High-frequency ultrasound scan is a new, noninvasive method that allows an assessment of the skin's physiological and pathological aspects. It also represents an important research tool for the characterization of skin properties with different age intervals. The use of high-frequency ultrasound in Aesthetic Medicine allows a clear identification of the skin layers (epidermis, dermis, subcutis) and thus tissue assessment. Cutaneous aging is a complex, biological phenomenon, divided into two components: intrinsic and extrinsic aging. Skin high-frequency ultrasound scan allows the identification of variations in both skin thickness and echogenicity. The extracellular matrix changes, consisting of variations in dermal density and echogenicity throughout the physiological senescence process, can easily be identified with the use of high-frequency ultrasound. The stadiation of skin aging allows the doctor to plan the most appropriate therapy.