

# SkyPulse® Endo

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Application-Oriented  
Compact & Portable  
Advanced Technology Made Simple

**ASP**  
POWERED

New Revolutionary  
**Adaptive Structured Pulse**  
Technology

*The laser  
tailored  
for your  
practice!*



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**Fotona**  
choose perfection

Committed to Engineering  
The Highest Performance, Best Made Laser Systems in the World

# SkyPulse® Endo

## Advanced Technology Made Simple

SkyPulse® is a new generation of compact & portable Fotona dental lasers that can be tailored for each individual dental practice. A user-friendly but advanced & highly customizable interface is key to the ease of use with SkyPulse®, enabling the selection of preset options with a simple touch or the adjustment of treatment parameters with a single swipe.

Apart from the key applications - SSP and SWEEPS® Endodontic Treatment, SkyPulse's wide range of pulse modalities enables you to extend treatment possibilities to gingivectomy & desensitization.



## SSP and SWEEPS® Endodontics

### Fast, effective and minimally invasive treatments with two complementary laser technologies

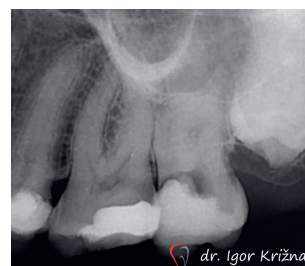
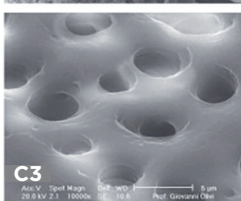
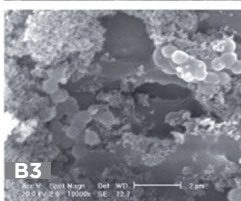
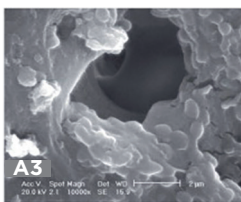
Fotona's SSP and SWEEPS® endodontic laser treatment successfully addresses the major goals of endodontic treatment: to clean, debride and disinfect anatomically complex root canal systems, including lateral canals and dentinal tubules.

**1. SSP (Super Short Pulse) irrigation** (also known as Photon Induced Photo-acoustic Streaming) uses the Er:YAG laser to create non-thermal photoacoustic waves within the cleaning and debriding solutions introduced in the canal. Following this photoacoustic treatment, the canals and sub canals are left clean and the dentinal tubules are free of a smear layer.

**2. The latest SWEEPS®** (Shock Wave Enhanced Emission Photo-acoustic Streaming) Er:YAG laser modality additionally improves the irrigation and disinfecting efficacy of laser endodontics. By using synchronized pairs of ultra-short pulses, an accelerated collapse of laser-induced bubbles is achieved, leading to enhanced shockwave emission inside even the narrowest root canals.

The powerful combination of the revolutionary SSP and SWEEPS® technologies in Fotona dental lasers represents a unique and highly effective solution for modern endodontics.

Available only with Fotona LightWalker® and SkyPulse®.



Before

After one year

Scanning electron micrographs showing representative areas of the radicular wall.

**A3:** bacterial biofilm growth present in control specimen before treatment.

**B3:** remaining smear layer and bacteria after needle irrigation.

**C3:** no bacteria and smear layer after the use of photon-induced photoacoustic streaming.

The collagen fibers and organic structures of the dentin walls appear preserved, the dentinal tubules are clean and there is no evidence of thermal damage.

#### Reference:

Olivi G, DiVito E, Peter O, Kaitsas V, Angiero F, Signore A, Benedicenti S, 2014. Disinfection efficacy of photon-induced photoacoustic streaming on root canals infected with *Enterococcus faecalis*: An ex vivo study, JADA 2014; 145 (8): 843-848.