



**UNIVERSIDADE DE SÃO PAULO
FACULDADE DE ODONTOLOGIA**

O uso atual dos
Selantes de Fossas e Fissuras

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Tutora: Daniela Hesse**

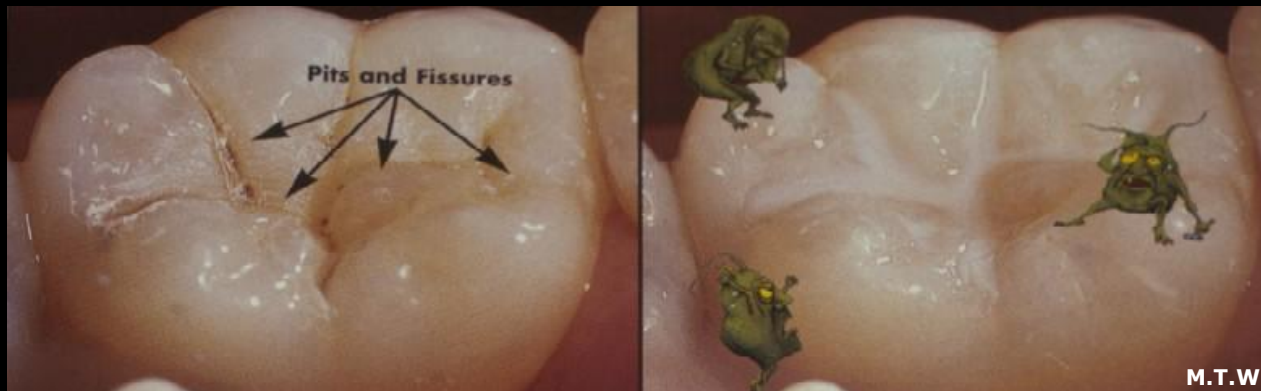


**Selante
de fossas
e fissuras**

CONCEITO

Materiais adesivos que atuam penetrando nas fossas e fissuras, criando uma barreira mecânica nessas superfícies.

(Imparato et al., 2003)



A large, round, light-colored object, possibly a piece of wood or a resin block, is shown. The object has a slightly textured surface and is set against a dark background. Overlaid on the object is the text "Selante Resinoso" in a bold, red, sans-serif font with a white outline.

