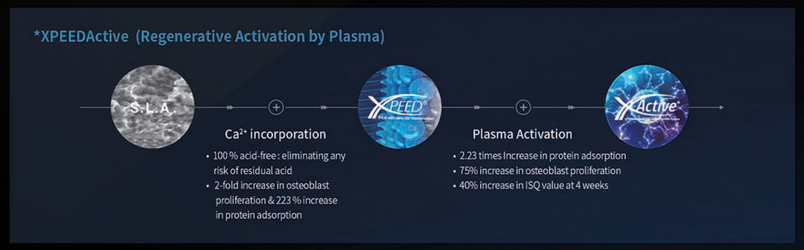
Novel vacuum plasma technology for Regenerative activation of dental implants

Plasma removes hydrocarbons & contaminants from implant surface to increase hydrophilicity & improve osseointegration.

XPEEDActive cycle of Plasma X Motion proven to increase attachment, proliferation, & differentiation of osteoblast cells, as well as protein adsorption.

Plasma X Motion improves performance of implant surface.



Model	Plasma X motion
Size (W*H*D)	169*345*264
Weight	6 kg
Cycle Time	50 sec

Opening a new era for Surface Activation

Plasma X motion

3x Protein adsorption rate **3x** increase

6x Osteoblast proliferation **6x** increase

2x Osseointegration **2x** increase

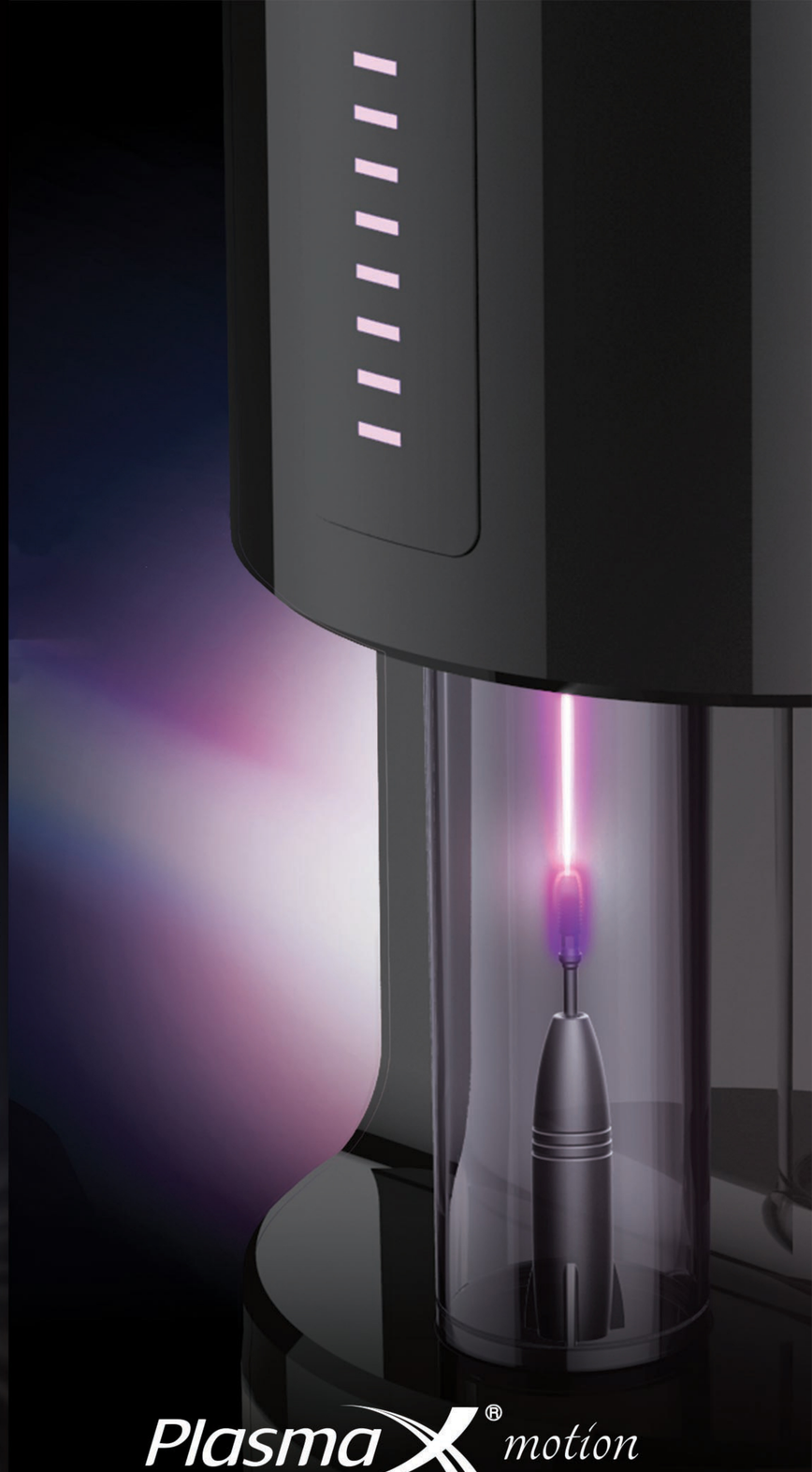
IMPLANT

- Plasma activation available for various implant systems

PROSTHETICS

- 50% increase in cementation force due to surface activation of Zirconia prosthesis
- Crown and abutment both available

