

# Erbium lasers in pediatric dentistry

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**Fig. 1** Upper labial frenum with deep papillary insertion at the palatal site, in a 9-year-old child.

**Fig. 2** Er:YAG laser labial frenectomy.

## Introduction

Taking care of a pediatric patient's oral health is a challenging task, but one that can be exceptionally rewarding. Providing a positive experience to children enables them to have a trusting, long-term relationship with a dental professional. Combining skill, knowledge and cutting-edge diagnostic and operative technologies help to guide children toward a lifetime of good oral health. Among the many motivational, diagnostic and operative innovations to consider, one must include lasers. Laser technology in pediatric dentistry today is a new treatment modality for children and teens; it represents an alternative instrument that sometimes complements, and at other times substitutes for traditional techniques. Laser treatment of hard and soft tissues allows for a more

comfortable and minimally invasive intervention. In addition to the use of high technology, the psychological effect on the child represents an important benefit which may positively influence the acceptance of subsequent dental treatments.

Several of the factors that make laser therapy an elective procedure in pediatric dentistry are:

- Its minimally invasive nature, with more affinity for carious tissue (higher water content);
- Higher safety, because it does not use rotating instruments or blades in a small mouth (which can move unpredictably);
- It is more comfortable for the patient due to the lack of direct contact and vibration on the tissue surface;
- It is more acceptable because in many cases the use of local anaesthetics can be avoided;