**Selante
Resinoso**

Selante resinoso

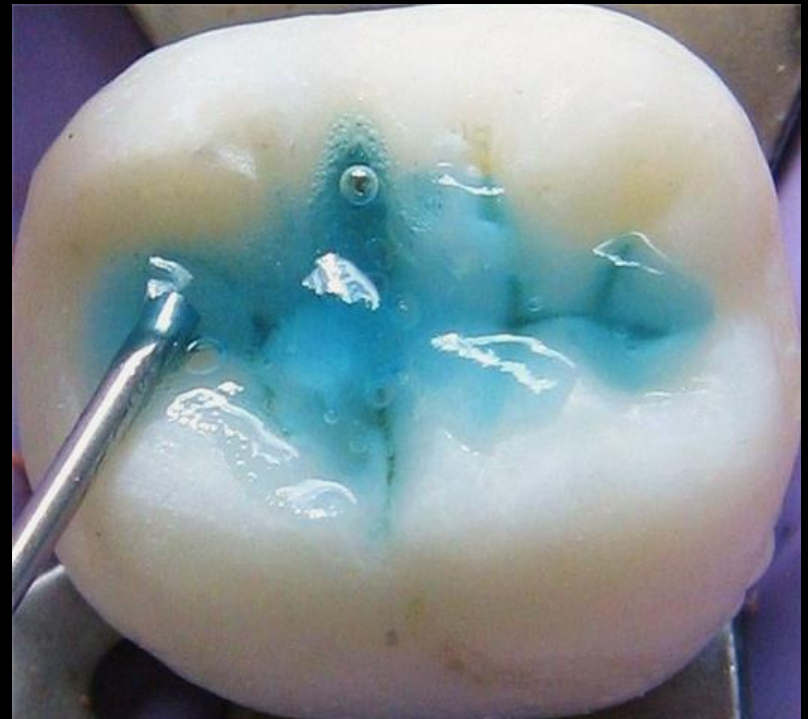


Selante resinoso

Técnica de aplicação



Isolameto absoluto



Condicionamento com ácido fosfórico

Selante resinoso

Técnica de aplicação



Aplicação do selante



Aspecto após fotopolimerização

Selante ionomérico

Selante ionomérico



Selante ionomérico

Técnica de aplicação



Isolamento relativo



Condicionamento com ácido poliacrílico

Selante ionomérico

Técnica de aplicação



Lavagem e secagem com bolinhas de algodão



Aplicação do cimento de ionômero de vidro

DPR

Técnica de aplicação



Técnica da pressão digital com o dedo
vaselinado



Proteção superficial após ajuste
oclusal

Evidências

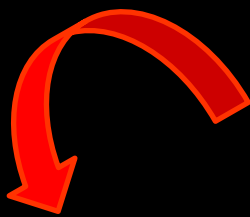
Journal of Oral Science, Vol. 51, No. 3, 373-382, 2009

Original

Caries-preventive effect of glass ionomer and resin-based fissure sealants on permanent teeth: a meta analysis

Veerasamy Yengopal¹, Steffen Mickenautsch¹, Ana C. Bezerra² and Soraya C. Leal²

Abstract: The purpose of this quantitative systematic review was to appraise the evidence on the caries-preventive effect of glass ionomer cement (GIC) in relation to resin-based fissure sealants. Nine English and two Portuguese databases were searched (15 January 2008). Randomized clinical trials and systematic reviews were considered for inclusion. Trial exclusion criteria were: drop-out rates > 33%; no randomization; baseline differences in groups not statistically adjusted; and no clinically important outcomes were presented. Two authors reviewed the articles independently. The outcome measure for the caries preventive effect was caries absence on sealed teeth. Of the 112 identified articles, 25 were selected for review. Of these, 14 were excluded and 11 accepted (8 trials; 3 systematic reviews). The accepted reviews provided no evidence of superiority of either sealant material. Six trials were included for meta-analysis. The pooled odds ratio was 0.96, 95% CI 0.62-1.49, indicating no difference in the caries-preventive effect of GIC and resin-based fissure sealant material. This systematic review with meta-analysis found no evidence that either material was superior to the other in the prevention of dental caries. Thus, both materials appear equally suitable for clinical application as a fissure sealant material. (J Oral Sci 51, 373-382, 2009)



Os dois tipos de selantes (CIV e resinoso) apresentam-se igualmente adequados para o uso clínico como selantes de fossas e fissuras

Selantes de fossas e fissuras

Qual a real função dos selantes?

Preventivo



Terapêutico

Qual a real função dos selantes?

Caries Res. 2010;44(1):3-13. Epub 2009 Dec 31.

Sealants in dentistry: outcomes of the ORCA Saturday Afternoon Symposium 2007.

Splieth CH, Ekstrand KR, Alkilzy M, Clarkson J, Meyer-Lueckel H, Martignon S, Paris S, Pitts NB, Ricketts DN, van Loveren C.

Department of Preventive and Pediatric Dentistry, Ernst Moritz Arndt University, Greifswald, Germany. splieth@uni-greifswald.de

Abstract

Sealants are a successful tool in caries prevention, but their role in preventive strategies after the caries decline has to be discussed. A survey of paediatric departments across Europe revealed that indications for pit and fissure sealants vary considerably, both nationally and internationally. Evidence for effectiveness of sealants in controlling caries in posterior teeth implies that sealants should be an integrated part of management of pit and fissure caries. Still, the indication for occlusal sealants seems to be shifting from primary prevention to a therapeutic decision for caries management of lesions in enamel and the outer part of the dentine. Sealants are also an interesting concept for caries management in approximal surfaces. Clinical trials suggest that novel techniques of sealing or infiltrating approximal lesions show promise. However, approximal sealing techniques are as complex to apply and time-consuming as approximal fillings. The article proposes guidelines for teaching on the use of sealants.

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A indicação dos selantes parece estar mudando da prevenção primária para decisão terapêutica no manejo da cárie dentária, em lesões de esmalte e dentina superficial

Selantes de fossas e fissuras

Qual a real função dos selantes?

[J Public Health Dent](#). 1995 Summer;55(3):148-53.

Longitudinal evaluation of sealing molars with and without incipient dental caries in a public health program.

[Heller KE](#), [Reed SG](#), [Bruner FW](#), [Eklund SA](#), [Burt BA](#).

Program in Dental Public Health, School of Public Health, University of Michigan, Ann Arbor 48109-2029, USA.

