



Dental Laser Device

SUPERVISOR :

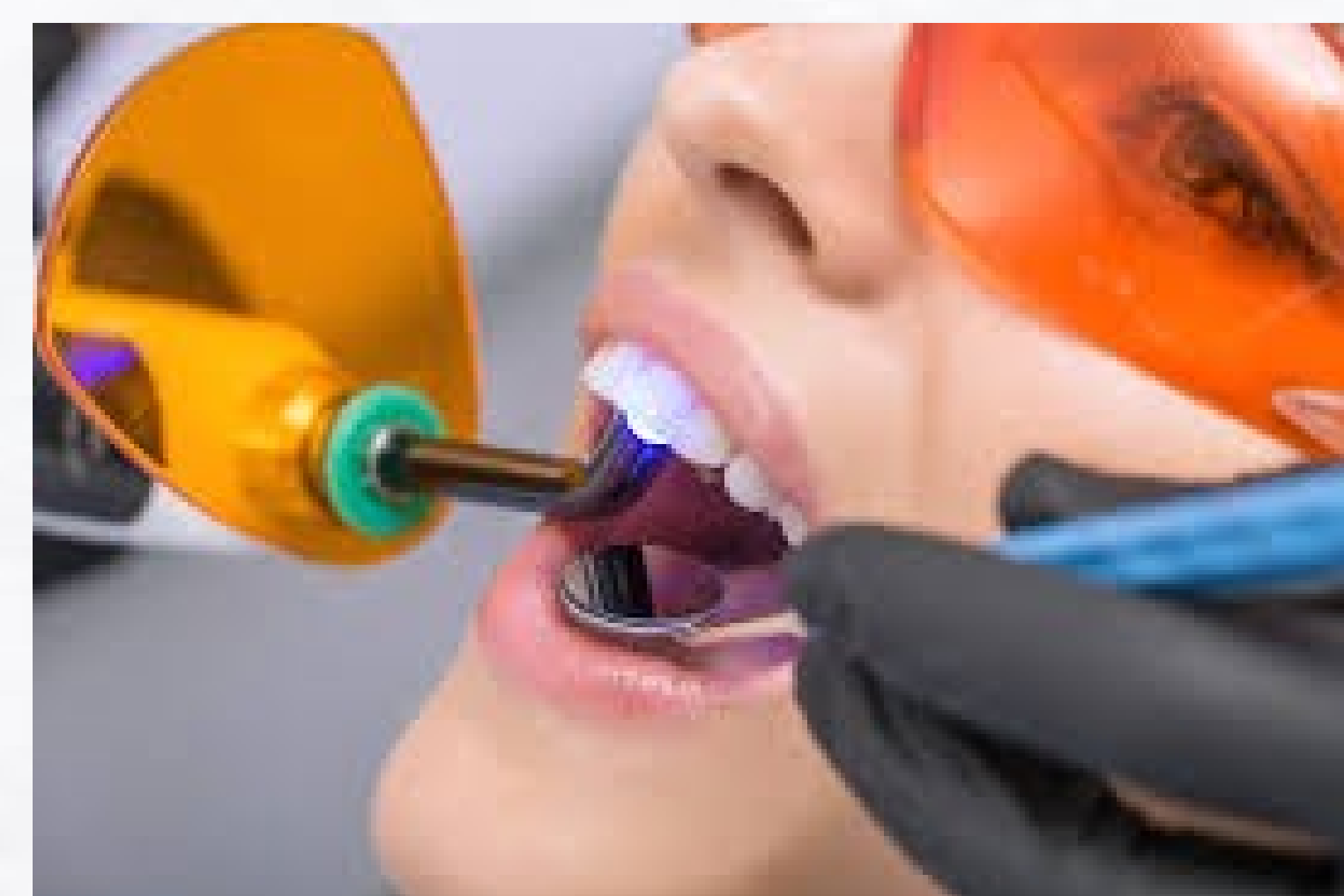
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GROUP :

