



Tattoo Removal with Fractional Pre-Treatment

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Introduction:

The word tattoo is a loanword from the Samoan word tatau, meaning "to strike". Tattoos are generally considered permanent, but removal, whether full or partial, has been performed using various tools since the start of tattooing. Q-switched lasers are nowadays considered the best removal option. Recent studies have shown better clearance with treatments consisting of multiple passes and/or steps. One of the steps that is usually done concomitantly with the "classic" tattoo removal is the fractional resurfacing of the skin using different approaches or wavelengths.

Lasers	SP Dynamis	QX Max	StarWalker MaQX	
	Step 1	Step 2	Step 1	Step 2
Wavelength	2940 nm	1064 nm	1064 nm	
Handpiece	FS01	R28	FS20A	R28
Fluence	45-72 J/cm ²	3.5-5.5 J/cm ²	15 mJ/pixel	6.5-8.2 J/cm ²
Pulse duration	MSP	NA	NA	NA
Mode	TURBO 3-6	Q-switched	MaQX-1	MaQX-1
Frequency	1 Hz	1.5 Hz	1 Hz	1.5 Hz
Spot size	9x9 px	4.5-5 mm	9x9 px	4.7-5 mm
Session	2 – 5		6 and 7	



Dr. Anže Zorman graduated from the Medical University of Ljubljana, Slovenia in 2013. He did his internship at the Medical Center of Novo Mesto, Slovenia, and from 2013 to 2015 practiced medicine at the Sežana Health Center as a General Practitioner and Emergency Room Doctor.

Dr. Zorman joined Fotona in 2015 as a clinical expert specializing in dermatology, aesthetics and surgery. Since then he has been involved in the development of new applications and the education of end-users and partners. He is also a researcher and regular lecturer for the Laser and Health Academy and Fotona. Since 2016 Dr. Zorman has also been working in a private clinic, the Medilase Dermatological and Laser Center, as a laser expert in the field of aesthetics.

CLINICAL CASE:

A man in his 30's started with tattoo removal at a different clinic where he had one treatment performed. A year after the first session, he continued with tattoo removal at our clinic. He only wanted to remove a part of the tattoo that could be seen when wearing a shirt, because of problems at job interviews. Each of the procedures started out with a "pre-drilling" step; in the first 4 sessions this was performed with Er:YAG, and later with 1064 nm Q-switched when a fractional handpiece for StarWalker became available. The area was cooled with cold air during the treatment and topical corticosteroid ointment was used immediately after the treatment and the area was covered with plasters for up to 24h. The patient was encouraged to use skin repairing cream at home for the next week. The treatment intervals were between 2 and 3 months. The after photographs were taken 3.5 years after the final treatment and after the remaining tattoo had been redone.



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