Abstract

OBJECTIVES: This study undertook a retrospective evaluation of the effect of sealants on the caries experience of initially sound and incipient permanent first molar pit and fissure surfaces. **METHODS:** Records of children with complete five-year records were obtained from a school-based dental sealant program in a fluoridated community. Sealants were placed on 677 tooth surfaces in 96 children; 120 tooth surfaces in 17 children who received baseline examinations were not sealed because of lack of caregiver consent. Tooth surfaces were initially diagnosed as being sound or having incipient lesions, and evaluated for caries status after five years. **RESULTS:** For initially incipient surfaces the five-year decay rate was 10.8 percent (41 of 380 surfaces) for sealed surfaces and 51.8 percent (29 of 56 surfaces) for nonsealed surfaces with an odds ratio of 8.88 (95% CI = 4.56, 17.35). Initially sound surfaces had a decay rate of 8.1 percent (24 of 297 surfaces) for sealed surfaces and 12.5 percent (8 of 64 surfaces) for nonsealed surfaces with an odds ratio of 1.63 (95% CI = 0.63, 4.08). The two odds ratios were significantly different. **CONCLUSIONS:** Initially sound tooth surfaces were unlikely to become decayed in five years, and did not benefit greatly from the application of sealants. Within the limitations of this study, there were clear efficiencies in sealing incipient, but not sound, surfaces. The targeting of teeth with incipient caries for sealants is therefore recommended.

PMID: 7562727 [PubMed - indexed for MEDLINE]

[+](#) Publication Types, MeSH Terms, Substances, Grant Support

[+](#) LinkOut - more resources

**Os selantes são claramente efetivos, mas sobre lesões de cárie, não sobre dentes saudáveis.
Portanto, o selante tem função terapêutica.**

Selantes de fossas e fissuras



**AAPD - American Academy of Pediatric Dentistry.
Guideline on pediatric restorative dentistry. Pediatr Dent 2008;30(7 Suppl):163-9**

O selamento de lesões cáries incipientes foi recomendado mediante diagnóstico e monitoramento adequados.

Mas e as lesões
atingindo dentina?



Selantes de fossas e fissuras

Atualmente



Lesão de cárie oclusal com microcavidade



Radiograficamente em metade externa de dentina



Remoção parcial de tecido cariado



Aplicação de selante resinoso



Selantes de fossas e fissuras

Selamento de lesões de cárie em dentina de dentes decíduos

Dissertação apresentada à Faculdade de Odontologia da
Universidade de São Paulo para concorrer ao Título Mestre
pela Disciplina de Odontopediatria do Departamento de
Ortodontia e Odontopediatria

Daniela Hesse

Selantes de fossas e fissuras

Seqüência clínica



Aspecto clínico inicial

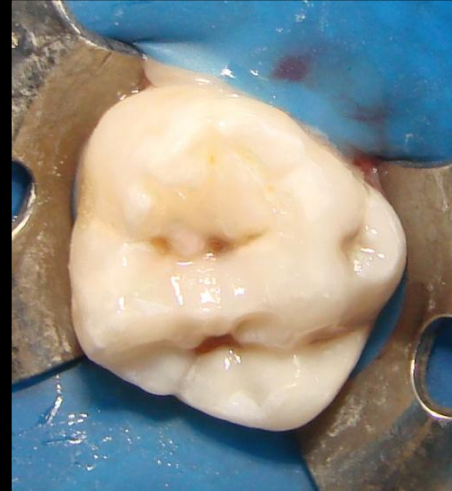


Aspecto radiográfico inicial

Selantes de fossas e fissuras



Condicionamento com ácido fosfórico



Aplicação de sistema adesivo











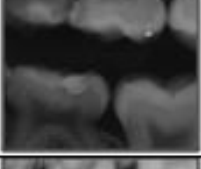



Aplicação do selante



Aspecto após fotopolimerização

Selantes de fossas e fissuras

Figure 2 - Clinical and radiograph examples on two patients at baseline, 6, 12 and 18 month assessments.

	Case 1 (control group)	Case 2 (experimental group)
Baseline		
After treatment		
Baseline		
6 months		
12 months		
18 months		



Não houve evidências clínicas ou radiográficas de progressão das lesões após 18 meses de acompanhamento

Selantes de fossas e fissuras



Aspecto clínico
após 18 meses



Rx inicial



Rx 18 meses
acompanhamento

CONCLUSÕES

Apesar de se observar falhas clinicamente, o selamento de lesões de cárie oclusais em metade externa de dentina de dentes decíduos, desde que reparado, atuou positivamente na paralisação das lesões.