



## Periodontal Dressing: A Mini Review

**Shashank Garg<sup>1\*</sup>, Amit Wadhawan<sup>2</sup>, Prashant Tyagi<sup>3</sup>, Rajnandini Adhikary<sup>4</sup>, Prerna Mohan<sup>4</sup> and Nancy Goel<sup>1</sup>**

<sup>1</sup>PG Student, Shree Bankey Bihari Dental College, Ghaziabad, Uttar Pradesh, India

<sup>2</sup>Professor and Head, Shree Bankey Bihari Dental College, Ghaziabad, Uttar Pradesh, India

<sup>3</sup>Professor, Shree Bankey Bihari Dental College, Ghaziabad, Uttar Pradesh, India

<sup>4</sup>Senior Lecturer, Shree Bankey Bihari Dental College, Ghaziabad, Uttar Pradesh, India

**\*Corresponding Author:** Shashank Garg; PG Student, Shree Bankey Bihari Dental College, Ghaziabad, Uttar Pradesh, India.

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### Abstract

Surgical wound dressings have been used over for the purpose of protection of surgical wounds, to prevent postoperative infection and to promote wound healing. Periodontal dressings, also known as periodontal packs, are able to provide similar beneficial effects as when they are applied after surgery. They can be categorized as eugenol-based dressings and noneugenol dressings. Many modifications have been made to improve their physical and therapeutic properties. The purpose of this paper is to review the periodontal dressings and their physical and chemical properties.

**Keywords:** Eugenol Dressings; Non-Eugenol Dressings; Wound Healing

### Introduction

Wound healing is a complex and dynamic process of restoring cellular structures and tissue layers. Wound healing can be broadly divided into 3 distinct phases - i.e., inflammatory, proliferative and remodeling [1].

### Types of periodontal dressings

Periodontal dressings are generally grouped into 3 categories: (i) containing zinc oxide and eugenol, (ii) containing zinc oxide without eugenol and (iii) containing neither zinc oxide nor eugenol. The name, type and composition of each of the commercially available dressings have been tabulated in table I.

### Eugenol dressings

The Wondrpak was the first periodontal dressing introduced containing eugenol [1]. It has two components a powder with zinc oxide, powdered pine resin, talc and asbestos and a liquid containing isopropyl alcohol, clove oil, pine resin, pine oil, peanut oil, camphor and coloring materials [2].

Zinc oxide and eugenol dressings are commercially available as a liquid and powder or paste. These are mixed on a waxed paper pad with the help of a wooden tongue depressor or spatula.

### Noneugenol Dressings

Noneugenol dressings are currently the most used periodontal dressings. Commercially available noneugenol dressings include Coe-Pak, Cross Pack, Peripac, Septopack, PerioCare, Perio Putty and Periogenix.

### Modifications

Modifications have been done to enhance the properties of dressings, as described in the following section.

### Dressing and chlorhexidine

Chlorhexidine has antibacterial properties with long-acting role in the oral cavity owing to its substantivity and slow-release properties. In 1989, most periodontal dressings available claimed to have good antimicrobial activity which lost this activity shortly after application. Thus the addition of chlorhexidine to dressings helps to improve their properties.

### Dressing and antibacterial agents

Periodontal dressings help to enhance wound healing and prevent infections, the combinations of antibiotics to dressings has been evaluated.

### Substitutes for dressings

In the year 1975, the use of a methacrylic gel for use as a periodontal dressing was done, and the outcome suggested that the modified methacrylic gel completed all the requirements of a periodontal dressing.

### Benefits of a dressing

The benefits of a dressing can be divided into 2 subgroups: physical benefits and therapeutic benefits.

### Physical effects

They can be used as a stent. A periodontal dressing was used to prevent postoperative hemorrhage and to prevent the wound area from coming in contact with food, concluding that a dressing "has no other virtue."

### Therapeutic effects

According to the A W ward 1 periodontal dressings are used to prevent pain, help from infection to occur and prevents root sensitivity to cold and hot and prevents calculus deposition.

### Retention of packs

A variety of splints and stents are used to help retain periodontal dressings.

### Biological Properties

#### Effects on wound healing

Eugenol free dressings are employed to help prevent the irritation and toxic effect of liquid eugenol .

#### Therapeutic effects of antimicrobial agents in dressings

Eugenol dressings shows a bacteriostatic effect [3] and it alters the plaque composition [4].

### Discussion

Periodontal dressings helps as a physical barrier to help prevent surgical wound from getting contaminated from the food and thus it helps in wound healing and provides a comfort and close adaptation to the wound.

### Conclusion

There appears to be no absolute indication for the use of periodontal dressings after a surgical procedure. However, the literature does elaborate on the benefits of application of a dressing post surgically.

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