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<u>TOP</u> > <u>Available Issues</u> > <u>Table of Contents</u> > Abstract	

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## **Pressure on Anterior Region of Palate during Thumb-Sucking**

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**Abstract:** Measurement of the pressure applied to the anterior region of the palate and incisor region of the mandible during thumb-sucking was carried out 3 female children. A polyethylene bag embedded with a high-sensitivity small pressure sensor was fixed on the ventral side of the thumb so that the baroreceptor could be interposed between the thumb and palate during thumb-sucking. The children were allowed to perform habitual thumb-sucking, and the resulting pressure signals were detected with a high-response dynamic strainmeter and recorded. Measured peak pressures were about 2-4.5kgw, with large individual variation, and waveform patterns also varied. Characteristics of thumb-sucking habits and thumb-sucking pressure were related to malocclusion. Measurement of thumb-sucking pressure is believed to be effective for assessment of the qualitative relationship between thumb-sucking and malocclusion.

**Key words:** Oral habit, Finger-sucking, Thumb-sucking, Pressure, Pressure sensor

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