A COMPARISON BETWEEN TWO WAYS OF RELINING WITH SOFT DENTURE LINING MATERIALS

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SUMMARY:

Various methods have been described for controlling the thickness of soft denture lining materials. However the procedure described in this article has certain advantages.

This study reveals the benefit of using a vacuum-formed spacer, because it permits a long- term soft lining with uniform thickness for brand new, old, complete or partial dentures.

Key words: vacuum-formed spacer, lining materials

INTRODUCTION:

There are different suggestions about the denture liner thickness. Although they varify, depending on the material, used for this purpose, the recommended thickness is about two mm. Usually as spacers wax, self- curing resin,putty silicones etc. are used. Soon these methods reveal their lack of accuracy and now are considered to be unreliable. The following material describes a simple method for obtaining an uniform thickness of the lining materials, using a vacuum-formed, thermoplastic blank as a spacer.

METHOD AND MATERIALS:

3 complete dentures for the upper jaw and 5 for lower jaw were made. Later on the dentures were cut in the incisors, premolar and molar area and relining thickness was established.the results are shown on tabl.1.

Table 1

No.	Cut area (tooth)	Cut thickness	Deviation	Average value	
1	21	2.23	0.23	With vacuum-formed spacer	**X_1=0.22 mm**
2	25	2.19	0.19		
3	17	2.18	0.18		
4	31	2.28	0.28		
5	21	2.40	0.40	**Without vacuum-formed spacer**	**X_2=0.30 mm**
6	25	2.20	0.20		
7	17	2.27	0.27		
8	31	2.31	0.31		

The results are compared with the recommended thickness of 2 mm.

One must emphersize that in the first method, when new dentures are made the hight of the bite has to be 2 mm. lower than the one clinically obtained. After finishing the dentures in the usual way from PMMA, we open the two parts of the flask, put in the soft lining material and close, but before that we place two 20 st. coins, guarantiing the desered thickness of 2 mm. We wait for the polymerizing process to come to an end and polish (pic. 1).

We would like to draw your attention to the second method. After taking the functional impression and pouring the working cast:

1. Before flasking, we form a thermoplastic blank (SDI) over the cast using a vacuum device “Erko-form” (Erkodent-Germany), (pic.2).

2. After the denture has been flasked and boiled out in the usual manner, place the vacuum-formed spacer in position on the lower cast with a thin sheet of packing plastic between the spacer and the mixed acrylic resin.

3. Tighten the flask in a bench press and leave it for at least two hours. This will allow the acrylic resin to stiffen a little bit.

4. Open the flask and remove the sheet of packing plastic and the spacer.

Pic. 1

Pic. 2

5. Add the unpolymerized soft lining material to the top half of the flask, containing the acrylic resin, press again and wait the end of the polimerization.

6. Open the flask and polish in the usual way.

This method is suitable for either new or old, partial and complete dentures, for upper and lower jaws.

CONCLUSION

There are different methods of obtaining and controling the thickness of the relining materials.The second method has the following advantages:

1. The spacer can be made very fast and very easy.

2. At the same time the distance between the plastic teeth and the mold can be easilly detemined, because the spacer is totally transparent.

3. There is a very little chance of failure, because the soft lining material (Eversoft-Austenal) and the denture base have the similar chemical structure.

4. Fructuring such dentures is very much unlikely, because the thickness is peviously determined and equal everywere.

REFERENCES:

1. Jepson NJA, Mc Cabe JF, Storer R. The clinical serviceability of two permanent denture soft linings. Br Dent J 1994; 177: 11-6

2. Kutay O. Asilicone rubber spacer used to determine the optimum thickness for hard and resilent materials in complete dentures. J Prosth Dent 1993; 69: 329-32.

3. Huband ML. Spacer made from a visible light-cured resin for processing denture soft liners. J Prosth Dent 1992; 68: 542-4

4. Bolouri A. A silicone rubber spacer for processed resilent liner in removable prosthodontics. J Prosth Dent 1987; 57: 117-21.

5. Graham B. S., Jones DW, Thompson JP, Johnson JA. Clinical compliance of two resilent denture liners. J Oral Rehabil, 1990; 17: 157-63.

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