



Dental Implant Identification System

Unmet Need: Servicing and replacing dental implants is becoming increasingly common and presents unique challenges for dentists. Dental implants are screwed or inserted into bone to provide support for a appliances and prosthetics. As they've proliferated and grown in popularity, the implants have become more diverse and have a wide variety of shapes and sizes. Unfortunately, no standards have been implemented in this field to the extent that there are uncontrolled variations among implants and a proliferation of similar but incompatible systems and designs. Further, out of a survey of 300 implant companies, only three have tracing features in their products and these features are used for internal product control, not for identification of the make and model by a clinician. This creates a significant problem for implant replacement and servicing as dental records are frequently unavailable and providers are forced to guess at the existing implants features based on radiographic appearance. It also creates a problem for identification of an individual if they have been left unrecognizable after injury.

Solution: The US Navy, through the NHRC, San Diego, has been at the forefront of developing technologies to dental surgical procedures and implants. The present innovation addresses the problem of non-invasive identification of dental implants by using a unique set of identifiable markings. Radiopaque markings, for example, on the upper surface of the implant provide information to the provider, including serial number, lot number, model, manufacturer, and the like. This information would allow the implant to be easily replaced with a compatible implant by the provider prior to removal of the original.

Stage of Development: The technology is in the early stages of development.

IP or IP Status: This technology is embodied in US Patent Application 17/872,337 ([US Patent Application 17/872,337](#)).

- **Command:** NMRTC-Pendleton
- **Categories:** Medical Device
- **License Status:** Available for exclusive or non-exclusive licensing and collaborations
- **Date Published:** May 1, 2024
- **Date Updated:** N/A
- **Invention No.:** 113661US02
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