Content available at: https://www.ipinnovative.com/open-access-journals

#### International Dental Journal of Student's Research

Journal homepage: https://www.idjsronline.com/



### **Letter to Editor**

# **Anxiety free injection-Dentalvibe**

# Gaurav Gupta<sup>®1,\*</sup>, D.K Gupta<sup>2</sup>, Neeraj Chandra<sup>3</sup>, Parth Shah<sup>4</sup>

- <sup>1</sup>Dept. of Pediatric and Preventive Dentistry, Jaipur Dental College, Jaipur, Rajasthan, India
- <sup>2</sup>Dept. of Oral and Maxillofacial Surgery, Wisdom Dental Clinics, Jaipur, Rajasthan, India
- <sup>3</sup>Dept. of Periodontics, Institute of Dental Sciences, Bareilly, Uttar Pradesh, India
- <sup>4</sup>Dept. of Paediatric and Preventive Dentistry, Saanchi Pediatric Hospital, Surat, Gujarat, India



#### ARTICLE INFO

Article history:
Received 05-05-2023
Accepted 25-05-2023
Available online 01-07-2023

This is an Open Access (OA) journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

When you go for regular dental check-up, you have your teeth inspected. But, these visits don't usually cause, much stress however, millions have severe fear of needles. They have emotional distress getting the shot, then a dentist's visit become terrifying for some. We have been using dentalvibe in our Wisdom dental clinics across all age groups. Our journey with dentalvibe started since last 12years, it has been an integral part of our practice, and patients love how it distracts them from the fear of needle making them more comfortable. We started working with dentalvibe 1<sup>st</sup> generation now we work with its 4<sup>th</sup> generation. The dental vibe is an incredible advancement especially in the field of paediatric dentistry. We are glad the product exists!!

Dentalvibe is a fantastic new technology helping the petrifying patients to smile every day. It keeps you away from the discomfort caused by the shot at dental clinic. It diminishes the anxiety of getting an oral injection by massaging the area around the injection site for better dental visit. The device disrupts the pain signals by utilizing gentle vibrations. "Better instruments mean better patient experience"

E-mail address: dr.gauravgupta99@gmail.com (G. Gupta).

## What are an anxiety free injection/ Dentalvibe?

Millions fear from dental visits and have general anxiety for dental procedures. Most of the people avoid important dental visits because of the fear of dental tools. Especially fear of needles keeps people avoiding vital dental procedures such as root canal, crown, extractions etc. because they require anaesthetic shot.

Dental vibe emerged due to need, in order to help these patients who have injection fear and want less pain. This device desensitizes their gums and diffuses anaesthesia more efficiently.

### How does a Dentalvibe work?

It is shaped like a toothbrush, it doesn't resemble to any pointy or sharp metal tools that generally induce fear. It uses gentle vibrations on the gums caused by the device thereby desensitizing the site. When both vibrations and injection are given simultaneously, signals to the brain are sent by the vibrations, blocking out the pain signal. Additionally, this vibration helps to disperse the anaesthetic over site more quickly. When these two are combined together patient not only get rid from fear of injection and is free from discomfort during the process but might not even realise they have had a shot. (Figure 1a,b)

<sup>\*</sup> Corresponding author.





The process of using DentalVibe is an easy one. At your dental visit, ask your dentist to use DentalVibe. At the time of injection, the dentist will take the small device and place the device tip at the site. The two soft arms of device rest about half an inch apart. These get fitted on the gums on either side of the tooth. The device is turned on, and it starts to vibrate gently. Patient receives the injection at this moment of time; however, no pain is felt as the pain gate is blocked. The dentist continues to use DentalVibe in order to accelerate the spread of anesthesia, and the patient stay calm and relaxed. The whole process is quick as well as painless. (Figure 2)



Fig. 2: Application of local anaesthesia along with dentalvibe

## The science behind

"The gate control theory" Dr. Ronald Melzack and Dr. Patrick Wall's paper "Pain Mechanisms: A New Theory" was described to be as "the most influential in the field of pain." The finding was that the pain sensation is conducted along thin unmyelinated C nerve fibers, traveling at about two meters per second. In contrast, an impulse

like a vibration is conducted rapidly along the thick myelinated A-beta nerve fibres at a rate of 75 meters per second. When these two types of sensations coincide, the vibration sensation first reaches to the sensory area of the brain, releasing inhibitory interneurons, thus preventing the activation of projection neurons in the dorsal horn. This results in closure of the gate, and the sensation of pain is blocked.

### Why does it matter?

Everyone wants a superior dental experience. DentalVibe consistently enables a better dental experience for the people, leading to build a higher trust between patients and dentists for driving better dental care.

Make dental fear and anxiety a thing of past!!

Attract more patients to the clinic and make this dental anxiety a past thing.

Less anxiety = more comfort = more patients = more smiles

As huge population suffers from this dental anxiety from injection shot they keep on skipping the important and recommended dental care thereby, putting their smiles at risk. Researches indicate health of the mouth reflects the health of the body. DentalVibe is a special tool that helps to remove dental fear, allowing the patients to get the dental treatment they need in order to stay healthy. The vibrations caused by the device overloads the nerve that sends pain signals to the brain so that the patient doesn't register the pain. The vibration sound creates an added distraction.

Patients who experience an injection shot with DentalVibe are often unaware at what moment of time the injection shot is actually given. DentalVibe is especially very helpful in reducing dental fear among the paediatric patients. In fact, many patients have said that if such a tool would have been available when they were younger, they would never have dental fear. It makes the appointment less scary, eliminating the dental phobia.

#### **Conflict of Interest**

None.

### Author biography

Gaurav Gupta, Professor Dhttps://orcid.org/0000-0003-3895-059X

D.K Gupta, Senior Consultant

Neeraj Chandra, Senior Lecturer

Parth Shah, Senior Consultant

Cite this article: Gupta G, Gupta DK, Chandra N, Shah P. Anxiety free injection-Dentalvibe. *International Dental Journal of Student's Research* 2023;11(2):90-91.