MEGAGEN For Lifetime Smiles



Plasma X® motion

MEGAGEN For Lifetime Smiles

APPROVED BY CLEAN IMPLANT

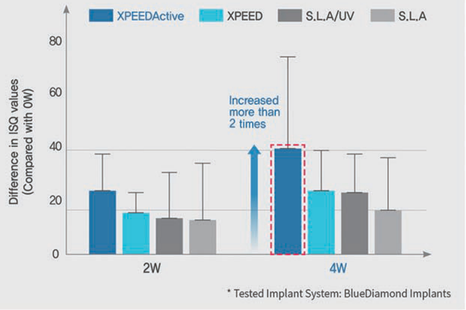
CE MD Medical Device

Regenerative Activator for ALL Types of Implant

MEGA'GEN For Lifetime Smiles

Plasma X® motion

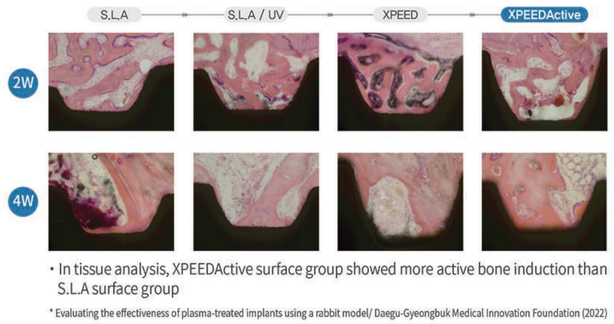
Technologies developed to shorten healing time & enhance stability



* Tested Implant System: BlueDiamond Implants

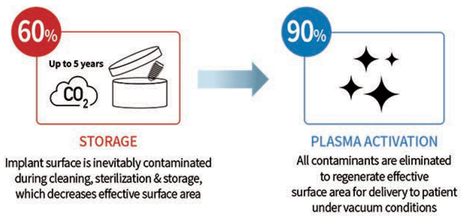
- All showed high ISQ values after 2 weeks
- Largest increase in ISQ value was observed in XPEEDActive group after 4 weeks

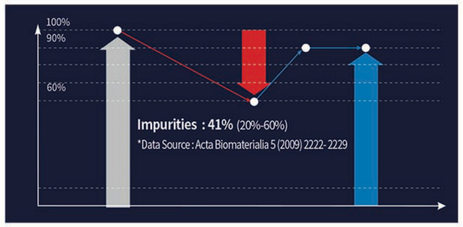
* XPEEDActive: plasma treatment reactivated XPEED implant surface



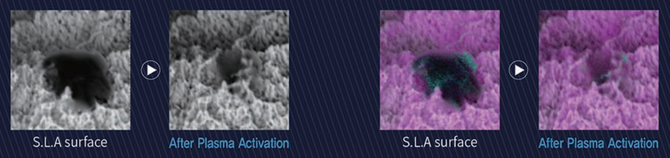
- In tissue analysis, XPEEDActive surface group showed more active bone induction than S.L.A surface group

* Evaluating the effectiveness of plasma-treated implants using a rabbit model/ Daegu-Gyeongbuk Medical Innovation Foundation (2022)



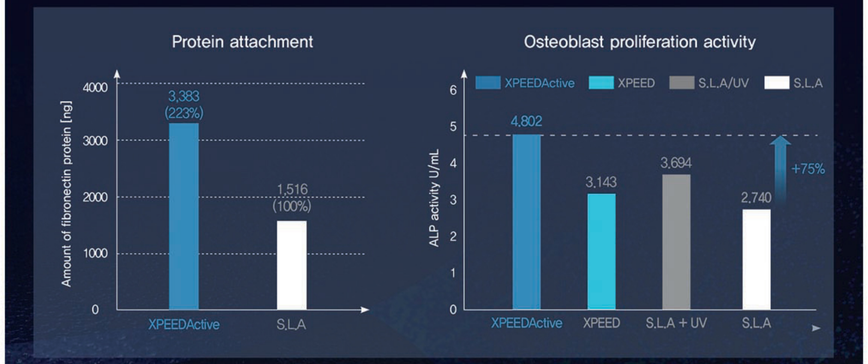


Plasma Regenerative Activation Implant Comparison (SEM)

