

Is It Safe to Whiten My Child's Teeth?

BY DR. MARURI



AS OUR SOCIETY GROWS MORE AND MORE ESTHETICALLY conscious, I have had several parents ask me if it is safe to whiten their child's teeth. A recent study showed that 32% of children and 19% of these children's parents were dissatisfied with their tooth color, while only 9% of dentists felt these subjects had an unsatisfactory color. This push for super white (what I refer to as toilet bowl white teeth) is no surprise given that pharmaceutical companies invest twice as much into marketing than research. Over the counter (OTC) tooth whitening is a \$2 billion a year industry, and is rapidly growing. To better answer the safety of tooth whitening, we need to better understand the different ways one can whiten their smile.

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- Whitening toothpastes will either contain an abrasive agent to mechanically remove surface stains and increase the whiteness of teeth, and/or a low concentration bleaching agent to slowly bleach teeth over time. While abrasive pastes will "scrub" teeth clean and make them look whiter, they will also abrade teeth and wear away the enamel much faster than regular toothpastes. The low concentration bleach containing toothpastes will have a minimal effect and most of the whitening comes from the mechanical abrasion on the teeth.
- Whitening strips are filled with 5-15% hydrogen peroxide (HP) and are worn for 5-60 minutes. Approximately 28 days of use are needed to get clinical significant whitening (increase of four shades or more on the Vita shade guide).
- Custom-made (by your dentist), at-home bleaching trays contain 5-20% carbomide peroxide (CP) gel and are worn at night for one to two weeks. CP is a much more stable molecule than HP and therefore continues to work for several hours after application. Also the gel, unlike the strips, can better reach into interproximal areas (area in-between teeth)
- Whitening rinses generally contain a low concentration of HP, 1.5%. Studies have shown that systems utilizing trays are much more effective than rinses. Studies show that whitening observed with rinses are not clinically significant.

So are any of these techniques safe for children? Few studies have been performed on the safety of whitening children's teeth (for ethical reasons). Though the American Academy of Pediatric Dentist encourages the judicious use of bleaching in adolescent patients and discourages full-arch cosmetic bleaching for patients with mixed or primary dentition (if baby teeth are still present). The reason is that primary teeth have thinner enamel and larger pulp chambers than permanent teeth. Therefore bleaching agents can better enter into the pulps of these teeth and cause sensitivity.

Also, primary teeth are naturally more white than permanent. So there is no reason to worry when your child first set of permanent teeth appears to be darker than the rest of the arch. It is better to wait until all permanent teeth are fully erupted (usually around age 11-13) and be under the supervision of your dentist before you attempt any form of tooth whitening on your child.

Dr. Maruri is an esthetically and functionally focused orthodontist in Plantation. He offers several treatment options to meet the unique needs of his patients, including traditional metal, clear ceramic braces, lingual braces, Invisalign, and Invisalign Teen. To schedule an appointment, contact Dr. Maruri at Clear Orthodontic Solutions at 954-473-6900. For information, visit www.DrMaruriOrtho.com. The office is located behind the Fountains Plaza at 815 S. University Dr., Suite 100, in Plantation.



Choosing the Right Specialist for an ACL Rupture

DR. AL DESIMONE



ANTERIOR CRUCIATE LIGAMENT (ACL) RUPTURES remain one of the most devastating injuries to the young competitive athlete. The ACL is the major supporting ligament within the knee joint providing stability to the knee during running, cutting and twisting sports. Though a traumatic collision with another athlete can cause a rupture to the ACL, a sudden alteration in speed and/or change in direction can also predispose an athlete to this injury.

The athlete will often describe a loud popping sensation within the knee joint and experience severe pain, swelling and weakness combined with an inability to ambulate. Diagnosis is usually made by obtaining a proper history of injury and by performing a thorough clinical examination of the involved knee. X-rays and MRIs are extremely beneficial during this evaluation and will often help rule-out concomitant injuries to the adjacent ligaments, menisci and/or cartilage.

The goal of treatment is to return the athlete back to his or her prior level of activity, including competitive sports. Rarely, one may consider conservative/non-operative treatment for those patients that are extremely sedentary and inactive in athletics. In this incidence, treatment may include rehabilitation, bracing and restriction to certain activities. For those individuals who are competitive athletes and participate in high-demand twisting sports, surgical ACL reconstruction is the treatment of choice.



Over the last several years, I have seen numerous patients with surgical failures from prior ACL reconstructions that have been referred to my office for further consultation and revision surgery. Having performed over 1,700 Anterior Cruciate Ligament reconstructions and over 200 revision surgical procedures, I remain convinced that this procedure is extremely technical and should be treated with state-of-the-art surgical technique and attention to detail. Though re-injury may be a common cause of failure subsequent to ACL reconstruction, technique related failures are commonly seen and can often occur from improper graft selection, tunnel placement, graft tensioning, and/or methods of fixation. Timing of surgery and proper postoperative instructions, including return to athletics, also play a significant role in prevention of re-injury. In concordance with the literature barring any anatomical or growth related considerations, I prefer to utilize bone-patella tendon-bone autograft for the young, high-demand athlete.

Treatment of an Anterior Cruciate Ligament rupture continues to be a challenging problem for the high school, collegiate and community athletes. It is imperative that young individuals (and parents) understand the importance of pursuing treatment by an experienced surgeon, preferably with a subspecialty interest in knee ligament reconstruction. Failure to do so may predispose an athlete to additional surgery and prevent return to sports in a timely manner.

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