

SCIENTIFIC BACKGROUND

Toothfriendly pacifiers

Preventing open bite by
choosing the optimal
soother



Soothers with a smile

Pacifier use is prevalent in most countries and does not alter the dentition if stopped by the age of two. To minimize the risk of open bite, pediatric dentists recommend the use of orthodontic pacifiers.

Infants are born with a natural sucking reflex, and it is common for this reflex to evolve into a comforting behavior.

The sooner a child stops sucking on a finger, thumb, or pacifier, the better for the incoming permanent teeth. If the sucking habit is weaned by the age of two, the teeth naturally begin moving back to their normal positions.

Thumb-sucking, finger-sucking, and pacifier use after the age of three is known to cause a harmful effect on the developing dentition. The most notable changes are an increase in the prevalence of an anterior open bite, posterior cross bite, narrow

intercuspid width of the maxillary arch, and a high narrow palate. If the pacifier is used beyond the age of five, the effects became more severe: discomfort when chewing or biting, as well as speech problems, including the development of a lisp.

It is often easier to wean a child from pacifier use than from thumb- or finger-sucking. For this reason, many pediatricians and pediatric dentists specifically recommend pacifier use. When choosing a pacifier, thinly shaped orthodontic pacifiers minimize the risk of harmful results.

Studies have shown that orthodontic pacifiers cause less open bite than traditional round ones. The best line

of defense against dental damage, however, is to quit pacifier use altogether after child's second year, even if it is an orthodontic pacifier.

Orthodontic pacifiers

Orthodontic pacifiers are designed to prevent the misalignment of teeth.

From the dental point of view, an optimally shaped pacifier is flat and exerts minimal pressure on its surrounding. The best result is obtained if the shaft is angled upwards and is as thin as possible. Furthermore, the pacifier should not hinder the natural position of the tongue: it should be scooped out to fit comfortably in

Toothfriendly pacifiers



Picture 1. Regular pacifier (left) vs. orthodontic Dentistar pacifier (right).

the palate mould and leave maximum space for the tongue.

The pacifier study

The University of Witten/Herdecke in Germany conducted a three-year study to investigate the effects of pacifier use. Over 120 newborn babies were assessed for the study and divided into three groups. One group were given ordinary pacifiers, another group were given the specially formed orthodontic pacifier („Dentistar“) and the third group, which was the “control group”, used no soothers at all. In the study, newborn babies were checked to see if

they had developed an anterior open bite. In the group of children who had used ordinary pacifiers 38 % developed an open bite, versus 5% in the group using specially formed pacifiers. When the results of the group with the specially formed pacifier were compared to those of the ‘pacifier-free’ control group, hardly any differences were found.

Based on the study data, the orthodontic pacifier „Dentistar“ caused significantly fewer anterior open bites in 16 month old children than a commonly used one and it’s use did not show a statistically significant difference from no pacifier use.

What is malocclusion?

A malocclusion is a misalignment or incorrect relation of the teeth as the jaws close. Severe malocclusions may require orthodontic and sometimes surgical treatment to correct the problem. This may reduce risk of tooth decay and help relieve excessive pressure on the jaw. Orthodontic treatment is also popular for aesthetic reasons.

References

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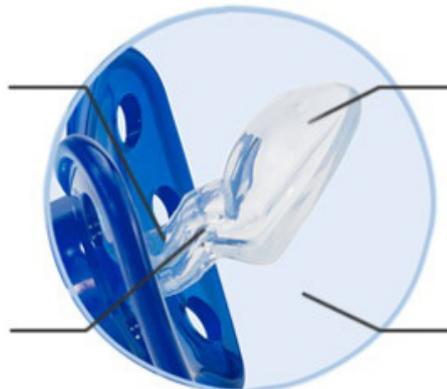
The characteristics of an orthodontic pacifier

Extra flat shaft

Pressure on teeth and jaw is reduced with an extra flat shaft.

Integrated dental step

Distance between upper and lower front teeth can be minimized by shaping the shaft with a „step“.



More room for the tongue

Orthodontic pacifiers should be fitted to the shape of the gum and have an upward angle, leaving extra space for the natural movement of the tongue. This helps to avoid tongue deformation.

Small size

As the front gum area in which the pacifier moves hardly grows over the years, the pacifier size should be kept small even for toddlers.