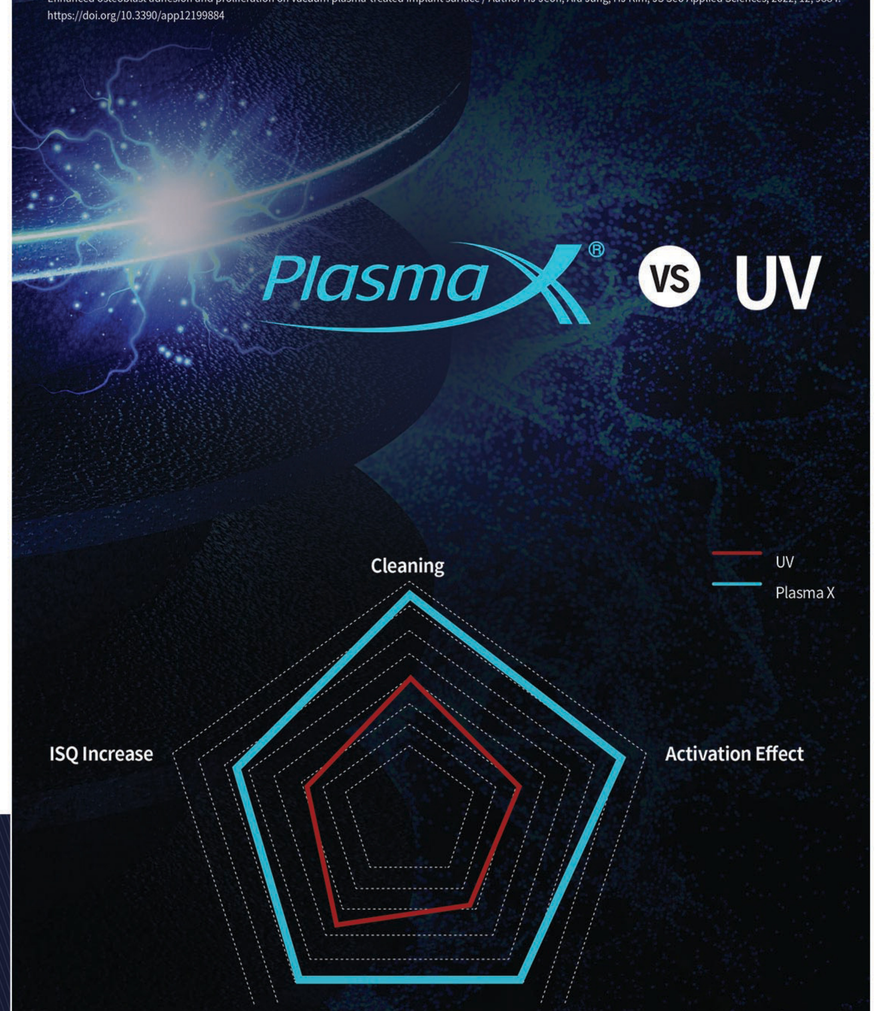


*Ti: Pink Zone, CHx: Green Points

Increased protein adsorption rate & osteoblast proliferation activity rate

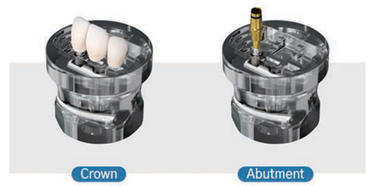


* Enhanced osteoblast adhesion and proliferation on vacuum plasma-treated implant surface / Author HJ Jeon, Ara Jung, HJ Kim, JS Seo Applied Sciences, 2022, 12, 9884. https://doi.org/10.3390/app12199884

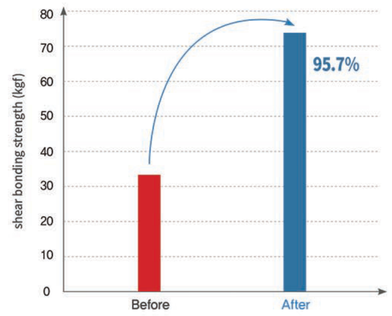


Improved resin cement bonding strength

Super hydrophilic effect produces 95.7% increase in surface bonding strength of resin cement



* Effect of Vacuum Plasma Treatment on Surface Bonding Strength of Resin Cement / Author YJ Chae, SM Lee, SJ Park, HW An J Future dentistry, 2022, Vol. 2: No. 2: 14-18



Compatibility

- ALL implant brands
- ALL abutments
- ALL crowns (single / bridge)

CLEAN IMPLANT · CE · MD Medical Device

Plasma X® motion

REGENERATIVE ACTIVATOR
for ALL Types of Implant

Visual impact of plasma treatment

- Create best implant condition for patients
- Increase patient consent rate using visual impact of plasma treatment