

# Bone and soft tissues regenerator with enhanced technology

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This project aims to design and build a regenerative bone and soft tissues prototype with technology based on physical factors combined with technical and clinical validation. Such equipment may be used for treatments in orthopedic surgery, dermatology, rehabilitation and diseases that are difficult to treat.

The team will work with red and infrared radiation using LEDs and diode laser, ultrasound and electromagnetic fields. It is tested that clinical treatments that use these means, as a principle of action, constitute a viable option to be incorporated in the health system due to their significant clinical effectiveness, short recovery time, reduced drug use and lower cost of care. Thus, the project seeks to contribute to the development and improvement of physical therapy options on the national market.

The clinical validation showed that the combined application of physical factors improve the regenerative action of tissues, even in diseases that are difficult to treat. The results are also the study of the combined action in Dermatology, Neurology, Cardiology, Pulmonology, Gastroenterology, Otorhinolaryngology, Traumatology, Surgery, Endocrinology, Gynecology, Urology, Rehabilitation, and Dentistry for patients of all ages, both chronic and acute care and home care.