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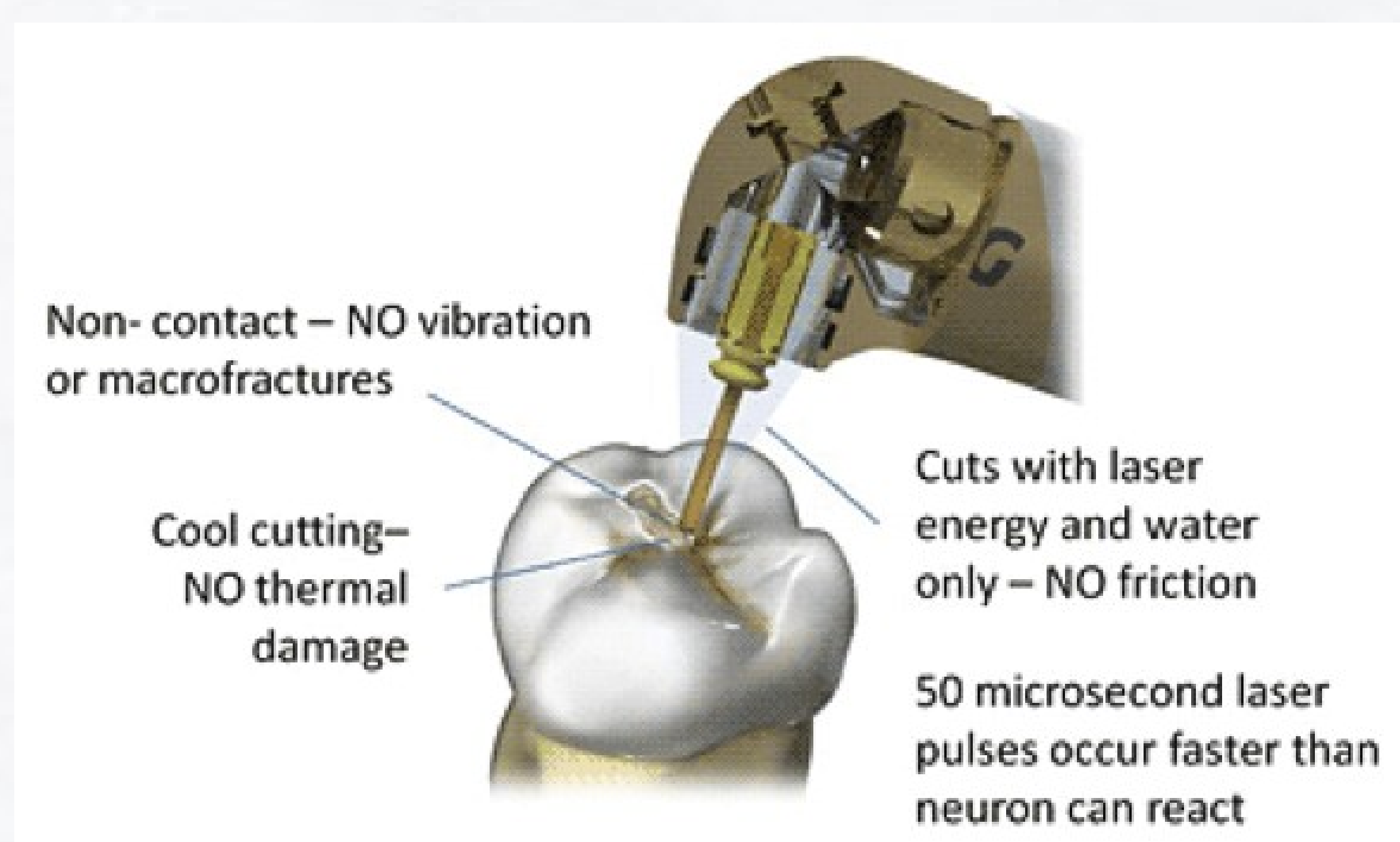
INTRODUCTION :

Lasers provide new powerful tools that is characterized by a bloodless field and applied in most branches of dentistry. There are many types of lasers, such as Gas, Chemical, Dye, Metal-vapor, Solid-state and Semiconductor laser. Each laser type has its own unique features, advantages and disadvantages. While one laser may be suitable for some procedures, it will be unsuitable for others, so it is important for the dentist to have a background information about this technology and its uses in dentistry.



Operation:

All lasers work by delivering energy in the form of light. When used for surgical and dental procedures, the laser acts as a cutting instrument or a vaporizer of tissue that it comes in contact with. When used in teeth-whitening procedures, the laser acts as a heat source and enhances the effect of tooth-bleaching agents.



Uses :

- 1- Tooth decay: Lasers are used to remove decay within a tooth and prepare the surrounding enamel for receipt of the filling.
- 2- Gum disease: Lasers are used to reshape gums and remove bacteria during root canal procedures.
- 3- Biopsy or lesion removal: Lasers can be used to remove a small piece of tissue (called a biopsy) so that it can be examined for cancer. Lasers are also used to remove lesions in the mouth and relieve the pain of canker sores.
- 4- Teeth whitening: Lasers are used to speed up in-office teeth whitening procedures. A peroxide bleaching solution, applied to the tooth surface, is "activated" by laser energy, which speeds up of the whitening process.



Components:

- 1- AC Power Source
- 2- Water Inlet and Outlet
- 3- Leakage Protection
- 4- Main Body
- 5- Emergency Stop
- 6- Laser Arm
- 7- Laser Head
- 8- Control Screen