## **Foreword**

Skin aging is a multidimensional problem. Based on an accurate knowledge of skin anatomy and physiology, we can choose from a large variety of therapeutic options like lasers, energy-based devices, injectable products, skin care and cosmeceuticals. Dermatologists, who know the skin layer by layer, provide such treatments, but every therapist has his or her own favourites.

The ideal rejuvenation technique should improve the tension and texture of superficial epidermal layers, tighten subcutaneous tissue, improve skin laxity and remodel the dermis for dermal collagen. *Laser techniques* and other *aesthetic procedures* sometimes overlap in indication and effect, so they either compete with each other or they can be combined for better results and fewer side effects.

This book summarizes an updated knowledge. It was written by authors who work in aesthetic dermatology every day.

Thanks to the support of the French Laser Dermatology Group, the European Society of Laser Dermatology and the company Avène, this knowledge has been made available to you.

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## Introduction

Like all of our organs, the skin undergoes aging. This process is natural and inevitable, although it is also influenced by our lifestyles.

Today, we are expected to have a young and attractive face in order to meet the diktats of "appearance", a modern trend that has been popularised via the media.

Treatments with lasers, lights and energy-based devices (EBD) are the foundation of managing the facial skin aging; this strategy can also be combined with the use of cosmetics, skin peels, dermal filler injections, or other botulinum toxin treatments.

This treatment must, above all, be ethical, and it is essential to obtain the patient's informed consent in order to harmonize their expectations and the possible outcome of the treatment. It must protect the patient from any deviation that could lead to complications or even permanent side effects.

This can not be achieved unless the practitioner has a good understanding of the pathophysiology and clinical signs of skin aging. It is also paramount that the practitioner thoroughly understands the technology and uses it in compliance with good practice.

Lasers, lights and EBD can reduce pigmented lesions and vascular lesions, fine lines and wrinkles, as well as improve texture and tone.

In this work we review the various types of laser, lights and EBD such as Intense Pulsed Light, LED, radiofrequency and ultrasound. We also review cosmetics and injections, and their potential interactions.

The methods used to evaluate the effects of these technologies on the skin will be detailed as will also be some specific points concerning the treatment of Black, Asian or Mediterranean skin.

The publication of this work would not have been possible without the participation of international and French authors who agreed to offer their time and share their knowledge with us.

Thank you to all of these authors for their excellent contributions, dedication, accuracy, and expertise.

We now leave you with this book, passing on our experience, which will allow each one of us to raise questions, to progress, and to offer our patients the best of our practice in laser, lights and EBD.