can be placed; these

should be discussed with an experienced specialist.

As with all dental treatment, the diagnosis and treatment planning phase is critical

to achieve the ideal outcome with dental

implants. A surgical specialist is the most

qualified to evaluate the placement of dental implants. Oral surgeons and periodontists have extensive training and experience with surgical procedures, including surgical residency programs beyond dental school. While general dentists may place dental implants, they do not have the training and experience of surgical specialists, particularly in terms of diagnosis and management of potential surgical complications. The best results are achieved when a surgical specialist and a restorative dentist work as a team to provide treatment, with each doctor focusing on specific areas of expertise.

A less complex treatment that is also widely advertised is tooth whitening. Manufacturers and dentists promote everything from custom bleaching trays to lasers to whitening strips and toothpastes, leaving consumers ill-equipped to make a decision on the best option for their situation. For instances, Zoom is heavily advertised, and yet the American Dental Association has stated that studies do not demonstrate any additional long-term benefit from light-activated systems. Teeth simply appear whiter temporarily because they have been dehydrated. Compounding the issue is the focus on celebrities with their bright white smiles and the impact this has on children and teens, causing them to want whiter teeth.

A few basics can help parents make their children feel good about the appearance of their teeth. First of all, primary teeth are whiter than permanent teeth, so naturally the permanent teeth appear slightly darker or more yellow. Secondly, diet is important. Acidic drinks can wear away the enamel, causing the teeth to look darker, just as certain types of beverages and food stain teeth. Sugary sodas and energy drinks should be avoided. Even some healthy foods, such as berries can stain teeth. Poor hygiene also plays a role in the appearance of teeth. Children should be encouraged to develop and maintain good oral hygiene habits, brushing and flossing after meals. Whitening toothpastes are abrasive and the use of these products should be avoided as they basically erode the enamel.

Between the ages of 16 and 18, teeth have developed to the point where it is possible to consider whitening that is closely supervised. Prior to this age, it is possible to damage the teeth with bleaching. Your dentist may recommend using whitening strips or custom trays with low concentration bleaching kits that



Between the ages of 16 and 18, teeth have developed to the point where it is possible to consider whitening that is closely supervised. can be used at home. Keep in mind that if their hygiene is poor, or if your teens refuse to give up soda and energy drinks, bleaching is not recommended. The desire to have a whiter smile can actually motivate teens to take better care of their teeth and improve their nutrition.

By knowing where to do your research and by seeking the advice of the specialists in your community who work as a team with your general dentist, it's possible to obtain the highest quality dental care for your children. We recommend visiting mylifemysmile.org for more information on orthodontics and thedentalimplantguide.org for comprehensive information about dental implants. To read the American Dental Association's Statement on the Safety and Effectiveness of Tooth Whitening Products, visit ada.org.

## ABOUT THE AUTHORS

As a pioneer in the field of patient education on dental implants, Ms. Cynthia Bollinger has been creating tools and resources for patients since 1988. She is the Director of the Institute for Dental Implant Awareness (IDIA), a nonprofit consumer awareness organization. The IDIA, under her direction, has developed a comprehensive patient education website on dental implants, as well as numerous patient education resources. She has also authored a number of articles for various publications. Over the past three decades, Ms. Bollinger has worked with hundreds of doctors and their staff members throughout the country on effective patient education in their practices. She has also been instrumental in developing training programs and patient education materials for several dental implant companies. She is a national and international lecturer on patient education, implant practice management, and the role of the Implant Coordinator.

After obtaining her DDS (Doctor of Dental Surgery) degree at the University of Colorado School of Dentistry, Dr. Williams-Turk spent two additional years in advanced dental residency programs affiliated with Denver General Hospital and Sepulveda (California) VA Hospital. She gained advanced training and experience treating a wide variety of patients including trauma victims, critically ill patients, and those with complex dental needs in a comprehensive manner—similar to post-doctoral education. Dr. Williams-Turk pursues a high level of continuing education in diagnosing and treatment of a full range of complex dental issues. She is actively involved in a number of study clubs focused on complex dental implant reconstruction. Dr. Williams-Turk recently co-authored an article for Dear Doctor magazine on dental implants. Her practice in Solvang, California, provides comprehensive dentistry.

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