





# **VEHICLES FOR ROOT CANAL MEDICAMENTS**

Vehicle, any substance that acts as the medium in which a drug is administered, also known as drug carriers that control the drug release. It can prolong the duration of drug release or can release on specific targeted sites

Ideal vehicles must possess properties-

- **Biocompatibility**
- Easy dentinal penetration
- **Promote disinfection**
- Minimizing toxicity & irritation to periapical tissues.

### Table 1: Bactericidal activity of vehicles against ATCC strains of Str. mutans, Sta. aureus, Fn faecalis and Fs coli

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Vehicles	Str.	Sta.	En.	Es.
	mutans	aureus	faecalis	coli
	(%)	(%)	(%)	(%)
PG	50	100	25	50
Glycerine	100	100	100	100
PEG 400	100	100	100	100
PEG 1000	25	100	100	25
PG+PEG 400	100	100	100	100
PEG=Polyethylene	glycol, PG=Pro	pylene glycol		

## **Aqueous vehicles**

- Saline
- Methylcellulose
- **Ringers lactate**
- anaesthesia



#### **SALINE RINGER SOLUTION**

## **TYPES OF VEHICLES**

## **Viscous Vehicles** Glycerin

- Polyethylene glycol
- Propylene glycol



POLYETHYLENE **GLYCERIN GLYCOL** 

## Oily vehicles

- Oleic acid
- Camphorated monochlorophenol (CMCP)
- Linoeic acid



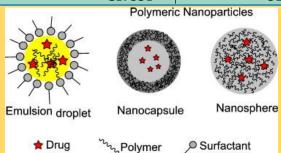




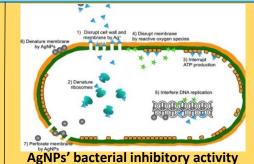


**CHITOSAN** 

**OLEIC ACID** 







REFERENCE- Presannakumar G, Singh P, Vijay L. An Evaluation of the Effect of Different Vehicles on Changes in the ph of Calcium Hydroxide. Cons Dent Endod J 2018;3(2):37-39.

With Jet dispenser

Calcium hydroxide paste delivery

With Direct syringe

Dwi Yani Sastika, Trimurni Abidin, Harry Agusnar, Basri A. Gani. Application of Calcium Hydroxide with Vehicles Relate to the pH Change, Calcium Ion Diffusion, Roughness, and Frequency of Chemical Compound in Root Canal. Research Journal of Pharmacy and Technology. 2022; 15(7):2976-2. doi: 10.52711/0974-360X.2022.00496